

UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2018 PUBLIC COMMENT WEBINAR

+ + + + +

TUESDAY,
APRIL 17, 2018

The webinar was held via telephone at
1:00 p.m., Tom Chapman, NOSB Chair, presiding.

BOARD MEMBERS PRESENT

TOM CHAPMAN, Chair
HARRIET BEHAR, Vice Chair
SCOTT RICE, Secretary
JESSE BUIE
SUE BAIRD
ASA BRADMAN
A-DAE ROMERO-BRIONES
LISA DE LIMA
STEVE ELA
DAVE MORTENSEN
EMILY OAKLEY
DAN SEITZ
ASHLEY SWAFFAR

STAFF PRESENT

DR. PAUL LEWIS, Ph.D., Director, Standards
Division, National Organic Program
MICHELLE ARSENAULT, Advisory Board Specialist,
National Organic Program
DEVON PATTILLO, Materials Specialist, Standards
Division, National Organic Program
GERALDINE GONZALES, Intern, Standards Division,
National Organic Program

C-O-N-T-E-N-T-S

Call to Order. 3

Housekeeping 3

Welcome and Introductions. 8

Roll Call. 9

Public Comments.15

Adjourn. 146

1 P-R-O-C-E-E-D-I-N-G-S

2 (1:00 p.m.)

3 MS. ARSENAULT: Hi, everyone.

4 Welcome. It's Michelle at NOP. I have straight
5 up 1 o'clock, so I see some folks are still
6 trying to dial in and get online. But I think, I
7 think we can probably get started and people will
8 just join us, as, as we go.

9 Welcome. So this is the first comment
10 webinar for the April 2018 NOSB Meeting. We have
11 a full house today, so we'll probably be on the
12 phone until almost 4 o'clock, I would think,
13 Eastern, and we have a second comment webinar on
14 Thursday.

15 So I'm going to do a little
16 housekeeping before we get started. So if you're
17 on the line, you should be on the webinar --
18 excuse me. You should see an introduction slide.
19 I'm going to move, I hope nothing on my screen is
20 blocking it.

21 There's a welcome screen and some
22 instructions on this slide about how to dial in,

1 how to mute and unmute your phone. If you don't
2 actually have a mute button on your phone, you
3 can hit star six to mute yourself and star seven
4 to unmute yourself.

5 We ask that people stay on mute and
6 self-mute throughout the call, unless it's your
7 turn to present comments to the Board. That'll
8 help minimize background noise. And if we have
9 to mute everybody on our end, then we have to
10 take time to unmute the person that needs to
11 speak next and it just takes a little bit more
12 time.

13 If noise becomes a problem, we will do
14 that, and mute everyone on our end and unmute
15 you, as necessary. I think the last few webinars
16 went really well and background noise wasn't too
17 much of an issue, so -- but we will remind you,
18 throughout the call, about muting and, and
19 keeping the noise to a, to a minimum.

20 Also, please don't put us on hold, if
21 you are calling in from a business. We'll
22 probably all be subjected to your Muzak, and so

1 -- don't put us on hold if you need to step away
2 from your phone.

3 Each commenter is going to have three
4 minutes to speak, and we're going to use a timer.
5 So we'll start the timer, we'll give you a few
6 seconds to introduce yourself and I'll start the
7 timer, and then it'll beep when your time is up.
8 And then, the Board Chair, Tom Chapman, is going
9 to take over and -- open it up for questions from
10 the Board Members.

11 So we're going to practice the timer
12 in a little bit, so, to make sure everybody can
13 hear it. So as a participant on the call, you
14 have the ability to chat and raise your hand, but
15 we're not using the raise your hand function.

16 So we'll be calling on the speakers,
17 because you had to sign up in advance, in order
18 to provide comments to the Board. You can chat
19 with us and we'll be able to see it, and there's
20 several of us on the staff here who are
21 responding, so hopefully someone will be able to
22 answer your question quickly.

1 If you're having technical problems,
2 the best thing to do is to -- email
3 readytalk.com. They're pretty responsive. And
4 if you go to their website, there's also a number
5 that you can call in to talk to someone. And I,
6 I've had really good luck with their support
7 people. So that's an option.

8 We only have one PowerPoint
9 presentation today, with one slide, so if you
10 can't be on the web portion, it, I think it'll be
11 okay and, and just listening in will be fine.

12 So we're going to test the timer, so
13 everyone can hear it and know what it sounds
14 like, for the speaker.

15 One second here.

16 (Pause.)

17 MS. ARSENAULT: Did everyone hear that
18 okay? Is it loud enough? Board Members?
19 Guests?

20 MR. PATTILLO: I heard it, Michelle,
21 loud and clear.

22 MS. ARSENAULT: Okay, thanks. All

1 right then --

2 PARTICIPANT: Yes, I'm good.

3 MS. ARSENAULT: With that, I'm going
4 to turn it over to Paul Lewis, the Director of
5 the Standards Division at NOP, to officially open
6 the meeting.

7 MR. LEWIS: Thank you, Michelle, and
8 good afternoon. I'm Paul Lewis, Director of the
9 Standards Division with the National Organic
10 Program, and our responsibility is to provide
11 support, administrative support for the National
12 Organic Standards Board.

13 I'd like to welcome NOSB Members and
14 the public to today's meeting of the Board, the
15 public comment webinar. And I appreciate NOSB
16 Members' participation in this call and for all
17 your work serving on the Board.

18 This webinar provides the opportunity
19 for the public to provide comments to the NOSB,
20 as part of the Board's upcoming public
21 face-to-face meeting, scheduled for April 25th-
22 27th in Tucson, Arizona, and please consult the

1 NOP website for further information, including
2 the agenda, about the face-to-face meeting.

3 The webinar we're having today, like
4 other meetings of the National Organic Standards
5 Board, operate under the auspices of the Federal
6 Advisory Committee Act.

7 I'm looking forward to hearing
8 comments from the public to assist the Board in
9 preparing their recommendations to USDA. I want
10 to particularly thank my NOP Standards Division
11 colleagues for their help, especially behind the
12 scenes work, to bring us today's teleconference.

13 I'd like to close by turning now to
14 Mr. Tom Chapman, Chair of the NOSB. And, Tom,
15 thank you, again, for chairing this webinar and
16 for all your work along with the rest of the
17 Board. Thank you.

18 CHAIR CHAPMAN: Thank you, Paul. And
19 thank you to the NOP Staff for helping facilitate
20 this call. On behalf of the Board, I'd like to
21 welcome everyone to the public comment webinar,
22 prior to our spring meeting.

1 And, Michelle, if you could be so
2 kind, could you take a roll call of the Board
3 present?

4 MS. ARSENAULT: Sure. Sue Baird.

5 MEMBER BAIRD: Here.

6 MS. ARSENAULT: Sue's on the line.
7 Harriet?

8 VICE CHAIR BEHAR: Harriet's here.

9 MS. ARSENAULT: All right, Asa
10 Bradman.

11 MEMBER BRADMAN: Asa's here.

12 MS. ARSENAULT: All right. Jesse
13 Buie?

14 MEMBER BUIE: Here.

15 MS. ARSENAULT: Thanks, Jesse. Tom
16 Chapman, I know you're here. But --

17 CHAIR CHAPMAN: I'm here.

18 MS. ARSENAULT: -- would you like to
19 -- thank you. Lisa De Lima.

20 MEMBER DE LIMA: Here.

21 MS. ARSENAULT: Thank you, Lisa.

22 Steve Ela.

1 MEMBER ELA: I'm here.

2 MS. ARSENAULT: Great. Dave

3 Mortensen.

4 MEMBER MORTENSEN: I am here.

5 MS. ARSENAULT: Hi, Dave.

6 MEMBER MORTENSEN: Hello.

7 MS. ARSENAULT: Emily Oakley.

8 MEMBER OAKLEY: I'm here.

9 MS. ARSENAULT: Great, thank you.

10 Scott Rice?

11 MEMBER RICE: Present.

12 MS. ARSENAULT: Great. A-Dae Briones.

13 A-Dae, are you with us?

14 (No audible response.)

15 MS. ARSENAULT: Maybe not. Maybe on

16 mute.

17 PARTICIPANT: She sent an email saying

18 she was having difficulties, so.

19 MS. ARSENAULT: Oh, thank you. Thank

20 you.

21 PARTICIPANT: No problem.

22 MS. ARSENAULT: Okay. I'll catch up

1 with her the day after and make sure she, she was
2 able to get on. Dan Seitz?

3 MEMBER SEITZ: I'm here.

4 MS. ARSENAULT: Thanks, good to see
5 you on there. Ashley Swaffar?

6 MEMBER SWAFFAR: I'm here.

7 MS. ARSENAULT: All right. I believe
8 that is all 13 of you. Tom, would you like to
9 address that?

10 CHAIR CHAPMAN: Okay. Twelve of the
11 13, we didn't have --

12 MS. ARSENAULT: I'm sorry, 12 of 13,
13 yes.

14 CHAIR CHAPMAN: Yes.

15 MS. ARSENAULT: Thank you for that.

16 CHAIR CHAPMAN: Yes, and right now, we
17 have two vacancies on the Board, so 12 of 13
18 Members present, at this time. We do have a
19 quorum.

20 So before we get into the public
21 comment, I'm going to review some logistical
22 information about the webinar, kind of repeat

1 some things that Michelle said.

2 And that's, first and foremost,
3 please, remember to keep yourself on mute when
4 you're not giving public comments. Star six to
5 mute, star seven to unmute, or use your mute
6 button on your handheld device.

7 So like we have done in previous
8 times, we'll proceed down the public comment
9 list, in order, starting with Charlotte. If
10 you're on the line, you're on deck, so you're
11 coming up first.

12 If someone's not present when we call
13 upon them, then, and there is time remaining at
14 the end of comment period, we'll run through the
15 list of those missed and give them an opportunity
16 at the end.

17 If you are a commenter on the line,
18 please message in your phone number so we can
19 identify you. So if we have to unmute, we can
20 unmute.

21 I'll call out the speaker who's up,
22 read out their name, and then the next one or two

1 who are on deck, when you come up and speak,
2 we'll just do a brief interaction to make sure we
3 can hear you and you're unmuted, and then we'll
4 start your public comment time.

5 Now when we start with you, we do ask
6 that you start with your name and affiliation,
7 for the record. And we ask that you include all
8 relevant affiliations pertaining to the matters
9 of business before the Board.

10 If Members of NOSB need further
11 clarification, I do encourage those Members to
12 ask questions after the public commenter has
13 finished their comments.

14 You will hear that buzzer when the
15 three minutes are up, and we have to have respect
16 for the Board and the other public commenters
17 that you finish your sentence after hearing the
18 buzzer. I will then facilitate the questions
19 from the Board.

20 For Board Members, we are trying to
21 use the raise your hand feature so I can call
22 upon you, but if that's not working for us,

1 please speak up and I'll call upon you in the
2 list that I get.

3 We don't take any questions from the
4 public for other public commenters, so the
5 questions are for the Board to the public
6 comments. All public commenters are only
7 allotted one time slot, either in person or at
8 the webinar.

9 And just so you guys know, there will
10 be transcripts of this call, bundled with the
11 transcripts for the entire meeting that will be
12 available at some time later after the full
13 meeting has concluded. Michelle, did I miss
14 anything?

15 MS. ARSENAULT: No, I was actually
16 just thinking, oh good, Tom remembered to say
17 something I forgot. Thanks, Tom.

18 CHAIR CHAPMAN: All right. So, so
19 we'll get started now with the public comments.
20 The first up is Charlotte, followed by Robert
21 Landers, and then Sam Earnshaw. Charlotte, are
22 you on the line with us?

1 MS. VALLAEYS: Yes, I am.

2 CHAIR CHAPMAN: All right, Charlotte,
3 we can hear you, so if you could start with your
4 name and affiliation?

5 MS. VALLAEYS: All right, thank you.
6 My name is Charlotte Vallaeys, and I'm a Senior
7 Policy Analyst with Consumer Reports. First, I'd
8 like to thank the Board for your time and
9 commitment to this important work.

10 I'd like to say a few words about
11 Consumer Reports. We're an independent
12 non-profit organization working side-by-side with
13 consumers to create a fair, safer, and healthier
14 world.

15 We work in many areas, including
16 efforts to create a safe and sustainable food
17 system. In many ways our vision for a safer and
18 more sustainable food system aligns with organic.

19 And that's why we believe the
20 integrity of the label is worth protecting and
21 where warranted its standards should be improved.
22 And it's why we are very concerned with the issue

1 of fraud, which we see as being not only an
2 imports issue.

3 Whether it is imported grain
4 mislabeled as organic, organic eggs from hens
5 without any meaningful outdoor access, or organic
6 milk from cows that were not able to graze on
7 pasture, these are instances where consumers'
8 expectations are not met.

9 If these serious problems of
10 enforcement are not dealt with, more and more
11 consumers will rightfully question whether they
12 can trust the organic label.

13 To deal with import fraud, we think
14 that testing should be required from identified
15 countries with high risk. Our recent 2018
16 Consumer Survey results have shown both that
17 organic consumers expect testing to be part of
18 the verification process and that they expect
19 organic foods to be produced without pesticides.

20 Therefore, we think the focus should
21 be on testing imports from regions with
22 documented fraud, and the priority should be on

1 testing for pesticide residues.

2 We also agree with the CACS that the
3 need for qualified inspectors has never been
4 greater. We would support a proposed requirement
5 that all inspectors be licensed for the scope and
6 scale of the operations they are inspecting,
7 which will help ensure that inspectors are
8 knowledgeable and qualified to carry out the
9 inspections.

10 We encourage the Board to continue
11 this work and develop a proposal. We also
12 support the proposal to eliminate the incentive
13 to convert native ecosystems to organic
14 production.

15 If the organic label is to continue to
16 signify to consumers that the food is produced in
17 a more environmentally sustainable way, then the
18 destruction of native ecosystems must be
19 prohibited.

20 On sunset review,
21 fructooligosaccharide should be removed from the
22 National List. Sometimes, the line between what

1 is considered a necessary material in organic
2 processing, which is a criteria in OFPA, and what
3 is merely useful or convenient is not clear.

4 However, in the case of
5 fructooligosaccharides, it is abundantly clear
6 that this is not a necessary additive and,
7 therefore, fails to meet the criteria for
8 inclusion on the National List.

9 Finally, we do not oppose the
10 re-listing of any of the gums, which provide
11 safer alternatives to carrageenans. We do urge
12 the Board to list each gum separately to
13 facilitate their removal from the National List,
14 when organic alternatives are commercially
15 available.

16 Thank you for considering our comments
17 and, again, thanks for your work, and my
18 colleague Jean Halloran from Consumers Union, the
19 Advocacy Division of Consumer Reports, will be in
20 Tucson to give additional comments on other
21 issues. Thank you.

22 CHAIR CHAPMAN: Thank you, Charlotte.

1 Any questions for Charlotte?

2 (No audible response.)

3 CHAIR CHAPMAN: Hearing none --

4 VICE CHAIR BEHAR: Oh, this is

5 Harriet. I'm sorry --

6 CHAIR CHAPMAN: Hi, Harriet.

7 (Telephonic interference.)

8 VICE CHAIR BEHAR: Somebody's making
9 noise.

10 CHAIR CHAPMAN: Yes, yes.

11 VICE CHAIR BEHAR: Hi, Charlotte. I
12 would like to know how, you know, I know, as a
13 Consumer Reports person, you would like to see
14 the organic marketplace thrive. And so once
15 something has been on the National List and, and
16 it, and then it might be removed and then affect
17 the marketplace somehow, how would you see that?

18 I mean, maybe some of your consumers
19 would be looking for a product that they could no
20 longer get or the price would go up significantly
21 because an additive that had been on the National
22 List was now removed and the natural alternative

1 caused the product to be higher. How do you deal
2 with that sort of change in the marketplace when
3 something is removed?

4 MS. VALLAEYS: Well, I mean, we, we
5 can provide information to the Board in terms of
6 what consumers expect and what happens in
7 particular instances when something is removed.
8 I don't really have any information about that.

9 But we do consistently do new surveys
10 that are nationally representative, or we ask,
11 not just of all consumers what they expect, but
12 we specifically design those surveys to ask
13 whether consumers -- frequently or always look
14 for organic, so those are what we consider the
15 organic consumers.

16 And so we can provide information on
17 that, just showing what, you know, what do the
18 consumers, who are, that's where those \$47
19 billion are coming from, right, they are a very
20 important part of this, what is it that they
21 expect?

22 And so things like no pesticides and

1 -- but also no artificial additives. That's the
2 kind of information that we can provide so that
3 the Board can make its decisions based on that,
4 kind of, getting into the details of what, you
5 know, whether consumers will pay x amount or a
6 percentage more for a certain product, I don't
7 have any information on that.

8 CHAIR CHAPMAN: Thank you. Any other
9 questions for Charlotte?

10 (No audible response.)

11 CHAIR CHAPMAN: Thank you very much,
12 Charlotte.

13 MS. VALLAEYS: Thank you.

14 CHAIR CHAPMAN: Up next we have Robert
15 Landers, followed by Sam Earnshaw and Julia
16 Barton. Robert, are you on the line? We haven't
17 been able to identify your phone number, Robert.

18 (No audible response.)

19 MS. ARSENAULT: I don't see him on the
20 line with us, Tom. I am -- I don't think he'll
21 be with us.

22 CHAIR CHAPMAN: All right. Robert,

1 you're on the, if you're on the webinar, please
2 message in and we'll move back to you.

3 Otherwise, we'll move on to the next
4 public commenter, who is Sam Earnshaw. So
5 following Sam Earnshaw is Julia Barton and then
6 Steve Etko. Sam, are you here?

7 MR. EARNSHAW: I am, can you hear me?

8 CHAIR CHAPMAN: Yes, we can, Sam.

9 MR. EARNSHAW: Great.

10 CHAIR CHAPMAN: Start with your name
11 and affiliation for the record.

12 MR. EARNSHAW: My name is Sam Earnshaw
13 and I'm with Hedgerows Unlimited. I've been an
14 organic farmer for 15 years and (telephonic
15 interference) hedgerows and other conservation
16 plantings on farms to increase biodiversity of
17 (telephonic interference) ecosystems.

18 I learned to farm on a conventional
19 farm and became an organic farmer because I had
20 worried about the toxic chemicals that we needed
21 to (telephonic interference) growing organic
22 vegetables (telephonic interference) that

1 protects the environment. I strongly believe in
2 the integrity of the organic label and feel it's
3 inconsistent with the intention of organic food
4 to incentivize native ecosystems to be plowed up
5 and be destroyed (telephonic interference)
6 certified organic.

7 There are many programs (telephonic
8 interference) and options for small farmers to
9 access land, and that same valuable land, plowed
10 up native ecosystems, often in marginal sites
11 (telephonic interference). The concern of some
12 small dairy farms may be addressed in a guidance
13 because in the last 15 years about a million
14 acres of (telephonic interference) converted
15 forests (telephonic interference) they want to be
16 called native ecosystems.

17 Finally at your supermarket or natural
18 foods brand (telephonic interference) ask them
19 how do they feel about the (telephonic
20 interference) that Ohio's native prairies and all
21 native ecosystems could be part of that
22 (telephonic interference) make it organic.

1 Organic consumers are not always going
2 to understand the complexity of this issue, but
3 undoubtedly do not believe that native prairies
4 and tropical forests are destroyed to increase
5 production of certified organic grains, palm oil
6 -- and other products.

7 Agriculture (telephonic interference)
8 continues to reduce (telephonic interference).

9 Converting tropical forests to
10 agriculture results in a loss of -- five to 10
11 million hectares every year. I support the
12 notion that (telephonic interference). I'd also
13 encourage that guidance be written -- that it's
14 really helpful in compliance.

15 (Telephonic interference) secretly
16 regulate action (telephonic interference) organic
17 farming and (telephonic interference)
18 environmental standard (telephonic interference).

19 Thank you.

20 CHAIR CHAPMAN: Thank you, Sam. Any
21 questions for Sam?

22 MEMBER OAKLEY: This is Emily, I have

1 a question.

2 CHAIR CHAPMAN: I see Emily, yes, go
3 ahead, Emily.

4 MEMBER OAKLEY: Thank you. Thank you,
5 Sam. You said that you work on hedgerow
6 plantings, and I was wondering if you think that
7 the types of activities that farmers might do on
8 their farms to add hedgerows or conservation
9 plantings can replace native ecosystems that are
10 being converted to organic agriculture?

11 MR. EARNSHAW: (Inaudible due to
12 telephonic interference.)

13 MEMBER OAKLEY: Thank you.

14 CHAIR CHAPMAN: Thank you. Any other
15 questions for Sam?

16 VICE CHAIR BEHAR: Yes, this is
17 Harriet.

18 CHAIR CHAPMAN: Harriet, go ahead.

19 VICE CHAIR BEHAR: I'm, I'm wondering,
20 Sam, if you have any experience, or you can give
21 us any resources that we can use to help us
22 understand when an ecosystem that had been

1 damaged would then be fully functioning again.

2 So when you were talking about the old
3 growth forests and that sort of thing -- are
4 there any tools that we can refer to, so we can
5 help the certifiers and the operators understand
6 when there has been a second growth, are they
7 really a fully-functioning ecosystem, comparable
8 to the native one that would've been there,
9 previous to the first cutting?

10 MR. EARNSHAW: (Inaudible due to
11 telephonic interference.)

12 CHAIR CHAPMAN: Sam, we're, we're
13 losing your connection. Are you able to speak up
14 a little louder?

15 MR. EARNSHAW: Did you hear any of it?

16 CHAIR CHAPMAN: A little bit about the
17 maps, can you --

18 MR. EARNSHAW: Okay. The USGS had
19 some tools. And the question, Harriet
20 (telephonic interference.)

21 VICE CHAIR BEHAR: Yes, and, and would
22 be considered to be as diverse and regenerative,

1 as the native one that had been destroyed, you
2 know, decades earlier, or even centuries.

3 MR. EARNSHAW: Well there's resources
4 on what those different ecosystems contain in
5 terms of characteristic and dominant plants, so I
6 think that (telephonic interference) certain
7 species may come back, but that's not the entire
8 complex of things, so I think the first rule of
9 doing this is to really go through the research,
10 go through the documents and literature that's
11 there, the USGS -- NRCS has great resources on
12 this -- NRCS has (telephonic interference) you go
13 through this sequence and can actually bring you
14 back to the original ecosystem (telephonic
15 interference) back in balance, but they're not
16 native, the native ecosystem is (telephonic
17 interference).

18 VICE CHAIR BEHAR: Thank you.

19 CHAIR CHAPMAN: Thank you very much,
20 Sam. All right, our next commenter is Julia
21 Barton, followed by Steve Etko and Harold Austin.
22 Julia, are you on the line with us?

1 MS. BARTON: Yes I am, can you hear
2 me?

3 CHAIR CHAPMAN: Yes we can. Julia, if
4 you can start with your name and affiliations?

5 MS. BARTON: Sure. Thank you. Good
6 morning. My name is Julia Barton, I'm speaking
7 on behalf of the Ohio Ecological Food and Farm
8 Association. OEFFA is a grassroots coalition of
9 more than 4,800 members working to build a
10 healthy and sustainable food system.

11 Our certification program certifies
12 over 1,250 organic producers and handlers. I'd
13 like to thank the NOSB and the NOP for your
14 attention to the issue of fraudulent imports and
15 for the myriad questions posed to the community.

16 During this webinar and the next,
17 you'll be hearing from several of OEFFA's grain
18 grower chapter members, for whom this issue hits
19 close to home.

20 I learn a great deal from the grain
21 growers every time I reach out to them or attend
22 a chapter meeting or refer a transitioning

1 producer to them, and I imagine you might also
2 really appreciate their candid input.

3 They'll be sharing how the fraudulent
4 imports have impacted their businesses directly
5 and how they think this issue ought to be
6 mitigated moving forward.

7 As we discuss better international
8 oversight, it's also important that our domestic
9 oversight be strong and consistent. For example,
10 we know there have been challenges with
11 inconsistent enforcement of the pasture rule.
12 Some of the initial tools for calculation and
13 enforcement of the pasture rule were confusing
14 for producers and certifiers alike.

15 OEFFA has recently developed some new
16 tools for calculating DMI from pasture and a
17 risk-based protocol to be used to better evaluate
18 the compliance of organic dairy operations.

19 It's our hope that the organic
20 community can work together to address issues of
21 fraud in both domestic and international markets
22 to protect the organic integrity of those meeting

1 and exceeding the organic standards and the
2 spirit of OEFFA.

3 We encourage the NOSB to look closely
4 at the issue of inconsistent enforcement of the
5 pasture rule. Finally, in that same vein, I'd
6 like to address another issue of organic
7 integrity, the real and current impact of oil and
8 gas industry infrastructure on organic farms.

9 Please add this important topic to the
10 NOSB's work agenda and consider the development
11 of a discussion document to unpack the many ways
12 organic farmers are currently being impacted by
13 oil and gas industry infrastructure.

14 We at OEFFA would be happy to support
15 you in this work in any way we can. Thank you
16 for your consideration and for your service to
17 our community.

18 CHAIR CHAPMAN: Thank you, Julia. Any
19 questions for Julia?

20 VICE CHAIR BEHAR: I'm sorry, but
21 Harriet has crashed in, and I was wondering --

22 CHAIR CHAPMAN: Go ahead, Harriet.

1 VICE CHAIR BEHAR: I know that, Julia,
2 you work a lot with transitioning farmers, and
3 I'm wondering if -- if they are hearing about the
4 fraud, that is somehow lessening their desire to
5 transition to organic, and what we really need is
6 to increase domestic production, and my concern
7 is that, perhaps, the import fraud issue is, is
8 working against increased organic production, but
9 maybe you can tell me if that's true?

10 MS. BARTON: Well, yes. Hi, Harriet.
11 The short answer, I would say, is yes, just in,
12 in working with transitioning producers. I think
13 one of the reasons for that is the impact on
14 crisis and relationships with buyers when the
15 grain is coming in from international locations
16 and there are questions about the status of that
17 grain, the organic, the true organic status of
18 that grain.

19 Those -- I have those conversations
20 regularly with transitioning producers,
21 particularly the grain growers, which is why we
22 thought it would be really important for you to

1 hear from them directly.

2 And, and we really appreciate the
3 webinar format, so that some of the existing
4 organic grain producers can get on the phone with
5 you all.

6 That's actually a pretty good point,
7 we probably should've reached out to some of the
8 transitioning grain producers to have them call
9 in as well.

10 But, but yes, it's a topic that comes
11 up regularly on the phone, and not just in, not
12 just in, with regard to organic imports, but with
13 regard to other issues of organic integrity.

14 People are hearing all of the same
15 things that we'll be discussing at this meeting,
16 just in less depth, and so those questions,
17 certainly, come up as part of that transition
18 conversation.

19 CHAIR CHAPMAN: Thank you. Any other
20 questions for Julia?

21 (No audible response.)

22 CHAIR CHAPMAN: Seeing none, Julia,

1 thank you for your comments.

2 MS. BARTON: Thank you.

3 CHAIR CHAPMAN: Up next we'll have
4 Steve, followed by Harold Austin and Peter Nell.
5 Steve, are you on the line with us?

6 MR. ETKA: I am, can you hear me?

7 CHAIR CHAPMAN: Yes, we can, Steve.
8 Start with you name and affiliation, please.

9 MR. ETKA: My name is Steve Etko, and
10 I am Policy Director for the National Organic
11 Coalition. The establishment of consistent and
12 enforceable organic standards is one of the
13 essential tenants of OFPA.

14 Another is the establishment of NOSB
15 as an essential venue for the full-range of
16 organic stakeholders to interface with the NOP.
17 The NOSB must have the ability to advance issues
18 of importance to organic stakeholders in
19 collaboration with the NOP.

20 And we appreciate that the NOSB and
21 NOP have published and updated work agenda to
22 provide more details about the timing from those

1 being worked agenda items forward.

2 Two items that NOC would like to see
3 on the Fall 2018 NOSB Meeting Agenda are the
4 excluded methods terminology issue and the field
5 and greenhouse container production issue.
6 Further action on these topics is essential to
7 ensure consistency and to prevent conflicting
8 requirements across certifiers.

9 With regard to enforcement, NOC thanks
10 the CACS for all the work that has gone into the
11 imported, import oversight document, discussion
12 document.

13 It's important that the NOSB develop
14 recommendations for additional regulatory
15 oversight procedures that clearly address
16 shortfalls in our current system and that the NOP
17 has the will and resources to enforce such
18 recommendations and regulations.

19 NOC's written comments focus on the
20 need for improved effectiveness across -- of
21 control throughout the organic supply chain, both
22 home and abroad.

1 For those of us working on organic
2 policy in Washington, D.C. this is a really busy
3 time because tomorrow the House Agriculture
4 Committee is meeting to pass their version of the
5 2018 Farm Bill.

6 The House's draft Farm Bill includes
7 some positive reforms for organic and some
8 troubling ones as well. On the positive side,
9 the Bill includes expanded authority and funding
10 for the NOP to address fraudulent organic imports
11 and includes significant increases in organic
12 research funding as well.

13 On the troubling side, NOC is opposing
14 provisions in the Bill that disrupt the delicate
15 balance of the NOSB's statutory structure and
16 authority.

17 The Bill also fails to provide funding
18 for organic certification cost share assistance,
19 which is a critical tool to ensure that small and
20 medium scale farms and handlers can afford annual
21 certification costs.

22 As we focus on import fraud, we must

1 also remain cognizant of the need to improve
2 enforcement domestically. We are particularly
3 concerned about enforcement in the dairy sector
4 with regard to the pasture rule and will continue
5 to push USDA for updated regulations on the
6 origin of livestock.

7 The economic crisis in the organic
8 dairy sector, related to oversupply and low pay
9 prices is alarming. Tightening up enforcement in
10 the dairy sector is critical to ensure the
11 investments organic farmers make -- are making to
12 meet organic standards are not undermined by bad
13 actors skirting those standards. Thanks for this
14 opportunity to testify.

15 CHAIR CHAPMAN: Thank you, Steve. Any
16 questions for Steve?

17 MEMBER SEITZ: This is Dan. Can you
18 hear me?

19 CHAIR CHAPMAN: Go ahead, Dan. Yes,
20 I can hear you.

21 MEMBER SEITZ: Steve, just interested
22 in, in just a few words, what is the change in

1 the NOSB composition that's being written into
2 the proposed bill?

3 MR. ETKA: There's three provisions in
4 the draft House Farm Bill, one would say that if
5 the NOSB is reviewing materials that have been
6 already greenlighted, either by FDA through their
7 process or EPA through their process, that the
8 NOSB would have to establish a task force with
9 FDA and EPA to allow them to give you all their
10 input on the review that they did and, and to
11 explain why they considered the material to be
12 okay.

13 It doesn't then -- it just requires
14 you to get that input and establish a task force,
15 it doesn't then give them a vote or anything like
16 that.

17 The concern that we have about it is
18 that it would be very cumbersome at that point,
19 if you have to establish a new task force for
20 every material that's been approved by FDA or
21 EPA.

22 Another provision that we are

1 concerned about would establish expedited
2 petition and review procedures for materials
3 dealing with crop protection and human food
4 safety issues, and it's very vague and we're
5 concerned that that language could be a loophole
6 that would bypass existing materials or review
7 requirements.

8 And then a third provision would
9 clarify that the farmer seat, the handler seat,
10 and the retailer seat that it could be employees
11 of those companies, not just the people owning
12 those companies, themselves, and we think that
13 language is largely unnecessary.

14 MEMBER SEITZ: Okay, thank you.

15 MR. ETKA: Yep.

16 CHAIR CHAPMAN: Any other questions
17 for Steve?

18 (No audible response.)

19 CHAIR CHAPMAN: All right. Thank you,
20 Steve. Up next is Harold Austin, followed by
21 Peter Nell and then Casey Schoenberger. Harold,
22 are you on the line with us?

1 MR. AUSTIN: I am, Tom, have you got
2 me?

3 CHAIR CHAPMAN: I do. So, Harold, you
4 can start with your name and affiliations.

5 MR. AUSTIN: Will do. My name's
6 Harold Austin, I'm a past member of the NOSB and
7 part of the tree fruit industry and stakeholder
8 groups in the Pacific Northwest. Good day to
9 everyone.

10 I would like to thank each of you,
11 current members of the NOSB, for your time
12 commitment to this process that's so vitally
13 important to all of us organic stakeholders.
14 Thank you for this.

15 For the Crops and Materials
16 Subcommittee, the materials that they are
17 reviewing, I support all three listed uses for
18 elemental sulphur. This is still a material that
19 plays a very intricate role in our organic crop
20 production, providing insect control for various
21 pests, as a key material for disease control,
22 especially for powdery mildew on apples,

1 cherries, wine grapes, and blueberries, and as an
2 essential nutrient used in balancing our soil
3 pHs.

4 It plays an important role in both
5 resistant management as well as integrated pest
6 management programs on most of our farms.

7 I also support the continued listing
8 for the two uses of lime sulphur, as currently
9 listed. This is still a very important part of
10 our insect control program and organic crop
11 production, especially in the dormant season.
12 With the loss of the two antibiotics streptomycin
13 and oxytetracycline, it plays an even more
14 critical role in our disease prevention programs,
15 especially during the bloom period, to help
16 control the fire blight bacteria. We do not have
17 a viable alternative material for this specific
18 use in pinning, where lime sulfur is used.

19 I also support the continued
20 re-listing of sulfuric acid as a plant or soil
21 amendment for on farm generation, be it the use
22 of our sulfur burners.

1 In many of our farms and also in many
2 of those of our organic neighbors, we have a
3 tendency to have to deal with high pH water and
4 soils.

5 This is a phenomenal tool for organic
6 farmers to deal with those types of situations
7 and helping improve water penetration, remove
8 calcium carbonate buildup from our fruit and our
9 foliage, and also to help provide a better and
10 healthier environment for our soil beneficials to
11 flourish in.

12 This form of sulfuric acid should not
13 be confused with the harsher form of the
14 commercial material that's produced, which is
15 much more concentrated than that which we create
16 on-site.

17 I do support the other substances
18 currently under review by the Crops Subcommittee
19 for re-listing onto the National List. I would
20 also give my support for you to consider adding
21 Polyoxin D zinc salt to the National List.

22 This substance is not only compatible

1 with a system of sustainable agriculture, but I
2 do feel that it provide, would provide growers
3 with a -- from certain disease control issues
4 that we currently struggle with.

5 For the Handling Subcommittee, I
6 support the re-listing of those items currently
7 under sunset review by the subcommittee. In past
8 sunset reviews these substances have all shown to
9 be used and needed by various organic handling
10 operations.

11 Most of these substances have just
12 recently gone through a very rigorous review
13 process, of which I was part of, and I see no
14 reason why they should not be allowed to continue
15 to be re-listed under this current sunset review
16 cycle. I would also support the proposal to
17 reclassify magnesium chloride.

18 For the Materials Subcommittee, I
19 would like to mention that I do not agree with
20 adding, on the current agenda, under the other
21 projects, for sanitizers.

22 I do not see a truly valid rationale

1 for this to be added to the subcommittee work
2 plan in the future as an action item. Each
3 material is currently listed for a specific use
4 for each appropriate subcommittee.

5 The need, the use, and the necessity
6 will vary for each and thus to lump them into a
7 single category seems pointless. Especially,
8 when there are so many other things that you NOSB
9 Members could be spending your valuable time on.

10 With that, I thank you, and I'm open
11 for any questions, if you have any.

12 MEMBER BRADMAN: Tom, this is --

13 CHAIR CHAPMAN: Any questions --

14 MEMBER BRADMAN: Tom, I have a
15 question.

16 CHAIR CHAPMAN: Go ahead, Asa.

17 MEMBER BRADMAN: Okay. Sorry to
18 interrupt, I'm not on the computer. I just
19 wanted to ask about sulfur. We put a question
20 out there about dust application versus wetttable
21 formulations, and there's been several comments
22 submitted so far that actually support taking out

1 dust application for sulfur.

2 So I want to be clear, we're not
3 talking about -- eliminating elemental sulfur,
4 but preferentially supporting the use of wetttable
5 applications over dust applications, and I wonder
6 if you have any input on that?

7 MR. AUSTIN: Yes. Steve. I've been,
8 I've been a part of the tree fruit industry and,
9 and, as a licensed consultant for well over 35
10 years.

11 In our specific farming uses in the
12 Pacific Northwest, most of our sulfur that we
13 apply is the elemental sulfur form, one, one
14 version or another.

15 We as an industry here in the
16 Northwest have really gotten away from the use of
17 the dust. I, well, I, I couldn't think of, in
18 the last 15 years, a dust application being
19 applied here in the Pacific Northwest.

20 I know in some other areas, it seems
21 like some of the public comments are saying in
22 California and some other areas, they are still

1 using the dust, but we've pretty much gone away
2 from that because of drift issues in the Pacific
3 Northwest.

4 MEMBER BRADMAN: Thank you.

5 MR. AUSTIN: You're welcome.

6 CHAIR CHAPMAN: Any other questions
7 for Harold?

8 (No audible response.)

9 CHAIR CHAPMAN: All right, seeing
10 none. Harold, thank you for your time.

11 MR. AUSTIN: Thank you.

12 CHAIR CHAPMAN: Up next is Peter Nell,
13 followed by Casey Schoenberger. After Casey is
14 Marie Burcham. Marie, we haven't identified your
15 phone number, so if you're on the line, can you
16 message in the phone number via the chat
17 function.

18 Peter, are you on the line with us?

19 MR. NELL: Hello.

20 CHAIR CHAPMAN: Hi, Peter, if you
21 could start with your name and affiliations.

22 MR. NELL: Sure. Hello, my name is

1 Peter Nell and I'm the Policy Assistant at CCOF,
2 California Certified Organic Farmers. Today, I
3 will be commenting on the Compliance,
4 Accreditation, and Certification Subcommittee's
5 proposal regarding inspector qualifications.

6 CCOF contracts 70 inspectors across
7 North America to perform about 5,000 inspections
8 annually. Newly contracted CCOF inspectors
9 complete several (telephonic interference)
10 inspections with experienced inspectors.

11 CCOF also regularly evaluates
12 inspectors on a tiered schedule, and CCOF
13 requires all contracted inspectors to complete 16
14 hours of continuing education every two years.

15 Overall, the existing inspector
16 training and certifier hiring practices are
17 sufficient to ensure skilled and qualified
18 inspectors. The criteria laid out in the EPA's
19 best practices for inspector qualifications are
20 sufficient in establishing a baseline for
21 inspector competency.

22 However, NOSB should not recommend

1 overly prescriptive inspector qualification
2 requirements, such as minimum education
3 requirements. Overly prescriptive qualifications
4 may disqualify a range of talented inspectors who
5 may have sufficient work experience or other
6 relevant backgrounds.

7 Certifiers need flexibility to make
8 their own hiring and contracting decisions as
9 well as to design appropriate training programs
10 for their businesses.

11 CCOF does not support the creation of
12 an organic inspector licensing system. Licensing
13 creates a complicated cumbersome process for
14 inspectors and certifiers, likely requiring fees
15 for inspectors and increasing certification fees
16 for all scales of producers.

17 CCOF could support a basic inspector
18 registration system maintained by each certifier.
19 Lastly, the organic sector should not emulate the
20 inspector requirements for pre-safety
21 certification systems. Pre-safety certifications
22 set prescriptive qualifications for inspectors

1 because of health and public safety risks. CCOF
2 provides free safety certifications to the
3 GLOBALG.A.P. standards. In our experience,
4 hiring and training inspectors to GLOBALG.A.P.
5 standards is challenging due to the qualification
6 requirements.

7 In closing, overly-prescriptive
8 inspector -- organic inspector requirements could
9 lead to organic producers losing access to local
10 affordable inspectors. NOSB must carefully
11 consider recommending prescriptive inspector
12 qualifications. Thank you.

13 CHAIR CHAPMAN: Thank you, Peter. Any
14 questions for Peter?

15 VICE CHAIR BEHAR: This is Harriet.

16 CHAIR CHAPMAN: Go ahead, Harriet.

17 VICE CHAIR BEHAR: Hi, Peter. As the
18 organic industry has grown and matured, our
19 operations have gotten more and more complex, how
20 do you suggest we deal with having inspectors at
21 the right level of training?

22 I think we would all agree that

1 especially a newer inspector, with less
2 experience, should probably not go to the most
3 complex operation that you have for their first
4 inspection.

5 So we're, we're struggling with how do
6 we categorize those inspectors and, and provide
7 both the incentive for continuous improvement and
8 the knowledge so certifiers know that the people
9 that they're sending to various operations will
10 be capable to do the work?

11 MR. NELL: Sure. So CCOF evaluates
12 each inspector and determines, you know, their
13 skills and what their background is and then
14 makes a determination on whether or not that
15 inspector may be qualified to inspect a very
16 complex or advanced operation.

17 We provide trainings via webinar and,
18 and, you know, general resources to our
19 inspectors so that they are able to grow into
20 learning more advanced organic systems. That's a
21 gradual process that is inspector-specific and,
22 obviously, certifier-specific.

1 CHAIR CHAPMAN: Okay, any other
2 question for Peter?

3 (No audible response.)

4 CHAIR CHAPMAN: All right. Thank you,
5 Peter. Up next is Casey Schoenberger, followed
6 by Marie Burcham and then Domenico Tassone.
7 Domenico, if you're on the line, please message
8 us because we also haven't identified your phone
9 number.

10 Casey, are you here?

11 MR. SCHOENBERGER: Yes.

12 CHAIR CHAPMAN: And you --

13 MR. SCHOENBERGER: Good morning, this
14 is Casey Schoenberger, I'm the Director of Sales
15 for Dramm's Fertilizer Division. Dramm produces
16 Drammatic brand liquid fish hydrolysates. So
17 thank you for this opportunity.

18 I wanted to make a few points
19 regarding the reactive nature of fish
20 hydrolysates. Hydrolysate liquid fish
21 fertilizers typically remove no components from
22 the fish scraps or mid-process slurry, and this

1 creates a more active living solution that
2 requires the addition of allowed acids for
3 stability. As a result, an upward drift in the
4 pH level occurs, as part of this normal
5 production process.

6 Dramm Corporation has conducted trials
7 that show that significantly more acid is needed
8 if the pH level is required to remain above 3.5
9 throughout the production process.

10 We're able to use up to 90 percent
11 less acid when the pH is allowed to drop below
12 that level at earlier production stages, before
13 rising above 3.5 pH prior to shipment. Beginning
14 with a higher initial dose of acid also results
15 in a more stable solution throughout the process.

16 And touching on crop and food safety
17 considerations, independent lab studies have
18 shown that harmful bacteria will survive longer
19 in liquid fish solutions with higher pH levels.

20 At a pH level of 3.5, studies
21 concluded that a minimum of 72 hours hold time
22 was required to eliminate the survival of these

1 harmful bacteria.

2 But at the much higher pH level of
3 4.9, it took significantly longer for the
4 bacteria kill stage to be effective, concluding
5 that an eight-day hold time was required to
6 eliminate the survival of the bacteria.

7 These results strongly suggest that as
8 pH rises, the risk of the presence of harmful
9 bacteria increases exponentially. It suggests
10 that lower pH levels are necessary to ensure that
11 contamination of harmful bacteria will not occur.

12 Dramm Corporation is committed to
13 maintaining the pH level of 3.5 or higher in its
14 final, in its product's final form prior to their
15 sale and shipment from our facilities.

16 And, finally, regarding the source and
17 the fish inputs used to make fish hydrolysate
18 fertilizer, Dramm accepts no inputs from
19 farm-raised fish. Dramm obtains 100 percent of
20 its scraps from wild-harvested fish.

21 Dramm receives zero percent whole fish
22 caught solely for fertilizer production purposes.

1 Dramm only obtains scraps for -- from human
2 consumption fish processors and we conduct no
3 direct harvesting of our inputs.

4 Bycatch percentages are difficult to
5 assess. Our best guess is that it falls within
6 the five to ten percent range. Dramm will accept
7 whole fish from states' regulatory bodies, such
8 as Wisconsin DNR, which harvest them for culling
9 or similar purposes, and similar inputs are
10 received from sporting events sanctioned by state
11 or municipal regulators. These sources account
12 for a small percent of our inputs.

13 Dramm supports the addition of an
14 annotation which would exclude the use of
15 wild-caught fish harvested exclusively for
16 non-food purposes. Thank you, again, for this
17 opportunity.

18 CHAIR CHAPMAN: Thank you, Casey. Any
19 questions for Casey?

20 VICE CHAIR BEHAR: This is Harriet.

21 CHAIR CHAPMAN: Yes, Harriet.

22 VICE CHAIR BEHAR: I'm wondering if

1 you have done any testing or could provide us
2 with some written documentation of the presence
3 of salmonella, listeria, or E. coli?

4 You did mention the food safety and
5 the, the Food Safety Modernization Act does
6 address, considers fish emulsion to be a soil
7 amendment of animal origin, and I am just
8 wondering about the pH of 3.5, or at what level,
9 if there had been E. coli, Salmonella, or
10 listeria present, would the 3.5 pH mean that it
11 was no longer present in the product?

12 MR. SCHOENBERGER: Yes. What I was
13 alluding to, so we, we've had an independent
14 consultant come in and work with us on it because
15 it's clearly a, you know, of great importance to
16 us that, that everything that comes out of our
17 place is, you know, we're, we're double checking
18 on safety part of that.

19 So as it -- what, what his study
20 showed was a pH level of 3.5, as long as there's
21 a 72-hour hold time, all harmful bacteria would
22 be eliminated.

1 Now what we get is if, if the pH
2 starts drifting up past, you know, over four,
3 what, what we saw was this, this eight-day hold
4 time, if you get up to 4.9.

5 It's very unlikely that we would ever
6 be shipping fertilizer out at that -- in fact, we
7 would never ship fertilizer out at a pH of 4.9,
8 but that's kind of what we're getting at is the -
9 - that lower -- the lower pH levels, especially
10 considering there is drift that happens, you
11 know, so there's, so the higher you are the more
12 risky.

13 That said, you know, as long as we
14 have the hold time, there's no salmonella or E.
15 coli present. And so we've worked with a couple
16 of different independent consultants, but I'd be
17 really happy to pass on, you know, what we
18 learned with, with our last consultant.

19 VICE CHAIR BEHAR: Thank you.

20 MR. SCHOENBERGER: Thank you.

21 CHAIR CHAPMAN: Thank you. Any other
22 questions for Casey?

1 (No audible response.)

2 CHAIR CHAPMAN: Thank you, Casey. Up
3 next we have Marie Burcham, followed by Domenico
4 Tassone, and then Shelly Connor. Again,
5 Domenico, we don't see you on the line. Please
6 message us if you're on the line.

7 Marie, are you here?

8 MS. BURCHAM: Yes, can you hear me?

9 CHAIR CHAPMAN: Yes we can. Please
10 start --

11 MS. BURCHAM: Excellent.

12 CHAIR CHAPMAN: -- with your name and
13 affiliation.

14 MS. BURCHAM: Yes. My name is Marie
15 Burcham, and I am a Policy Analyst with the
16 Cornucopia Institute. I'm also an attorney, and
17 I have a background in environmental and natural
18 resource law, as well as animal law.

19 Members of the Board and public, thank
20 you for this opportunity to speak on the proposal
21 concerning the elimination of the incentive to
22 convert native ecosystems to organic production.

1 Cornucopia is very happy to see the
2 NOP's proposal to add both a definition of
3 native ecosystems and a rural addition that will
4 get rid of the perverse incentive to destroy
5 unique and valuable ecosystems.

6 Until these additions are added to the
7 organic regulations, the organic label promotes
8 the destruction of sensitive ecosystems. This is
9 contrary to the basic tenets of organic
10 production.

11 As NOP states in its guide for organic
12 crop -- sustainability can be defined as meeting
13 the needs of the present without compromising the
14 ability of future generations to meet their own
15 needs. The destruction of our -- organic
16 agriculture should not promote this destruction.
17 As such, we feel this rulemaking will cure the
18 problem and hope the NOSB recommends its passage.

19 In addition, Cornucopia supports Wild
20 Farm Alliance's comments on this issue and hopes
21 the NOSB will consider the information and
22 expertise Wild Farm Alliance brings to this issue

1 when developing future guidance.

2 I also want to briefly touch on two
3 other smaller matters. Most of the NOSB Members,
4 who voted against limiting liquid feed to
5 container crops said they were in favor of
6 labeling hydroponic produce. Why hasn't the NOSB
7 moved forward with that issue, and why isn't it
8 on the agenda for this meeting?

9 We would also ask the NOSB to add the
10 issue of oil and gas infrastructure and the use
11 of oil and gas waste water to the work agenda.
12 These issues pose serious problems for the
13 organic label now and especially in the future as
14 water resources grow scarcer.

15 Waste water from the current industry
16 poses a threat to human and environmental health,
17 and it's currently being used in agriculture, and
18 it's possibly being used in organic agriculture
19 as well, especially in areas that are
20 drought-ridden, like California.

21 I hope you will consider these
22 comments moving forward. Thank you for this

1 opportunity to speak and have a great meeting.

2 CHAIR CHAPMAN: Thank you, Marie. Any
3 questions for Marie?

4 (No audible response.)

5 CHAIR CHAPMAN: Seeing none. Thank
6 you for your time. Again, up next is Domenico
7 Tassone. Domenico, are you here?

8 (No audible response.)

9 CHAIR CHAPMAN: Okay. We have not
10 been able to identify your number, so we'll move
11 on up the list. Up next is Shelly Connor,
12 followed by Amber Pool, and then Rhodes Yepsen.
13 Shelly, are you here with us?

14 MS. CONNOR: Yep, I'm here. Can you
15 hear me?

16 CHAIR CHAPMAN: Yes we can, Shelly.
17 If you could start with your name and
18 affiliation.

19 MS. CONNOR: Great, thanks. My name
20 is Shelly Connor, and I am with Wild Farm
21 Alliance. Wild Farm Alliance supports the motion
22 to approve the two-part proposal to eliminate the

1 incentive to convert native ecosystems to organic
2 production.

3 With this new regulation, the USDA
4 organic label will provide critical protections
5 for native ecosystems and the integrity of the
6 National Organic Program will be preserved.

7 We want to see organic agriculture
8 grow, but in a way that represents the integrity
9 of the label and not at the cost of our wild
10 lands and wildlife. This new regulation will
11 incentivize the transition of non-organic farms
12 while minimizing the loss of lands with important
13 habitats.

14 We've already cultivated the most
15 fertile and productive land. The focus of
16 increasing organic acreage should not be on
17 places that embody important native habitats,
18 instead we need to look to the millions of acres
19 of conventionally managed land for transition.

20 Taking action today is very important
21 in light of climate change and the devastating
22 effects it is imposing on biodiversity worldwide.

1 A number of species, including wild
2 pollinators, which organic agriculture relies
3 upon, need wild places. And even with a high
4 number of well-managed wild farms, the space is
5 not enough. We need to protect habitat.

6 The fundamentals and future of our
7 agricultural systems are dependent upon the
8 services that these native ecosystems and
9 biodiversity provides. Critical services include
10 clean and abundant water, healthy soil,
11 pollination, pest control, and carbon storage,
12 just to name a few.

13 The native ecosystems we protect today
14 will be necessary to support declining and rare
15 species 50 to 100 years from now, when there will
16 be much less habitat available due to an increase
17 in population and climate change effects.

18 The organic label cannot be implicit
19 in eradicating habitat for species like the
20 orangutan and forest destruction for organic palm
21 oil.

22 Your job is to ensure the public trust

1 in the organic label. Please support this
2 motion. Thank you for your time and your work.

3 CHAIR CHAPMAN: Thank you, Shelly.
4 Any questions for Shelly? I see two, Ashley and
5 then Emily. Ashley.

6 MEMBER SWAFFAR: Thanks. My question
7 is would you consider grazing or pasturing of,
8 like, poultry, on native, native ecosystems, a
9 form of conversion, even if the livestock or
10 poultry don't diminish the land's bio-diversity?

11 MS. CONNOR: Thanks, Ashley. Yes, so
12 I think, in answer to that question, as long as
13 the inherent value of the, and the labels, or
14 the, the indication is that there's still a
15 native ecosystem present, that the, and the
16 definition stands on the land, grazing can be
17 done and native ecosystems -- and it can still be
18 considered a native ecosystem.

19 CHAIR CHAPMAN: Emily.

20 MEMBER OAKLEY: Yes, thank you. I
21 have two questions. When you mentioned climate
22 change, I was wondering if you could elaborate on

1 that, and then, two, I'm not sure if this is
2 information that you guys have, but do you have
3 information about consumer expectations that you
4 could share with us with respect to the organic
5 label and conversion of native ecosystems. Thank
6 you.

7 MS. CONNOR: Sure. So in response to
8 the climate change question, soil carbon losses
9 in the U.S. occur on an average of 20 to 30
10 percent when land is converted from natural
11 ecosystems to crop land. And conversion of
12 forest land causes larger losses of carbon from
13 forests and, and, especially if the land is
14 burned before being cropped.

15 So this new regulation would help to
16 mitigate that soil carbon loss and protect
17 valuable habitat for species that are being
18 drastically affected by climate change and --
19 which is really important now and even more
20 important in 30 years from now, when estimates
21 show that 30 to 50 percent of all land species
22 could be facing the threat of extinction.

1 And in terms of the consumer question
2 that you asked, this, you know, consumers believe
3 that the organic label is the gold standard, and
4 it is, and we believe that too, but in order to
5 keep the public's trust in providing that the
6 organic label is the top eco label, it needs to
7 be transparent, and it needs to be transparent
8 that this label is doing more than just being
9 pesticide-free, but it's also protecting our wild
10 places and our wild lands and our wild species.

11 CHAIR CHAPMAN: Great. Any other
12 questions for Shelly? Hearing none, thank you
13 for your comments. Up next is Amber Pool,
14 followed by Rhodes Yepsen and then Sam Raser.

15 Sam, if you're on the line, please
16 message us; I'm not finding your phone number.
17 And I'm just going to go ahead and say, Stephen
18 Walker, you're after Sam. We have several
19 numbers from your area code, but we haven't
20 identified yours, so if you could also message us
21 with specifics on where you're calling from, that
22 would be very helpful.

1 Amber, are you on the line with us?

2 MS. POOL: Hi.

3 CHAIR CHAPMAN: Hi, Amber. If you
4 could start with your name and affiliation.

5 MS. POOL: Hi, I'm Amber Pool with
6 CCOF. I work in the farm certification
7 department. I'd like to thank the Board for
8 continuing to offer this webinar for public
9 comment. This is such an excellent opportunity
10 for the farmer's voice to be heard when it can be
11 difficult for them to travel.

12 Today I'll be commenting on the 2020
13 sunset review of crop substances, specifically on
14 elemental sulfur. We have 1,224 CCOF members who
15 use elemental sulfur as a tool they may use on
16 their organic systems. Elemental sulfur is one
17 of the most commonly-used materials in organic
18 production. Producers use elemental sulfur on a
19 wide variety of crops for pest and disease
20 management, as well as for soil fertility.

21 We were able to reach out to all of
22 our farmers via email regarding their use of

1 dusting sulfurs. CCOF members began responding
2 to our emails within minutes, which demonstrates
3 just how important of a tool this is to them.

4 Eighteen of our growers allowed us to
5 share their responses with you. These raw and
6 unedited responses are included in the appendix
7 of our written comments regarding the crop sunset
8 materials.

9 As the mom of a seven-year-old boy,
10 reading the report on elemental sulfur use and
11 associations with pediatric lung function and
12 respiratory system in the agriculture community
13 was concerning. I understand the study was based
14 in Salinas valley and a wide variety of inputs
15 are in use. I think it's important for the Board
16 to continue to analyze more data on the public
17 health impact of different forms of elemental
18 sulfur and in different regions such as Napa
19 Valley.

20 In grape growing regions, this is the
21 most important fungicide. I want more
22 information both on dusting sulfur and wetttable

1 sulfur, or if wetttable sulfurs could replace some
2 of the dusting sulfur used without damaging crops
3 or disrupting soil health.

4 Because of the importance of dusting
5 sulfur to many organic farm operations, and
6 because of the new safety concerns that have been
7 raised, the Board should consider whether
8 additional precautions or limitations should be
9 required for its use.

10 Thank you, I'm complete; if you have
11 any questions, I'm available for those.

12 CHAIR CHAPMAN: Thank you, Amber. Any
13 questions for Amber?

14 MR. BRADMAN: Yes, I have a couple of
15 questions. I just wanted to clarify; it sounds
16 like your constituents don't feel that there's an
17 alternative to dusting sulfur, or that you don't
18 feel like there's good enough research on, say,
19 the efficacy of a wetttable versus a dusting
20 application, and I guess I would raise that to
21 another level too. Anecdotally, is there any
22 question that dust offers an advantage over

1 wettable solution, or can the same goals to be
2 achieved with the wettable solutions?

3 MS. POOL: That's our question too,
4 and we received a wide variety of responses.
5 Some are growers who say they would be fine just
6 using wettable sulfurs, and other say that if
7 dusting sulfur is taken away as a tool, that they
8 will just lose their organic certification,
9 because they're not going to stop using it. So
10 we've received a mix of responses.

11 CHAIR CHAPMAN: Thank you; any other
12 questions? All right, thank you, Amber. And I
13 apologize; I forgot to mention this before, but I
14 just want to confirm that A-Dae is on the line
15 with us. She joined shortly after we did roll
16 call. A-Dae, can you confirm you're on the line
17 with us?

18 MS. ROMERO-BRIONES: I'm on the line.

19 CHAIR CHAPMAN: All right, thank you,
20 A-Dae. Up next is Rhodes Yepsen, followed by Sam
21 Raser. Sam, if you're on the line, we have not
22 identified you. So again, please message us.

1 Then Stephen Walker -- Stephen, we believe we
2 found you. And after Stephen, Nathan Brown,
3 you're on deck as well. Rhodes, are you on the
4 line with us?

5 MR. YEPSEN: Yes, I am.

6 CHAIR CHAPMAN: And we can hear you.
7 Will you start with your name and affiliation?

8 MR. YEPSEN: Great, thanks. Rhodes
9 Yepsen, I'm Executive Director of BPI. We're
10 North America's leading certifier of compostable
11 products and packaging.

12 I'd like to thank the Board for the
13 opportunity to provide comments ahead of the
14 spring meeting. We're re-affirming our members'
15 desire for the NOSB to support the use of soil-
16 biodegradable mulch film. As it stands now with
17 the policy memo 50-1, requiring 100 percent bio-
18 based content, this is not commercially available
19 still.

20 Last year, there was one comment to
21 the NOSB about a company in Canada that reported
22 they had such a product. We've confirmed now

1 that this is not commercially available for
2 purchase in the U.S. or Canada.

3 I submitted some written comments and
4 just wanted to quickly go over them here and see
5 if anyone has questions for me. The two things
6 are, there is now an official European standard
7 for soil-biodegradable mulch film that was
8 adopted in March of this year, EN-17033, and I
9 think this shows a real testament to what we have
10 accomplished so far with the listing for soil-
11 biodegradable mulch film with the NOSB, because
12 the standard adopts the same exact biodegradation
13 tests and time frames, minus this bio-base
14 requirement.

15 It's no small feat for European
16 standards to get through with all of the EU
17 countries needing to approve that standard, and
18 it will have to be ratified in each country.

19 The second part has to do with the
20 comment around the sunset review for conventional
21 plastic mulch film and the start of that review
22 process. We continue to hear from farmers about

1 frustration because of the inability to use soil-
2 biodegradable mulch film, and we think the
3 questions being asked about conventional plastic
4 mulch film are good ones.

5 Our response would be very simply that
6 there is an alternative to that conventional
7 plastic mulch film on the National List, which is
8 the soil-biodegradable mulch film. The NOSB
9 would just need to act to remove or modify that
10 policy memo to allow farmers to use the soil-
11 biodegradable mulch film.

12 So we hope that that's something
13 you'll take on, and I welcome questions. Thank
14 you.

15 CHAIR CHAPMAN: Thank you. Any
16 questions for Rhodes?

17 MR. BRADMAN: I just have a quick
18 question. This has come up during previous
19 discussions on the proportion of bio-based versus
20 petroleum-based sources for the degradable films.
21 Has that changed at all, and do you have a sense
22 of what those proportions are now?

1 MR. YEPSEN: Sure, good question. The
2 OMRI review from a few years ago placed the
3 numbers in the low 15 to 20 percent. I know the
4 numbers are always being increased. I know some
5 companies are claiming 50 percent or more. I
6 think the best way of doing that would be another
7 independent review.

8 That's not something we track
9 directly; we focus on the biodegradability
10 requirements, which are not linked to the source
11 of the carbon.

12 So if that's something that you were
13 looking for in an amendment where instead of
14 removing the policy memo, but you want to set a
15 new minimum number, then I think you would need -
16 - you might want to update that OMRI review that
17 we've done a few years ago.

18 MR. BRADMAN: Thank you.

19 CHAIR CHAPMAN: Any other questions
20 for Rhodes? All right, hearing none, thank you
21 for your comments. Up next we have Sam. Sam,
22 are you on the line?

1 We were not able to identify your
2 phone number. All right, so since Sam's not
3 here, Stephen Walker, are you on the line?

4 MR. WALKER: I think so, if you can
5 hear me.

6 CHAIR CHAPMAN: Yes, we found you.
7 Hold on, Steve, one second. So after Stephen is
8 Nathan Brown, followed by Dave Chapman. Stephen,
9 if you could start off with your name and
10 affiliation.

11 MR. WALKER: Okay, I'm Steve Walker,
12 Operations Manager at MOSA. We certify over
13 2,000 organic operations, mostly in the Midwest.

14 My intent here was to talk about
15 protecting genetic integrity of seed grown on
16 organic land. I'll start with seeds, but those
17 will sprout into some words about fairness, good
18 process, and NOSB authority.

19 We like to continue genetic integrity
20 discussion and submitted a six-page written
21 comment about seed purity, regulatory pace
22 frustration, enforcement dilemmas, test results,

1 and life from a certifier's perspective here in
2 our Midwestern GMO hot zone. I encourage you to
3 read it.

4 We also talked about co-existence of
5 organic and conventional ag, and here's where I
6 begin preaching to the choir, hoping the USDA
7 will hear. The burden for avoidance of genetic
8 trespass must be shared. This means deliberate
9 USDA attention. It's extremely unfair to put so
10 much burden for preserving genetic integrity on
11 the organic community, and co-existence should
12 not require our acquiescence towards genetic
13 contamination.

14 We ask the USDA to ensure that
15 unintended genetic trespass is controlled. We
16 encourage stewardship plans, outreach, voluntary
17 innovation and incentives, and -- hear this --
18 regulations directed at those who use GMO
19 technology.

20 Now, I've been to a lot of NOSB
21 meetings over the years, and I continue to
22 promote that these meetings show democracy at its

1 best, and public input makes a difference. But
2 I'm concerned that my optimism is giving way to
3 cynicism. Unbalanced co-existence raises this a
4 bit, and recent word that the USDA overturned the
5 NOSB's carrageenan recommendation sure didn't
6 help.

7 This week, MOSA sent a letter to
8 Secretary Perdue, expressing our dismay at
9 several decisions by this administration, which
10 hurt our seal and sale process. The NOP is a
11 voluntary program based on a democratic system
12 and a clearly-defined process, integral to
13 building and retaining consumer trust in the
14 organic seal.

15 The disregard of the NOSB carrageenan
16 decision and other recent USDA actions, including
17 withdrawal of the livestock and poultry rule and
18 failure to implement the origin of livestock
19 rule, damage our confidence in the program and
20 cause economic harm.

21 In our letter, we recommend three
22 actions: Honor the role and democratic process

1 of the NOSB; recognize that the NOP is a
2 voluntary program, dedicated to continual
3 improvement and refinement; and last, keep
4 politics and unfair influence out of the program.
5 The objections of the few should not outweigh the
6 desires of the many and the fair democratic
7 process. Thank you.

8 CHAIR CHAPMAN: Thank you, Steve. Any
9 questions for Steve?

10 MR. MORTENSEN: This is Dave
11 Mortensen. Steve, thank you. I'm literally
12 sitting in a service area on the way back from a
13 meeting in Washington D.C. about (telephonic
14 interference). So I have this very much on the
15 top of my mind, genetic drift and chemical
16 trespass, when we think about co-existence.

17 So thank you for your six-page report,
18 and I think we need to keep broadening and
19 deepening our thinking about how it is that we
20 implement and really get on the ground functional
21 co-existence, because genetic trespass and
22 chemical trespass are huge issues that we're

1 confronting.

2 MR. WALKER: Yes, thanks.

3 CHAIR CHAPMAN: All right. Any other
4 questions for Steve? Okay. All right, Steve,
5 thank you for your time.

6 MR. WALKER: Thank you.

7 CHAIR CHAPMAN: Up next we have Nathan
8 Brown, followed by Dave Chapman, and then Alan
9 Schreiber. Nathan, are you on the line?

10 MR. BROWN: I am. Can you hear me?

11 CHAIR CHAPMAN: Yes, we can, Nathan.
12 Could you start with your name and affiliation?

13 MR. BROWN: My name is Nathan Brown,
14 I'm a small vegetable grower in Montana, on three
15 acres. I'd like to talk about the NOP decision
16 to prohibit Japanese paper pot chains, their
17 introduction.

18 I'd like the NOSB to take up the case
19 for Japanese paper pot chain for production. I
20 purchased this system in August and went to my
21 certifier. And the way they explained it to me
22 was, and their approval was, the paper pot chains

1 have the same ingredients as cardboard. And
2 since cardboard was an approved input that goes
3 into the soil as well, that's how they came about
4 agreeing to allow these Japanese paper pots in.

5 So for anybody not familiar, this is
6 a planting system that allows me to plant 364
7 plant forms in about a minute with just one
8 planting, which saves me a huge amount of time
9 and labor in transplanting seedlings. And I use
10 the (telephonic interference), and it's one and a
11 half times the amount of transplants than the
12 normal tray that I use.

13 I could plant a 30- by 90-foot
14 (telephonic interference) by myself in a few
15 hours, compared to what used to take four to six
16 people all day long. I can use trays, use less
17 potting soil, and it gives me a month on either
18 side of my growing season that I can get into the
19 field and transplant.

20 We're having a fairly wet and cold
21 spring -- I guess that's across the country --
22 and I'm at least two months behind in this

1 growing season, and this system is going to allow
2 me to catch up with the season much faster than I
3 would be able to if I didn't have this system.

4 There are many growers in our state
5 who use it; I think there's about eight in
6 Montana. I've been talking with -- I used to be
7 the chair of the Montana organic (telephonic
8 interference) for LCA for two years, and they
9 both agree that this is a good thing for small
10 farmers. Thank you.

11 CHAIR CHAPMAN: Thank you. Any
12 questions for Nathan?

13 VICE CHAIR BEHAR: This is Harriet.
14 I'm wondering, is it the glue or ink? What was
15 the problem with the paper?

16 MR. BROWN: Well, I contacted the NOP;
17 in an email to certify what I got. They didn't
18 really specifically say the glue, but that's what
19 was explained to me. I should have called the
20 Montana Department of Ag.

21 But it's the same glue that is in
22 cardboard, and cardboard can be used as a mulch

1 or a composting medium, and both of those
2 applications end up in the soil. So I'd really
3 like the NOSB to keep a clear eye to the
4 applications of the paper pot systems.

5 MS. OAKLEY: Tom, this is Emily. I
6 have a question too.

7 CHAIR CHAPMAN: Go ahead, Emily.

8 MS. OAKLEY: Thank you. I have also
9 heard this dialogue very loudly from the small
10 farmer vegetable community recently, and I was
11 wondering if Paul Lewis from the NOP could help
12 answer the question about what it is in these
13 products that is making them ineligible for use.
14 Is Paul still on the line?

15 CHAIR CHAPMAN: We have a lot of 202
16 numbers muted. Paul, are you on the line?

17 MS. ARSENAULT: Hi, Tom, it's
18 Michelle. I'm not sure if he's still on the line
19 with us.

20 (Telephonic interference.)

21 CHAIR CHAPMAN: Sorry about the hold
22 music from someone. It doesn't appear that Paul

1 is on the line with us, but that's a question
2 that we can follow up on either at the other
3 webinar or --

4 MR. PATTILLO: Yes, hi, Emily, this is
5 Devon with the NOP. Yes, Paul is one of the
6 muted members. I believe the reason was that it
7 contained synthetic ingredients that weren't on
8 the National List, and it didn't fall into the
9 current categories of paper that's on the
10 National List. It wasn't a mulch or a compost
11 feed stock.

12 MS. OAKLEY: So what would be the step
13 for addressing this concern that even though the
14 application might be slightly different, the
15 material ingredients are the same as a cardboard
16 feed stock that someone might be using for a
17 mulch application?

18 MR. PATTILLO: I don't know if I can
19 speak to that. I think it's likely that there
20 might be similar ingredients in the cardboard,
21 but I guess the proper process here would be for
22 a petition.

1 MS. OAKLEY: Right. Okay. So that's
2 actually something that we can bring up on the
3 next crop subcommittee call, or when we have
4 time. We could put that on our agenda to
5 discuss, that would be great.

6 CHAIR CHAPMAN: But that would require
7 a petition from the public, though, to start
8 working on this.

9 MS. OAKLEY: Sure, but we could
10 communicate that back to the stakeholders that
11 are interested in using it.

12 CHAIR CHAPMAN: Yes. So, Nathan,
13 that's an avenue for you to consider, the
14 petitioning process, or to recommend that to the
15 manufacturer of the paper product.

16 MR. BROWN: I think one of the
17 important things is to get something moving for
18 the fall NOSB meeting. I just wanted to comment
19 because I didn't know if it would help me.

20 CHAIR CHAPMAN: Okay. Thank you. Any
21 other questions? Up next we have Dave Chapman,
22 followed by Alan Schreiber, and then Jesse Buie.

1 Dave, are you on the line with us?

2 MR. CHAPMAN: Yes, Tom, can you hear
3 me?

4 CHAIR CHAPMAN: I can, Dave. Go
5 ahead, name and affiliation.

6 MR. CHAPMAN: I'm Dave Chapman, I'm an
7 organic farmer from Vermont, and I'm also a board
8 member of the Real Organic Project.

9 As you all know, the Real Organic
10 Project is working to make an add-on label to the
11 USDA organic program. We are a group of farmers
12 and advocates drafting a new label that will
13 embrace the traditional meaning of organic.

14 We want to create some way for people
15 to identify such food in the store. As such, we
16 are in perfect alignment with the stated goals of
17 the NOP. We want a label that is transparent and
18 that doesn't mislead customers.

19 The new label will reject hydroponic
20 production and adhere to the original intent of
21 OFPA. The label will still require USDA
22 certification as a base. This is a commitment to

1 improve the damaged NOP label. We're not trying
2 to destroy the USDA seal, but rather to save it.

3 We all know that the organic label is
4 being twisted and transformed by the powerful
5 economic forces behind kepos (phonetic) and hydro
6 production. Already the NOP standards enforced
7 no longer resemble the standards of the EU in
8 several critical areas. At the same time that
9 the new EU standards have become even stronger in
10 rejecting hydro and kepos, the NOP standards are
11 becoming weaker.

12 This has gone so far that the EU is
13 now proposing to revoke the trade agreement with
14 the U.S. that gave reciprocity to the two
15 standards, and I think that they are in the final
16 stages of finalizing that.

17 We urge the NOSB to step up and fight
18 for strong standards that reflect the intent of
19 OFPA. The organic label will only be saved if we
20 fight for it. It will only be saved through the
21 brave actions of people such as yourselves.

22 We have not given up on this process,

1 and we urge you not to give up either. Serving
2 on the NOSB has always been difficult, and now it
3 is even more difficult as your influence and
4 makeup are being challenged by Congress. But we
5 thank those of you who have worked so hard to
6 protect organic.

7 The fight might seem hopeless; we urge
8 you to continue working to prohibit hydroponics
9 in support of the still-standing 2010
10 recommendation, and we urge you to continue to
11 advocate for strong animal welfare standards
12 despite the recent rejection of the OLPP by the
13 USDA.

14 These are not easy times for the
15 organic movement, and we must pull together. You
16 have each been given a large microphone as a
17 result of serving on the NOSB. Please use that
18 microphone to serve the many millions of people
19 who trust you to represent them, and thank you
20 all for your service.

21 CHAIR CHAPMAN: Thank you, Dave. Any
22 questions for Dave? Not seeing any, Dave, thank

1 you for your comments.

2 MR. CHAPMAN: Thank you, Tom.

3 CHAIR CHAPMAN: I have Alan, followed
4 by Jesse Bovay on deck, and then Jeff Dean.
5 Alan, are you on the line with us?

6 MR. SCHREIBER: Yes, can you hear me?

7 CHAIR CHAPMAN: Yes, I can, Alan. You
8 can start with your name and affiliation for the
9 record.

10 MR. SCHREIBER: My name is Alan
11 Schreiber, and I'm Executive Director of the
12 Washington Blueberry Commission, and as such, I
13 represent 250 blueberry growers in our state.

14 Washington is the leading producer of
15 organic blueberries; also, I'm a private
16 independent agriculture researcher, and I
17 conducted extensive efficacy trials on Polyoxin D
18 on blueberries and raspberries for the past six
19 years. I also operate a 75-acre organic fruit
20 and vegetable farm in eastern Washington.

21 The current Washington berry disease
22 management programs in organic and conventional

1 blueberries, raspberries, and blackberries are
2 based, in part, on my research. Currently,
3 organic blueberry growers do not have effective
4 means of growing blueberries, particularly those
5 in high disease-risk areas such as western
6 Washington, where the majority of blueberries are
7 grown.

8 Western Washington organic blueberry
9 growers routinely lose half of their crops to
10 mummy berry and other diseases, using what are
11 the most effective currently available fungicides
12 and non-chemical control alternatives.

13 Washington organic blueberry growers
14 in locations facing high disease pressure are in
15 desperate need of a more effective tools for
16 controlling mummy berry and other diseases.

17 The reason that Washington raspberry
18 industries are more than 99 percent conventional
19 is that there are no effective organic controls
20 of botrytis in cane berries. In the case of
21 blueberries and raspberries in Washington,
22 research has shown in repeated trials that

1 Polyoxin D is, when compared to current
2 alternatives, statistically significantly more
3 effective. There are some other alternatives
4 that have efficacy, such as lime sulfur, but has
5 use restrictions that prevent their widespread
6 use.

7 In the case of lime sulfur, for
8 example, it cannot be used when bloom is
9 initiated due to higher toxicity. The Washington
10 berry industry needs organic access to Polyoxin
11 D; access to this product will improve grower
12 yields and will allow other conventional growers
13 to transition to organic production.

14 I'm speaking today as the head of the
15 Washington Blueberry Commission, representing
16 Washington berry growers. I also know that NBG
17 supports its position for their organic growers
18 across eight states, as does the California
19 Blueberry Commission, the North American
20 Blueberry Council, the Berry Research and
21 Extension specialists from Oregon State
22 University, the largest organic blueberry grower

1 in Oregon, and Michigan State University berry
2 research specialists.

3 Thank you for your time and
4 consideration. I just want to put a plug in that
5 this webinar is a very good deal for getting
6 input for those of us who will not be able to
7 make it to your meeting.

8 MR. BUIE: Tom, this is Jesse.

9 CHAIR CHAPMAN: Jesse, go ahead.

10 MR. BUIE: Alan, in reviewing the
11 comments, what I'm seeing support for Polyoxin D
12 and Polyoxin D zinc salt. There seems to be some
13 confusion out there. Are you clear on exactly
14 what's being petitioned?

15 MR. SCHREIBER: No, I would let people
16 who are more -- I'm pretty sure it's the zinc
17 salt formulation. I think saying Polyoxin D is
18 easier than saying Polyoxin D zinc salt. But
19 there are people out there who are more up on the
20 exact formulations than I am.

21 MR. BUIE: Okay. But it's a major
22 difference for us, is what I'm saying. That's

1 all.

2 CHAIR CHAPMAN: Okay. Any other
3 questions for Alan?

4 VICE CHAIR BEHAR: Yes, this is
5 Harriet. So you were saying that 50 percent of
6 the berries are lost in your region. Is there
7 any written documentation of that that you can
8 provide to us?

9 MR. SCHREIBER: Okay. I want to
10 clarify something. I was very careful to say in
11 western Washington. Most organic blueberry
12 production in Washington is in eastern
13 Washington, where they currently don't have mummy
14 berry.

15 In western Washington, where most of
16 the growers are, they routinely will lose half or
17 more of their production. I wrote an emergency
18 exemption, asking for some help for this.

19 I don't know if there is a scientific
20 study to back that up; I can certainly get all
21 the grower testimony that you want. I think it's
22 beyond question, if you know much about what

1 mummy berry does in western Washington, Michigan;
2 there's a reason why almost all the organic
3 blueberry production is on the West Coast; it's
4 located in pockets of very dry conditions where
5 there's no mummy berry.

6 Where mummy berry exists, there's very
7 little organic production. Probably less than 5
8 percent of organic blueberries are produced in
9 areas that are not in the desert, and it's
10 because of mummy berry. I can get you
11 information on this if that would be helpful.

12 VICE CHAIR BEHAR: Yes, it would,
13 thank you.

14 CHAIR CHAPMAN: Thank you. Any other
15 questions for Alan? I'm not seeing any. Alan,
16 if you do have information to share, you can send
17 that through Michelle. She can get --

18 MR. SCHREIBER: All right. Thank you
19 very much.

20 CHAIR CHAPMAN: Thank you. Next up we
21 have Jesse Bovay, followed by Jeff Dean. After
22 Jeff we have Sydney Rosario. Sydney, we have not

1 found you on the line, so if you are here,
2 message us your phone number. And just in case
3 Sydney's not here, up after Sydney will be Elijah
4 Dean. Jesse, are you with us?

5 MS. BOVAY: Yes, I am.

6 CHAIR CHAPMAN: All right. If you
7 could start with your name and affiliation for
8 the record.

9 MS. BOVAY: My name is Jesse Bovay,
10 and I'm the Director of Business Development for
11 Mercaris. Mercaris is a market intelligence
12 provider and online trading program for organic,
13 non-GMO, and other certified agriculture
14 commodities.

15 We really appreciate the opportunity
16 to submit our comments to the NOSB Board today,
17 and our comments are in direct response to the
18 NOSB/CAC subcommittee request for public comment
19 published on February 25th, 2018.

20 In regard to the role of documents in
21 an organic supply chain, it should be a
22 requirement for the organic status of a product

1 to be recorded consistently on all import
2 documents. Requiring consistent organic status
3 labeling will increase organic integrity through
4 creating opportunities for tracking organic
5 product movement through the supply chain.

6 Organic tariff codes should be
7 required for all imported shipments, and failing
8 to use an organic tariff code should negate the
9 organic status of the imported product. Avoiding
10 usage of an HTF code could contribute to
11 underestimating true import levels and therefore
12 supply and demand metrics.

13 With a limited number of organic-
14 specific import codes, the industry need the U.S.
15 Government to make a concerted effort to increase
16 the number of organic-specific codes. These
17 changes would encourage shippers to accurately
18 label shipments, increasing transparency in the
19 import market.

20 In regard to the role of uncertified
21 operations in the supply chain, there are a
22 number of organizations that do not take

1 ownership or handle organic products, but do
2 provide a service in enabling the marketing of
3 organic products, including bulk commodities and
4 ingredients.

5 As an organization who enables buyers
6 and sellers to connect directly and do business
7 via online platforms, Mercaris hopes to increase
8 transparency in the sector. However, our online
9 platform is not currently certified under the
10 USCA NOP. We think there are both up sides and
11 down sides to requiring all operations in the
12 supply chain to be certified. More
13 certifications will lead to more knowledgeable
14 people within the supply chain, but will also
15 create barriers to entry within the space.

16 We think it is important to work with
17 uncertified organizations across the supply chain
18 to understand their particular role and what
19 impact they play in the supply chain. If the
20 NOSB decided to require certification, it is
21 crucial to have input from the currently
22 uncertified organizations to craft regulations

1 that allow for continued growth in the organic
2 markets.

3 Last but not least, certification to
4 precisely identify areas for compliance and
5 specific certification targeted to e-commerce
6 platforms to be crafted to address areas
7 identified. That is, we would expect USDA
8 certification for brokers to be different from
9 that of certified handlers and certification for
10 online platforms to vary from that of traditional
11 brokers.

12 In regard to organic crop acreage
13 information, including production acreage and
14 yield information in the organic integrity
15 database is crucial to understanding market
16 dynamics in the organic agriculture industry.
17 Acreage and yield information for other major
18 commodity crops is compiled and published by the
19 USDA organic crops should not be any different.

20 This information is used by every
21 purchaser in the supply chain to inform decisions
22 about their business and to communicate

1 sustainability metrics. It should be the same
2 across all countries that are under equivalency
3 agreements with the USDA organic standards label.

4 CHAIR CHAPMAN: Thank you, Jesse.
5 Questions for Jesse -- I actually have a few, so
6 I will start. But if other folks have a
7 question, please raise your hand.

8 Jesse, so do you -- it's been
9 suggested in public comments that online
10 platforms be included under organic
11 certification. Does Mercaris support that
12 position?

13 MS. BOVAY: Mercaris is in support of
14 working with organizations such as ourselves,
15 online auction platforms, to determine if there
16 truly is a need for us to become certified.

17 And if it is decided that we are, we
18 think it's also important to work with
19 organizations such as ourselves to make sure that
20 the regulations don't completely curtail the
21 ability for us to conduct business.

22 CHAIR CHAPMAN: And then you said that

1 some uncertified operations have a role, and each
2 one may operate differently, so some may or may
3 not require certification. Do you have examples
4 of ones that either should or should not be
5 certified in your opinion?

6 MS. BOVAY: We think that traditional
7 brokers should be certified in a manner that
8 includes education and organic standards and
9 organic transparency in the supply chain. That
10 would be an example of a player that would need
11 to be certified. A player that would not need to
12 be certified -- I'm not quite sure on that one.

13 CHAIR CHAPMAN: Okay, thank you. And
14 I have question from Emily as well.

15 MS. OAKLEY: Yes, you mentioned in
16 your answer to Tom and also in your comments that
17 certification for brokers would look different.
18 Could you elaborate on your thoughts on that a
19 bit more? Thank you.

20 MS. BOVAY: Sure, of course. Mercaris
21 is different from a traditional broker in that we
22 never take ownership of the commodity. Our

1 online marketplace acts as a meeting place for
2 buyers and sellers. Transfer of title is done
3 between the buyer and the seller, so for us to be
4 required to be certified wouldn't necessarily be
5 a bad thing. It would be good because, as I
6 mentioned, more people in the chain to understand
7 and be knowledgeable about organic certification
8 is good for the industry.

9 A traditional broker may or may not
10 take possession of a commodity, and taking
11 possession of a commodity could change the
12 ability for the certification to become null and
13 void for multiple different reasons.

14 CHAIR CHAPMAN: Okay. I just have
15 another follow-up question for you. So would you
16 say a threshold is taking ownership? Anyone who
17 takes ownership should be certified?

18 MS. BOVAY: Yes. I would definitely
19 use that as a threshold.

20 CHAIR CHAPMAN: And similarly with
21 possession, anyone who takes possession is
22 someone who should be certified?

1 MS. BOVAY: Not necessarily. That
2 could create onerous complications. For example,
3 transportation companies take possession of the
4 commodities, but may or may not necessarily be
5 certified.

6 CHAIR CHAPMAN: Okay. And then people
7 who are parties to the transaction but may not
8 take title, may not take possession, such as
9 online auctions or maybe sales agents -- those,
10 you're saying you -- I already asked you about
11 the online auctions -- but about sales agents or
12 other folks? Do you have an opinion on that?

13 MS. BOVAY: We do not.

14 CHAIR CHAPMAN: Okay, and Emily has
15 her hand raised again.

16 MS. OAKLEY: I do, I have a follow up.

17 CHAIR CHAPMAN: Okay.

18 MS. OAKLEY: So in terms of, for
19 example, your situation. You said that it
20 wouldn't necessarily be a bad thing to be
21 certified or to require certification; it seems
22 like you were exacting that certification process

1 might look different. Do I understand that
2 correctly? And if so, could you elaborate on
3 that further?

4 MS. BOVAY: Sure. We do not take
5 possession of a commodity; we never see it as
6 being part of Mercaris. An organic, an OSP for
7 us would look different than an OSP for maybe a
8 grain elevator or a grower.

9 CHAIR CHAPMAN: Okay. Harriet?

10 VICE CHAIR BEHAR: Hi, I'm here. I'm
11 wondering, what do you do to verify perhaps
12 beyond just an organic certificate, especially
13 when something is being imported, that actually
14 has a verified organic status in the environment
15 where we currently are, where we've had quite a
16 bit of fraudulent imports entering our market?

17 MS. BOVAY: Yes. Mercaris' auction
18 platform only deals with commodities that are
19 grown in the United States or Canada. And
20 similar to what you said, we ask for the
21 certification of organic status from the grower
22 or the -- whoever is in the auction.

1 VICE CHAIR BEHAR: And just a quick
2 follow up: Are you aware that some of the
3 fraudulent imports came in through Canada,
4 although the country of origin would not have
5 been Canada? Do you know if you've handled any
6 of those?

7 MS. BOVAY: No, we did not.

8 VICE CHAIR BEHAR: Thank you.

9 CHAIR CHAPMAN: Okay. Seeing there
10 are no more questions, Jesse, thank you for
11 answering all of our questions.

12 MS. BOVAY: You're welcome, and we're
13 available if you have any more questions.

14 CHAIR CHAPMAN: Thank you, Jesse. Up
15 next we have Jeff Dean, followed by Sydney.
16 Sydney, we still have not found you on the line.
17 So if you are here, please message us. After
18 Sydney is Elijah Dean. Jeff, are you on with us?

19 MR. DEAN: Yes. Can you hear me?

20 CHAIR CHAPMAN: Yes, I can, Jeff. You
21 can start with your name and affiliation.

22 MR. DEAN: Hello, my name is Jeff

1 Dean. I'm the owner for Timberlane Farms in
2 north central Ohio. I'm a producer of organic
3 corn, soybeans, wheat, sunflowers, and clover
4 seed.

5 I've been certified organic for over
6 25 years, and I've seen the industry grow and
7 change in many ways. We're growing at a pace
8 that induces many growing pains. I'm speaking
9 today because I'm concerned about the integrity
10 of organics being tarnished by fraudulent
11 imports, and the financial impact these imports
12 are having on current and future organic
13 producers.

14 Integrity is the most important thing
15 in organic production and sales. It's what
16 differentiates us and our products from
17 conventional commodity products. It's what holds
18 us together, it's what makes it all possible.
19 It's what consumers expect; they expect
20 integrity.

21 Lack of integrity will destroy our
22 market and end our industry, and that's what is

1 happening when you allow fraudulent grain imports
2 and grain product imports to enter our organic
3 food chain.

4 As a producer, I go through a lot to
5 verify our production and our handling. We are
6 held to high standards by certifiers and third-
7 party inspections. Importers and brokers need to
8 be held to the same standards.

9 If they are co-mingling grain, they
10 are mixing their products from different sources,
11 they need to be certified. If they're going to
12 make a mixed lot of different products, they need
13 to be certified just like a processor or handler,
14 and they should be required to have a paper trail
15 just like our producers are.

16 If they are certified, they'll get
17 some education about organic processes that I
18 think a lot of them don't really know -- the
19 whole organic process and how things are supposed
20 to happen

21 Transactions will be traceable; fees
22 could be assessed to them, and those fees could

1 be used for policing them at the ports. There
2 could be consequences for non-compliance, such as
3 loss of certification, which would deter non-
4 compliance. We need that action now. These
5 fraudulent imports have been going on for a
6 number of years. I traveled to Denver last year
7 to speak to you with the same concerns.

8 Consumers and producers, both organic
9 and non-organic, have told me they have seen
10 little to no action taken to deter the fraud and
11 uphold organic integrity. I appreciate you
12 looking into this matter, and I hope you can take
13 action soon to deter this. Thank you; if you
14 have any questions, please let me know.

15 CHAIR CHAPMAN: Thank you, Jeff. I
16 have a couple of questions, and if any other
17 Board members have questions, please raise your
18 hand.

19 Jeff, we've had some questions from
20 the public, and there's -- I'm not quite sure if
21 I got to your comments. I got that you
22 definitely feel strongly that importers should be

1 certified. I have a question: Do you yourself -
2 - and feel free not to answer if you don't want
3 to answer this -- but do you sell to uncertified
4 brokers, and do you feel that uncertified brokers
5 should be certified? I'll start with that
6 question.

7 MR. DEAN: I have sold to uncertified
8 brokers, and I feel that if a broker is both
9 taking possession of the product and co-mingling
10 it, if they're mixing lots and taking my products
11 and putting it on a truck and putting another
12 producer's product in the same thing or mixing or
13 co-mingling it, they need to be certified.

14 If they're just going to handle it,
15 just the paperwork, and they're taking my lot and
16 ship it to somebody else and sell it, they don't
17 need to be certified. We don't want to have to
18 have everybody who takes possession of a product
19 be certified, because we can't expect all grocery
20 stores to be certified organic.

21 We also can't expect all truckers to
22 be certified, because that would just destroy the

1 industry; we can't do that. But if they're going
2 to co-mingle a product -- if they're going to mix
3 my product, my corn, and mix it with somebody
4 else's corn, it's just like a handler or a
5 processor. They need to be certified, they need
6 to go through the same education and process that
7 any handler or processor would.

8 CHAIR CHAPMAN: So I hear your comment
9 on the co-mingling. If they were not going to
10 co-mingle, but they were going to take title --
11 is that an operation that you would think needs
12 to be certified?

13 MR. DEAN: I think it would help to
14 have some sort of certification, maybe not as
15 much as what a normal processor or producer would
16 go through, but some kind of certification
17 process would help.

18 But I want to make sure we don't cut
19 into grocery stores that are just handling
20 products. We can't expect them to be certified.

21 CHAIR CHAPMAN: Okay. And then we
22 also have questions around reporting acreage and

1 yield, and I was wondering if you had an opinion
2 on whether or not certified operations,
3 regardless of their location, should have to
4 report acreage yields, and whether or not there
5 were concerns or other confidential business
6 concerns around having that published in manner
7 that was connected back to the operation.

8 MR. DEAN: I think when you get
9 certified organic, you give up a lot of privacy,
10 and that's just part of it. As an organic
11 producer, I have to project my yields and project
12 my --

13 (Telephonic interference.)

14 MR. DEAN: I'm sorry, what was that?

15 CHAIR CHAPMAN: Sounds like someone
16 put us on hold, and we had some hold music there.
17 Sorry, Jeff. You'll have to go over that answer
18 again.

19 MR. DEAN: As an organic producer, we
20 give up a lot of privacy. We do put a lot of
21 information out in our applications. We have to
22 provide our acres, of course, and we have to

1 provide projected yields. A third-party
2 inspector comes to look at our production and our
3 yields to see if things match up.

4 It's something that needs to -- I
5 guess I agree that having those figures and that
6 information is a good thing and not a problem
7 with privacy.

8 CHAIR CHAPMAN: Thank you, Jeff.
9 Harriet, do you have a question?

10 VICE CHAIR BEHAR: Yes, I just
11 wondered if you have any economic impact that you
12 feel the lack of tracking on these imports has
13 had on your own farm?

14 MR. DEAN: Yes. I can tell you on
15 just corn alone, I produce about 20,000 bushels a
16 year, and it's affecting me right now about three
17 dollars a bushel. From what I've seen, and I've
18 been a farmer for a long time, all organic. I've
19 been a farmer for about 35 years, and over 25
20 years organic.

21 I've seen, over the last five or six
22 years, what the market has done, and when we

1 started getting the fraudulent imports in, it hit
2 our corn market \$3 to \$4 a bushel. A little bit
3 more last year than this year, so about \$3 a
4 bushel, \$60,000 just on corn. That's not
5 counting the other commodities. It's put us in a
6 real bind.

7 VICE CHAIR BEHAR: So just as a
8 follow-up, has that caused you to change what
9 you're planning to do this year, as far as what
10 you're planting or how many acres? Maybe going
11 to split production instead?

12 MR. DEAN: Well, it has affected us.
13 We're not able to grow our operation; we're not
14 seeing new farmers come on, growing organic.
15 We've been talking to a lot of neighbors and
16 other people, trying to encourage them to also be
17 organic producers. But when they see the reports
18 in the Washington Post, and they see the price
19 isn't as good as what it was, it really gives
20 them pause to join us and to take the leap to
21 become certified organic.

22 VICE CHAIR BEHAR: Thank you.

1 CHAIR CHAPMAN: Jeff, this one last
2 question on my part. How did you go about
3 tackling the economic harm? How did you
4 differentiate the harm caused by imports versus
5 just market shifts?

6 MR. DEAN: I'm not sure I understand
7 the question.

8 CHAIR CHAPMAN: I mean, the price for
9 a commodity will vary over time, based on a lot
10 of factors, supply and demand, for example.

11 MR. DEAN: Sure.

12 CHAIR CHAPMAN: How do you isolate it
13 to the impact that you're seeing?

14 MR. DEAN: Our corn price was hovering
15 around \$13 to \$14 a bushel for a number of years
16 for our cash price, and when we started getting
17 the imports, our price dropped immediately, and
18 we started looking into why.

19 Then we saw how much corn was imported
20 from Turkey. I believe they were importing a
21 million bushels a month. Our price dropped
22 immediately to their price, what it cost them to

1 bring it in. It was about \$4 a bushel. We're up
2 about a dollar a bushel from then, to about \$3 a
3 bushel right now.

4 CHAIR CHAPMAN: Great, thank you,
5 Jeff. Any other questions from the Board? I'm
6 not seeing any, so thank you very much again for
7 answering all of our questions.

8 MR. DEAN: All right. Thank you very
9 much for taking the time to listen. And one
10 other thing I might add: If you could have these
11 meetings not in the spring and not in the fall,
12 but maybe in January and in August, times when
13 farmers can attend meetings. That would be
14 greatly appreciated, so that we could get to the
15 meetings. It's very hard for us to attend a
16 meeting in mid-April or in the fall during
17 harvest.

18 CHAIR CHAPMAN: Thank you for the
19 feedback; we will consider that.

20 MR. DEAN: All right, thank you.

21 CHAIR CHAPMAN: Up next we have Sydney
22 Rosario. Sydney, I don't think we've identified

1 your phone number. So if you're here, Sydney,
2 let me know.

3 All right, so I'll skip past Sydney.
4 Up next, then, will be Elijah Dean. Following
5 Elijah Dean is Dean McIlvaine, followed by Jim
6 Gerritsen. Elijah, are you on the line with us?

7 MR. DEAN: Yes, can you hear me?

8 CHAIR CHAPMAN: Yes, I can. Elijah,
9 if you could start off with your name and
10 affiliation.

11 MR. DEAN: Okay. Hello, I'm Elijah
12 Dean. I am a young, third-generation farmer and
13 consumer of organic grain products. Our family
14 farm grows corn, wheat, beans, sunflowers,
15 clover, and a few other grains here and there.
16 We have about 550 acres.

17 I am calling today to address the
18 issue of imports and mainly the effects that
19 imports are having in the integrity of organic,
20 and how I feel that that could very negatively
21 impact the future of organic.

22 As you've just heard, I don't want to

1 parrot too much, but integrity is what sets
2 organic apart, and I am afraid that that is in
3 danger right now. I feel that the public does
4 not see anything really happening from the
5 legislative or executive side in deterring
6 fraudulent imports.

7 We keep seeing stories, say, from the
8 Washington Post of fraudulent imports coming in,
9 but we haven't really seen very many stories of
10 things that are being done against that.

11 I feel that one of the most important
12 steps that could be taken is strengthening the
13 paper trail that is needed for imports.

14 I think that it needs to be the same
15 standard as what domestic production is. Every
16 load of grain or commodity coming into this
17 country should be traceable back to every field
18 like it is for us.

19 They should have the same level of
20 transparency that U.S. producers must give. For
21 example, every single truckload that leaves our
22 farm has to leave with a bill of lading and copy

1 of our organic certification. But it is my
2 understanding, and I believe it's the public
3 perception, that organic imports do not need this
4 level of paperwork.

5 This is in place, as I'm sure you all
6 know, to protect the consumers, but also to
7 protect the processors so that if a problem
8 occurs, it can be traced back to the specific
9 producer and the specific field in which the
10 problem occurred. I feel that this level of
11 protection and safeguard should be in place for
12 both domestic and imported supply.

13 Also, I think it would be very
14 beneficial for there to be an official way to
15 flag either specific importers or specific
16 countries as being high risk. When such an
17 importer was flagged as high risk, they would
18 need to be subject to additional scrutiny in
19 everything, every import they brought in after
20 that. For example, maybe every 1,000 bushels,
21 they would need a test for GM contamination or
22 chemical contamination, which is, I believe, more

1 than they are required to do now.

2 Additionally, it could be beneficial
3 to make sure that they are doing some sort of
4 testing or very thoroughly-vetted paperwork
5 before they are even permitted to off-load into
6 the U.S.

7 These are just two examples of
8 safeguards that could be enacted with a high-risk
9 label for specific countries or importers. I
10 think that decisive action would be very, very
11 beneficial now and quickly, before the integrity
12 of organic is harmed any further than it already
13 has been. So thank you very much, and let me
14 know if you have any questions.

15 CHAIR CHAPMAN: Thank you, Elijah.

16 Any questions for Elijah?

17 MR. MORTENSEN: Tom, I have a
18 question.

19 CHAIR CHAPMAN: Yes, go ahead, Dave.

20 MR. MORTENSEN: I would just say that
21 we hear what you're saying. The Board is
22 spending a lot of time on this right now, and we

1 have a panel discussion that will be part of the
2 Tucson meeting.

3 We feel your pain; several of the
4 Board members were at a -- from about 50 or so
5 grain crop producers at the MOSA conference at a
6 special meeting about the same subject, so we are
7 trying to do what we can to move things along.
8 But we hear your message loud and clear.

9 MR. DEAN: Thank you.

10 CHAIR CHAPMAN: So, Elijah, you spoke
11 a little bit about putting additional controls on
12 regions or importers who are deemed risky. Do
13 you have any suggestions on what metrics are used
14 to determine whether or not they are seen as
15 being risky? How we come to that conclusion?

16 MR. DEAN: Yes. I believe that if a
17 region or an importer has already been caught
18 once, they need to be put on sort of a
19 probationary, high-risk flag for a set amount of
20 time, which could be maybe six months, maybe a
21 year.

22 Then if they are caught again, maybe

1 you would strengthen the restrictions. And if
2 they were caught a third time, revoke their
3 certification or their ability to import organic
4 grain. I believe that other countries in the EU
5 are doing similar things already.

6 CHAIR CHAPMAN: All right. Thank you,
7 Elijah. Any other questions for Elijah? I'm not
8 seeing any at this time. Thank you for your time
9 today.

10 MR. DEAN: Thank you.

11 CHAIR CHAPMAN: Up next we have Dean,
12 followed by Jim Gerritsen, and then Kenneth
13 Parker. Kenneth, if you're on the line, we
14 haven't found your phone number, so if you could
15 message that to us, that would be appreciated.
16 Dean, are you there?

17 MR. McILVAINE: Yes, my name is Dean
18 McIlvaine, I'm an organic grain farmer. I'm
19 calling from West Salem, Ohio at Twin Parks
20 Organic Farm, affiliated with the Ohio Ecological
21 Food and Farm Associations, certified since 1988.

22 Over the years we've seen continued

1 growth in the organic market; prices growing at
2 the same time because of the ever-increasing
3 demand. A couple of years ago, beginning in
4 2016, we saw that prices no longer grew, and they
5 started to fall. That marked the point where
6 imports seemed to have exploded.

7 Farmers recorded an estimated \$400-
8 million loss to organic grain growers since 2015,
9 much of this attributed to fraudulent imports. I
10 would hope that we could broaden and strengthen
11 the enforcement of the existing rules, expand
12 electronic tracking of shipments from overseas,
13 create a regular system for testing of all
14 shipments, and verify the yield potentials
15 through the certification process of the shipper.

16 These things should do a lot to cut
17 down on the fraudulent imports. I'm also in
18 favor of adoption and enforcement of the animal
19 welfare and livestock access to viable pasture.
20 Even in northern Ohio we know that the animals
21 enjoy the out of doors in the worst of weather.

22 Organic success has been our own

1 demise, I believe, with the temptation for people
2 to cheat at all levels; therefore, we need to
3 assist transitioning farmers, continue the cost-
4 share incentives. And the best place to do this
5 is by converting existing chemical farms, not to
6 take out native land into cultivation.

7 I'm also concerned that upstream
8 violation in the supply chain should not fall as
9 a burden on the farmer to verify when he buys
10 seeds that are labeled organic with the USDA
11 seal. If that's not truly labeled, the farmer
12 who inadvertently planted those seeds should not
13 be the one suffering the cost.

14 Just as farmers who experience drifts
15 should not bear the cost of that drift on their
16 farms. The burden and the expense should be put
17 back on the propagator of the crime.

18 CHAIR CHAPMAN: Thank you, Dean. Any
19 questions for Dean? Harriet, I see your hand
20 raised.

21 VICE CHAIR BEHAR: Hi, Dean. Thank
22 you for integrating all of the different items

1 that we have for -- well, not all, but many. I
2 just think that it's interesting from a National
3 Organic Standards Board member view that we do
4 see that it's one big system, and what happens in
5 one place affects the other. So thank you for
6 your thoughtful comments.

7 MR. McILVAINE: Much appreciated.

8 CHAIR CHAPMAN: Thank you. Any other
9 questions for Dean? Okay. Thank you, Dean, for
10 your time. Up next we have Jim Gerritsen,
11 followed by Kenneth Parker. Again, Kenneth, if
12 you are on the line, let us know, because we
13 haven't identified your phone number. After
14 Kenneth will be Kim Dietz. Jim, are you with us?
15 Jim, if you're talking, you're on mute. I see
16 your headset.

17 MS. ARSENAULT: I see Jim's name on my
18 list twice, but I think both lines may be muted.

19 MR. GERRITSEN: Okay, can you hear me?

20 CHAIR CHAPMAN: Yes, we can, Jim, go
21 ahead and start with your name and affiliation.

22 MR. GERRITSEN: Okay. Yes, Jim

1 Gerritsen, I'm a farmer. My family owns and
2 operates Wood Prairie Family Farm in the state of
3 Maine, a two-generation organic seed farm.

4 I'm also president of OSGTA, Organic
5 Seed Growers and Trade Association, but today
6 I'll be speaking on behalf of our farm. I'm also
7 a member of the Real Organic Project Standards
8 Board, and just reiterate what Dave Chapman spoke
9 of. He reflects the sentiments of myself and
10 other members on the Standards Board.

11 We've been farming organically for 43
12 years; we've been certified by MOFGA for 36
13 years, and that should have been 39 years. In
14 1979, a month after we submitted our first
15 organic farm plan to get certification, we were
16 accidentally sprayed by the State of Maine in a
17 four-million-acre spruce budworm suppression
18 project. We were sprayed and our land became
19 unqualified for organic certification for 36
20 months. So we began the process anew in 1982, so
21 we've been certified for 36 years.

22 But I wanted to reiterate and support

1 the comments of Steve Walker about the concern of
2 organic farmers being held wholly responsible,
3 not only for transgenic contamination, but also
4 for chemical trespass.

5 The fact is, with OSGTA, we have
6 members who are certified organic seed farmers
7 who are now facing annihilation from
8 contamination by Dicamba and 2, 4-D. Whether
9 these farms are going to be able to continue
10 farming or not is there, because the federal
11 government is falling down in its responsibility
12 for protecting all farmers, not just larger
13 corporate farmers.

14 So one of the things that I want to
15 speak to is the native habitat issue. It brings
16 into play on our farm. We farm 56 acres, and
17 over the last 40 years, we've cleared the bushes
18 and trees off 37 of those acres. Through the
19 liquidation of family farmers, it began in the
20 years around World War II, a lot of land in
21 northern New England that was once farmed has
22 gone out of production and has reverted back to

1 trees.

2 So we cleared those trees off because
3 we needed a greater land base to farm. So I'm
4 concerned that we need to be smart about our
5 definitions of what a valuable ecosystem is and
6 make sure that we're not taking former farmland
7 that has simply grown up.

8 That is not what I would consider
9 high-value native ecosystems, and I think it's
10 important, especially the land tenure crisis
11 faced by especially young farmers now. There may
12 be, on a macro basis, plenty of land out there
13 that ought to be converted to organic, but that
14 is not land owned by family farmers. Family
15 farmers should have the right to take land that
16 is not high-value ecological land and convert
17 that back to farm productions if it was
18 originally farm production.

19 I'd be happy to take any questions if
20 there are any.

21 CHAIR CHAPMAN: Thank you, Jim. Any
22 questions from the Board? Harriet?

1 VICE CHAIR BEHAR: Yes, hi, Jim. How
2 many years would you say that the shrubs and
3 trees that you took out -- how many years had it
4 been since it had been formerly farmland?

5 MR. GERRITSEN: Well, for the most
6 part you can track it by when our neighbors went
7 bankrupt. One was in the mid-1960s, and the
8 bushes and trees started growing in after that.

9 We did clear one four-acre field 10
10 years ago, and we counted the rings on one of the
11 bigger trees, and there were 75 rings. So that
12 indicated they went bankrupt in the 1930's
13 Depression.

14 CHAIR CHAPMAN: Ashley?

15 MS. SWAFFAR: Hi, Jim. I actually
16 share and think in terms that you do, and I was
17 just wondering if you had any suggestions on what
18 you would like to see in the subcommittee
19 proposal that could address your concerns?

20 MR. GERRITSEN: Well, I've read the
21 National Organic Coalition's comments, and I
22 think they're doing a good job of getting there.

1 But it's going to come down to definition, and I
2 think you're going to have to differentiate high-
3 value native ecosystems from something that is
4 not high value, which would be medium or low
5 value.

6 And I would argue that a lot of the
7 overgrown lands here -- for example, the trees
8 that we cleared off were primarily poplar. These
9 are pioneer species; it was very thick poplar,
10 probably 10 stems per square yard. And this in
11 no way could have been characterized as high-
12 value ecosystem.

13 I'm just afraid that if you don't have
14 a good definition, you're going to unnecessarily
15 tie the hands of organic family farmers that are
16 trying to make a go in a very difficult economic
17 environment. Many of us in New England are
18 limited in the land we have that we own. If we
19 can convert high, dry ground in to farmland,
20 especially that used to be farmland, I don't
21 think there should be restrictions on us doing
22 that.

1 CHAIR CHAPMAN: All right. Ashley,
2 did you raise your hand again?

3 MS. SWAFFAR: Yes, I have a follow up.
4 So, Jim, it makes me wonder, do you think we need
5 this proposal at all, or are you saying we need
6 it, but we need to define the high value, low
7 value?

8 MR. GERRITSEN: I think it's generally
9 a good proposal and does reflect the values we
10 have within the organic community. But I hear
11 the arguments offered on a macro level; I'm
12 talking about taking millions of acres -- and
13 frankly, family farmers don't farm on millions of
14 acres. We farm on 50 acres, 100 acres, on that
15 kind of a scale. And land that we have --
16 nowadays in many areas, the cost of farmland is
17 becoming far in excess of what family farmers
18 earning their living from farming can pay for the
19 land.

20 So if we've got land that we currently
21 own that could be used at a higher value,
22 producing organic crops, I feel that we should be

1 allowed to do that. Talking about turning native
2 prairie -- high ecological value land -- that, I
3 think, ought to be what the focus should be on.

4 So I think that overall, it's a good
5 concept, but I just want to be careful that
6 you're using a scalpel in defining and limiting
7 the rights of family farmers, and not a cleaver.

8 CHAIR CHAPMAN: Emily?

9 MS. OAKLEY: Can you hear me, Tom?

10 CHAIR CHAPMAN: Yes.

11 MS. OAKLEY: So, Jim, I have read some
12 comments similar to yours from other producers,
13 and I wanted to clarify that I think, in many
14 instances, especially the land that you're
15 describing, I don't think the native ecosystems
16 that we have proposed. I don't think our
17 intention is to limit producers' access to land
18 that might still be very marginal in terms of its
19 restoration.

20 So I just wanted to try to alleviate
21 those concerns and to further elaborate. I think
22 what we're talking about is fully-recovered

1 native ecosystems, and what you're describing to
2 me does not seem to meet that definition.

3 MR. GERRITSEN: Yes, we're up in
4 northern Maine, and the land that we farm here
5 was first cleared right before World War I. So
6 of the 100 years that the land here has been
7 cleared and farmed, we've been farming it
8 organically for over 40 years.

9 As you head further south in Maine and
10 in New England, you get a longer period of time.
11 So I'm just worried; I know of one farmer --- I
12 know of one farmer in southern Maine that is --

13 MS. ARSENAULT: Jim, this is Michelle.
14 Can I interrupt you for one second? If you're
15 not speaking, can you make sure your speaker is
16 on mute, so we can minimize background noise?
17 Thanks.

18 MR. GERRITSEN: Okay. I know of one
19 farmer, for example, in southern Maine, a MOFGA-
20 certified organic farmer who is trying to turn
21 some of their woodlot, which was formerly farmed,
22 into farmland to expand their livestock

1 operation. And knowing the history down there,
2 I'm sure that it's longer than the 75 years that
3 we're facing of regrowth here.

4 I guess what I feel the right thing to
5 do is to respect the private property rights of
6 family farmers and give them the latitude to make
7 that decision. The fact is, all of us that came
8 into organic farming 40 years ago were highly
9 motivated by a land ethic, and that land ethic
10 remains.

11 I think you can place trust in
12 authentic family farmers to do a good job
13 managing their farms, and I am just concerned
14 that we not take a broad definition that could
15 restrain the viability of family farms that are
16 doing a good job. They know their farms better
17 than anyone else. So let's give them that
18 ability to make viable farms for their
19 communities.

20 CHAIR CHAPMAN: Thank you, Jim. I am
21 not seeing any other questions at this time;
22 thank you for your testimony.

1 MR. GERRITSEN: Thank you.

2 CHAIR CHAPMAN: So up next we have Kim
3 Dietz. Kim is the last person in the row. After
4 Kim, we'll go back through the list and call on
5 anyone that we missed. If they're on the line
6 now, we'll give them a chance to speak. There
7 are five of them, so I'll go through that after
8 Kim speaks. Kim, are you here with us?

9 MS. DIETZ: I am, Tom. Can you hear
10 me okay?

11 CHAIR CHAPMAN: We can, Kim. You can
12 start with your name and affiliation.

13 MS. DIETZ: Okay. Good afternoon, my
14 name is Kim Dietz, and I'm a Senior Manager for
15 Organic Policy for the JM Smucker Company. Our
16 company produces organic products under a variety
17 of different brands.

18 I first served on the NOSB from 2000
19 to 2005 as a handler representative, chair of the
20 materials committee and board secretary, so I
21 appreciate all of your hard work and have been in
22 your shoes, so again, thank you for everything

1 you do.

2 Today I also serve as president of the
3 Organic Trade Association and co-chair alongside
4 Gwendolyn Wyard for the Global Organic Textile
5 Standard Liberty Task Force Committee. That's a
6 mouthful. My comments today emphasis the support
7 for the (telephonic interference) and the
8 importance of establishing import oversight with
9 an emphasis that fraud cannot be tolerated in the
10 organic system.

11 Smuckers supports a risk-based
12 approach that should be followed, and we ask that
13 the NOSB also take that into consideration. Our
14 company imports many organic ingredients, and we
15 believe that a good organic system plan and a
16 quality supplier program based on risk should
17 definitely address the supply chain and fraud
18 concerns.

19 I appreciate you taking up this issue
20 and look forward to discussing this with you next
21 week in Arizona.

22 Materials, I'm just going to comment

1 on a few materials. We support the continued use
2 of the handling subset materials, and I have
3 submitted the majority of my comments alongside
4 fellow OTA members.

5 But specifically, I just want to
6 emphasize the gums. We currently use gums in
7 some of our beverages, and there are different
8 gums that are needed based on the formula
9 variations, so I just want to make sure you
10 understand that one gum is not going to serve the
11 function for all products. It depends on the
12 viscosity of the product, and the heating and
13 cooling and a number of different factors. So
14 commercial availability and the ability to use a
15 variety of gums is very important.

16 Also, I just want to make a comment
17 about the proposed docket that is out there,
18 specifically around flavors, and my comments are
19 in support of the NOSB recommendation to change
20 the annotation for flavors.

21 I can tell you that as a fellow board
22 member from when I started on the Board in 2000,

1 I've always been an advocate to use organic
2 flavors. In fact, our company developed the
3 first certified organic flavor in the 1990s.
4 We've always been dedicated to using organic
5 flavors and have always used them in all of our
6 products, never conventional flavors. Today we
7 purchase hundreds of certified-organic flavors,
8 and we have never had a problem sourcing any of
9 those.

10 So while I've been a personal
11 advocate, I feel strongly that the annotation's
12 change is critical for the advancement of
13 organics, specifically I want to make sure that
14 we have that commercial availability, so we can
15 continue to grow the industry. But I do feel
16 that it's important that we have to have this
17 annotation change.

18 So that's really all I have to say.
19 Thank you.

20 CHAIR CHAPMAN: Thank you, Kim. Any
21 questions for Kim? Kim, I have a question for
22 you. So the OTA and the GOTS task force came out

1 with some pretty good recommendations related to
2 industry practices to reduce the risk of fraud in
3 the supply chain, and I didn't know if you had
4 any feedback for what role the NOSB has in
5 encouraging, facilitating, pushing the adoption
6 of those practices. What role do you see the
7 NOSB having in relation to that?

8 MS. DIETZ: Yes. We've been asked
9 that question, so if we have this best practice
10 guide or we have guidelines, how do we make sure
11 that folks do it? While it's going to take peer
12 pressure from all of us to say that this is the
13 right thing to do, I also think the NOSB could
14 endorse it. Perhaps we could have some type of
15 best practices guide as well, through the NOSB.
16 I think that would be very helpful.

17 I don't know how we could actually
18 force people to do it, although, as mentioned
19 earlier, somewhere during the inspection process
20 or on the certifier end, that they review
21 something like a best practice guide or risk-
22 based approach, if that makes sense to you.

1 CHAIR CHAPMAN: Thank you. Yes, I'm
2 just looking for suggestions of ways we could
3 implement it. It sounds like training, maybe
4 guidance is what you're saying.

5 MS. DIETZ: Yes.

6 CHAIR CHAPMAN: Any other questions
7 for Kim? Seeing none, Kim, thank you for your
8 time.

9 MS. DIETZ: You're welcome.

10 CHAIR CHAPMAN: So right now we'll run
11 through the public commenters who we moved over.
12 I'll call them one by one. If they're here,
13 we'll take their testimony; otherwise we'll move
14 on.

15 So up first was Robert Landers;
16 Robert, are you here with us now? I'm not
17 hearing anything, so we'll move on to Domenico
18 Tassone. Domenico, are you here with us? Not
19 hearing anything. Up next is Sam Raser. Sam,
20 are you with us?

21 MR. RASER: I am, and thank you for
22 coming back to me.

1 CHAIR CHAPMAN: All right, Sam. Could
2 you start with your name and affiliation?

3 MR. RASER: Yes, you bet; Sam Raser,
4 I am with Grain Millers, Inc. in Eden Prairie,
5 Minnesota. I have been an organic grain buyer
6 for 10 years now, and currently I manage all of
7 our organic grain procurement for all of our
8 mills in North America. So we are one of North
9 America's largest organic grain processors. We
10 have been in the market since the '80s, and we
11 have over 700 employees working with organic
12 grain on a daily basis. We are committed to the
13 industry and constantly working to help improve
14 it.

15 I've been fortunate to work on the
16 fraud task force, so I'm just going to list off a
17 couple of their recommendations that we support,
18 and feel will be nice steps in the right
19 direction.

20 One of them would be adopt and
21 implement the GOS CI best practice guide. I've
22 read through it, and even a company like

1 ourselves, who we feel is ahead of the curve, I
2 do feel like they have done an excellent job of
3 making even a company like ours think outside the
4 box and look at programs differently.

5 One would be to require ACAs report
6 aggregate production areas certified by crop and
7 land location on an annual basis. I understand
8 the risk involved with giving that data out if
9 you are a farmer; it's a slippery slope, but as a
10 grain buyer, having that data available really
11 puts things into perspective as far as if farmers
12 are over-shipping us.

13 It could really throw out -- if we
14 only have this much organic acreage, we shouldn't
15 be able to buy more than a certain percentage of
16 that. Again, I know that is not as clear as
17 1,2,3, but I think that would be something that
18 would help.

19 Improve the timing and communication
20 around the NOSB complaint system. Generally
21 speaking, a solid complaint system is going to be
22 very good in helping our industry self-police

1 itself. It could be very efficient if done
2 properly. It's one thing for us to sit and
3 complain about it, but we need to be able to give
4 the proper people the right information and in a
5 safe manner, and in a manner that they can
6 distinguish what's good information and what's
7 bad information.

8 Increase licensed certifiers and
9 inspectors. Inspectors should be licensed for
10 the scope and scale of operations they are
11 inspecting, and licenses should be issued by
12 organizations that have obtained an appropriate
13 ISO accreditation. Inspectors should be trained
14 and capable of carrying out mass balances in
15 order to verify that quantities shipped sold are
16 justified by ingredient products received and
17 produced.

18 The mass balances part of that is
19 really important. It needs to be moving forward;
20 we get into some really big, long, complex trade,
21 especially when you start looking at imports, and
22 we need to be prepared and trained to go through

1 that information to make this a quick -- let's
2 say audit -- on our systems.

3 That kind goes back to the second item
4 I mentioned on ACA reporting aggregate
5 production. I think if all the data is there, it
6 will be a lot easier for us to go through it.
7 But I do feel like certifiers need that training
8 and that authority to go through mass balances.

9 Increase use of testing for imports
10 and other high-risk products. I think that adds
11 a lot of cost, or could add a lot of cost to what
12 we do in our system, but so do bad press reports
13 that devalue our brand. So if everybody is held
14 to the same standard, costs might go up, but
15 costs might go up for everybody, and I think
16 that's fair. That's it.

17 CHAIR CHAPMAN: All right. Thank you
18 for your testimony. Any questions for Sam? All
19 right, so Sam, if I was interpreting your
20 statements correctly, you are in full support of
21 the OTA's recommendations. You think those are
22 the best approaches to mitigate these --

1 MR. RASER: I think if it's a very
2 well-thought-out document and it has a lot of
3 input from industry, all aspects of the industry
4 -- I came into it about halfway through the
5 process, but I've seen both sides, the OTA side
6 of things, and I can tell you the OTA has done an
7 excellent job of putting all that data together.

8 CHAIR CHAPMAN: And then another
9 question, I know you guys have worked with
10 imports in the past. There were some specific
11 questions we had around certification of ports,
12 and whether ports who handle the loading and
13 unloading of unpacked grain should be certified,
14 or if certification is required. Do you have an
15 opinion on that?

16 MR. RASER: Yes, we would never even
17 think about bringing in, at least from a bulk
18 grain standpoint -- which is where my experience
19 lies -- we went through the process of certifying
20 everybody who was involved as far as actually
21 handling it outside of freight. So the actual
22 ports that we've used in bulk grain were

1 certified. I don't see any reason why that
2 shouldn't be a mandatory thing. To be honest, I
3 didn't even know that people were doing it in
4 uncertified ports.

5 That might be a little bit trickier
6 once you start at the container levels, so I'd
7 have to look into that further.

8 CHAIR CHAPMAN: Okay. Another
9 question is about documenting their organic
10 status on documents. One specific one we asked
11 about was phytosanitary certificates. Do you
12 foresee there being an issue with us requiring
13 organic status to be on something like a
14 phytosanitary certificate?

15 MR. RASER: I think that's an easy
16 thing for us to accomplish. Well, I shouldn't
17 say that. Maybe it isn't as easy as what I think
18 it is, but the more we can put it on paperwork,
19 the better. But in the back of my head, I don't
20 think that the paperwork is the problem. I think
21 it is a much bigger issue than just the
22 paperwork. I think that's a small step, but I

1 don't think that's going to have an overwhelming
2 warm, fuzzy feeling that we're all looking for.

3 CHAIR CHAPMAN: Okay. Any other
4 questions for Sam? Not seeing any, Sam, thank
5 you for your time today.

6 MR. RASER: Thank you.

7 CHAIR CHAPMAN: We'll just keep going
8 through the list. I understand we have Sydney
9 Rosario. Sydney, are you here? And hearing no
10 Sydney, up next Kenneth Parker. Kenneth, are you
11 here?

12 MR. PARKER: Yes, good afternoon. I
13 am here.

14 CHAIR CHAPMAN: Oh, Kenneth you are
15 here. You're our last speaker; you've got three
16 minutes, and you can start with your name and
17 affiliation.

18 MR. PARKER: Sure, thank you. Good
19 afternoon, I'm Kenneth Parker. I'm the Executive
20 Director of the Florida Strawberry Growers
21 Association, and thank you for allowing me to
22 address this National Organic Standards Board,

1 specifically concerning Polyoxin D zinc salt for
2 organic use.

3 The FSGA constitutes all of the
4 organic acreage and nearly 100 percent of the
5 conventional acreage in Florida. As you might
6 know, Florida's climate is not the most ideal
7 environment for producing organic strawberries;
8 however, the organic fruit that is marketable is
9 remarkable.

10 The Florida growers would benefit
11 greatly from an additional tool to manage
12 pathogens. Polyoxin D zinc salt is proven to
13 have some activity in suppressing botrytis in
14 strawberries. Botrytis is a major fungal
15 pathogen that causes the most significant
16 reduction in marketable yields here.

17 The FSGA respectfully asks for your
18 acceptance of Polyoxin D zinc salt as a tool to
19 help combat fungal pathogens in the organic
20 production of specialty crops and strawberries in
21 Florida. And with that, I want to thank you for
22 your consideration.

1 CHAIR CHAPMAN: Thank you, Kenneth.
2 Any questions for Kenneth?

3 MR. BUIE: Yes, this is Jesse.
4 Kenneth, can you provide us with some
5 documentation of the efficacy of this Polyoxin D?
6 That's one of the concerns that we're seeing, is
7 how do we know that this works?

8 MR. PARKER: Well, I'm glad you asked
9 that. In fact today we just had our first day of
10 a two-day event we call AgriTech, where we have
11 all of the researchers from all the disciplines
12 that concern strawberries from the University of
13 Florida present research data from this season
14 that just ended.

15 I had the opportunity to talk to our
16 lead pathologist, Dr. Natalia Perez, and she does
17 have some work. Every year she conducts studies
18 on efficacy of products, and she included
19 Polyoxin D zinc salt in the study from last year.
20 She has that information; I don't have it in my
21 possession, but I can get it for you. That's not
22 a problem whatsoever.

1 MR. BUIE: Okay. Can you get that to
2 Michelle?

3 MR. PARKER: I certainly can. Now, is
4 Michelle the person who sent the emails to us, or
5 is that someone else?

6 MS. ARSENAULT: I am, yes. I am the
7 one who sent you the schedule and all of that, so
8 you should have my email address.

9 MR. PARKER: Okay, yes, Michelle, I'd
10 be happy to do that. It's not the best tool that
11 we have for conventional, but it's certainly in
12 the toolbox for rotation. So if it qualifies for
13 organics -- we virtually have nothing for
14 organics, so anything that has some activity
15 would greatly benefit the organic producers here.

16 CHAIR CHAPMAN: All right. Thank you,
17 Kenneth. Any other questions? I'm not seeing
18 any at this time, so again I thank you for your
19 testimony today.

20 MR. PARKER: Thank you.

21 CHAIR CHAPMAN: With that, that
22 concludes our public commenters for today,

1 Tuesday. We'll start again same time on
2 Thursday, and then our meeting will be the
3 following week starting on Wednesday in Tucson.

4 Thank you everyone for your time today
5 and your public comments. Thank you to the Board
6 members for your attention and questions, and I
7 hope everyone has a great day.

8 (Whereupon, the above-entitled matter
9 was concluded at 3:41 p.m.)

10
11
12
13
14
15
16
17
18
19
20
21
22

- 12:12,21 13:21 14:1
14:10 32:8 68:16 82:3
130:4 135:12 144:10
called 23:16 79:19
calling 4:21 5:16 64:21
112:17 117:19
Canada 69:21 70:2
100:19 101:3,5
candid 29:2
cane 87:20
capable 49:10 138:14
carbon 61:11 63:8,12
63:16 72:11
carbonate 41:8
cardboard 78:1,2 79:22
79:22 81:15,20
careful 90:10 127:5
carefully 48:10
carrageenan 75:5,15
carrageenans 18:11
carry 17:8
carrying 138:14
case 18:4 77:18 87:20
88:7 92:2
Casey 38:21 45:13,13
50:5,10,14 53:18,19
55:22 56:2
cash 110:16
catch 10:22 79:2
categories 81:9
categorize 49:6
category 43:7
caught 52:22 116:17,22
117:2
cause 75:20
caused 20:1 109:8
110:4
causes 63:12 143:15
CCOF 46:1,6,8,11,12
47:11,17 48:1 49:11
65:6,14 66:1
central 102:2
centuries 27:2
certain 21:6 27:6 42:3
137:15
certainly 32:17 90:20
145:3,11
certificate 100:12
141:14
certificates 141:11
certification 28:11
35:18,21 46:4 47:15
47:21 65:6 68:8 83:22
94:20 95:3,5,8,9
96:11 97:3,17 98:7,12
99:21,22 100:21
104:3 106:14,16
114:1 117:3 118:15
121:15,19 140:11,14
certifications 47:21
48:2 94:13
certified 23:6 24:5 46:2
92:13 94:9,12 95:9
96:16 97:5,7,11,12
98:4,17,22 99:5,21
102:5 103:11,13,16
105:1,5,13,17,19,20
105:22 106:5,12,20
107:2,9 109:21
117:21 121:12,21
122:6 128:20 133:3
137:6 140:13 141:1
certified-organic 133:7
certifier 46:16 47:18
69:10 77:21 134:20
certifier's 74:1
certifier-specific 49:22
certifiers 26:5 29:14
34:8 47:7,14 49:8
103:6 138:8 139:7
certifies 28:11
certify 73:12 79:17
certifying 140:19
chain 34:21 77:19
92:21 93:5,21 94:12
94:14,17,19 95:21
97:9 98:6 103:3 119:8
131:17 134:3
chains 77:16,22
chairing 8:15
challenged 85:4
challenges 29:10
challenging 48:5
chance 130:6
change 20:2 36:22
60:21 61:17 62:22
63:8,18 98:11 102:7
109:8 132:19 133:12
133:17
changed 71:21
changes 93:17
chapter 28:18,22
characteristic 27:5
characterized 125:11
Charlotte 12:9 14:20,21
15:2,6 18:22 19:1,11
21:9,12
chat 5:14,18 45:16
cheat 119:2
checking 54:17
chemical 76:15,22
114:22 119:5 122:4
chemicals 22:20
cherries 40:1
chloride 42:17
choir 74:6
CI 136:21
claiming 72:5
clarification 13:11
clarify 38:9 67:15 90:10
127:13
clean 61:10
clear 6:21 18:3,5 44:2
80:3 89:13 116:8
124:9 137:16
cleared 122:17 123:2
125:8 128:5,7
clearly 34:15 54:15
clearly-defined 75:12
cleaver 127:7
climate 60:21 61:17
62:21 63:8,18 143:6
close 8:13 28:19
closely 30:3
closing 48:7
clover 102:3 112:15
co-chair 131:3
co-existence 74:4,11
75:3 76:16,21
co-mingle 106:2,10
co-mingling 103:9
105:9,13 106:9
coalition 28:8 33:11
Coalition's 124:21
Coast 91:3
code 64:19 93:8,10
codes 93:6,14,16
cognizant 36:1
cold 78:20
coli 54:3,9 55:15
collaboration 33:19
colleague 18:18
colleagues 8:11
combat 143:19
come 13:1 27:7 32:17
54:14 71:18 109:14
116:15 125:1
comes 32:10 54:16
108:2
coming 12:11 20:19
31:15 113:8,16
135:22
comment 1:5 3:9,13
7:15 8:21 11:21 12:8
12:14 13:4 65:9 69:20
70:20 73:21 82:18
92:18 106:8 131:22
132:16
commenter 5:3 12:17
13:12 22:4 27:20
commenters 13:16
14:4,6 135:11 145:22
commenting 46:3
65:12
comments 2:18 4:7
5:18 7:19 8:8 12:4
13:13 14:6,19 18:16
18:20 33:1 34:19
43:21 44:21 57:20
58:22 64:13 66:7
69:13 70:3 72:21 86:1
89:11 92:16,17 96:9
97:16 104:21 120:6
122:1 124:21 127:12
131:6 132:3,18 146:5
commercial 41:14
132:14 133:14
commercially 18:14
69:18 70:1
Commission 86:12
88:15,19
commitment 15:9
39:12 83:22
committed 52:12
136:12
committee 8:6 35:4
130:20 131:5
commodities 92:14
94:3 99:4 100:18
109:5
commodity 95:18 97:22
98:10,11 100:5
102:17 110:9 113:16
commonly-used 65:17
communicate 82:10
95:22
communication 137:19
communities 129:19
community 28:15 29:20
30:17 66:12 74:11
80:10 126:10
companies 38:11,12
72:5 99:3
company 69:21 130:15
130:16 131:14 133:2
136:22 137:3
comparable 26:7
compared 78:15 88:1
compatible 41:22
competency 46:21
compiled 95:18
complain 138:3
complaint 137:20,21
complete 46:9,13 67:10
completely 96:20
complex 27:8 48:19
49:3,16 138:20
complexity 24:2
compliance 24:14
29:18 46:3 95:4 104:4
complicated 47:13
complications 99:2

components 50:21
composition 37:1
compost 81:10
compostable 69:10
composting 80:1
compromising 57:13
computer 43:18
concentrated 41:15
concept 127:5
concern 23:11 31:6
 37:17 81:13 122:1
 144:12
concerned 15:22 36:3
 38:1,5 75:2 102:9
 119:7 123:4 129:13
concerning 56:21
 66:13 143:1
concerns 67:6 104:7
 107:5,6 124:19
 127:21 131:18 144:6
concerted 93:15
concluded 14:13 51:21
 146:9
concludes 145:22
concluding 52:4
conclusion 116:15
conditions 91:4
conduct 53:2 96:21
conducted 51:6 86:17
conducts 144:17
conference 116:5
confidence 75:19
confidential 107:5
confirm 68:14,16
confirmed 69:22
conflicting 34:7
confronting 77:1
confused 41:13
confusing 29:13
confusion 89:13
Congress 85:4
connect 94:6
connected 107:7
connection 26:13
Connor 56:4 59:11,14
 59:19,20 62:11 63:7
consequences 104:2
conservation 22:15
 25:8
consider 20:14 30:10
 41:20 48:11 57:21
 58:21 62:7 67:7 82:13
 111:19 123:8
consideration 30:16
 89:4 131:13 143:22
considerations 51:17
considered 18:1 26:22
 37:11 62:18

considering 18:16
 55:10
considers 54:6
consistency 34:7
consistent 29:9 33:11
 93:2
consistently 20:9 93:1
constantly 136:13
constituents 67:16
constitutes 143:3
consult 7:22
consultant 44:9 54:14
 55:18
consultants 55:16
consumer 15:7,11
 16:16 18:19 19:13
 63:3 64:1 75:13
 112:13
consumers 15:13 16:11
 16:17 17:16 18:18
 19:18 20:6,11,13,15
 20:18 21:5 24:1 64:2
 102:19 104:8 114:6
consumers' 16:7
consumption 53:2
contacted 79:16
contain 27:4
contained 81:7
container 34:5 58:5
 141:6
contamination 52:11
 74:13 114:21,22
 122:3,8
content 69:18
continual 76:2
continue 17:10,15 36:4
 42:14 66:16 70:22
 73:19 74:21 85:8,10
 119:3 122:9 133:15
continued 40:7,19 95:1
 117:22 132:1
continues 24:8
continuing 46:14 65:8
continuous 49:7
contracted 46:8,13
contracting 47:8
contracts 46:6
contrary 57:9
contribute 93:10
control 34:21 39:20,21
 40:10,16 42:3 61:11
 87:12
controlled 74:15
controlling 87:16
controls 87:19 116:11
convenient 18:3
conventional 22:18
 70:20 71:3,6 74:5

86:22 87:18 88:12
 102:17 133:6 143:5
 145:11
conventionally 60:19
conversation 32:18
conversations 31:19
conversion 62:9 63:5
 63:11
convert 17:13 56:22
 60:1 123:16 125:19
converted 23:14 25:10
 63:10 123:13
converting 24:9 119:5
cooling 132:13
copy 113:22
corn 102:3 106:3,4
 108:15 109:2,4
 110:14,19 112:14
Cornucopia 56:16 57:1
 57:19
corporate 122:13
Corporation 51:6 52:12
correctly 100:2 139:20
cost 35:18 60:9 110:22
 119:13,15 126:16
 139:11,11
cost- 119:3
costs 35:21 139:14,15
Council 88:20
counted 124:10
counting 109:5
countries 16:15 70:17
 96:2 114:16 115:9
 117:4
country 70:18 78:21
 101:4 113:17
couple 55:15 67:14
 104:16 118:3 136:17
course 97:20 107:22
cows 16:6
craft 94:22
crafted 95:6
crashed 30:21
create 15:13,16 41:15
 83:14 94:15 99:2
 118:13
creates 47:13 51:1
creating 93:4
creation 47:11
crime 119:17
crisis 31:14 36:7
 123:10
criteria 18:2,7 46:18
critical 35:19 36:10
 40:14 60:4 61:9 84:8
 133:12
crop 38:3 39:19 40:10
 51:16 57:12 63:11

65:13 66:7 82:3 95:12
 116:5 137:6
cropped 63:14
crops 39:15 41:18 58:5
 65:19 67:2 87:9 95:18
 95:19 126:22 143:20
crucial 94:21 95:15
culling 53:8
cultivated 60:14
cultivation 119:6
cumbersome 37:18
 47:13
cure 57:17
current 30:7 34:16
 39:11 42:15,20 58:15
 81:9 86:21 88:1
 102:12
currently 30:12 40:8
 41:18 42:4,6 43:3
 58:17 87:2,11 90:13
 94:9,21 100:15
 126:20 132:6 136:6
curtail 96:20
curve 137:1
customers 83:18
cut 106:18 118:16
cutting 26:9
cycle 42:16
cynicism 75:3

D

D 41:21 86:17 88:1,11
 89:11,12,17,18 143:1
 143:12,18 144:5,19
D.C 35:2 76:13
daily 136:12
dairy 23:12 29:18 36:3
 36:8,10
damage 75:19
damaged 26:1 84:1
damaging 67:2
Dan 1:16 11:2 36:17,19
danger 113:3
data 66:16 137:8,10
 139:5 140:7 144:13
database 95:15
Dave 1:15 10:2,5 73:8
 76:10 77:8 82:21 83:1
 83:4,6 85:21,22,22
 115:19 121:8
day 11:1 39:8 78:16
 144:9 146:7
De 1:14 9:19,20
deal 16:13 20:1 28:20
 41:3,6 48:20 89:5
dealing 38:3
deals 100:18
dealt 16:10

Dean 86:4 91:21 92:4
101:15,18,19,22
102:1 105:7 106:13
107:8,14,19 108:14
109:12 110:6,11,14
111:8,20 112:4,5,5,7
112:11,12 116:9,16
117:10,11,16,17
119:18,19,21 120:9,9
decades 27:2
decided 94:20 96:17
decision 75:16 77:15
129:7
decisions 21:3 47:8
75:9 95:21
decisive 115:10
deck 12:10 13:1 69:3
86:4
declining 61:14
dedicated 76:2 133:4
deemed 116:12
deepening 76:19
define 126:6
defined 57:12
defining 127:6
definitely 98:18 104:22
131:17
definition 57:2 62:16
125:1,14 128:2
129:14
definitions 123:5
degradable 71:20
deliberate 74:8
delicate 35:14
demand 93:12 110:10
118:3
demise 119:1
democracy 74:22
democratic 75:11,22
76:6
demonstrates 66:2
Denver 104:6
department 1:1 65:7
79:20
dependent 61:7
depends 132:11
Depression 124:13
depth 32:16
describing 127:15
128:1
desert 91:9
design 20:12 47:9
desire 31:4 69:15
desires 76:6
desperate 87:15
despite 85:12
destroy 57:4 84:2
102:21 105:22

destroyed 23:5 24:4
27:1
destruction 17:18 57:8
57:15,16 61:20
details 21:4 33:22
deter 104:3,10,13
determination 49:14
determine 96:15 116:14
determines 49:12
deterring 113:5
devalue 139:13
devastating 60:21
develop 17:11 34:13
developed 29:15 133:2
developing 58:1
development 30:10
92:10
device 12:6
Devon 1:20 81:5
dial 3:6,22
dialogue 80:9
Dicamba 122:8
Dietz 120:14 130:3,9,13
130:14 134:8 135:5,9
difference 75:1 89:22
different 27:4 55:16
66:17,18 81:14 95:8
95:19 97:17,21 98:13
100:1,7 103:10,12
119:22 130:17 132:7
132:13
differentiate 110:4
125:2
differentiates 102:16
differently 97:2 137:4
difficult 53:4 65:11 85:2
85:3 125:16
difficulties 10:18
dilemmas 73:22
diminish 62:10
direct 53:3 92:17
directed 74:18
direction 136:19
directly 29:4 32:1 72:9
94:6
Director 1:18 7:4,8
33:10 50:14 69:9
86:11 92:10 142:20
disciplines 144:11
discuss 29:7 82:5
discussing 32:15
131:20
discussion 30:11 34:11
73:20 116:1
discussions 71:19
disease 39:21 40:14
42:3 65:19 86:21
87:14

disease-risk 87:5
diseases 87:10,16
dismay 75:8
disqualify 47:4
disregard 75:15
disrupt 35:14
disrupting 67:3
distinguish 138:6
diverse 26:22
Division 1:19,21,21 7:5
7:9 8:10 18:19 50:15
DMI 29:16
DNR 53:8
docket 132:17
document 30:11 34:11
34:12 140:2
documentation 54:2
90:7 144:5
documented 16:22
documenting 141:9
documents 27:10 92:20
93:2 141:10
doing 27:9 64:8 72:6
115:3 117:5 124:22
125:21 129:16 141:3
dollar 111:2
dollars 108:17
Domenico 50:6,7 56:3
56:5 59:6,7 135:17,18
domestic 29:8,21 31:6
113:15 114:12
domestically 36:2
dominant 27:5
doors 118:21
dormant 40:11
dose 51:14
double 54:17
Dr 1:18 144:16
draft 35:6 37:4
drafting 83:12
Dramm 50:15 51:6
52:12,18,19,21 53:1,6
53:13
Dramm's 50:15
Drammatic 50:16
drastically 63:18
drift 45:2 51:3 55:10
76:15 119:15
drifting 55:2
drifts 119:14
drop 51:11
dropped 110:17,21
drought-ridden 58:20
dry 91:4 125:19
due 25:11 26:10 48:5
61:16 88:9
dust 43:20 44:1,5,17,18
45:1 67:22

dusting 66:1,22 67:2,4
67:17,19 68:7
dynamics 95:16

E

E 54:3,9 55:14
e-commerce 95:5
earlier 27:2 51:12
134:19
earning 126:18
Earnshaw 14:21 21:15
22:4,5,7,9,12,12
25:11 26:10,15,18
27:3
easier 89:18 139:6
eastern 3:13 86:20
90:12
easy 85:14 141:15,17
eco 64:6
ecological 28:7 117:20
123:16 127:2
economic 36:7 75:20
84:5 108:11 110:3
125:16
ecosystem 25:22 26:7
27:14,16 62:15,18
123:5 125:12
ecosystems 17:13,18
22:17 23:4,10,16,21
25:9 27:4 56:22 57:3
57:5,8 60:1,5 61:8,13
62:8,17 63:5,11 123:9
125:3 127:15 128:1
Eden 136:4
education 46:14 47:2
97:8 103:17 106:6
effective 52:4 87:3,11
87:15,19 88:3
effectiveness 34:20
effects 60:22 61:17
112:18
efficacy 67:19 86:17
88:4 144:5,18
efficient 138:1
effort 93:15
efforts 15:16
eggs 16:4
eight 79:5 88:18
eight-day 52:5 55:3
Eighteen 66:4
either 14:7 37:6 78:17
81:2 85:1 97:4 114:15
Ela 1:14 9:22 10:1
elaborate 62:22 97:18
100:2 127:21
electronic 118:12
elemental 39:18 44:3
44:13 65:14,15,16,18

66:10,17
elevator 100:8
Elijah 92:3 101:18
 112:4,5,6,8,11 115:15
 115:16 116:10 117:7
 117:7
eliminate 17:12 51:22
 52:6 59:22
eliminated 54:22
eliminating 44:3
elimination 56:21
else's 106:4
email 6:2 10:17 65:22
 79:17 145:8
emails 66:2 145:4
embody 60:17
embrace 83:13
emergency 90:17
Emily 1:15 10:7 24:22
 25:2,3 62:5,19 80:5,7
 81:4 97:14 99:14
 127:8
emphasis 131:6,9
emphasize 132:6
employees 38:10
 136:11
emulate 47:19
emulsion 54:6
EN-17033 70:8
enables 94:5
enabling 94:2
enacted 115:8
encourage 13:11 17:10
 24:13 30:3 74:2,16
 93:17 109:16
encouraging 134:5
ended 144:14
endorse 134:14
enforce 34:17
enforceable 33:12
enforced 84:6
enforcement 16:10
 29:11,13 30:4 34:9
 36:2,3,9 73:22 118:11
 118:18
England 122:21 125:17
 128:10
enjoy 118:21
ensure 17:7 34:7 35:19
 36:10 46:17 52:10
 61:22 74:14
enter 103:2
entering 100:16
entire 14:11 27:7
entry 94:15
environment 23:1
 41:10 100:14 125:17
 143:7

environmental 24:18
 56:17 58:16
environmentally 17:17
EPA 37:7,9,21
EPA's 46:18
equivalency 96:2
eradicating 61:19
especially 8:11 39:22
 40:11,15 43:7 49:1
 55:9 58:13,19 63:13
 100:12 123:10,11
 125:20 127:14 138:21
essential 33:13,15 34:6
 40:2
establish 37:8,14,19
 38:1
establishing 46:20
 131:8
establishment 33:11,14
estimated 118:7
estimates 63:20
ethic 129:9,9
Etka 22:6 27:21 33:6,9
 33:9 37:3 38:15
EU 70:16 84:7,9,12
 117:4
European 70:6,15
evaluate 29:17
evaluates 46:11 49:11
event 144:10
events 53:10
ever-increasing 118:2
everybody 4:9 5:12
 105:18 139:13,15
 140:20
exact 70:12 89:20
exacting 99:22
exactly 89:13
example 29:9 88:8
 97:10 99:2,19 110:10
 113:21 114:20 125:7
 128:19
examples 97:3 115:7
exceeding 30:1
excellent 56:11 65:9
 137:2 140:7
excess 126:17
exclude 53:14
excluded 34:4
exclusively 53:15
excuse 3:18
executive 69:9 86:11
 113:5 142:19
exemption 90:18
existing 32:3 38:6
 46:15 118:11 119:5
exists 91:6
expand 118:11 128:22

expanded 35:9
expect 16:17,18 20:6
 20:11,21 95:7 102:19
 102:19 105:19,21
 106:20
expectations 16:8 63:3
expedited 38:1
expense 119:16
experience 25:20 47:5
 48:3 49:2 119:14
 140:18
experienced 46:10
expertise 57:22
explain 37:11
explained 77:21 79:19
exploded 118:6
exponentially 52:9
expressing 75:8
Extension 88:21
extensive 86:17
extinction 63:22
extremely 74:9
eye 80:3

F

face-to-face 7:21 8:2
faced 123:11
facilitate 8:19 13:18
 18:13
facilitating 134:5
facilities 52:15
facing 63:22 87:14
 122:7 129:3
fact 55:6 122:5 129:7
 133:2 144:9
factors 110:10 132:13
failing 93:7
fails 18:7 35:17
failure 75:18
fair 15:13 76:6 139:16
fairly 78:20
fairness 73:17
fall 34:3 81:8 82:18
 111:11,16 118:5
 119:8
falling 122:11
falls 53:5
familiar 78:5
family 112:13 121:1,2
 122:19 123:14,14
 125:15 126:13,17
 127:7 129:6,12,15
far 43:22 70:10 84:12
 109:9 126:17 137:11
 140:20
farm 22:18,19 28:7 35:5
 35:6 37:4 40:21 57:20
 57:22 59:20,21 65:6

67:5 86:20 108:13
 112:14 113:22 117:20
 117:21 121:2,3,6,15
 122:16,16 123:3,17
 123:18 126:13,14
 128:4
farm-raised 52:19
farmed 122:21 128:7,21
farmer 22:14,19 38:9
 80:10 83:7 108:18,19
 112:12 117:18 119:9
 119:11 121:1 128:11
 128:12,19,20 137:9
farmer's 65:10
farmers 23:8 25:7 30:12
 31:2 36:11 41:6 46:2
 65:22 70:22 71:10
 79:10 83:11 109:14
 111:13 118:7 119:3
 119:14 122:2,6,12,13
 122:19 123:11,14,15
 125:15 126:13,17
 127:7 129:6,12
 137:11
farming 24:17 44:11
 121:11 122:10 126:18
 128:7 129:8
farmland 123:6 124:4
 125:19,20 126:16
 128:22
farms 22:16 23:12 25:8
 30:8 35:20 40:6 41:1
 60:11 61:4 102:1
 119:5,16 122:9
 129:13,15,16,18
faster 79:2
favor 58:5 118:18
FDA 37:6,9,20
feat 70:15
feature 13:21
February 92:19
federal 8:5 122:10
feed 58:4 81:11,16
feedback 111:19 134:4
feel 23:2,19 42:2 57:17
 67:16,18 104:22
 105:2,4,8 108:12
 112:20 113:3,11
 114:10 116:3 126:22
 129:4 133:11,15
 136:18 137:1,2 139:7
feeling 142:2
fees 47:14,15 103:21,22
fellow 132:4,21
fertile 60:15
fertility 65:20
fertilizer 50:15 52:18,22
 55:6,7

hand 5:14,15 13:21
96:7 99:15 104:18
119:19 126:2
handheld 12:6
handle 94:1 105:14
140:12
handled 101:5
handler 38:9 103:13
106:4,7 130:19
handlers 28:12 35:20
95:9
handling 42:5,9 103:5
106:19 132:2 140:21
hands 125:15
happen 103:20
happening 103:1 113:4
happens 20:6 55:10
120:4
happy 30:14 55:17 57:1
123:19 145:10
hard 85:5 111:15
130:21
harm 75:20 110:3,4
harmed 115:12
harmful 51:18 52:1,8,11
54:21
Harold 27:21 33:4
38:20,21 39:3,6 45:7
45:10
Harriet 1:11 9:7 19:5,6
25:17,18 26:19 30:21
30:22 31:10 48:15,16
53:20,21 79:13 90:5
100:9 108:9 119:19
123:22
Harriet's 9:8
harsher 41:13
harvest 53:8 111:17
harvested 53:15
harvesting 53:3
he'll 21:20
head 88:14 128:9
141:19
headset 120:16
health 48:1 58:16 66:17
67:3
healthier 15:13 41:10
healthy 28:10 61:10
hear 5:13 6:13,17 13:3
13:14 15:3 22:7 26:15
28:1 32:1 33:6 36:18
36:20 56:8 59:15 69:6
70:22 73:5 74:7,17
77:10 83:2 86:6
101:19 106:8 112:7
115:21 116:8 120:19
126:10 127:9 130:9
heard 6:20 65:10 80:9

112:22
hearing 8:7 13:17 19:3
28:17 31:3 32:14
64:12 72:20 135:17
135:19 142:9
heating 132:12
hectares 24:11
hedgerow 25:5
hedgerows 22:13,15
25:8
held 1:8 103:6,8 122:2
139:13
Hello 10:6 45:19,22
101:22 112:11
help 4:8 8:11 17:7
25:21 26:5 40:15 41:9
63:15 75:6 80:11
82:19 90:18 106:13
106:17 136:13 137:18
143:19
helpful 24:14 64:22
91:11 134:16
helping 8:19 41:7
137:22
hens 16:4
hi 3:3 10:5 19:6,11
31:10 45:20 48:17
65:2,3,5 80:17 81:4
100:10 119:21 124:1
124:15
high 16:15 41:3 61:3
87:5,14 103:6 114:16
114:17 125:4,19
126:6 127:2
high- 125:2,11
high-risk 115:8 116:19
139:10
high-value 123:9,16
higher 20:1 51:14,19
52:2,13 55:11 88:9
126:21
highly 129:8
hiring 46:16 47:8 48:4
history 129:1
hit 4:3 109:1
hits 28:18
hold 4:20 5:1 51:21
52:5 54:21 55:3,14
73:7 80:21 107:16,16
holds 102:17
home 28:19 34:22
honest 141:2
Honor 75:22
hope 3:19 29:19 57:18
58:21 71:12 104:12
118:10 146:7
hopefully 5:21
hopeless 85:7

hopes 57:20 94:7
hoping 74:6
hot 74:2
hours 46:14 51:21
78:15
house 3:11 35:3 37:4
House's 35:6
housekeeping 2:12
3:16
hovering 110:14
HTF 93:10
huge 76:22 78:8
human 38:3 53:1 58:16
hundreds 133:7
hurt 75:10
hydro 84:5,10
hydrolysate 50:20
52:17
hydrolysates 50:16,20
hydroponic 58:6 83:19
hydroponics 85:8

I

ideal 143:6
identified 16:14 45:14
50:8 64:20 68:22 95:7
111:22 120:13
identify 12:19 21:17
59:10 73:1 83:15 95:4
Il 122:20
imagine 29:1
immediately 110:17,22
impact 30:7 31:13
66:17 94:19 102:11
108:11 110:13 112:21
impacted 29:4 30:12
implement 75:18 76:20
135:3 136:21
implicit 61:18
import 16:13 31:7 34:11
35:22 93:1,11,14,19
114:19 117:3 131:8
importance 33:18
54:15 67:4 131:8
important 15:9 20:20
29:8 30:9 31:22 34:13
39:13 40:4,9 60:12,17
60:20 63:19,20 66:3
66:15,21 82:17 94:16
96:18 102:14 113:11
123:10 132:15 133:16
138:19
imported 16:3 34:11
93:7,9 100:13 110:19
114:12
importer 114:17 116:17
importers 103:7 104:22
114:15 115:9 116:12

importing 110:20
imports 16:2,21 28:14
29:4 32:12 35:10
100:16 101:3 102:11
102:11 103:1,2 104:5
108:12 109:1 110:4
110:17 112:18,19
113:6,8,13 114:3
118:6,9,17 131:14
138:21 139:9 140:10
imposing 60:22
improve 36:1 41:7 84:1
88:11 136:13 137:19
improved 15:21 34:20
improvement 49:7 76:3
inability 71:1
inadvertently 119:12
incentive 17:12 49:7
56:21 57:4 60:1
incentives 74:17 119:4
incentivize 23:4 60:11
include 13:7 61:9
included 66:6 96:10
144:18
includes 35:6,9,11 97:8
including 8:1 15:15
61:1 75:16 94:3 95:13
inclusion 18:8
inconsistent 23:3 29:11
30:4
increase 22:16 24:4
31:6 61:16 93:3,15
94:7 138:8 139:9
increased 31:8 72:4
increases 35:11 52:9
increasing 47:15 60:16
93:18
independent 15:11
51:17 54:13 55:16
72:7 86:16
indicated 124:12
indication 62:14
induces 102:8
industries 87:18
industry 30:8,13 39:7
44:8,15 48:18 58:15
88:10 93:14 95:16
98:8 102:6,22 106:1
133:15 134:2 136:13
137:22 140:3,3
ineligible 80:13
influence 76:4 85:3
inform 95:21
information 8:1 11:22
20:5,8,16 21:2,7
57:21 63:2,3 66:22
91:11,16 95:13,14,17
95:20 107:21 108:6

138:4,6,7 139:1
144:20
infrastructure 30:8,13
58:10
ingredient 138:16
ingredients 78:1 81:7
81:15,20 94:4 131:14
inherent 62:13
initial 29:12 51:14
initiated 88:9
ink 79:14
innovation 74:17
input 29:2 37:10,14
44:6 75:1 78:2 89:6
94:21 140:3
inputs 52:17,18 53:3,9
53:12 66:14
insect 39:20 40:10
inspect 49:15
inspecting 17:6 138:11
inspection 49:4 134:19
inspections 17:9 46:7
46:10 103:7
inspector 46:5,15,19,21
47:1,12,17,20 48:8,8
48:11 49:1,12,15
108:2
inspector-specific
49:21
inspectors 17:3,5,7
46:6,8,10,12,13,18
47:4,14,15,22 48:4,10
48:20 49:6,19 138:9,9
138:13
instances 16:7 20:7
127:14
Institute 56:16
instructions 3:22
integral 75:12
integrated 40:5
integrating 119:22
integrity 15:20 23:2
29:22 30:7 32:13 60:5
60:8 73:15,19 74:10
93:3 95:14 102:9,14
102:20,21 104:11
112:19 113:1 115:11
intelligence 92:11
intent 73:14 83:20
84:18
intention 23:3 127:17
interaction 13:2
interested 36:21 82:11
interesting 120:2
interface 33:16
interference 19:7 22:15
22:17,21,22 23:5,8,11
23:14,15,18,20,22

24:7,8,12,15,16,17,18
25:12 26:11,20 27:6
27:12,15,17 46:9
76:14 78:10,14 79:8
80:20 107:13 131:7
Intern 1:21
international 29:7,21
31:15
interpreting 139:19
interrupt 43:18 128:14
intricate 39:19
introduce 5:6
introduction 3:18 77:17
Introductions 2:14
investments 36:11
involved 137:8 140:20
ISO 138:13
isolate 110:12
issue 4:17 15:22 16:2
24:2 28:14,18 29:5
30:4,6 31:7 34:4,5
57:20,22 58:7,10
112:18 122:15 131:19
141:12,21
issued 138:11
issues 18:21 29:20
32:13 33:17 38:4 42:3
45:2 58:12 76:22
it'll 5:7 6:10
item 43:2 139:3
items 34:1,2 42:6
119:22

J

January 111:12
Japanese 77:16,19
78:4
Jean 18:18
Jeff 86:4 91:21,22
101:15,18,20,22
104:15,19 107:17
108:8 110:1 111:5
Jesse 1:12 9:12,15
82:22 86:4 89:8,9
91:21 92:4,9 96:4,5,8
101:10,14 144:3
Jim 112:5 117:12
120:10,14,15,20,22
123:21 124:1,15
126:4 127:11 128:13
129:20
Jim's 120:17
JM 130:15
job 61:22 124:22
129:12,16 137:2
140:7
join 3:8 109:20
joined 68:15

Julia 21:15 22:5 27:20
27:22 28:3,6 30:18,19
31:1 32:20,22
justified 138:16

K

keep 12:3 64:5 76:3,18
80:3 113:7 142:7
keeping 4:19
Kenneth 117:12,13
120:11,11,14 142:10
142:10,14,19 144:1,2
144:4 145:17
kepos 84:5,10
key 39:21
kill 52:4
Kim 120:14 130:2,3,4,8
130:8,11,14 133:20
133:21,21 135:7,7
knowing 129:1
knowledge 49:8
knowledgeable 17:8
94:13 98:7

L

lab 51:17
label 15:20 16:12 17:15
23:2 57:7 58:13 60:4
60:9 61:18 62:1 63:5
64:3,6,6,8 83:10,12
83:17,19,21 84:1,3,19
93:18 96:3 115:9
labeled 119:10,11
labeling 58:6 93:3
labels 62:13
labor 78:9
lack 102:21 108:12
lading 113:22
laid 46:18
land 23:9,9 60:15,19
62:16 63:10,11,12,13
63:21 73:16 119:6
121:18 122:20 123:3
123:10,12,14,15,16
125:18 126:15,19,20
127:2,14,17 128:4,6
129:9,9 137:7
land's 62:10
Landers 14:21 21:15
135:15
lands 60:10,12 64:10
125:7
language 38:5,13
large 85:16
largely 38:13
larger 63:12 122:12
largest 88:22 136:9
Lastly 47:19
latitude 129:6
law 56:18,18
LCA 79:8
lead 48:9 94:13 144:16
leading 69:10 86:14
leap 109:20
learn 28:20
learned 22:18 55:18
learning 49:20
leave 113:22
leaves 113:21
legislative 113:5
lessening 31:4
let's 129:17 139:1
letter 75:7,21
level 48:21 51:4,8,12,20
52:2,13 54:8,20 67:21
113:19 114:4,10
126:11
levels 51:19 52:10 55:9
93:11 119:2 141:6
Lewis 1:18 7:4,7,8
80:11
Liberty 131:5
licensed 17:5 44:9
138:8,9
licenses 138:11
licensing 47:12,12
lies 140:19
life 74:1
light 60:21
Lima 1:14 9:19,20
lime 40:8,18 88:4,7
limit 127:17
limitations 67:8
limited 93:13 125:18
limiting 58:4 127:6
line 3:17 9:6 12:10,17
14:22 17:22 21:16,20
27:22 33:5 38:22
45:15,18 50:7 56:5,6
64:15 65:1 68:14,16
68:18,21 69:4 72:22
73:3 77:9 80:14,16,18
81:1 83:1 86:5 92:1
101:16 112:6 117:13
120:12 130:5
lines 120:18
linked 72:10
liquid 50:16,20 51:19
58:4
liquidation 122:19
Lisa 1:14 9:19,21
list 12:9,15 14:2 17:22
18:8,12,13 19:15,22
41:19,21 59:11 71:7
81:8,10 120:18 130:4
136:16 142:8

overall 46:15 127:4
 overgrown 125:7
 overly 47:1,3
 overly-prescriptive 48:7
 overseas 118:12
 oversight 29:8,9 34:11 34:15 131:8
 oversupply 36:8
 overturned 75:4
 overwhelming 142:1
 owned 123:14
 owner 102:1
 ownership 94:1 97:22 98:16,17
 owning 38:11
 owns 121:1
 oxytetracycline 40:13

P

P-R-O-C-E-E-D-I-N-G-S

3:1
 p.m 1:9 3:2 146:9
 pace 73:21 102:7
 Pacific 39:8 44:12,19 45:2
 packaging 69:11
 pain 116:3
 pains 102:8
 palm 24:5 61:20
 panel 116:1
 paper 77:16,19,22 78:4 79:15 80:4 81:9 82:15 103:14 113:13
 paperwork 105:15 114:4 115:4 141:18 141:20,22
 Parker 117:13 120:11 142:10,12,18,19 144:8 145:3,9,20
 Parks 117:19
 parrot 113:1
 part 7:20 16:17 20:20 23:21 32:17 39:7 40:9 42:13 44:8 51:4 54:18 70:19 87:2 100:6 107:10 110:2 116:1 124:6 138:18
 participant 5:13 7:2 10:17,21
 participation 7:16
 particular 20:7 94:18
 particularly 8:10 31:21 36:2 87:4
 parties 99:7
 party 103:7
 pass 35:4 55:17
 passage 57:18

pasture 16:7 29:11,13 29:16 30:5 36:4 118:19
 pasturing 62:7
 pathogen 143:15
 pathogens 143:12,19
 pathologist 144:16
 PATTILLO 1:20 6:20 81:4,18
 Paul 1:18 7:4,8 8:18 80:11,14,16,22 81:5
 pause 6:16 109:20
 pay 21:5 36:8 126:18
 pediatric 66:11
 peer 134:11
 penetration 41:7
 people 3:7 4:5 6:7 32:14 38:11 49:8 78:16 83:14 84:21 85:18 89:15,19 94:14 98:6 99:6 109:16 119:1 134:18 138:4 141:3
 percent 51:10 52:19,21 53:6,12 63:10,21 69:17 72:3,5 87:18 90:5 91:8 143:4
 percentage 21:6 137:15
 percentages 53:4
 perception 114:3
 Perdue 75:8
 Perez 144:16
 perfect 83:16
 perform 46:7
 period 12:14 40:15 128:10
 permitted 115:5
 person 4:10 14:7 19:13 130:3 145:4
 personal 133:10
 perspective 74:1 137:11
 pertaining 13:8
 perverse 57:4
 pest 40:5 61:11 65:19
 pesticide 17:1
 pesticide-free 64:9
 pesticides 16:19 20:22
 pests 39:21
 Peter 33:4 38:21 45:12 45:18,20 46:1 48:13 48:14,17 50:2,5
 petition 38:2 81:22 82:7
 petitioned 89:14
 petitioning 82:14
 petroleum-based 71:20
 pH 41:3 51:4,8,11,13,19 51:20 52:2,8,10,13

54:8,10,20 55:1,7,9
 Ph.D 1:18
 phenomenal 41:5
 phone 3:12 4:1,2 5:2 12:18 21:17 32:4,11 45:15,16 50:8 64:16 73:2 92:2 112:1 117:14 120:13
 phonetic 84:5
 pHs 40:3
 phytosanitary 141:11 141:14
 pioneer 40:18
 pioneer 125:9
 place 54:17 98:1 114:5 114:11 119:4 120:5 129:11
 placed 72:2
 places 60:17 61:3 64:10
 plan 43:2 121:15 131:15
 planning 109:9
 plans 74:16
 plant 40:20 78:6,7,13
 planted 119:12
 planting 78:6,8 109:10
 plantings 22:16 25:6,9
 plants 27:5
 plastic 70:21 71:3,7
 platform 94:9 100:18
 platforms 94:7 95:6,10 96:10,15
 play 94:19 122:16
 player 97:10,11
 plays 39:19 40:4,13
 please 4:20 7:22 12:3 12:18 14:1 22:1 30:9 33:8 50:7 56:5,9 62:1 64:15 68:22 85:17 96:7 101:17 104:14 104:17
 plenty 123:12
 plowed 23:4,9
 plug 89:4
 pockets 91:4
 point 32:6 37:18 118:5
 pointless 43:7
 points 50:18
 policing 104:1
 policy 15:7 33:10 35:2 46:1 56:15 69:17 71:10 72:14 130:15
 politics 76:4
 pollination 61:11
 pollinators 61:2
 Polyoxin 41:21 86:17 88:1,10 89:11,12,17 89:18 143:1,12,18

144:5,19
 Pool 59:12 64:13 65:2,5 65:5 68:3
 poplar 125:8,9
 population 61:17
 portion 6:10
 ports 104:1 140:11,12 140:22 141:4
 pose 58:12
 posed 28:15
 poses 58:16
 position 88:17 96:12
 positive 35:7,8
 possession 98:10,11 98:21,21 99:3,8 100:5 105:9,18 144:21
 possible 102:18
 possibly 58:18
 Post 109:18 113:8
 pot 77:16,19,22 80:4
 potentials 118:14
 pots 78:4
 potting 78:17
 poultry 62:8,10 75:17
 powdery 39:22
 powerful 84:4
 PowerPoint 6:8
 practice 5:11 134:9,21 136:21
 practices 46:16,19 134:2,6,15
 prairie 121:2 127:2 136:4
 prairies 23:20 24:3
 pre-safety 47:20,21
 preaching 74:6
 precautions 67:8
 precisely 95:4
 preferentially 44:4
 prepared 138:22
 preparing 8:9
 prescriptive 47:1,3,22 48:11
 presence 52:8 54:2
 present 1:10,17 4:7 9:3 10:11 11:18 12:12 54:10,11 55:15 57:13 62:15 144:13
 presentation 6:9
 preserved 60:6
 preserving 74:10
 president 121:4 131:2
 presiding 1:9
 press 139:12
 pressure 87:14 134:12
 pretty 6:3 32:6 45:1 89:16 134:1
 prevent 34:7 88:5

109:6 121:7
reason 42:14 81:6
 87:17 91:2 141:1
reasons 31:13 98:13
received 53:10 68:4,10
 138:16
receives 52:21
reciprocity 84:14
reclassify 42:17
recognize 76:1
recommend 46:22
 75:21 82:14
recommendation 75:5
 85:10 132:19
recommendations 8:9
 34:14,18 134:1
 136:17 139:21
recommending 48:11
recommends 57:18
record 13:7 22:11 86:9
 92:8
recorded 93:1 118:7
reduce 24:8 134:2
reduction 143:16
refer 26:4 28:22
refinement 76:3
reflect 84:18 126:9
reflects 121:9
reforms 35:7
regard 32:12,13 34:9
 36:4 92:20 93:20
 95:12
regarding 46:5 50:19
 52:16 65:22 66:7
regardless 107:3
regenerative 26:22
region 90:6 116:17
regions 16:21 66:18,20
 116:12
registration 47:18
regrowth 129:3
regular 118:13
regularly 31:20 32:11
 46:11
regulate 24:16
regulation 60:3,10
 63:15
regulations 34:18 36:5
 57:7 74:18 94:22
 96:20
regulators 53:11
regulatory 34:14 53:7
 73:21
reiterate 121:8,22
reject 83:19
rejecting 84:10
rejection 85:12
related 36:8 134:1

relation 134:7
relationships 31:14
relevant 13:8 47:6
relies 61:2
remain 36:1 51:8
remaining 12:13
remains 129:10
remarkable 143:9
remember 12:3
remembered 14:16
remind 4:17
removal 18:13
remove 41:7 50:21 71:9
removed 17:21 19:16
 19:22 20:3,7
removing 72:14
repeat 11:22
repeated 87:22
replace 25:9 67:1
report 66:10 76:17
 107:4 137:5
reported 69:21
reporting 106:22 139:4
reports 15:7,11 18:19
 19:13 109:17 139:12
represent 85:19 86:13
representative 20:10
 130:19
representing 88:15
represents 60:8
request 92:18
require 74:12 82:6
 83:21 94:20 97:3
 99:21 137:5
required 16:14 51:8,22
 52:5 67:9 93:7 98:4
 103:14 115:1 140:14
requirement 17:4 70:14
 92:22
requirements 34:8 38:7
 47:2,3,20 48:6,8
 72:10
requires 37:13 46:13
 51:2
requiring 47:14 69:17
 93:2 94:11 141:12
research 27:9 35:12
 67:18 87:2,22 88:20
 89:2 144:13
researcher 86:16
researchers 144:11
resemble 84:7
residues 17:1
resistant 40:5
resource 56:18
resources 25:21 27:3
 27:11 34:17 49:18
 58:14

respect 13:15 63:4
 129:5
respectfully 143:17
respiratory 66:12
responding 5:21 66:1
response 10:14 19:2
 21:10,18 32:21 38:18
 45:8 50:3 56:1 59:4,8
 63:7 71:5 92:17
responses 66:5,6 68:4
 68:10
responsibility 7:10
 122:11
responsible 122:2
responsive 6:3
rest 8:16
restoration 127:19
restrain 129:15
restrictions 88:5 117:1
 125:21
result 51:3 85:17
results 16:16 24:10
 51:14 52:7 73:22
retailer 38:10
retaining 75:13
reverted 122:22
review 11:21 17:20
 37:10 38:2,6 41:18
 42:7,12,15 65:13
 70:20,21 72:2,7,16
 134:20
reviewing 37:5 39:17
 89:10
reviews 42:8
revoke 84:13 117:2
Rhodes 59:12 64:14
 68:20 69:3,8 71:16
 72:20
Rice 1:11 10:10,11
rid 57:4
rightfully 16:11
rights 127:7 129:5
rigorous 42:12
rings 124:10,11
rises 52:8
rising 51:13
risk 16:15 52:8 114:16
 114:17 131:16 134:2
 137:8
risk- 134:21
risk-based 29:17
 131:11
risks 48:1
risky 55:12 116:12,15
Robert 14:20 21:14,16
 21:17,22 135:15,16
role 39:19 40:4,14
 75:22 92:20 93:20

94:18 97:1 134:4,6
roll 2:16 9:2 68:15
ROMERO-BRIONES
 1:13 68:18
Rosario 91:22 111:22
 142:9
rotation 145:12
routinely 87:9 90:16
row 130:3
rule 27:8 29:11,13 30:5
 36:4 75:17,19
rulemaking 57:17
rules 118:11
run 12:14 135:10
rural 57:3

S

safe 15:16 138:5
safeguard 114:11
safeguards 115:8
safer 15:13,17 18:11
safety 38:4 48:1,2
 51:16 54:4,5,18 67:6
sale 52:15 75:10
Salem 117:19
sales 50:14 99:9,11
 102:15
Salina 66:14
salmonella 54:3,9
 55:14
salt 41:21 89:12,17,18
 143:1,12,18 144:19
Sam 14:21 21:15 22:4,5
 22:6,8,12 24:20,21
 25:5,15,20 26:12
 27:20 64:14,15,18
 68:20,21 72:21,21
 135:19,19 136:1,3
 139:18,19 142:4,4
Sam's 73:2
sanctioned 53:10
sanitizers 42:21
save 84:2
saved 84:19,20
saves 78:8
saw 55:3 110:19 118:4
saying 10:17 44:21
 89:17,18,22 90:5
 99:10 115:21 126:5
 135:4
scale 17:6 35:20 126:15
 138:10
scales 47:16
scalpel 127:6
scarcer 58:14
scenes 8:12
schedule 46:12 145:7
scheduled 7:21

92:7 96:6 101:21
 105:5 112:9 120:21
 130:12 136:2 138:21
 141:6 142:16 146:1
started 3:7,16 14:19
 109:1 110:16,18
 118:5 124:8 132:22
starting 12:9 146:3
starts 55:2
state 53:10 79:4 86:13
 88:21 89:1 121:2,16
stated 83:16
statements 139:20
states 1:1 57:11 88:18
 100:19
states' 53:7
statistically 88:2
status 31:16,17 92:22
 93:2,9 100:14,21
 141:10,13
statutory 35:15
stay 4:5
stems 125:10
step 5:1 81:12 84:17
 141:22
Stephen 64:17 69:1,1,2
 73:3,7,8
steps 113:12 136:18
Steve 1:14 9:22 22:6
 27:21 33:4,5,7,9
 36:15,16,21 38:17,20
 44:7 73:7,11 76:8,9
 76:11 77:4,4 122:1
stewardship 74:16
still-standing 85:9
stock 81:11,16
stop 68:9
storage 61:11
store 83:15
stores 105:20 106:19
stories 113:7,9
straight 3:4
strawberries 143:7,14
 143:20 144:12
Strawberry 142:20
strengthen 117:1
 118:10
strengthening 113:12
streptomycin 40:12
strong 29:9 84:18 85:11
stronger 84:9
strongly 23:1 52:7
 104:22 133:11
structure 35:15
struggle 42:4
struggling 49:5
studies 51:17,20
 144:17

study 54:19 66:13
 90:20 144:19
subcommittee 39:16
 41:18 42:5,7,18 43:1
 43:4 82:3 92:18
 124:18
Subcommittee's 46:4
subject 114:18 116:6
subjected 4:22
submit 92:16
submitted 43:22 70:3
 73:20 121:14 132:3
subset 132:2
substance 41:22
substances 41:17 42:8
 42:11 65:13
success 118:22
Sue 1:12 9:4
Sue's 9:6
suffering 119:13
sufficient 46:17,20 47:5
suggest 48:20 52:7
suggested 96:9
suggestions 116:13
 124:17 135:2
suggests 52:9
sulfur 40:18,22 43:19
 44:1,3,12,13 65:14,15
 65:16,18 66:10,18,22
 67:1,2,5,17 68:7 88:4
 88:7
sulfuric 40:20 41:12
sulfurs 66:1 67:1 68:6
sulphur 39:18 40:8
sunflowers 102:3
 112:14
sunset 17:20 42:7,8,15
 65:13 66:7 70:20
supermarket 23:17
supplier 131:16
supply 34:21 92:21
 93:5,12,21 94:12,14
 94:17,19 95:21 97:9
 110:10 114:12 119:8
 131:17 134:3
support 6:6 7:11,11
 17:4,12 24:11 30:14
 39:17 40:7,19 41:17
 41:20 42:6,16 43:22
 47:11,17 61:14 62:1
 69:15 85:9 89:11
 96:11,13 121:22
 131:6 132:1,19
 136:17 139:20
supporting 44:4
supports 53:13 57:19
 59:21 88:17 131:11
supposed 103:19

suppressing 143:13
suppression 121:17
Survey 16:16
surveys 20:9,12
survival 51:22 52:6
survive 51:18
sustainability 57:12
 96:1
sustainable 15:16,18
 17:17 28:10 42:1
Swaffar 1:16 11:5,6
 62:6 124:15 126:3
Sydney 91:22,22 92:3
 101:15,16,18 111:21
 111:22 112:1,3 142:8
 142:9,10
Sydney's 92:3
synthetic 81:7
system 15:17,18 28:10
 34:16 42:1 47:12,18
 66:12 75:11 77:20
 78:6 79:1,3 118:13
 120:4 131:10,15
 137:20,21 139:12
systems 47:21 49:20
 61:7 65:16 80:4 139:2

T

tackling 110:3
taken 68:7 104:10
 113:12
takes 4:11 98:17,21
 105:18
talented 47:4
talk 6:5 73:14 77:15
 144:15
talked 74:4
talking 26:2 44:3 79:6
 109:15 120:15 126:12
 127:1,22
targeted 95:5
tariff 93:6,8
tarnished 102:10
task 37:8,14,19 131:5
 133:22 136:16
Tassone 50:6 56:4 59:7
 135:18
technical 6:1
technology 74:19
teleconference 8:12
telephone 1:8
telephonic 19:7 22:14
 22:17,21,22 23:5,7,11
 23:14,15,18,19,22
 24:7,8,12,15,16,17,18
 25:12 26:11,20 27:6
 27:12,14,16 46:9
 76:13 78:10,14 79:7

80:20 107:13 131:7
tell 31:9 108:14 132:21
 140:6
temptation 119:1
ten 53:6
tenants 33:13
tendency 41:3
tenets 57:9
tenure 123:10
terminology 34:4
terms 20:5 27:5 64:1
 99:18 124:16 127:18
test 6:12 73:22 114:21
testament 70:9
testify 36:14
testimony 90:21 129:22
 135:13 139:18 145:19
testing 16:14,17,21
 17:1 54:1 115:4
 118:13 139:9
tests 70:13
Textile 131:4
thanks 6:22 9:15 11:4
 14:17 18:17 34:9
 36:13 59:19 62:6,11
 69:8 77:2 128:17
thick 125:9
things 12:1 20:22 27:8
 32:15 43:8 70:5 82:17
 103:19 108:3 113:10
 116:7 117:5 118:16
 122:14 137:11 140:6
third 38:8 117:2
third- 103:6
third-generation
 112:12
third-party 108:1
thoroughly-vetted
 115:4
thought 31:22
thoughtful 120:6
thoughts 97:18
threat 58:16 63:22
three 5:3 13:15 37:3
 39:17 75:21 77:14
 108:16 142:15
threshold 98:16,19
thrive 19:14
throw 137:13
Thursday 3:14 146:2
tie 125:15
tiered 46:12
Tightening 36:9
Timberlane 102:1
timer 5:4,5,7,11 6:12
times 12:8 78:11 85:14
 111:12
timing 33:22 137:19

title 98:2 99:8 106:10
today 3:11 6:9 8:3 46:2
60:20 61:13 65:12
88:14 92:16 102:9
112:17 117:9 121:5
131:2,6 133:6 142:5
144:9 145:19,22
146:4
today's 7:14 8:12
told 104:9
tolerated 131:9
Tom 1:9,10 5:8 8:14,14
9:15 11:8 14:16,17
21:20 39:1 43:12,14
80:5,17 83:2 86:2
89:8 97:16 115:17
127:9 130:9
tomorrow 35:3
tool 35:19 41:5 65:15
66:3 68:7 143:11,18
145:10
toolbox 145:12
tools 26:4,19 29:12,16
87:15
top 64:6 76:15
topic 30:9 32:10
topics 34:6
touch 58:2
touching 51:16
toxic 22:20
toxicity 88:9
traceable 103:21
113:17
traced 114:8
track 72:8 124:6
tracking 93:4 108:12
118:12
trade 84:13 121:5 131:3
138:20
trading 92:12
traditional 83:13 95:10
97:6,21 98:9
trail 103:14 113:13
trained 138:13,22
training 46:16 47:9 48:4
48:21 135:3 139:7
trainings 49:17
transaction 99:7
Transactions 103:21
transcripts 14:10,11
Transfer 98:2
transformed 84:4
transgenic 122:3
transition 31:5 32:17
60:11,19 88:13
transitioning 28:22
31:2,12,20 32:8 119:3
transparency 93:18

94:8 97:9 113:20
transparent 64:7,7
83:17
transplant 78:19
transplanting 78:9
transplants 78:11
transportation 99:3
travel 65:11
traveled 104:6
tray 78:12
trays 78:16
tree 39:7 44:8
trees 122:18 123:1,2
124:3,8,11 125:7
trespass 74:8,15 76:16
76:21,22 122:4
trials 51:6 86:17 87:22
trickier 141:5
tropical 24:4,9
troubling 35:8,13
truck 105:11
truckers 105:21
truckload 113:21
true 31:9,17 93:11
truly 42:22 96:16
119:11
trust 16:12 61:22 64:5
75:13 85:19 129:11
try 127:20
trying 3:6 13:20 84:1
109:16 116:7 125:16
128:20
Tucson 7:22 18:20
116:2 146:3
Tuesday 1:7 146:1
Turkey 110:20
turn 4:7 7:4 128:20
turning 8:13 127:1
Twelve 11:10
twice 120:18
Twin 117:19
twisted 84:4
two 11:17 12:22 34:2
40:8,12 46:14 58:2
62:4,21 63:1 70:5
78:22 79:8 84:14
115:7
two-day 144:10
two-generation 121:3
two-part 59:22
type 134:14
types 25:7 41:6
typically 50:21

U

U.S 63:9 70:2 84:14
93:14 113:20 115:6
Unbalanced 75:3

uncertified 93:20 94:17
94:22 97:1 105:3,4,7
141:4
underestimating 93:11
undermined 36:12
understand 24:2 25:22
26:5 66:13 94:18 98:6
100:1 110:6 132:10
137:7 142:8
understanding 95:15
114:2
undoubtedly 24:3
unedited 66:6
unfair 74:9 76:4
unintended 74:15
Union 18:18
unique 57:5
United 1:1 100:19
University 88:22 89:1
144:12
Unlimited 22:13
unloading 140:13
unmute 4:1,4,10,14
12:5,19,20
unmuted 13:3
unnecessarily 125:14
unnecessary 38:13
unpack 30:11
unpacked 140:13
unqualified 121:19
upcoming 7:20
update 72:16
updated 33:21 36:5
uphold 104:11
upstream 119:7
upward 51:3
urge 18:11 84:17 85:1,7
85:10
usage 93:10
USCA 94:10
USDA 8:9 36:5 60:3
74:6,9,14 75:4,16
83:11,21 84:2 85:13
95:7,19 96:3 119:10
use 5:4 12:5 13:21
25:21 40:18,21 43:3,5
44:4,16 51:10 53:14
58:10 65:15,15,18,22
66:10,15 67:9 69:15
71:1,10 74:18 78:9,12
78:16,16 79:5 80:13
85:17 88:5,6 93:8
98:19 132:1,6,14
133:1 139:9 143:2
useful 18:3
uses 39:17 40:8 44:11
USGS 26:18 27:11

V

vacancies 11:17
vague 38:4
valid 42:22
Vallaey's 15:1,5,6 20:4
21:13
valley 66:14,19
valuable 23:9 43:9 57:5
63:17 123:5
value 62:13 125:3,4,5
125:12 126:6,7,21
127:2
values 126:9
variations 132:9
variety 65:19 66:14
68:4 130:16 132:15
various 39:20 42:9 49:9
vary 43:6 95:10 110:9
vegetable 77:14 80:10
86:20
vegetables 22:22
vein 30:5
venue 33:15
verification 16:18
verified 100:14
verify 100:11 103:5
118:14 119:9 138:15
Vermont 83:7
version 35:4 44:14
versus 43:20 67:19
71:19 110:4
viability 129:15
viable 40:17 118:19
129:18
Vice 1:11 9:8 19:4,8,11
25:16,19 26:21 27:18
30:20 31:1 48:15,17
53:20,22 55:19 79:13
90:4 91:12 100:10
101:1,8 108:10 109:7
109:22 119:21 124:1
view 120:3
violation 119:8
virtually 145:13
viscosity 132:12
vision 15:17
vitally 39:12
voice 65:10
void 98:13
voluntary 74:16 75:11
76:2
vote 37:15
voted 58:4

W

Walker 64:18 69:1 73:3
73:4,11,11 77:2,6
122:1

wanted 43:19 50:18
67:15 70:4 82:18
121:22 127:13,20
War 122:20 128:5
warm 142:2
warranted 15:21
Washington 35:2 76:13
86:12,14,20,21 87:6,8
87:13,17,21 88:9,15
88:16 90:11,12,13,15
91:1 109:18 113:8
wasn't 4:16 81:10
waste 58:11,15
water 41:3,7 58:11,14
58:15 61:10
way 17:17 30:15 60:8
72:6 75:2 76:12 77:21
83:14 114:14 125:11
ways 15:17 30:11 102:7
135:2
weaker 84:11
weather 118:21
web 6:10
webinar 1:5,8 3:10,13
3:17 7:15,18 8:3,15
8:21 11:22 14:8 22:1
28:16 32:3 49:17 65:8
81:3 89:5
webinars 4:15
website 6:4 8:1
Wednesday 146:3
week 75:7 131:21 146:3
welcome 2:14 3:4,9,21
7:13 8:21 45:5 71:13
101:12 135:9
welfare 85:11 118:19
well-managed 61:4
well-thought-out 140:2
went 4:16 77:20 124:6
124:12 140:19
weren't 81:7
West 91:3 117:19
western 87:5,8 90:11
90:15 91:1
wet 78:20
wettable 43:20 44:4
66:22 67:1,19 68:1,2
68:6
whatsoever 144:22
wheat 102:3 112:14
wholly 122:2
wide 65:19 66:14 68:4
widespread 88:5
wild 57:19,22 59:20,21
60:9 61:1,3,4 64:9,10
64:10
wild-caught 53:15
wild-harvested 52:20

wildlife 60:10
wine 40:1
Wisconsin 53:8
withdrawal 75:17
wonder 44:5 126:4
wondered 108:11
wondering 25:6,19
30:21 31:3 53:22 54:8
62:22 79:14 80:11
100:11 107:1 124:17
Wood 121:2
woodlot 128:21
word 75:4
words 15:10 36:22
73:17
work 7:17 8:12,16 15:9
15:15 17:11 18:17
25:5 29:20 30:10,15
31:2 33:21 34:10 43:1
47:5 49:10 54:14
58:11 62:2 65:6 94:16
96:18 130:21 136:15
144:17
worked 34:1 55:15 85:5
140:9
working 13:22 15:12
28:9 31:8,12 35:1
82:8 83:10 85:8 96:14
136:11,13
works 144:7
world 15:14 122:20
128:5
worldwide 60:22
worried 22:20 128:11
worst 118:21
worth 15:20
would've 26:8
wouldn't 98:4 99:20
written 24:13 34:19
37:1 54:2 66:7 70:3
73:20 90:7
wrote 90:17
Wyard 131:4

X

x 21:5

Y

yard 125:10
year 24:11 69:20 70:8
104:6 108:16 109:3,3
109:9 116:21 144:17
144:19
years 22:14 23:13
44:10,18 46:14 61:15
63:20 72:2,17 74:21
79:8 86:19 102:6
104:6 108:19,20,22

110:15 117:22 118:3
121:12,13,13,21
122:17,20 124:2,3,10
128:6,8 129:2,8 136:6
Yepsen 59:12 64:14
68:20 69:5,8,9 72:1
yield 95:14,17 107:1
118:14
yields 88:12 107:4,11
108:1,3 143:16
young 112:12 123:11

Z

zero 52:21
zinc 41:21 89:12,16,18
143:1,12,18 144:19
zone 74:2

0

1

1,000 114:20
1,2,3 137:17
1,224 65:14
1,250 28:12
1:00 1:9 3:2
10 24:10 124:9 125:10
136:6
100 52:19 61:15 69:17
126:14 128:6 143:4
12 11:12,17
13 11:8,11,12,17 110:15
14 110:15
146 2:20
15 2:18 22:14 23:13
44:18 72:3
16 46:13
17 1:7
1930's 124:12
1979 121:14
1982 121:20
1988 117:21
1990s 133:3

2

2 122:8
2,000 73:13
20 63:9 72:3
20,000 108:15
2000 130:18 132:22
2005 130:19
2010 85:9
2015 118:8
2016 118:4
2018 1:5,7 3:10 16:15
34:3 35:5 92:19
202 80:15
2020 65:12

25 102:6 108:19
250 86:13
25th 92:19
25th- 7:21
27th 7:22

3

3 2:10,12 109:2,3 111:2
3.5 51:8,13,20 52:13
54:8,10,20
3:41 146:9
30 63:9,20,21
30- 78:13
35 44:9 108:19
36 121:12,19,21
364 78:6
37 122:18
39 121:13

4

4 3:12 109:2 111:1
4-D 122:8
4,800 28:9
4.9 52:3 55:4,7
40 122:17 128:8 129:8
400- 118:7
43 121:11
47 20:18

5

5 91:7
5,000 46:7
50 61:15 63:21 72:5
90:5 116:4 126:14
50-1 69:17
550 112:16
56 122:16

6

60,000 109:4

7

70 46:6
700 136:11
72 51:21
72-hour 54:21
75 124:11 129:2
75-acre 86:19

8

8 2:14
80s 136:10

9

9 2:16
90 51:10
90-foot 78:13
99 87:18

C E R T I F I C A T E

This is to certify that the foregoing transcript


In the matter of: Spring 2018 Public Comment Webinar

Before: USDA/NOSB

Date: 04-17-18

Place: webinar

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.



Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2018 PUBLIC COMMENT WEBINAR

+ + + + +

THURSDAY,
APRIL 19, 2018

The webinar was held via telephone at 1:00 p.m., Tom Chapman, NOSB Chair, presiding.

BOARD MEMBERS PRESENT

TOM CHAPMAN, Chair
HARRIET BEHAR, Vice Chair
SCOTT RICE, Secretary
JESSE BUIE
ASA BRADMAN
A-DAE ROMERO-BRIONES
LISA DE LIMA
STEVE ELA
DAVE MORTENSEN
EMILY OAKLEY
ASHLEY SWAFFAR
SUE BAIRD

STAFF PRESENT

DR. PAUL LEWIS, Ph.D., Director, Standards
Division, National Organic Program
MICHELLE ARSENAULT, Advisory Committee
Specialist, National Organic Program
DEVON PATTILLO, Materials Specialist, Standards
Division, National Organic Program
GERALDINE GONZALES, Intern, Standards Division,
National Organic Program

1 P-R-O-C-E-E-D-I-N-G-S

2 (1:04 p.m.)

3 MR. LEWIS: Thank you, Michelle, and
4 good afternoon, everyone. I want to welcome NOSB
5 members and the public to today's National
6 Organic Standards Board public comment webinar.
7 And as Michelle mentioned, this is our second
8 webinar for the week and looking forward to
9 everyone joining us at our upcoming meeting in
10 Tucson for a full face-to-face meeting.

11 I appreciate NOSB members'
12 participation in this call and for all your work
13 serving on the Board. And this webinar provides
14 the opportunity for the public to provide
15 comments to the NOSB as part of the Board's
16 upcoming face-to-face meeting, as I mentioned,
17 occurring April 25th to 27th.

18 Please consult the NOP website for
19 further information about the face-to-face
20 meeting. This webinar, like all meetings of the
21 National Organic Standards Board, operates under
22 the auspices of the Federal Advisory Committee

1 Act.

2 I look forward to hearing comments
3 from the public to assist the NOSB in preparing
4 the recommendation to USDA in response to NOSB
5 work agenda items.

6 I also want to thank my NOP colleagues
7 for their help, especially behind the scenes, to
8 bring us to this teleconference today.

9 I'd like to close now by turning to
10 Mr. Tom Chapman, Chair of the National Organic
11 Standards Board. And Tom, thank you again for
12 chairing this webinar.

13 CHAIR CHAPMAN: Thank you Paul, and
14 thanks to the NOP staff for helping to
15 accommodate this webinar. We hear again and
16 again from the public how important these
17 webinars are to provide access to members of the
18 public to provide public comments to the NOSB.

19 On behalf of the Board, I'd like to
20 welcome everyone to this public comment webinar
21 prior to our spring meeting. And, Michelle, if
22 you would be so kind if you would take a roll

1 call of the Board members present.

2 MS. ARSENAULT: Sure. And Tom, just
3 so you know, we're getting a little bit of an
4 echo of your voice just so you know that.

5 All right. I believe, Harriet, are
6 you with us?

7 VICE CHAIR BEHAR: Yes, I am.

8 MS. ARSENAULT: Great. Asa, you're
9 out there?

10 MR. BRADMAN: Yes.

11 MS. ARSENAULT: Great. Thank you.
12 Jesse Buie.

13 MR. BUIE: I'm here.

14 MS. ARSENAULT: Great. Thank you,
15 sir. Tom Chapman?

16 CHAIR CHAPMAN: Here.

17 MS. ARSENAULT: Great. Thank you.
18 Lisa de Lima?

19 MS. DE LIMA: Here.

20 MS. ARSENAULT: Excellent. Thank you.
21 Steve Ela?

22 MR. ELA: I'm here.

1 MS. ARSENAULT: Hello, Steve. Dave
2 Mortensen?

3 MR. MORTENSEN: Good afternoon, all.

4 MS. ARSENAULT: Good afternoon. Emily
5 Oakley?

6 MS. OAKLEY: I'm here.

7 MS. ARSENAULT: Hi. Scott Rice?

8 MR. RICE: Here.

9 MS. ARSENAULT: Hi, Scott. A-Dae
10 Briones?

11 MS. ROMERO-BRIONES: Here.

12 MS. ARSENAULT: Hi, A-Dae. And Ashley
13 Swaffar.

14 MS. SWAFFAR: I'm here.

15 MS. ARSENAULT: Great. Thank you so
16 much. And Tom, we'll probably note we had two
17 members who were not able to make the call today.
18 They're both traveling. And we have a total of
19 13 Board members currently, as we have two
20 unfilled vacancies as of today -- or, at the
21 moment.

22 All right. Thanks. And I'm going to

1 turn it back over to Tom.

2 CHAIR CHAPMAN: Thank you, Michelle.

3 So if my count was correct, we have 11 of 13

4 Board members present and that is a quorum.

5 MS. ARSENAULT: Correct.

6 CHAIR CHAPMAN: And we will proceed on
7 with the -- I'll have to do some quick logistical
8 comments and then we'll proceed into the public
9 comment period. Just so the first person is
10 ready, Edward Field, you'll be the first one up.
11 But again, I've got a couple minutes of comments
12 here.

13 So, just again, another reminder,
14 please keep yourself on mute. We had a little
15 bit of a background noise there from an echo of
16 probably a speaker phone. So star 6 is mute.
17 Star 7 to unmute or use the mute button on your
18 handheld.

19 So we'll start public comment in the
20 list order that Michelle has provided to
21 commenters. We'll start with the first person
22 and proceed down the list in order.

1 If someone is not present at the time
2 they're called and there's time remaining at the
3 end of the comment period, then we'll run through
4 the list again for those who were missed.

5 If you're a commenter on the line, I
6 ask that you message in to the chairperson your
7 phone number and where you're calling from so
8 that we can ID you and so that we can know that
9 you're present.

10 I will call on the speakers and read
11 out the name of the next speaker as well as the
12 next two people on deck. When called upon to
13 speak, commenters are asked to give their name
14 and affiliation for the record. We ask that you
15 disclose all relevant affiliations for business
16 matter pertaining -- all relevant affiliations
17 pertaining to matters of business before the
18 Board.

19 And if members of the NOSB want
20 further clarification, I encourage you to ask
21 questions after the public commenter has finished
22 their comments.

1 Comment time will be three minutes per
2 commenter. As we said before and again out of
3 respect for the Board and other commenters, I ask
4 that you finish as close to that three minute
5 mark as possible. I will facilitate questions at
6 that point from the Board if there are any and
7 then we'll move on to the next commenter.

8 We don't take any questions from the
9 public for other public commenters, only
10 questions from Board members. And just as a
11 note, all public commenters are only allotted one
12 time slot, either in person or at the webinars.

13 There will be transcripts of these
14 calls available after the entire meeting bundled
15 together with the meeting transcripts. Michelle,
16 did I miss anything?

17 MS. ARSENAULT: No, I think you
18 covered everything. Great. Thank you.

19 CHAIR CHAPMAN: All right. So up
20 first -- we will proceed on with the public
21 comment now. Up first is Edward Field followed
22 by Andreas Kuenkel and then Angela Anandappa.

1 And apologies. I'll try not to butcher your
2 names.

3 So I'll read the names out like that
4 and then just confirm that we're hearing you.
5 So, Edward, are you on the line with us? He
6 might be on mute. Just hold on. Edward, are you
7 on the line with us?

8 MS. ARSENAULT: He is on the line.
9 And I don't see that he's muted. Using a headset
10 so maybe give him a second to unmute.

11 MR. FIELD: Can you hear me?

12 CHAIR CHAPMAN: We can hear you now,
13 Edward. You're a little light. So you may want
14 to speak up a little bit.

15 MR. FIELD: Okay.

16 CHAIR CHAPMAN: All right. Edward, if
17 you can start with your name and affiliation and
18 then proceed with your comments.

19 MR. FIELD: Sure. My name is Edward
20 Field, and my company is Natural Merchants
21 Incorporated. Thank you for the opportunity to
22 speak.

1 Dear NOSB members, the elimination of
2 the use of sulfur dioxide in the made with
3 organic wine production category would be
4 detrimental for our business as well, we feel,
5 for the entire industry of organic wine
6 producers.

7 Since our company's inception in 2004,
8 we have worked closely with our winery partners
9 in Europe and South America to produce quality,
10 organically grown and produced wines.

11 In Europe, all of our wines would be
12 considered organic as the use of sulfites in
13 wines has under 100 parts per million.

14 Since the passage of the original NOSB
15 ruling on sulfites in wine production in 2012, we
16 have followed the guidelines to the letter,
17 offering wines both as a made with organic ---

18 (Telephonic interference.)

19 MR. FIELD: -- the organic categories.

20 Organic wine sales, as tracked by
21 Organic Trade Association in both categories,
22 continue to grow in the U.S., growing between 10

1 to 20 percent per year in volume with imported
2 organic wines leading the charge.

3 Sulfites are a key element to the
4 production of most organically grown wines. In
5 wine production, they're used to reduce or
6 eliminate the risk of unwanted yeast and lactic
7 acid bacteria, which can cause off odors that are
8 considered to be wine faults.

9 Sulfites also reduce problems from
10 oxidation, which causes browning, and extend the
11 life of organically grown wine.

12 These two main wine faults, both the
13 off odors and the browning make wines
14 commercially unacceptable to most consumers.

15 The NOP 2011 technical evaluation
16 report concluded on Page 10 that presently no
17 organic agricultural products have been
18 identified that act as a satisfactorily effective
19 agent for preventing microbial storage and
20 oxidation in wine.

21 Although we do have several wines that
22 are produced with no sulfites added, the majority

1 of our portfolio must continue to include the
2 addition of a minimal amount of sulfites in
3 production in order to be imported and sold in
4 the U.S. market.

5 Wines without sulfites are extremely
6 delicate and perishable and difficult to produce.
7 There are currently no viable alternatives to
8 control the microbial issues and oxidation that
9 is common, particularly in white wines.

10 The use of sulfites up to 100 parts
11 per million in the made with organic grapes
12 category does not threaten the integrity of the
13 USDA organic label.

14 For these reasons, we request that the
15 Handling Subcommittee call for retaining sulfur
16 dioxide on the National List for wine labeled
17 made with organically grown grapes.

18 Thank you for the opportunity to
19 comment.

20 CHAIR CHAPMAN: Thank you, Ed. Any
21 questions for Edward? I'm not seeing any
22 questions or hearing any, Ed, so thank you for

1 your comments. We will move on to our next
2 commenter.

3 Up next, we have Andreas, followed by
4 Angela Anandapa and then Mary Agnes Rawlings.
5 Andreas, are you with us?

6 MR. KUENKEL: Yes. I am here.

7 CHAIR CHAPMAN: Okay. We can hear
8 you. You can start with your name and
9 affiliation for the record.

10 MR. KUENKEL: My name is Andreas
11 Kuenkel. I am head of bioculinary research for
12 BASF. Thank you very much for the opportunity to
13 speak today. And I will speak about the
14 biodegradability in soil and the comparison of
15 standard and requirements.

16 Next slide, please. So Europe first,
17 and a new standard was created for the
18 biodegradable marsh film, the EN 17033. And this
19 standard has been created to ensure that there
20 are no negative effects on the soil health.

21 And on the left side you can see that
22 this banner contains four elements. The first

1 element is the biodegradation, and it describes
2 the conversion of more than 90 percent to CO₂ in
3 two years. And please note that one of the
4 methods is the ISO 17556.

5 And in the last meeting, I have shown
6 that the additional bio mass goes into the
7 microbes. The second element is the
8 ecotoxicology. And this is intended that there
9 are no negative effects on different organisms.

10 The third element of the standards are
11 reflected to the chemical composition and also
12 here in the focus is that there are no dangerous
13 substances in the mulch film.

14 And the fourth element is to ensure
15 the mechanical requirements so that the farmer
16 can use the biodegradable mulch film. So that's
17 European standard.

18 And the next slide shows the current
19 requirements for the biodegradable mulch film in
20 organics. And as you can see, that's with
21 respect to ecotoxicology and chemical
22 composition.

1 This is already included in the
2 composting standard, like different ASTM
3 standards for biodegradation. As you can see,
4 this includes also a method like the
5 aforementioned ISO 17033 describing the same
6 level of biodegradation.

7 It means that already three elements
8 of the European standard are included to ensure
9 the soil health.

10 In addition, in the U.S. organic
11 regulation, the bio-based content is required.
12 And here I would like to make the comment that
13 this is not part of the European standard because
14 for biodegradation ecotoxicology as well as for
15 the mechanical performance, this does not play a
16 role as we have explained in the previous
17 submitted documents by BASF and the BTI.

18 Thank you very much for your
19 attention.

20 CHAIR CHAPMAN: Thank you. Any
21 questions for Andreas? I have one. Sorry, I
22 didn't --

1 VICE CHAIR BEHAR: Harriet.

2 CHAIR CHAPMAN: Is it Harriet? Sorry.
3 I can't see the name. I can see the hand raised.
4 Harriet, go ahead.

5 VICE CHAIR BEHAR: Hi. Can you tell
6 me if there was any part in this study that
7 tracks if continual use in the same area resulted
8 in any spike in nutrients or differences in soil
9 biologies from extended use?

10 MR. KUENKEL: So this is not included
11 in the standard. So the standard assumes that
12 there is no assimilation based on the
13 biodegradation requirement, which is more than 90
14 percent conversion in the two years.

15 VICE CHAIR BEHAR: Thank you.

16 MR. KUENKEL: Yes.

17 CHAIR CHAPMAN: Any other questions?

18 MR. BRADMAN: Yes, this is Asa. I
19 have a question. Is there any update on the
20 proportion of the material that is petroleum-
21 derived versus bio-based?

22 MR. KUENKEL: In Europe?

1 MR. BRADMAN: In perhaps the materials
2 that you produce or across the industry?

3 MR. KUENKEL: There is no change since
4 the November meeting.

5 MR. BRADMAN: Thank you.

6 CHAIR CHAPMAN: Any other questions
7 from the Board? All right. Thank you, Andreas.

8 MR. KUENKEL: Thank you very much and
9 have a nice day.

10 CHAIR CHAPMAN: Thank you. Up next we
11 have Angela Anandappa followed by Mary Agnes
12 Rawlings. Mary, we're not finding you on the
13 phone or the internet. So if you are online with
14 us, please message in so we can find your phone
15 number.

16 After Mary, just so you know you're on
17 deck coming up is Angela Wartes-Kahl. Angela
18 Anandappa, are you with us?

19 MS. ANANDAPPA: I'm here.

20 CHAIR CHAPMAN: Could you start with
21 your name and affiliation for the record?

22 MS. ANANDAPPA: I'm Angela Anandappa

1 with the Alliance for Advanced Sanitation. Thank
2 you for letting me join this meeting and the
3 opportunity to provide some comments.

4 I just want to give you a little bit
5 of a background. The Alliance for Advanced
6 Sanitation is a public/private partnership
7 between the industry and the University of
8 Nebraska in Lincoln.

9 We are a member-driven organization
10 supported by member dues. And the mission of the
11 Alliance is to provide more research that is
12 focused in improving sanitation practices,
13 developing or improving methods for detection or
14 cleaning, and in providing the function of
15 sanitization for food equipment and environment.

16 We also recognize the need for other
17 products and surfaces that are resistant to
18 harboring bacterial biofilm and are both
19 impervious to water and provide a means for
20 reducing the need to use cleaning agents and
21 sanitizers more than necessary to maintain a safe
22 food supply.

1 I want to add that cleaning products
2 and sanitizers are our focus area in our research
3 in the work that we do. And we're able to
4 maintain our food safety by the proper use of
5 cleaning products and sanitization in the food
6 industry.

7 In our work with food processors and
8 retailers, we know that there is a need for
9 recommendations with respect to specific products
10 and their applications in specific environments
11 such as on farm controls, cleaning protocols
12 within the processing facility, retail operations
13 and for product contact with microbials. We
14 recognize that there is a need for greater
15 awareness regarding the suitability of products
16 for their specific purpose.

17 And I suggest to the committee to put
18 together an effort to evaluate the current usage
19 of the allowed antimicrobials and to evaluate the
20 use of antimicrobials not on the approved list
21 and their applications, using general scientific
22 data and applying them to organic processes and

1 research in the proper use of antimicrobials and
2 their suitability for specific cropping systems
3 and handling operations.

4 With respect to one of the topics of
5 discussion which is the SDBS proposal to be added
6 to the list as an allowed synthetic
7 antimicrobial, I do support the consideration of
8 that ingredient of that product so that they are
9 given an option, an additional option which
10 allows handlers to be able to switch out
11 sanitizers. Thank you.

12 CHAIR CHAPMAN: Thank you, Angela.
13 Any questions from the Board? Angela, I'm not
14 seeing any questions from the Board. Thank you
15 for your comments.

16 Up next we have Mary Agnes followed by
17 Angela Wartes-Kahl and then Britt Lundgren.
18 Mary, are you on the line with us? We haven't
19 been able to find your number. Mary, are you
20 with us? Okay. So we're not hearing Mary so
21 we'll move on.

22 Angela, are you here? Angela Wartes-

1 Kahl? Do they have you muted? We have you
2 muted. Hold on. Angela, are you with us?

3 MS. WARTES-KAHL: Hello. I am. Thank
4 you.

5 CHAIR CHAPMAN: Okay. I can hear you.
6 Hold on one second, Angela. So after Angela,
7 it's Britt Lundgren followed by Katherine
8 DiMatteo. Angela, start with your name and
9 affiliation.

10 MS. WARTES-KAHL: Yes. My name is
11 Angela Wartes-Kahl and I'm an organic inspector
12 working with Independent Organic Services.

13 CHAIR CHAPMAN: Great. Please proceed
14 with your comments.

15 MS. WARTES-KAHL: I'm speaking today
16 as an organic inspector on the topic of
17 uncertified operations in the supply chain.
18 Thank you to the National Organic Standards Board
19 members for all your diligent work on these
20 important issues.

21 I'd like to specifically comment on
22 uncertified handlers. It is apparent in my

1 processing inspections that certified entities
2 are buying ingredients from uncertified handlers
3 on a regular basis.

4 This is a threat to organic integrity.
5 There is no way to secure the organic status of a
6 product entering an uncertified warehouse,
7 packing house or distribution center if the
8 handler is not certified.

9 There is no inspector observing the
10 receipt and shipment of organic ingredients, the
11 breakdown of these products into smaller lots,
12 repacking into smaller quantities and relabeling
13 as organic goods.

14 Certifiers instruct their clients to
15 collect certificates and invoices showing the
16 original product was, in fact, certified. Because
17 we inspectors are not physically present at the
18 facility of an uncertified handler requesting
19 this information as we do during inspection,
20 reviewing the product labels and supplier
21 invoices, there is plenty of room for fraud when
22 enforcement doesn't happen in the supply chain.

1 These operations must be certified or
2 no longer broker of organic goods. If product is
3 broken down and handled in any fashion, the
4 operation should be certified.

5 If they only broker complete lots from
6 port to customer or otherwise handle sealed
7 containers, I see the risk to organic integrity
8 to be negligible.

9 Where the problem lies is in the small
10 distribution companies selling hundreds of non-
11 organic and organic ingredients to medium-sized
12 processors, and that's dried fruits, spices,
13 vanilla extract, chocolate, et cetera. These are
14 expensive ingredients which are being repacked
15 and relabeled without the guidance of organic
16 practices.

17 Certification of handlers will have a
18 positive impact on the organic industry in the
19 reduction of fraud. The burden of certification
20 fees is shared by all those participating in the
21 NOP program except this special class of
22 operations.

1 It is imperative the NOP close this
2 loophole and require that all steps from the
3 supply chain obtain certification. I support the
4 written comments of Oregon Tilth and the OTA on
5 these issues. And thank you for your time today.

6 CHAIRMAN CHAPMAN: Thank you, Angela.
7 Any questions for Angela? Not seeing any
8 questions from the Board members. Angela, thank
9 you for your comments today.

10 MS. WARTES-KAHL: Thanks so much.

11 CHAIRMAN CHAPMAN: Up next we have
12 Britt Lundgren followed by Katherine DiMatteo and
13 then Francis Thicke. Britt, are you on the line
14 with us?

15 MS. LUNDGREN: I am. Hello.

16 CHAIRMAN CHAPMAN: Great, Britt. We
17 can hear you. You can start with your name and
18 affiliation.

19 MS. LUNDGREN: Hi. I'm Britt
20 Lundgren. And I am with Stonyfield. So thanks
21 for this opportunity to comment today and many
22 thanks to all the members of the Board for all

1 that you do to advance the organic standard.

2 I'd like to focus today on the
3 proposal on eliminating the incentive to convert
4 native ecosystems to organic production.

5 Stonyfield is sympathetic to the goals
6 of this proposal, but we are opposed to its
7 adoption in its current form.

8 The definition of native ecosystems
9 includes areas that were altered 50 to 100 years
10 ago but have recovered expected plant species
11 composition and structures.

12 This easily describes most of the
13 forest land in New England. In this region, the
14 decision on an organic dairy about where to
15 expand pasture land is dictated primarily by the
16 proximity and accessibility of that land to the
17 milking parlor. If a farm needs to expand their
18 pasture to meet the nutritional needs of their
19 cows, they need land that is reasonable walking
20 distance from the parlor.

21 If the only land that is currently
22 available is forested, the farmer will log that

1 land and convert it to pasture. These farmers
2 are not choosing to log land because the
3 conversion period is faster than if they selected
4 another field that is currently in conventional
5 management. They are choosing to log that land
6 because it's the only land that is available for
7 them to expand onto.

8 In most of these cases, the logging
9 does not have major negative ecological
10 consequences. The primary threat to the health
11 of native ecosystems in the northeast is not
12 agriculture. It's development.

13 If organic agriculture is going to
14 remain a viable business in the northeast in the
15 face of immense development pressure, organic
16 farms need to be able to expand in the most
17 efficient way.

18 If we restrict this, we increase the
19 likelihood that they may not be in business that
20 much longer, making all of that land, both
21 pastures and forests, extremely vulnerable to
22 development.

1 This problem could be avoided if the
2 proposal were instead focused on eliminating the
3 incentive to convert high conservation value
4 ecosystems instead of native ecosystems.

5 High conservation value ecosystems
6 were first defined by the Forest Stewardship
7 Council, but the concept has been adopted and
8 used by others looking to prevent conversion of
9 important ecosystems.

10 I provide more detail in my written
11 comments about how these ecosystems are defined.
12 If NOP adopts this proposal, it will effectively
13 eliminate the option for many northeastern
14 organic dairies to expand their operations and
15 would also restrict the ability of conventional
16 dairies to convert to organic.

17 The ability to expand an operation is
18 especially critical for facilitating generational
19 transfer of a farm, so this prohibition would be
20 most damaging to the upcoming generation of
21 organic dairy farmers in the northeast.

22 Stonyfield urges the subcommittee to

1 revise its proposal to focus on removing the
2 incentive for conversion of high conservation
3 value ecosystems instead of native ecosystems.
4 Thank you.

5 CHAIRMAN CHAPMAN: Thank you, Britt.
6 And I see I have a question from Emily. Emily,
7 we've unmuted you.

8 MS. OAKLEY: Pardon?

9 CHAIRMAN CHAPMAN: We've unmuted you.

10 MS. OAKLEY: Oh, great. Thank you,
11 guys. I unmuted myself, too. Thank you.

12 So, Britt, thank you for your
13 comments. And I also wanted to make a couple
14 comments and then ask a question.

15 I noted in your written comments that
16 you were concerned that you didn't see a
17 reflection in the current proposal the CACS
18 considering your previous comments.

19 And I did just want to assure you that
20 we actually did discuss very specifically the
21 examples that you provided us both on our
22 subcommittee calls and during the proposal

1 process. So I just want you to know that you
2 definitely, you know, have been heard.

3 And I wanted to repeat kind of what I
4 said with one of the commenters on the last
5 webinar that I think some of the land that
6 farmers may be looking to convert, if it was
7 previously farm land, let's say, within the last
8 40 or 50 years, it would not fall under the
9 definition of native ecosystem and could be
10 converted back to farm land from woodland if it's
11 still in its sort of beginning phases of
12 regeneration.

13 So I think that concern could be at
14 least partly addressed in that regard. And I did
15 see in the Wildwood and Woodlands report that you
16 submitted that it seems like a good amount of
17 land in New England has been very recently
18 converted out of farmland back into forest. So
19 hopefully some of that land is around the farmers
20 that are Stonyfield growers.

21 But all that being said, I just also
22 wanted to express that in this proposal we're

1 trying to achieve consumer expectation about what
2 their values for organic integrity mean. So
3 there's sort of this bigger picture that we're
4 also trying to grapple with.

5 And I know that you mentioned the high
6 conservation value ecosystems. And I can, you
7 know, talk with you later if you'd like about why
8 we went with the native ecosystem definition as
9 opposed to high conservation value ecosystems.
10 One is simplicity, for example, that I can go
11 into more depth with you if you would like.

12 My question is, do you have a sense
13 right now of what percentage of Stonyfield
14 farmers are converting forest that really would
15 meet this native ecosystem definition in the
16 current proposal?

17 MS. LUNDGREN: We did an informal
18 survey just, you know, basically me calling up
19 the folks who manage the relationships with our
20 farms to ask them offhand if they knew of farms
21 that had recently done any logging in order to
22 expand their pasture.

1 And just without any effort, without
2 any formal surveying of our farms, we were able
3 to identify nearly 10 farms out of a little over
4 30 farms that are in our direct milk supply in
5 this region who had recently cleared some land to
6 convert it to pasture.

7 So I think this is, you know, it's a
8 very common practice in this region. It's not
9 just limited to dairy farms. I focused my
10 comments on dairy farms, but I think it's routine
11 for any kind of operation in this region when
12 they want to expand they're often doing it via
13 cutting down some trees.

14 And I think there's a lot open to
15 interpretation in terms of how someone is going
16 to evaluate whether or not land fits this
17 definition of native ecosystems. And I'm very
18 concerned that farms are going to be told that
19 they can't expand their pasture land because of
20 this new requirement.

21 And I think, you know, you talk about
22 consumer expectations and meeting those consumer

1 expectations. We are very sensitive to that as a
2 business and really advocate strongly for the
3 integrity of the organic standard because we want
4 to meet the expectations of our consumers. But
5 we've also spent a lot of time in this industry
6 and at NOSB over the years talking about consumer
7 expectations around pasture use on organic
8 dairies.

9 And if we want organic dairy farms to
10 really be meeting the pasture requirements of the
11 standard or exceeding the pasture requirements of
12 the standard, which is what we urge our farms to
13 do, they need to be able to have the pasture to
14 do that.

15 And they don't have the same
16 flexibility that other farms might have of
17 saying, oh, I'm just going to choose this field a
18 mile down the road instead. They have to expand
19 near their barn. And so it really limits their
20 options.

21 MS. OAKLEY: Tom, can I have one quick
22 follow-up?

1 CHAIRMAN CHAPMAN: Yes.

2 MS. OAKLEY: So I wanted to just point
3 out that it's not an outright ---

4 (Telephonic interference.)

5 MS. OAKLEY: -- native ecosystems. It
6 is, like, a 10 year disincentive. But there is
7 certainly the possibility, still not that I would
8 want to encourage it, but that farmers, you know,
9 could work like in that 10 year time frame.

10 And then I did want to just ask if you
11 had a sense of the 10 out of 30 farms that you
12 got that data from, if you had a sense of the
13 number of acres that farmers have had to convert
14 from woodlands to pasture? And that's my last
15 question. Thank you.

16 MS. LUNDGREN: Well, like I said, it
17 was an informal survey. So we weren't tallying
18 acreage. I would not characterize it as a large
19 amount of acreage. But I don't have a number for
20 you.

21 MS. OAKLEY: Okay. Thank you.

22 CHAIRMAN CHAPMAN: Thank you. I also

1 have a question from Ashley then Harriet.

2 Ashley, go ahead.

3 MS. SWAFFAR: Thanks for your
4 comments, Britt. I have a question, so on the
5 definition of native ecosystem, if we took out
6 the last sentence there that altered 50 to 100
7 years ago land, would that alleviate your
8 concerns?

9 MS. LUNDGREN: I think it would help.
10 But some -- it depends on who is doing the
11 evaluating. And some people would define native
12 ecosystems solely based on plant species
13 composition and structure and not look at
14 historic use.

15 And so there might be some evaluators
16 that would still arrive at this conclusion that,
17 oh, if it's, you know, a classic mix of trees for
18 a New England forest, it's native, whether or not
19 that land was previously disturbed.

20 CHAIRMAN CHAPMAN: Harriet.

21 VICE CHAIR BEHAR: Hi. So I know that
22 this is probably going to need some extra

1 guidance to help the certifiers not overstep our
2 intent, which our intent was to really protect
3 those highly functioning ecosystems.

4 And a lot of times second growth takes
5 really a couple of centuries, I think even in the
6 forest, to really bring back all of the
7 understory and the great diversities that you
8 would find.

9 So I think that we could maybe deal
10 with some of your issues in guidance just to make
11 sure that certifiers will not overstep. Thank
12 you.

13 CHAIRMAN CHAPMAN: Okay. I don't see
14 any other questions for Britt. Britt, thank you
15 for answering our questions and thank you for
16 your comments.

17 MS. LUNDGREN: Thank you.

18 CHAIRMAN CHAPMAN: Up next, I have
19 Katherine DiMatteo followed by Francis Thicke and
20 then Stephanie Rose.

21 Let me see here. Stephanie Rose, we
22 haven't identified your phone number. So if

1 you're on the line or if you're on the computer,
2 please message us your phone number so we can
3 identify it.

4 Katherine, are you on the line with
5 us?

6 MS. DIMATTEO: I am. Can you hear me?

7 CHAIRMAN CHAPMAN: We can. You can
8 start with your name and affiliation for the
9 record.

10 MS. DIMATTEO: Certainly. Katherine
11 DiMatteo. I'm a partner in a consulting firm
12 Wolf Dimatteo & Associates.

13 Thank you for the opportunity to
14 comment and for your dedicated work as volunteers
15 to maintain the integrity of the organic sector
16 and encourage its growth and continuous
17 improvement.

18 My comments today are issues of
19 continuing concerns that we repeatedly have
20 commented on.

21 First was for inerts. When is this
22 going to be resolved? The continued use of an

1 out-of-date list does not serve to ensure
2 compliance to the requirements of the Organic
3 Foods Production Act and the NOP rules or provide
4 continued safety and effectiveness of organic
5 pest control materials.

6 Although we do not -- and secondly, I
7 would like to speak about plastic mulch.

8 Although we do not oppose the continued listing
9 of plastic mulch, if fully petroleum-based
10 plastic mulch were petitioned for the first time
11 now and compares to the alternative biodegradable
12 bio-plastic bio and petroleum based mulch film
13 that is available, it would be obvious that the
14 biodegradable, bio-plastic mulch is a
15 significantly better choice for organic
16 production when the manufacturer content and
17 impact on the environment are compared.

18 Third, natural sodium nitrate.

19 According to the recommendation of the NOSB the
20 annotation for the use of sodium nitrate was to
21 sunset in October of 2012. But there has not
22 been rulemaking to this effect.

1 If the Secretary has not taken action
2 in six years, then shouldn't sodium nitrate and
3 its annotation be considered during another
4 sunset review?

5 We owe it to the NOSB to request that
6 a proposed and final rule that reflects the
7 decision of 2011 be published.

8 Lastly, the National List in general.
9 It's part of the toolbox for organic production
10 and handling. Limiting the list or making it
11 shorter or smaller is not automatically the goal
12 or likely to be helpful to the organic community
13 in the long run.

14 The decision about whether something
15 should be on this very small list of synthetic or
16 non-organic materials that may be used in organic
17 production and handling must be based upon review
18 against the criteria that has been set up to
19 evaluate materials.

20 During sunset reviews, please ask
21 yourself if the material could be of use in the
22 future, especially to beginning operators in the

1 organic system.

2 It is very difficult to put something
3 back on the List and also adding a material to
4 the National List is a very long and arduous
5 process. So removing something is not be taken
6 lightly.

7 Please don't limit the toolbox
8 unnecessarily. We need to do everything we can
9 to encourage more organic acreage in the United
10 States. Thank you.

11 CHAIRMAN CHAPMAN: Thank you,
12 Katherine. Any questions for Katherine? I'm not
13 seeing any at this time. Thank you for your
14 comments.

15 MS. DIMATTEO: You're very welcome.

16 CHAIRMAN CHAPMAN: So up we have
17 Francis Thicke, followed by Stephanie Rose.
18 Stephanie we have not sent your phone number. So
19 if you're on the line, please message in.

20 After Stephanie is Aviva Glaser.
21 Aviva, we haven't found your phone number. So if
22 you're on the line, please message in.

1 And then following, just so you know
2 you're on deck if those other two people don't
3 show up, is Thomas Braun. So, Francis, are you
4 there?

5 MR. THICKE: Hi. This is Francis
6 Thicke. And you thought you had gotten rid of
7 me.

8 CHAIRMAN CHAPMAN: I can hear you. If
9 you could start with your name and affiliation,
10 Francis.

11 MR. THICKE: Francis Thicke, and I'm
12 speaking on behalf of the Organic Farmers
13 Association. OFA is a national membership
14 organization of certified organic farmers and
15 their supporters.

16 Our mission is to provide a strong and
17 unified voice for U.S. certified organic
18 producers. The Organic Farmers Association has
19 learned of some very recent developments in the
20 European Union that have major ramifications for
21 U.S. hydroponic production that is certified
22 organic.

1 Just this morning, actually, the
2 European Union voted on and passed a regulation
3 that does three things.

4 First, it confirms an existing EU ban
5 on hydronomic production. Second, it introduces
6 a stricter definition of soil bound production
7 that is connected to subsoil and bedrock.

8 And third it will prohibit the
9 importation of hydroponically produced organic
10 food from non-EU nations, including the United
11 States.

12 This new regulation as approved today
13 that will take you past January 1, 2021.

14 So already the EU does not allow
15 organic certification of hydroponic production.
16 While there are currently three Nordic countries
17 that do allow organic production in demarcated
18 beds which accounts for just a tiny fraction of
19 total EU organic production, the new EU
20 regulation will phase out demarcated beds for
21 existing facilities in those three Nordic
22 countries over 10 years and will prohibit the

1 development of new facilities with demarcated
2 beds.

3 So by 2031, production in demarcated
4 beds will no longer be allowed to be certified
5 organic for all 28 members of the EU, including
6 the Nordic countries.

7 The new EU regulation prohibiting
8 organic production also prohibits all container
9 production to be certified organic since
10 regulation specifically requires all organic
11 production to be in soil that is connected to
12 subsoil and bedrock.

13 Currently, the U.S. and EU have an
14 equivalency agreement that allows certified
15 organic products in the U.S. to be sold as
16 certified organic in the EU and vice versa.

17 The new EU regulation will modify that
18 equivalency agreement with a conformity principle
19 that will require U.S. imports to comply with the
20 new EU standards that prohibit organic
21 certification of hydroponic production.

22 In short, U.S. growers and handlers

1 will no longer be able to ship U.S.-certified
2 organic food that has been grown hydroponically
3 to the EU and selling it as organic. That will
4 be considered fraudulent by the EU, and they will
5 take steps to prevent it and will penalize those
6 who do not comply.

7 The Organic Farmers Association urges
8 USDA to reconsider its decision to allow
9 hydroponically produced products to be certified
10 organic and to follow the lead of the European
11 Union regarding hydroponic production.

12 For starters, I'd like to urge the NOP
13 to allow the Crops Subcommittee to put the
14 discussion document on container growing and
15 field growing back on the work agenda for the
16 fall 2018 NOSB meeting.

17 In conclusion, OFA strongly believes
18 that the letter and spirit of the Organic Foods
19 Production Act and the regulatory text of the
20 National Organic Program prohibit the organic
21 certification of hydroponic production. Allowing
22 hydroponic production to be certified as organic

1 damages the integrity and credibility of the
2 organic field, both at home and abroad. Thank
3 you.

4 CHAIRMAN CHAPMAN: Thank you. I have
5 a question, Francis, and it looks like we have
6 two other questions right now -- three other
7 questions right now.

8 So, Francis, as you're aware, probably
9 as a dairy farmer, that there's a lot of
10 differences between the European standards and
11 the U.S. standards that were addressed in the
12 current standing equivalency agreement. There's
13 a particular difference around the use of
14 antibiotics in livestock.

15 Why do you view this difference with
16 the hydroponics differently from the other ones?

17 MR. THICKE: Well, actually, it's not
18 my view. It's a regulation passed by the
19 European Parliament that will actually modify
20 that equivalency agreement.

21 And it's not clear to me if that will
22 go -- you know, what that will mean across the

1 board. We'll have to find that out. My
2 impression is that it may have ramifications more
3 broadly than hydroponics. But that is unknown to
4 me at this time.

5 CHAIRMAN CHAPMAN: Yes, yes. So I
6 guess what I'm saying is there's a lot of
7 differences between the European standards and
8 the American standards. This is just one more of
9 those.

10 What would make this any different
11 than the previous ones? Some of those other
12 differences have led to differences in allowances
13 under the equivalency agreement.

14 MR. THICKE: Right. But what I'm
15 saying is that --

16 (Simultaneous speaking.)

17 MR. THICKE: What I'm saying is that
18 our information from the EU is that this new
19 regulation will actually modify that equivalency
20 agreement, and it may no longer hold for
21 hydroponics. So that's what's different, is that
22 the European Union is going to prohibit the

1 importation on U.S. hydroponically-grown organic
2 certified produce.

3 CHAIRMAN CHAPMAN: Yes. So I
4 understand that. I guess, the question I'm
5 getting at is why, given that there's other
6 similar prohibitions between our two countries
7 related to the equivalencies on other products,
8 why would that change the way we regulate
9 products in the U.S.?

10 MR. THICKE: Well, it would only -- it
11 would mean that people importing -- the main
12 point of what I'm making here is that people
13 trying to import or export from U.S. to EU,
14 hydroponically-produced certified products will
15 not be able to do so.

16 That's very tricky when you think
17 about the process. And they're not certain yet
18 how they're going to, as I understand it, enforce
19 that.

20 But one idea that they're talking
21 about is that if something came into the EU that
22 was hydroponic and it was discovered to be

1 hydroponic, that the certifier that certified
2 that would lose its license to have anything
3 imported under that certification agency's
4 approval, which is quite different from what has
5 been done in the past.

6 CHAIRMAN CHAPMAN: And then this style
7 of derogation already exists between the U.S. and
8 the Canadian equivalency. Do you see it being
9 much different than that?

10 MR. THICKE: Pardon me. Say that
11 again.

12 CHAIRMAN CHAPMAN: The U.S. and
13 Canadian equivalency already has a derogation
14 related to the hydroponic and aeroponic
15 production. Do you see any differences between
16 that and what's happening here in the European
17 Union?

18 MR. THICKE: I can't see --- the only
19 one issue I can see is that the Canadians would
20 also have to conform to that new regulation. I
21 don't see it necessarily changing something
22 between the U.S. and Canada.

1 CHAIRMAN CHAPMAN: All right. So I'm
2 going to go in order of hands raised as best as I
3 can tell. And we'll start with Emily.

4 MS. OAKLEY: Thanks, Tom. So,
5 Francis, you mentioned suggesting that the NOP
6 allow the container item to be added back to the
7 work agenda. And I was wondering if you could
8 describe the areas of greatest concern or
9 attention that you think the Crops Subcommittee
10 should look at under such a work agenda item or a
11 potential proposal.

12 MR. THICKE: Good question. I haven't
13 looked at the document recently. But, basically,
14 we don't have any greenhouse standards. The 2010
15 recommendation of NOSB did suggest some standards
16 for greenhouse production, we do not have them.

17 And so --- and of course we do not
18 have standards for hydroponic production. So I
19 think that whole area needs to be addressed. If
20 we're going to be certifying hydroponic
21 production organically then we need to have
22 standards for it.

1 I mean, there are some other
2 precedents where, like beekeeping, we do not
3 allow it because we don't have standards. And so
4 I think that scope of the organic needs to have
5 standards if we're going to continue certifying
6 hydroponic as organic.

7 But specifically, some of the areas
8 have to do with the use of containers. We have
9 to dispose of the container, disposal of the
10 media that's used in the container and the use of
11 light. And even, let's see, energy. Energy is
12 something that I think that would be an issue in
13 the future that we should be looking at as well.
14 Energy use in greenhouses.

15 MS. OAKLEY: Thank you.

16 CHAIRMAN CHAPMAN: Harriet.

17 VICE CHAIR BEHAR: Hello, Francis. So
18 my understanding is someone, let's say, I'll just
19 pick on the Netherlands, could do hydroponic
20 using organically approved inputs under the
21 National Organic Program and import them then
22 into the United States even though they could not

1 sell them as organic in their country of origin.
2 Do you understand that to be true?

3 And do you know if there are any other
4 organic products that would be in the same
5 category where in their country of origin, they
6 couldn't sell it, but they could bring it into
7 our country and label it as organic.

8 MR. THICKE: I do not know of any
9 other product. And I think, my understanding is
10 that it is correct that hydroponically-produced
11 organically certified products from the U.S. can
12 be -- I mean, from Europe can be imported into
13 the U.S. But they cannot be sold in the European
14 Union.

15 CHAIRMAN CHAPMAN: I have a follow-up
16 question to that. So, I mean, it seems like
17 there's other products that meet that. There's
18 several differences between our regulations.

19 So, for example, a few of the
20 commenters have talked about sodium dioxide and
21 wine making and that's allowed in the European
22 Union. So if a U.S. producer of organic wine was

1 making a wine with sodium dioxide and labeling it
2 as organic and they wanted to export that to
3 Europe or -- is the inference being made here is
4 that product could not be sold in Europe as
5 organic even though it could not be sold as
6 organic in the U.S.?

7 MR. THICKE: Yes. I don't know if I
8 can answer that question. That's a good
9 question. I think we'll have to see what shakes
10 out of this.

11 CHAIRMAN CHAPMAN: Yes. I mean, it
12 just seems to me that there's a lot of
13 differences between these standards overall and
14 there's a lot of these kind of situations when
15 there's differences where a product can be made
16 domestically in one market and then potentially
17 not sold in that market but exported to other
18 ones where it complies with the standards.

19 MR. THICKE: But there have been cases
20 where it's been -- the exception has been made to
21 the conforming principle. For example,
22 antibiotics in apple production.

1 My understanding is that when we
2 visited those regions is that they could not ship
3 in the European Union unless they did not use
4 antibiotics. They could sell it in the U.S. with
5 antibiotics. But they could not ship it to the
6 EU. So there have been those kind of exceptions
7 to the conforming principle in the past.

8 CHAIRMAN CHAPMAN: Okay. Harriet. I
9 don't know if you were holding up your hand or
10 you had a follow-up question. Did you have a
11 follow-up question?

12 VICE CHAIR BEHAR: Yes. I just had a
13 follow-up to your follow-up. And that is so wine
14 here in the United States is still a certified
15 organic product. It's just a different labeling
16 requirement between the two whereas the
17 hydroponic growing in Europe would not be able to
18 be a certified product under the EU standard
19 could be imported as a certified organic product
20 in the United States. That's all.

21 CHAIRMAN CHAPMAN: And then next up I
22 have Steve.

1 MR. ELA: Actually, the point I was
2 going to make has already been asked. So thanks,
3 Tom.

4 CHAIRMAN CHAPMAN: All right. Thank
5 you, Steve. Any other questions from the Board?
6 I'm not seeing any. Francis, thank you for your
7 time. Thank you for answering our questions.

8 MR. THICKE: Thank you.

9 CHAIRMAN CHAPMAN: All right. So
10 after Francis, I have Stephanie Rose. Have we
11 found Stephanie Rose? Stephanie, are you here
12 with us? I'm not hearing Stephanie.

13 We also have Aviva Glaser. Aviva, are
14 you with us? All right. I'm not hearing those
15 two. So after that is Thomas Braun. Thomas, I
16 saw you on the line. I think we have you muted.
17 Thomas, are you with us?

18 MR. BRAUN: Yes, I am.

19 CHAIRMAN CHAPMAN: All right, Tom.
20 Hold on one second. After Thomas it will be
21 Megan DeBates followed by Elise George. Let me
22 try and check to see if we've found those. I do

1 see, Megan. Okay. So, Thomas, if you could
2 start with your name and affiliation for the
3 record.

4 MR. BRAUN: My name is Thomas Braun.
5 And I'm a pharmacist and health advocate.

6 My professional life has been focused
7 on helping people stay healthy. I founded a
8 community health education website called N2E+
9 for LIFE. That means all of us need a nutrient-
10 rich diet void of trace toxins.

11 If we are nutrient-deficient, we need
12 to supplement. We need to exercise to maintain
13 body symmetry and the plus means we need to have
14 a stress free life for mental and physical
15 health.

16 If our regulations allow trace toxins
17 to be put in under the name of natural flavor, we
18 as consumers are being denied the right to know
19 what we are consuming.

20 When we allow the definition of the
21 word organic to be used to deliver foods laced
22 with trace toxins, we again deny the American

1 public the right to know what we are consuming.

2 The majority of disease states are
3 inflammatory in origin and can be avoided by not
4 consuming trace amounts of multiple trace toxins
5 on a chronic basis.

6 That reprocessing with or without GMO
7 origin contain too many chemicals. The right to
8 know if we are consuming a GMO has already been
9 denied.

10 Over 60 countries around the world
11 have given their citizens the right to know and
12 their products are labeled.

13 It is mandatory the labeling laws
14 clearly separate clearly organically grown food
15 crops from foods that carry trace toxins.

16 What the food producers and the FDA
17 are not recognizing is that our bodies' ability
18 to manage the bio-degradation of trace toxins is
19 overwhelming our bodies' defenses, resulting in
20 disease states.

21 As an example, setting an FDA limit of
22 5 milligram per kilo body weight as a maximum for

1 sucrolose, which causes GI inflammation, has no
2 legitimate meaning when it is found in over
3 10,000 food products and the consumer has no
4 knowledge they are being overdosed.

5 The basic issue that the food industry
6 must address is how do we reduce the impact of
7 chemicals consumed by the American consumer which
8 is the root cause of our skyrocketing disease
9 states in the United States.

10 We also need a clear definition of
11 organic, meaning it is without manmade chemicals.
12 In addition, we need a commitment by the food
13 growers and our food processers to reduce the
14 number of chemicals added to our food supply.

15 Thank you for the opportunity to
16 express my view. We need a healthier America.
17 Thank you.

18 CHAIRMAN CHAPMAN: Thank you, Thomas.
19 Any questions for Thomas. Thomas, I'm not seeing
20 any questions from the Board. Thank you for your
21 comments here today.

22 Up next we have Megan followed by

1 Elise George. Elise, we are not finding your
2 phone number on the panel. If you are here,
3 please message in with us so we know you are
4 here. And after Elise is Carol Goland. Megan,
5 are you here with us?

6 MS. DEBATES: I am. Can you hear me?

7 CHAIRMAN CHAPMAN: Yes, we can.

8 Megan, state your name and affiliation for the
9 record.

10 MS. DEBATES: Yes. Megan DeBates from
11 the Organic Trade Association.

12 CHAIRMAN CHAPMAN: Great. And just go
13 forward with your comments.

14 MS. DEBATES: I want to comment on the
15 NOSB's work on increasing oversight of the
16 organic supply chain globally and addressing the
17 issue of import fraud as well as provide a brief
18 update on issues relevant to NOSB and the farm
19 bill.

20 OTA has been pursuing legislative
21 changes for the next farm bill to give NOP the
22 tools it needs to prevent fraud.

1 As a result, Congressman John Faso
2 introduced the Organic Farmer and Consumer
3 Protection Act last fall.

4 The legislation provides support and
5 necessary funding for NOP to keep pace with
6 industry growth and to carry out compliance and
7 enforcement actions in the U.S. and abroad.

8 It strengthens the emphasis on NOP's
9 authority and capacity to conduct investigations
10 and provides \$5 million for NOP to invest in
11 technology and access to data to improve tracking
12 of international organic trade.

13 I am pleased to report that the entire
14 bill was included in the House Farm Bill that was
15 marked up and passed out of the Agriculture
16 Committee yesterday. This was an important step
17 forward.

18 Most relevant to the NOSB is a
19 provision in the bill that requires the USDA to
20 complete rulemaking and issue regulations on
21 limiting the types of operations excluded from
22 certification.

1 This has to occur within a year of the
2 Farm Bill being signed into law. Although it's
3 unclear how soon the Farm Bill will be signed
4 into law, the statutory deadline will require
5 fast action by USDA in issuing a final rule.

6 So it would be helpful for the NOSB to
7 be preparing thorough recommendations in this
8 area sooner rather than later.

9 I would also like to provide a
10 critical update on language that was contained in
11 the House draft Farm Bill that was released last
12 week that created an alternative mechanism for
13 materials to be added to the national list
14 without approval from the NOSB.

15 The OTA worked quickly to reverse this
16 damaging language in the House bill. Congressman
17 Rodney Davis, who is the Republican Chairman of
18 the Subcommittee on Horticulture, offered to pass
19 an amendment in committee markup yesterday that
20 would preserve NOSB's role in materials review.

21 I want to thank the National Organic
22 Coalition and others in the industry for working

1 with us on a tight timeline to get this
2 corrected.

3 I'm going to read a direct quote from
4 Congressman Davis from the amendment debate.
5 Quote, consumer trust in the USDA organic seal is
6 one of the main reasons we continue to see the
7 growth in organic agriculture. My amendment
8 protects the roles in the National Organic
9 Standards Board in reviewing and establishing the
10 national list of approved and prohibited
11 substances for use in organic production and
12 handling. By protecting the role of the NOSB, we
13 give our consumers continued trust in the USDA
14 organics seal, end quote.

15 I just wanted to let the Board members
16 know that Congress supports you in your important
17 role. Thank you for the opportunity to provide
18 comments.

19 CHAIRMAN CHAPMAN: Thank you, Megan.
20 Any questions for Megan? Megan, I'm not seeing
21 any questions. Thank you for your comments here
22 today. Up next after Megan we have Elise George.

1 Elise are you on the line with us?

2 MS. GEORGE: Yes, I am.

3 CHAIRMAN CHAPMAN: All right. And if
4 you can hold one second, Elise. After Elise, we
5 have Carol Goland and then Noelle Weber-Strauss.
6 Elise, if you could start with your name and
7 affiliation for the record.

8 MS. GEORGE: Hi. This is Elise George
9 with Ohio Ecological Food and Farm Association,
10 OEFFA certification.

11 And I just want to thank the NOSB and
12 the NOP for their attention to improvements in
13 the oversight of imports.

14 Requiring importers and brokers to
15 certify would reduce risk in a number of ways.
16 It would reduce the amount of fraudulent imports.
17 There would be less trading of fumigated or
18 irradiated products as organic and fewer products
19 rated that are not in accordance with
20 international trade requirements.

21 OEFFA believes that importers and
22 brokers should be required to certify. With an

1 adequate timeline, this could be achieved with
2 minimal impact on the industry.

3 Until then NOP import certificates can
4 be very useful. When uncertified entities are
5 involved in the supply chain, import certificates
6 can sometimes provide a link to the last
7 certified entity.

8 This link would be even stronger if
9 lot numbers were required to be included on
10 import certificates. Currently import
11 certificates are only required for countries with
12 which we have an equivalency arrangement. Import
13 certificates are incredibly helpful and should be
14 required for all imports.

15 These are issued by certifiers and can
16 help inform when operations deviate from the NOP
17 and support the certifier's risk analysis. A
18 risk based system of cross-checks lead by the NOP
19 and communication with certifiers would also be
20 an excellent tool to detect and deter fraud. And
21 that's my comments.

22 CHAIRMAN CHAPMAN: Thank you. Any

1 questions for Elise? Elise, can you talk a
2 little bit more about cross-checks and how this
3 would work in the business environment?

4 MS. GEORGE: I foresee the NOP using a
5 risk-based tool to select a certain number of
6 their accredited certifiers to initiate a cross-
7 check list and most likely at the more processed
8 end of the supply chain. And then linking back
9 through different certified entities, uncertified
10 entities potentially, all the way back to the
11 farm that the products were grown on, and looking
12 at different tools along the way to improve
13 recordkeeping and detect fraud.

14 I'm not sure if I answered that
15 question. I'm not quite sure I answered it.

16 CHAIRMAN CHAPMAN: Thank you. Yes,
17 you did. Any other questions from the Board?
18 All right. Thank you, Elise. Up next we have
19 Carol Goland followed by Noelle Weber-Strauss,
20 followed by David Shively. Carol, are you on the
21 line with us?

22 MS. GOLAND: I am.

1 CHAIRMAN CHAPMAN: We can hear you,
2 Carol. If you can start with your name and
3 affiliation.

4 MS. GOLAND: Great. Good afternoon,
5 everyone. My name is Carol Goland. I am the
6 Executive Director of the Ohio Ecological Food
7 and Farm Association, OEFFA, and OEFFA
8 certification.

9 OEFFA has operated an organic
10 certification program since 1981, and we've been
11 USDA accredited since 2002. And last year we
12 certified over 1250 organic operations.

13 To start I'd like to thank the Board
14 for their service and also for hosting this
15 webinar, which makes it possible for more people,
16 including me, to participate.

17 It's especially valuable in allowing
18 more farmers to be involved. And I'm really
19 pleased that you're able to hear from several
20 OEFFA-certified growers these last two days.

21 In the written comments that OEFFA
22 submitted, we described OEFFA and the standards

1 as the backbone of the organic sector. And here,
2 I'm going to extend the anatomical analogy and
3 describe the NOSB as the connective tissue
4 between the organic community and the NOP.

5 It's hard to overstate how important
6 the NOSB is in connecting the federal program to
7 organic farmers, consumers and businesses who are
8 the lifeblood of the industry.

9 Additionally, the NOSB is essential in
10 giving voice to these organic stakeholders and in
11 bringing issues that are important to them
12 forward.

13 So given this, we think that the NOSB
14 should have the authority to set its own work
15 plan to make sure that the needs of the organic
16 industry will be addressed.

17 We appreciate that you published an
18 updated work agenda, and we do hope you will
19 return to publishing subcommittee notes online
20 since that information and transparency is so
21 useful in our work.

22 We are deeply concerned by the USDA's

1 disregard of the Board's recommendations and of
2 public input, especially in withdrawing the
3 organic livestock and poultry practice rule.

4 These are the sorts of actions that we
5 value stakeholder participation and leave them to
6 question why they are participating in the
7 process if NOSB recommendations and public input
8 will be ignored.

9 Without consistent application of
10 clear standards and strong enforcement, the
11 integrity of the organic field is degraded, the
12 market for organic products is diminished and
13 that leads to economic harm.

14 On Tuesday, we heard evidence that
15 this is happening. So on behalf of OEFFA and
16 especially our certified producers, we urge the
17 NOSB to continue to support and to lead our
18 organic community by insisting on enforcement.

19 We ask the same from the NOP and we
20 ask that you prohibit certifications in more
21 applicable standards of risk. We also ask that
22 you uphold the recommendations made by NOSB and

1 heed public input.

2 Finally, just as with any system in
3 the body, structure and function are closely
4 related. We need to structure, set off and put
5 into place the administration of the NOP and
6 recommendations of the NOSB, the accreditation of
7 certifiers, the input of stakeholders to support
8 our function as an industry. Thanks very much.

9 MS. ARSENAULT: Tom, I'm not sure if I
10 muted you.

11 CHAIRMAN CHAPMAN: No, I muted myself.
12 I apologize.

13 MS. ARSENAULT: Okay. Thank you.

14 CHAIRMAN CHAPMAN: Talking the entire
15 time, asking if there were questions from the
16 Board. I don't see any questions from the Board.
17 So, Carol, thank you for your testimony.

18 MS. GOLAND: Thank you.

19 CHAIRMAN CHAPMAN: Thank you. Next we
20 have Noelle Weber-Strauss, followed by David
21 Shively and then David Marchant. Noelle, are you
22 on the line with us?

1 MS. WEBER-STRAUSS: Yes. Can you hear
2 me?

3 CHAIRMAN CHAPMAN: We can. So,
4 Noelle, you can start with your name and
5 affiliation.

6 MS. WEBER-STRAUSS: Yes. My name is
7 Noelle from Wisconsin. I'm a mother of two-year-
8 old Wilhemina and three-year-old Weber. I use
9 the USDA organic label as a guide for what's not
10 only safe, but what's able to nourish my family.

11 In fact, if you give my three-year-old
12 something to eat, he'll likely ask you in the
13 sweetest little voice, is that organic?
14 Sometimes embarrassing. But I wish he didn't
15 even know the word organic and the only food
16 allowed in this country was real food, like the
17 only food that our great grandparents ever knew.

18 But that's not the case. I'm not one
19 to speak up and speak out. In fact I almost
20 didn't unmute myself because I'm so nervous. But
21 it was recently brought to my attention that the
22 USDA organic label is no longer the gold standard

1 it once was.

2 I'm grossed out by meat I once wanted
3 to eat, and I cannot sit quietly. My background
4 is in social work with a graduate degree in
5 education. And in my previous work at a D1
6 university, I was appalled at all the mental and
7 physical health issues I saw behind the scenes
8 and know that food plays a large role in our
9 health crisis.

10 Although I may not have fancy degrees,
11 I do have common sense. And I'm asking you to
12 use common sense when it comes to safety and
13 quality of our foods and the health and well-
14 being of our people, especially our children.

15 We cannot allow synthetic natural
16 flavors for any reason into our organic food.
17 And we must remove -- I can't even pronounce it.
18 It cannot be in our food. Strict regulation for
19 organic standards is crucial to protect organic
20 integrity and the health of our people.

21 We know better, and we need to start
22 doing better. I believe in you, NOSB. I believe

1 you have our best interest in mind and are not
2 being swayed by in-house studies or paid third-
3 party studies.

4 I imagine you're parents and you, too,
5 want to use the USDA organic label as a guide for
6 nourishing your children. Please do not let our
7 kids down. They may be the sickest generation
8 yet and the first generation not expected to
9 outlive their parents. And they deserve better.

10 Food is their medicine if the food is
11 real and not made from things we cannot even
12 pronounce. Eating healthy, real food is already
13 difficult enough. And without the integrity of
14 the USDA organic label, I, along with millions of
15 other moms and dads will be lost in this food
16 roadmap.

17 I feel tricked into believing that
18 food with the USDA organic label that I've been
19 giving my kids is safe and even healthy. But I'm
20 finding out that even this food, with your label,
21 has allowed the use of disease-causing
22 ingredients made in labs.

1 I know you have a tough job. But,
2 please, please, please do your best to protect
3 our foods and to protect us. Thank you.

4 CHAIRMAN CHAPMAN: Thank you, Noelle.
5 Any questions from the Board for Noelle? Noelle,
6 I'm not seeing any questions. But thank you for
7 unmuting yourself and sharing your perspective
8 with us today.

9 MS. WEBER-STRAUSS: Thanks for having
10 me.

11 CHAIRMAN CHAPMAN: Up next we have
12 Dave Shively followed by David Marchant. David
13 Marchant, I'm not seeing you on the phone list so
14 if you are on the line, please message in. After
15 David Marchant is Suzanne McMillan. Dave
16 Shively, are you here with us?

17 MR. SHIVELY: Can you hear me?

18 CHAIRMAN CHAPMAN: I can. Dave, if
19 you could start with your name and affiliation.

20 MR. SHIVELY: Okay. My name is David
21 Shively of Shively Farms. I'm an organic grain
22 farmer in Northwest Ohio for the last 14 years

1 and I grow corn, soybeans, wheat, oats, rye and
2 use some cover crops.

3 I'm the current president of the OEFFA
4 grain growers chapter in the state to OEFFA. I
5 appreciate the opportunity to address issues of
6 fraudulent imports since it has greatly impacted
7 the members of our chapter and others across the
8 U.S.

9 As you probably have heard from just
10 about a year ago, the Washington Post exposed
11 fraudulent imports going into a port in Stockton,
12 California from the Black Sea area and containing
13 pesticide-related products in their corn and
14 soybeans.

15 The fraudulent imports started to just
16 tarnish the integrity of the organics. The
17 organic name really has a level of stringent
18 rules and as U.S. growers, we all abide by those.
19 And everything that we sell can be traced totally
20 back to our farm, grain bin, what was applied and
21 how it was treated.

22 And just yesterday it came to my

1 attention that I'll have to give the USDA lots of
2 credit. They are holding another ship in
3 Stockton at the same port, holding about a
4 million bushels of, supposedly, corn from Turkey.

5 And through further investigation they
6 found is it from the Black Sea area, Russia,
7 Kazakhstan, Moldova, which we do not accept
8 grain from them.

9 What troubles me is these companies
10 that are importing it and buying it and bringing
11 it into the states under these conditions, as far
12 as I'm concerned, their certificates should be
13 stripped.

14 I look at these foreign certifiers,
15 brokers, exporters, buyers are playing a shell
16 game to lose the -- paperwork can get lost and
17 say it's gone and it never had.

18 Millions can be made by this. I call
19 it the organic grain mafia from that area. And
20 so by a tip, the USDA they have said it leaves
21 the ship in Stockton at the moment and it needs
22 to be destroyed or deported back to its origin.

1 I urge the USDA to continue to take
2 hold on this and be diligent about keeping our
3 integrity and just -- I guess that's what I have
4 to say on that part.

5 CHAIRMAN CHAPMAN: Okay. Thank you,
6 Dave, for your comments. Any questions for Dave?
7 I see I have a hand raised. Harriett?

8 VICE CHAIR BEHAR: Hi, Dave.

9 MR. SHIVELY: Hi.

10 VICE CHAIR BEHAR: I wonder if -- we
11 don't have enough domestic production to supply
12 the organic livestock industry. Is that out of
13 date? And I'm just wondering if you've seen the
14 publicity and the problem that we've had with
15 lower prices caused by the fraudulent imports.
16 How is that affecting the farmers in the region?

17 MR. SHIVELY: Well, a little over a
18 year ago our markets started dropping, and we
19 could feel the effects of that for every one of
20 our guys. And so instead of getting \$10, \$12
21 corn, we were getting \$9 maybe, if we could get
22 to that.

1 That has a tremendous impact on us.
2 And I feel like the playing field is not level if
3 they're importing fraudulent grains. We feel
4 like if we can compete with playing on the same
5 level playing field, but that's what we're not
6 playing by.

7 When they're bringing fraudulent
8 grains in and claiming its organic, you can make
9 millions. I mean, a shipload of a million
10 bushels and you've got a spread of \$5 or more,
11 \$5, \$6, \$7, that's a -- I mean, these imports
12 from Turkey and those supposedly have increased.
13 How can they increase their production three
14 times from one year? Red flags, I guess, should
15 be coming up. I don't know if that answered your
16 question.

17 Every meeting we have new guys. I've
18 got a couple more guys wanting to, are interested
19 in transitioning to organics. So this is
20 exploding in the U.S. And I feel that we will
21 eventually probably meet the needs or come close
22 to it.

1 CHAIRMAN CHAPMAN: Thank you, Dave. I
2 don't see any other questions from the Board. So
3 thank you for your comments and your time here
4 today.

5 MR. SHIVELY: Thanks for letting me
6 talk.

7 CHAIRMAN CHAPMAN: Yes. David
8 Marchant, are you on the line with us? I am not
9 seeing you on the line. So we'll move on to the
10 next person. Suzanne McMillan, are you on the
11 line with us?

12 MS. MCMILLAN: Yes. Can you hear me?

13 CHAIRMAN CHAPMAN: Yes, I can. Hold
14 on one second, please, Suzanne. So after Suzanne
15 is Michael Jones followed by Michael Stein.
16 Michael Stein, I haven't found you on the line
17 yet. So please message us if you're here. And
18 Suzanne, if you could start with your name and
19 affiliation.

20 MS. MCMILLAN: Sure. Suzanne
21 McMillan, ASPCA. Thank you for the opportunity
22 to comment on behalf of the American Society for

1 the Prevention of Cruelty to Animals, or the
2 ASPCA, and our over 2-1/2 million supporters
3 nationwide.

4 We, and a majority of the consumer
5 public, continue to wait for and expect high
6 standards for animal welfare in the National
7 Organic Program.

8 This expectation has not been met. We
9 thank the NOSB for its leadership on this issue
10 while condemning the USDA's withdrawal of the
11 organic livestock and poultry practices rule.

12 We continue to point to the ongoing
13 critical need for clear, detailed and robust
14 animal welfare standards for organic livestock
15 and poultry during rearing, transport and
16 slaughter.

17 Anything short of that fails to uphold
18 NOP's charge and the spirit of organic as well as
19 misleads consumers, undermines farmers and harms
20 animals.

21 We also feel compelled to mention the
22 NOSB's critical role, as required by law, in the

1 development of meaningful and transparent
2 standards.

3 Through a process that is laudably
4 transparent and participatory, the NOSB serves a
5 unique and essential function, which the ASPCA
6 and our supporters heavily rely on as we advocate
7 for meaningful, organic animal welfare standards.
8 Thank you for your time and consideration today.

9 CHAIRMAN CHAPMAN: Thank you. Any
10 questions from the Board? I'm not seeing any
11 questions. Suzanne, thank you for your comments
12 here today. Michael Jones, are you here with us?

13 MR. JONES: Yes, I am. Can you hear
14 me?

15 CHAIRMAN CHAPMAN: All right, Michael.
16 I can. Hold on one second. So Michael Stein,
17 you're up next. We haven't found you on the
18 list. So if you've dialed in, please message us
19 your phone number.

20 And the same goes for the next one
21 with John Schumacher. John, if you can message
22 us. We haven't found you. If John's not here,

1 then we'll go down to Lois Christie. So just
2 know you're on deck.

3 Michael, if you could start with your
4 name and affiliation for the record.

5 MR. JONES: Yes. My name is Michael
6 Jones. The farm's name is Sanctuary Farms.
7 We're located in North Central Ohio. We're part
8 of OEFFA's grain growers.

9 And the crops that I raise are both
10 food as well as for animals, food-grade soybeans,
11 popcorn, field corn, hay, wheat and whatever that
12 can be used to generate income or cash sale on
13 the farm.

14 I started in 1981 and I was first
15 certified, I think, it was '83 with OEFFA. And
16 we were out for a few years, but I belong to
17 OEFFA. The farm is a family farm. I'm second
18 generation.

19 And today I want to thank the Board
20 members because I know being on the Board is
21 sometimes it's extremely difficult, and I
22 appreciate your time and energy.

1 I want to speak today on the
2 fraudulent imports of both soybeans as well as
3 field corn. The cost to my small farm, which is
4 about 140 acres, was roughly \$21,000 last year
5 that I lost in income because of the depressed
6 prices of the imports.

7 I estimate about a 30 percent loss for
8 the overall makeup of my farm. As Dave Shively
9 just spoke a few minutes ago, I have no problem
10 with anybody that will compete as long as it's
11 the same playing field.

12 But I continue to see these imports
13 coming in with different standards. And as a
14 recent Washington Post article spoke about how
15 the USDA's own Office of Inspector General, he
16 was finding that they were unable to provide
17 reasonable assurance and that they were required
18 to review at the U.S. ports of entry to verify
19 that imported agriculture products labeled as
20 organic, were they from certified organic farms
21 or not.

22 My biggest concern with the imports is

1 the destruction of the integrity of organics, of
2 people trusting that what they buy will be what
3 they get. And not only are the prices
4 devastating, but they also undermine that.

5 My hope is that the EU has several
6 things that they do that need not do and that is
7 have a watch list of countries, Russia, Turkey,
8 all of the Soviet bloc countries, they put them
9 on watch lists because of the discrepancies that
10 I'm hearing about other people as of this date.

11 And by that, we need to take extra --

12 CHAIRMAN CHAPMAN: Hi, Michael. The
13 pocket buzzer is going, if you can wrap up.

14 MR. JONES: Okay. I do wish to thank
15 the Board for this time. And if there's any
16 questions, I'd gladly try to answer them.

17 CHAIRMAN CHAPMAN: Thank you. Any
18 questions from the Board for Michael? I see we
19 have one. Dave. Dave, are you on mute? Dave,
20 are you --

21 MR. MORTENSEN: Are you hearing me
22 now, Tom?

1 CHAIRMAN CHAPMAN: Yes. I can hear
2 you.

3 MR. MORTENSEN: Great. Yes, I just
4 wanted to, you know, say that the Board is really
5 thankful to hearing from folks about this issue.
6 And it's particularly helpful for us to hear from
7 growers and how the problem is impacting your
8 production systems and your sustainability. So I
9 just wanted to say thank you for calling in and
10 sharing that case study of a real world problem
11 on your place. So thanks.

12 MR. JONES: Well, I appreciate that.
13 Just if I could say one more thing that we need
14 to be profitable because not only for our
15 generation, but I've got a grandson that is
16 hoping to eventually take the farm over.

17 And the economic aspect of it is a
18 very important thing in the organics. And I'm
19 sure I can speak for almost all farmers that they
20 wish to pass their farm on to the next generation
21 and the only way we're going to do that is if
22 we're economically viable. So thank you.

1 MR. MORTENSEN: Thanks.

2 CHAIRMAN CHAPMAN: Thank you. Thank
3 you, Michael. I'm not seeing any other questions
4 from the Board. So thank you for your comments
5 here today.

6 Up next, we have Michael Stein.
7 Michael, are you on the line with us?

8 MR. STEIN: Yes. I joined.

9 CHAIRMAN CHAPMAN: All right. Nice to
10 hear you, Michael. Hold on one second. All
11 right. We have John Schumacher. John, I haven't
12 found you so if you're on the line, please
13 message us so we can identify your phone number.
14 And after John is Lois Christie. So Michael
15 Stein, if you can start with your name and
16 affiliation for the record.

17 MR. STEIN: Sure. My name is Michael
18 Stein. I'm the policy associate for the Organic
19 Farming Research Foundation.

20 CHAIRMAN CHAPMAN: We're getting some
21 background noise so if folks could go on mute,
22 that would be appreciated. And, Michael, go

1 ahead with your comments.

2 MR. STEIN: Okay, great. Thank you
3 very much for giving me the opportunity to
4 comment.

5 OFRF, the Organic Farming Research
6 Foundation, has been engaged for over 30 years in
7 organic research, funding organic research and
8 also interacting with farmers and researchers
9 around the country to identify research needs.

10 A couple of years ago, we published
11 our National Organic Research Agenda that, I
12 think, was shared with all members of the Board
13 about a year ago, and it outlines the top organic
14 research needs across the country. And these are
15 big generalities looking at the challenges
16 primarily with weed, pest and disease pressures
17 that are being faced by organic farmers.

18 And so we've done a little bit more
19 research recently trying to drill down to figure
20 out what are the links that are facing organic
21 farmers? What are the challenges and how can
22 research best overcome them?

1 So fairly recently, we just finished
2 up a series of seven guides on soil health and
3 organic farming. So that's really the biggest
4 challenge that our organization has identified
5 that links in the weed, pest and disease
6 pressures that organic farmers are facing around
7 the country.

8 So I have several recommendations
9 based on our soil health guides and the
10 information that we've got. But it is looking at
11 soil health in a variety of specific areas, so
12 looking at soil health and conservation tillage,
13 soil health and water quality and water
14 management, soil health and cover crops, and then
15 overall building healthy soils and soil organic
16 matter.

17 So I know that the NOSB puts out
18 research recommendations. And as a researcher
19 and a research organization, I want to thank you
20 very much for putting those out and would
21 encourage you to continue putting those out
22 because they're very helpful not only for us but

1 for all of the researchers that we're interacting
2 with.

3 So my purpose to call in today was to
4 put in a recommendation for the research needs to
5 look at soil health.

6 And specifically, there's been a lot
7 of research on soil organic matter, soil organic
8 materials, biomass activity, but there really is
9 a little bit more that needs to be done in terms
10 of soil health.

11 Really looking at reliable and
12 practical measurements and protocols for farmers
13 to be able to utilize and implement looking at
14 active and total soil organic matter, predictable
15 guidelines regarding what is optimal soil organic
16 matter or target levels that folks are looking
17 for.

18 And then practical, reliable and
19 affordable field or lab testing methods to look
20 at soil health, soil fertility and then soil food
21 web function, recognizing that this is all very
22 regional or even varies state to state not just

1 the region soil quality and soil type varies.

2 So that's really the big picture of
3 what our organization has identified as increased
4 needs in research on soil health. And there's a
5 lot more detail that I can get into, but I know
6 that we're short on time on this.

7 And so I'll turn it over to anyone on
8 the Board if you have any questions on specific
9 soil health issues.

10 CHAIR CHAPMAN: Thank you, Michael.

11 Any questions? I have one from Harriet.

12 MR. STEIN: Hi, Harriet.

13 VICE CHAIR BEHAR: Hi, Michael. I was
14 just wondering, I know soil health has been
15 getting a lot of attention just across the board
16 and U.S. agriculture. And I'm wondering if
17 there's any specific areas that focus on organic.

18 I know, you know, cover crops are
19 used, you know, even in non-organic, the
20 foundational principle in organic. But would it
21 be useful to not only see the positive things
22 that we do but to help people understand organic

1 systems by some of what the conventional side
2 does?

3 So if someone is terminating cover
4 crops with an herbicide, for instance, how does
5 that affect soil health? Would that of any use
6 to the organic community to know that information
7 as well?

8 MR. STEIN: Yes. I mean, definitely
9 something that there's been some research on but
10 there definitely could be more research on is the
11 role of soil and living root biomass, maintaining
12 that soil health and soil organic matter, and so
13 looking at the different practices and what
14 happens in organic systems.

15 And, of course, there's variety within
16 organic systems. But looking at soil health and
17 how organic systems not only can promote soil
18 health, but showcase a difference for organic
19 farming practices, whether they're adopted by
20 conventional farmers or not because it's really
21 helpful to have that material from our
22 perspective to be able to showcase not only

1 practical tools and techniques that farmers can
2 use, but also the benefits that organic farming
3 practices can bring to soil health across the
4 board.

5 That's what we're trying to do with
6 these guides that we put out. But there just is
7 increased research needs just because even
8 measurements of soil organic matter and soil
9 health overall are so relatively undefined both
10 academically and then on the farms and on the
11 fields.

12 CHAIR CHAPMAN: Thank you, Michael.
13 I'm not seeing any other questions at this time.
14 Thank you for your comments here.

15 MR. STEIN: Thank you. And thanks,
16 Harriet, for the question.

17 CHAIR CHAPMAN: So up next, we have
18 Lois Christie. Lois, are you on the line with
19 us?

20 MS. CHRISTIE: Hello?

21 CHAIR CHAPMAN: Yes, there we go.
22 Lois, can you hear me?

1 MS. CHRISTIE: Can you hear me?

2 CHAIR CHAPMAN: Yes. And hold on one
3 second. After Lois we have David Bell and
4 following David Bell, we have Andrew Tomes.
5 Andrew, we haven't found you on the line so
6 please message us if you are here. Lois, if you
7 could start with your name and affiliation for
8 the record.

9 MS. CHRISTIE: Hi, yes, this is Lois
10 Christie of Christie Organic Consultants. I
11 really appreciate the commitment the Board
12 members give to this process. And I want to
13 comment on sulfurous acid today.

14 I help manage the organic
15 certification programs for several large growers
16 who have many sulfur burners installed for the
17 use on thousands of acres.

18 There's a method sulfurous acid is
19 used only on degraded lands caused by
20 overfarming. All of our growers utilize
21 sulfurous acid because they are located in arid
22 regions and problems high alkalinity and

1 bicarbonates.

2 They have a high degree of soil
3 improvement methods in place, such as
4 preapplications of compost and covered class
5 agents.

6 The advantage using sulfurous acid, it
7 eliminates most of the bicarbonate that's going
8 in the water, a problem in arid landscapes. When
9 the bicarbonates have been decreased, the pH also
10 decreases in greater efficiency and application
11 of organic products is achieved.

12 It assists in the total control of
13 algae, which have been pathogens in the
14 reservoirs and irrigation equipment. The soils
15 are low in sulfur, which is needed for various
16 functions of the plant as well as control of
17 certain diseases.

18 The small contribution is very
19 important to the plant fill. There are less
20 problems in irrigation pipes and hoses such as it
21 assists in the elimination of bacteria that
22 proliferates inside the irrigation pipes and

1 there is less internal bacterial sludge buildup.

2 Organic fertilizer applications often
3 cause blockage of irrigation pipes. The reaction
4 resulting from burning elemental sulfur, the
5 formation of sulfurous acid is better at
6 controlling pH than large direct soil
7 applications of sulfur, which would be required
8 without the use of sulfurous acid.

9 By controlling the pH to the ideal
10 level of 6.5 it assists in dissolving mineral
11 elements in the water and making the elements and
12 minerals found in the compost and composting that
13 would make more available to the plant.

14 It controls and keeps irrigation pipes
15 clean around irrigation materials to be reused
16 and thereby reducing plastic consumption and
17 waste production.

18 When sulfur burners are not being
19 used, there's a large formation of algae that
20 causes diseases in plants, creates higher sulfur
21 deficiency in the soil. Large amounts of sulfur
22 would be needed to be directly applied to the

1 soil in order to do what very small amounts of
2 sulfurous acid does.

3 Large applications of citric acid will
4 be necessary for removal of algae. The high cost
5 of labor would be needed to be dedicated for the
6 removal of algae in alkaline water. It is
7 difficult for plants to have nutrient
8 availability when there is high alkaline water.

9 Irrigation tanks must be changed every
10 six months because of blockages caused by
11 bacteria and bicarbonates. The impact of not
12 being able to use sulfurous acid will be great.
13 There is not just a matter of no longer using the
14 material. The infrastructure that is already in
15 place is significant. The cost of each sulfur
16 burner is approximately \$25,000 to \$30,000, and
17 it is interconnected in the water pipes pumping
18 the filtration systems.

19 So the loss of sulfurous acid will be
20 great to those who farm in arid climates that
21 typically have high alkaline water. Thank you so
22 much for your time.

1 CHAIR CHAPMAN: Thank you, Lois. Any
2 questions for Lois? Lois, I'm not seeing any
3 questions. Thank you for your testimony today.

4 MR. CHRISTIE: Thank you so much.

5 CHAIR CHAPMAN: So up after Lois we
6 have David Bell. David are you on the line with
7 us?

8 MR. BELL: Yes. Can you hear me?

9 CHAIR CHAPMAN: Yes, I can, David.
10 And hold on one second. After David, we have
11 Andrew Tomes. Andrew, I haven't found you on the
12 line so please message us if you're here.

13 And after Andrew is Jeff Bogusz.
14 Jeff, I see you're on the web portion, but we
15 haven't found your number yet. If you could
16 message us your number, that would be
17 appreciated.

18 David, if you could start with your
19 name and affiliation?

20 MR. BELL: Okay. David Bell. I'm a
21 member of the OEFFA Grain Growers Chapter. I'm a
22 past president of that group, and I served on the

1 certification committee for five or six years,
2 three or four of those of which I was the
3 chairman of.

4 My brother and I have 450 acres of
5 organic production. We raise corn, beans, wheat,
6 spelt, hay and organic beef in West Central Ohio.
7 We've been organic for 40 years.

8 I'm here to address the issue of the
9 imports. The issue of fraudulent grain imported
10 into the country had a significant impact on our
11 operation. In the last three years alone, we
12 have lost approximately \$189,000 in price
13 reductions.

14 Of course, the integrity of organic is
15 extremely important. If the public can't be sure
16 that the product that they are buying is true
17 organic, they lose confidence and may not be
18 willing to spend extra money on our products.

19 We already have rules and procedures
20 in place to guard against this abuse. But
21 evidently no one is verifying the integrity of
22 all the foreign imports.

1 Foreign certifiers need to be
2 performing audits on their producers and someone
3 needs to verify that these foreign certifiers are
4 being audited, too.

5 Paperwork needs to be verified before
6 the products are shipped from foreign countries,
7 I would think, and at least when they get to our
8 ports.

9 Maybe testing needs to be done for
10 GMOs and chemical contamination before this grain
11 is allowed to be introduced into our country. I
12 don't know what all the answers are, but the
13 rules of organic production must be enforced or
14 we will lose consumer confidence and thus our
15 market and our way of life.

16 I would like to thank you all for your
17 service to the NOSB and the time that you have
18 given me to give my comments. Thank you.

19 CHAIR CHAPMAN: Thank you, David. It
20 looks like I have a question from Harriet.

21 VICE CHAIR BEHAR: Hi. It's not
22 exactly a question. But I understand so much of

1 what's going on with the fraudulent imports, but
2 I don't hear anybody mentioning that all of the
3 livestock they're now not being fed actual
4 organic grains.

5 And having been an organic inspector
6 for over 20 years, when I would ask producers
7 what they noticed about a change on their farm
8 after going organic, almost always the first
9 thing they said if they had livestock was the
10 health of their livestock being fed organic
11 grains.

12 And so I feel that, yes, there's an
13 integrity question, but there's also -- the
14 customers are not getting what they expect. And
15 the animals are not being fed the nutritious
16 organic food that we are expecting them to be fed
17 as well.

18 So this is a complete supply chain
19 problem. And thank you for what you do there out
20 on the farm.

21 MR. BELL: Okay. Thank you.

22 CHAIR CHAPMAN: I see a question from

1 Emily.

2 MS. OAKLEY: Yes. Thank you. It's
3 not a question. I just wanted to echo what Dave
4 said earlier to you and to all the farmers who
5 are calling in to comment because it's just
6 extremely helpful and uplifting to hear the
7 farmers' voices even though I know it's not
8 information you want to be sharing, it's
9 extremely valuable to hear from farmers. So
10 thank you very much for taking the time to speak
11 with us.

12 CHAIR CHAPMAN: Dave. You're muted.
13 Sorry, Dave Mortensen, has a question as well.
14 Dave, can you hear me?

15 MR. MORTENSEN: Yes. Pardon. Am I
16 coming across?

17 CHAIR CHAPMAN: Yes.

18 MR. MORTENSEN: Yes. Okay. I guess I
19 would also say that -- and, you know, obviously
20 we have to follow it through. You can't just say
21 things are happening and then, you know, nothing
22 changes on the ground. We know that must be

1 enormously frustrating.

2 But my sense is that something is
3 going to happen here. I think that the stars are
4 aligned for this issue to not only be addressed
5 by the NOSB but also to, you know, the kind of
6 things we're looking into, including the panel at
7 the meeting in Tucson, it will be, you know,
8 received, I think, well, outside of NOSB, which
9 turns out to be a lot more important than I
10 realized as a new member of the NOSB.

11 So the climate generally is right for
12 something to, you know, happen on the ground here
13 quickly, hopefully. But as Emily said, these
14 testimonials of how it plays out on the ground
15 help make the compelling argument that it has to
16 change quickly.

17 CHAIR CHAPMAN: All right. And I'm
18 not seeing any other questions. So, David, thank
19 you for your time.

20 MR. BELL: All right. Thank you.

21 CHAIR CHAPMAN: Up next, we have
22 Andrew Tomes whom we haven't found online.

1 Andrew, if you're with us, please speak up now.

2 I'm not hearing you, Andrew.

3 So after Andrew, we have Jeff. Jeff,
4 I think we found --

5 MR. BOGUSZ: Bogusz.

6 CHAIR CHAPMAN: Jeff, are you with us?

7 Yes. Hi, Jeff. Then after -- Jeff, hold on one
8 sec. We have Robert Rankin. Robert, similarly,
9 we see you on the web portion, but we haven't
10 identified the phone number. If you can message
11 your phone number to us so we can unmute you,
12 that would be appreciated.

13 And then after Robert is Ray -- I'm
14 going to butcher this -- DeVirgillis. And then
15 Michelle Smolarski. Similarly, we haven't
16 identified your phone number. So if you could
17 message us your phone number, that would be
18 appreciated.

19 Jeff, if you could start with your
20 name and affiliation.

21 MR. BOGUSZ: Jeff Bogusz with the
22 Ferrara Candy Company. And one of the comments

1 on some of the items up for Sunset review.

2 The first two, I'll go with calcium
3 carbonate and potassium chloride. We actually
4 use in an organically nutritional supplement.
5 And there are organic equivalent is available.

6 Next I want to talk about flavors. So
7 our feeling is that it's necessary for flavors to
8 remain on the list, but definitely support the
9 annotation that requires use of organic when
10 available.

11 And we are actually are working under
12 the assumption that is the requirement and are
13 actively trying to change over as many of our
14 non-organic flavors to organic if possible.
15 Right now, about 10 percent of our flavors are
16 organic and are actively trying to make that
17 number higher.

18 Next, gellan gum. We'd like it to
19 stay on the list. We have been trying to develop
20 a product that utilizes some of the unique
21 properties of gellan gum. We're not quite there
22 yet. But we'd love it to remain on the list as

1 an option.

2 The next one, we'll say about calcium
3 hydroxide and sulfur dioxide. We don't use those
4 ourselves. But some of the ingredients that we
5 do use utilize them in their process. So we'd
6 like them to stay on the list.

7 And then in terms of gums, we are a
8 relatively large user of gum arabic and at least
9 for this year, for the last year, we have been
10 able to acquire what we need in organic form.

11 But historically, the supply of gum
12 arabic is very variable and we'd like that to
13 stay that on the list for one more Sunset review
14 period because it has had some supply issues in
15 the past and we are not really confident in the
16 organic supply of that product.

17 And we do use lecithin but not in the
18 oil form and have no trouble getting it in the
19 organic form. And it's my understanding that
20 lecithin in the de-oiled form is available as
21 well in an organic form.

22 And then beyond that, I just want to

1 thank everybody on the Board for all the work
2 that you do. I think this process, while perhaps
3 a little bit slower than I would like at times,
4 it lets lots of voices be heard. And I
5 appreciate all the work you put into this. Thank
6 you.

7 CHAIR CHAPMAN: Thank you, Jeff. Any
8 questions for Jeff? Jeff, if you're able to
9 speak to it, can you speak to what has made the
10 gum arabic supply chain unstable in the recent
11 past?

12 MR. BOGUSZ: Most of it comes from
13 Middle Eastern countries. And literally it's
14 been almost security of the farmers in terms of
15 able to get it out of the locations where it
16 actually comes from.

17 CHAIR CHAPMAN: Okay.

18 MR. BOGUSZ: So there have not been --
19 the alternatives that are available are, I would
20 say, less organic than the other in other parts
21 itself, in it itself.

22 CHAIR CHAPMAN: And then, did I

1 understand your comments right that you're thing,
2 you're finding lecithin oils and de-oils readily
3 available?

4 MR. BOGUSZ: We have not had a problem
5 getting oiled lecithin. We don't use de-oiled
6 lecithin, but understand it is readily available.

7 CHAIR CHAPMAN: And then is that true
8 in multiple forms other than soy, like sunflower
9 or other types?

10 MR. BOGUSZ: We are definitely using
11 sunflower lecithin in organic form.

12 CHAIR CHAPMAN: Okay.

13 MR. BOGUSZ: In the applications that
14 -- yes.

15 CHAIR CHAPMAN: Yes. The reason why I
16 asked that is there were some concerns in the
17 past when we last reviewed this item was the
18 availability of lecithin in the format that was
19 not solely for formulations available. It was
20 solely for allergy reasons. So I was just
21 checking in on that.

22 I also see there is a question from

1 Steve.

2 MR. ELA: Yes. I just may have -- I
3 didn't quite catch what you were talking when you
4 said sulfur dioxide and you don't use that
5 personally. You use products that would use
6 sulfur dioxide in the formulations. Could you
7 speak a little more to that?

8 MR. BOGUSZ: So we don't use it in our
9 products directly. But some of the ingredients
10 that we purchase have it added as a preservative.
11 So most noticeably Certs have it added as an
12 extra antimicrobial. And most of it would be
13 cooked off in our production process. It would
14 not be any -- so it would still not measurable in
15 the finished product.

16 MR. ELA: Great. Thank you. I just,
17 yes, I wanted to make sure I heard correctly.

18 CHAIR CHAPMAN: Any other questions?
19 All right. Thank you, Jeff.

20 MR. BOGUSZ: Thank you.

21 CHAIR CHAPMAN: Up next we have --
22 thank you for your time and for answering our

1 questions. So up next we have Robert Rankin.

2 MR. RANKIN: Hi. Can you hear me?

3 CHAIR CHAPMAN: Yes, we can hear you.

4 And then after Robert is Ray and Michelle.

5 Robert, if you can start with your name and

6 affiliation for the record.

7 MR. RANKIN: Sure. Robert Rankin,

8 International Food Additives Council. IFAC is an

9 association representing many factions of food

10 ingredients, including the number of substances

11 permitted in organic food production.

12 We submitted written comments

13 supporting the listing of several Sunset review

14 substances, and we thank the Board for the

15 opportunity to provide comments outside the NOSB

16 meeting.

17 IFAC supports the re-listing of gellan

18 gum at 205625A. Gellan gum is a highly

19 functional ingredient and has unique properties

20 which allow formulators to meet consumer demand

21 and continue to grow the organic market. And I

22 was pleased to hear the comments made by the

1 previous commenter about the desire to use it in
2 the future.

3 Gellan gum is used to stabilize and
4 thicken foods and is used in a variety of organic
5 products, including bakery fillings, gelatins,
6 jams and jellies, dairy drinks, soy milks,
7 yogurts, nutritional beverages and others.

8 As a stabilizer, gellan gum helps
9 fortify beverages by suspending nutrients and
10 other ingredients within the product, which
11 prevents the need for vigorous shaking and
12 prevents components from settling and calcifying
13 at the bottom of the container.

14 This is especially the case with
15 calcium fortified beverages such as soy, rice and
16 almond milks, which are of great importance to
17 the organic market both in the U.S. and abroad.

18 Gellan gum also contributes to a
19 consistent mouth feel in products, which is a
20 characteristic consumers expect and desire.

21 And finally, gellan gum serves as a
22 non-animal gel source in products like jams and

1 jellies, which not only serves the broader
2 organic community, but also vegetarians and
3 products marketed as kosher and halal.

4 IFAC also supports the re-listing of
5 magnesium stearate at 205605B. Magnesium
6 stearate is highly functional in applications
7 such as capsule formulation for organic
8 supplements as well as sugar adhesion and in the
9 production of hard candy. We are not aware of
10 any comparable organic alternatives nor are we
11 aware of any concerns with the re-listing of this
12 important substance.

13 Finally, we support the re-listing of
14 lecithin de-oiled at 205606. As noted in our
15 written comments, de-oiled lecithin has unique
16 functionality and is commonly used in oil and
17 water emulsions.

18 De-oiled lecithin has higher
19 functionality than powdered lecithin, which does
20 not undergo a de-oiling process. It also has a
21 muted flavor compared to standard lecithin so
22 it's more appropriate in food with more delicate

1 flavors.

2 The de-oiled lecithin provided by our
3 members is produced from non-genetically modified
4 sources, including soy, canola and sunflower. As
5 a result, that will not contain modified proteins
6 and is fully compliant with the prohibited use of
7 any ingredients derived from genetic engineering
8 and organic foods.

9 Finally, we're not aware of any
10 certified organic emulsifiers or other substance
11 that's currently on the national list that
12 provide the same functionality as the oiled
13 lecithin, and I would question the abilities to
14 supply the entire industry with the amount of
15 organic de-oiled lecithins that may be able to be
16 obtained. So for these reasons, we support the
17 re-listing of de-oiled lecithin at this time.

18 So in closing, we support the re-
19 listing of gellan gum, magnesium stearate and
20 lecithin de-oils on the national list. Thank
21 you.

22 CHAIR CHAPMAN: Thank you, Robert.

1 Any questions for Robert? Robert, so the
2 previous commenter just spoke to the availability
3 of organic -- or that it's available in some
4 form, organic de-oiled lecithin. You just raised
5 questions around whether or not it could --
6 what's available is sufficient to supply the
7 entire demand.

8 How do you suggest that we go about
9 quantifying or coming to a determination of
10 whether or not a substance is available in
11 sufficient supply?

12 MR. RANKIN: That's a tough one
13 because you have to poll the entire organic
14 industry. But, like with other cases where the
15 NOSB has had to consider, I guess, maybe a
16 similar consideration of essentiality of a
17 substance. If a substance is essential in one
18 application, then I think we would support that
19 means it's essential to organic production.

20 Similarly, I think if there is an
21 example of a formulator who can't get access to
22 or obtain sufficient supplies of organic de-oiled

1 lecithin otherwise then I would consider the need
2 for non-organic de-oiled lecithin in the organic
3 community.

4 Obtaining that information and finding
5 out if that's the case would be challenging. And
6 perhaps once if and when -- well, when there is
7 an NOSB recommendation around how to handle this
8 substance in the fall, it might generate more
9 examples from suppliers and formulators as to the
10 ability and availability of that organic product.

11 So I don't think I have any other
12 suggestions at this time.

13 CHAIR CHAPMAN: And if we don't hear
14 from industry asking for this item to be re-
15 listed, would that be an indicator to us that it
16 is sufficiently available?

17 MR. RANKIN: So IFAC represents the
18 manufacturers of the substances. And so I don't
19 think I can adequately, fully speak to that
20 question. I think to some extent we can based on
21 the customers we have. And if we have that
22 information, we can provide it and encourage our

1 customers to provide it.

2 There are, obviously you need to hear
3 from the users in order to justify re-listing
4 these substances. So in order to re-list the
5 substance, I would think you would need to hear
6 from the formulators, most importantly.

7 CHAIR CHAPMAN: Thank you, Robert.
8 And it looks like I also have a question from
9 Harriet.

10 VICE CHAIR BEHAR: Hi. I wonder if
11 you could tell us what the barriers are to having
12 more of these products in the marketplace?

13 MR. RANKIN: That is a great question.
14 And I don't think I'm prepared to answer that on
15 the call today. I believe it is a matter of
16 having adequate supply of the initial material
17 and having enough of it certified organic or
18 produced organically to supply the entire market.

19 I think in the case, as I'm sure you
20 all know very well, in this environment finding
21 adequate supplies of certain crops that are not,
22 you know, genetically engineered, especially when

1 you start talking about things like corn and soy
2 are challenging.

3 And so without -- that is something I
4 could certainly agree to try to identify and pull
5 together in advance of the fall meeting where I
6 expect there to be a vote by the NOSB on this,
7 but off the top of my head, not being prepared
8 for that sort of question, I don't have more than
9 that at this time. But I would be happy to
10 follow-up in writing or in advance of the fall
11 meeting if that would be helpful.

12 VICE CHAIR BEHAR: Yes, it would.

13 Thank you.

14 MR. RANKIN: Okay. Thank you.

15 CHAIR CHAPMAN: Yes. And you can
16 either, if there's an open docket on the web, you
17 can post to that or you can forward any
18 information you find to Michelle, and she'll get
19 it to the right people.

20 MR. RANKIN: Would it be of use to
21 have that information before the spring meeting?

22 CHAIR CHAPMAN: Yes. I mean, as soon

1 as you can get it to us, it would be useful.
2 Definitely more useful to get it earlier rather
3 than the fall meeting. I don't know if it's
4 critical to have it at the spring meeting, but
5 the earlier we get it, the better it is.

6 MR. RANKIN: Understood. Thanks.

7 CHAIR CHAPMAN: Yes. So after Robert
8 we have Ray and then Michelle. Ray, you can
9 start with your name and affiliation for the
10 record.

11 MR. DEVIRGILIIS: Hello. This is Ray
12 DeVirgiliis. I am with the International Food
13 Additives Council. I'll be commenting on xanthan
14 gum, phosphoric acid and mono and diglycerides.

15 IFAC supports the continued listing of
16 xanthan gum on the national list, but we would
17 like to reiterate our previous request that the
18 NOSB consider listing the substance as a non-
19 synthetic under 205605A.

20 Because xanthan gum is a natural extra
21 cellular polysaccharide, it may not be best
22 placed under 205605B. Xanthan gum is used in

1 various food and beverage formulations, and it is
2 also widely used in foods for populations with
3 allergies and Celiac disease, including gluten
4 free organic products.

5 Xanthan gum is produced from natural
6 sources and functions as a thickener, a
7 stabilizer and an emulsifier with texturizing
8 attributes which allows for many more organic
9 food and beverage products to be formulated.

10 Xanthan gum may at times be preferable
11 to other gums because it often compromises less
12 than 0.05 percent of the processed product.

13 The production of xanthan gum does not
14 harm the environment, and it aligns with organic
15 principles as it relies on a natural process with
16 no harmful metabolized or byproducts.

17 The FDA has raised no objections with
18 several notifications from the substance.

19 Ethanol or isopropyl alcohol are used in the
20 final stages of the fermentation process. The
21 alcohol does not chemically alter the xanthan gum
22 nor is it present in the final product above 500

1 parts per million per food additive regulations.

2 In light of the fact that xanthan gum
3 is safe, it aligns with organic principles and
4 lacks organic alternatives, IFAC urges the NOSB
5 to leave xanthan gum on the national list.

6 In addition, because xanthan gum is
7 produced through the natural process of bacterial
8 growth, IFAC also urges NOSB to consider listing
9 the substance as a non-synthetic at 205605A.

10 IFAC also supports the re-listing of phosphoric
11 acid as a synthetic at Section 205605B.

12 Phosphoric acid provides superior performance,
13 including formulations used for a large variety
14 of surfaces and soils down in different segments
15 of the food industry.

16 Phosphoric acid enhances food safety
17 through its potency and removal of debris that
18 can harbor either spoilage or pathogenic
19 microorganisms. Most importantly, there are no
20 organic alternatives which have the same
21 functionality or versatility that would prove
22 phosphoric acid unnecessary. Given this and that

1 the production of phosphoric acid does not seem
2 to have negative impacts on the environment, IFAC
3 strongly encourages the re-listing of phosphoric
4 acid.

5 Finally, IFAC supports the continued
6 listing of mono and diglycerides as a synthetic
7 at 205605B. Mono and diglycerides are considered
8 grass and are permitted for use in foods
9 globally. In addition, glycerides are permitted
10 in organic production in Canada. While mono and
11 diglycerides are permitted for a variety of
12 applications, they are only allowed in organic
13 production in the drum drying of food. IFAC
14 believes this narrow use in organic processing is
15 appropriate. Thank you.

16 CHAIR CHAPMAN: Thank you, Ray. Any
17 questions for Ray from the Board? Ray, I'm not
18 seeing any questions. Thank you for your
19 testimony. Up next we have Michelle. Michelle,
20 are you on the line with us?

21 MS. SMOLARSKI: Yes, I'm here.

22 MR. RANKIN: Okay. And then just hold

1 on one second, Michelle. So after Michelle, that
2 is the end of our list. At that point, we'll run
3 through the folks that we skipped over in order.
4 And if those folks have joined the call, we will
5 hear their comments as well. Michelle, if you
6 could start with your name and affiliation.

7 MS. SMOLARSKI: Sure. Michelle
8 Smolarski, and I'm with the International Food
9 Additives Council. I'm going to be speaking in
10 support of re-listing alginates and gums.
11 Specifically, arabics, carob bean, guar re-
12 listing on the national list.

13 Alginates are derived from alginous
14 acid, a component of certain algae and are used
15 to stabilize certain foods. The seaweed used to
16 produce alginates is harvested in a containable
17 manner without the use of pesticides or other
18 agricultural chemicals.

19 Further, available scientific
20 literature has not revealed any data suggesting
21 any negative impacts of alginates on human health
22 in safe levels.

1 Alginates contribute to a more
2 efficient manufacturing process as they can
3 hydrate at cold temperatures and save resources
4 typically needed for heat treatment.

5 In terms of functionality, alginates
6 stabilize gels and fillings and are used to
7 provide structure in many of the foods organic
8 consumers come to expect in a way that is not
9 provided by wholly non-synthetic food products.

10 Since the 2015 technical report was
11 written recommending the Sunset review renewal of
12 alginates, we are not aware of any organic
13 alternatives that have become available for use
14 that replicate the unique, safe and economically
15 viable nature of alginates.

16 Based on this information, we strongly
17 encourage the NOSB to re-list alginates on the
18 national list at 205605B. In addition, IFAC
19 supports the continued listing of gums, including
20 gum arabic, carob bean gum, guar gum and locust
21 bean gum on the national list at Section 205606.
22 The need for these gums is currently very high in

1 many food products. For example, organic
2 dressings and sauces, because they improve
3 texture while also decreasing calories.

4 This is a known strategy in addressing
5 prevalent consumer issues such as overweight and
6 obesity. At the same time, organic forms of
7 these gums remain unavailable in the appropriate
8 qualities or quantities needed.

9 With that said, gums are naturally
10 self-limiting. As usage (telephonic
11 interference) not needed to achieve the intended
12 technical effect in a food would render the
13 product inedible or otherwise undesirable.
14 Therefore, potential misuse or accepted use of
15 this ingredient does not present a problem.

16 Specifically, guar gum is an extremely
17 versatile ingredient extracted from guar plant
18 seeds that hydrates rapidly at low temperatures
19 compared with many other gums, allowing products
20 to attain a uniform consistency and desired
21 viscosity at low use levels, especially in frozen
22 products.

1 Gum arabic comes from various African
2 treatatus of the genus acacia and is widely used as
3 an emulsifier, thickener, flavoring encapsulator
4 and thickening agent.

5 Locust bean gum, often known as carob
6 bean gum, is a textural ingredient obtained from
7 the kernals of the carob tree.

8 This gum is slows ice formation and is
9 used as an ingredient in foods as a stabilizer,
10 thickener, and has an adjunct strong use as a
11 texturizer to other hydrocoloids.

12 Given the intended expansion of the
13 organic market, IFAC cannot conclude that the
14 current supplies of organic produced guar and
15 locust gum are sufficient to address the demands
16 and technical needs for organic producers.

17 In addition, we do not believe there
18 is a technologically comparable ingredient which
19 can replace the functionalities of gum arabic.

20 As such, we urge the NOSB to re-list
21 these gums to ensure the uninterrupted supply of
22 a variety of organic producers that could be

1 unavailable without them -- products that could
2 be unavailable without them.

3 In closing, IFAC would like thank the
4 Board for providing this opportunity to ensure
5 all voices of those who are unable to physically
6 attend the spring meeting are heard.

7 CHAIR CHAPMAN: Thank you, Michelle.
8 So I have two questions from the Board it looks
9 like. Emily?

10 MS. OAKLEY: Yes. Thank you. The
11 Board might consider a proposal looking at
12 requiring the organic certification of bringing
13 material derived products of alginates for
14 example. And I was wondering if you could
15 comment on how that might affect the producers
16 and manufacturers that you represent?

17 MS. SMOLARSKI: I'm sorry.

18 CHAIR CHAPMAN: I'm sorry. We're
19 getting some feedback from folks.

20 MS. SMOLARSKI: I heard -- is there
21 any way for you to expand on that more. I'm not
22 sure I am clear.

1 MS. OAKLEY: Absolutely. So this is
2 still very much in the development stage, but the
3 NOSB is looking at materials used in both crop
4 production but then also in the manufacture of
5 process goods.

6 So my question is if we were to
7 require that the seeds used in alginates were to
8 be sourced under an organic certification, so the
9 wild crop standard, how would that affect the
10 manufacturers that you represent of those
11 alginate products?

12 MS. SMOLARSKI: So I would have to
13 defer to those experts within IFAC and get that
14 information. I don't feel confident answering
15 this one.

16 MS. OAKLEY: Okay. Thank you. And
17 this is a very preliminary conversation that's
18 going on right now. But maybe I can follow-up
19 with you --

20 MS. SMOLARSKI: Yes.

21 MS. OAKLEY: -- after this call at
22 some point over the summer?

1 MS. SMOLARSKI: That would be great.

2 MS. OAKLEY: Thank you.

3 CHAIR CHAPMAN: Steve?

4 MR. ELA: Yes. I'm just curious. I
5 mean, on the alginates, where you refer to that
6 they're harvested in a sustainable manner, an
7 ecological manner, and it kind of goes with what
8 Emily just asked you a little bit except at this
9 point with no other "verification", how do we
10 actually know, or how does somebody buying
11 alginates actually know that those are harvested
12 in a sustainable manner? What criteria are they
13 meeting?

14 MS. SMOLARSKI: At this point, I
15 couldn't confirm specific criteria or
16 certifications. I would have to defer again to
17 our members to confirm that information. So I
18 would have to ask to follow-up with you if we
19 could continue this dialogue after this meeting.

20 MR. ELA: That would be great. It's
21 so easy to say those things and then the devil's
22 in the details. So I'd just be curious a little

1 more, you know, what goes into that, you know,
2 being able to say that. So, yes, I look forward
3 to following up.

4 MS. SMOARLSKI: I'm happy to follow-up
5 with you and appreciate the question, definitely.

6 MR. ELA: Thank you.

7 CHAIR CHAPMAN: And similar to what I
8 said to Robert, if you do have that information
9 available, you can use the open docket. If the
10 open docket is not open, then you can always send
11 it to Michelle.

12 And then I also see that there's a
13 question from Dave. Dave, you might be on mute.
14 So hold on a sec. No, Dave, you're not on mute.

15 MR. MORTENSEN: Okay, thanks, Tom.
16 Michelle, being a newer member of the Board, I'm
17 still very much on a steep learning curve.

18 And last night I was interested to
19 understand better about your organization,
20 International Food Additives Council.

21 I went to your website and found that
22 it was password protected so there was really --

1 I was unable to read anything about the
2 International Food Additives Council.

3 Could you direct us to a source of
4 information where we could go on the web that we
5 could get into that doesn't require a password?

6 MS. SMOLARSKI: Yes. It might have
7 just been a lack of the correct link or URL. So
8 our name is the International Food Additives
9 Council, but we use a website titled
10 foodingredientfacts.org. So I'm not sure, was
11 that what you were trying to access or was it a
12 different URL?

13 MR. MORTENSEN: www.ifac -- you know,
14 International Food Additives Council, and when I
15 click on it it requires a password to get in.

16 MS. SMOLARSKI: Yes. That's an
17 incorrect address. If you want to go ahead and
18 type in foodingredientfacts.org that should take
19 you to a totally available website. No passwords
20 required there.

21 MR. MORTENSEN: Okay. Thank you.

22 MS. SMOLARSKI: No problem.

1 CHAIR CHAPMAN: And I'm not seeing any
2 other questions, Michelle. Thank you for your
3 time today and for answering our questions.

4 MS. SMOLARSKI: Thank you.

5 CHAIR CHAPMAN: Okay. So we'll go
6 back to the top of the list, and I'll read
7 through the names of commenters that we skipped
8 over. And if they have joined the call since
9 then, we'll give them a chance to give their
10 comments.

11 First up is Mary Rawlings, Mary Agnes
12 Rawlings. Are you on the line with us? Mary,
13 I'm not hearing you so we will move on. Up next
14 is Stephanie Rose. Stephanie, are you with us?

15 MS. ROSE: Yes. I'm here. Can you
16 hear me?

17 CHAIR CHAPMAN: Hi, Stephanie. Yes,
18 we can hear you.

19 MS. ROSE: Hi.

20 CHAIR CHAPMAN: You can start with
21 your name and affiliation for the record.

22 MS. ROSE: Okay. I am Stephanie Rose

1 and I am with PQ Corporation which is a
2 manufacturer of Sil-MATRIX, an aqueous potassium
3 silicate.

4 I want to thank you, the members of
5 the NOSB Board for allowing me to speak today.
6 PQ, of course, is in support of renewing aqueous
7 potassium silicate on the NOP list. Potassium
8 silicate is a tool that is growing in importance
9 to organic growers.

10 Prior to being added to the NOP list,
11 sales of the potassium silicate in this
12 application were almost nil.

13 While we don't sell directly to
14 growers, our sales to distribution channel
15 partners grows each year. It now numbers more
16 than 75 separate purchasing locations in 20
17 states, where we shipped potassium silicate for
18 distribution and resale to growers. Ninety
19 percent of that volume goes to organic growers of
20 berries, grape tomatoes, almonds, cherries and
21 other crops.

22 When used as part of an integrated

1 seasonal program, Sil-MATRIX can replace
2 applications of alternative pesticides, including
3 fungicides, insecticides and miticides.

4 Soluble silicates are environmentally
5 friendly products that are not harmful to human
6 health. The European Center of Study of
7 Silicates has publicly published extensive
8 ecological and toxilological studies.

9 Some repeated dose studies with no
10 observed adverse effect levels. There is no
11 indication of reproductive effects and no
12 biocumulation potential. This report
13 demonstrates that exposure to potassium silicate
14 is not hazardous to human health.

15 A study on soluble silicate emissions
16 in surface water gave no indication of
17 significant adverse effects on aquatic systems.

18 I have provided Michelle with a link to the
19 studies if you want to look through it further.

20 In regards to the digestibility of
21 silicon in forage, while studies show that rice,
22 straw and barley may have chemical compositional

1 differences due to the presence of silica, the
2 studies show that no change in animal preference
3 between the different types of straws with
4 various silica content, no difference in
5 digestion or degradation. That high silicate
6 containing straw is still highly degradable and
7 silicate content is not the content of low
8 fermentability of rice straw in organic matter.

9 Silicates are used in many different
10 applications around the world and exposure comes
11 in many different ways. But that is basically
12 all I wanted to cover today. Thank you very
13 much.

14 CHAIR CHAPMAN: Thank you, Stephanie.
15 Any questions from the Board?

16 MR. BRADMAN: This is Asa. I have a
17 question.

18 CHAIR CHAPMAN: Go ahead, Asa.

19 MR. BRADMAN: So I'm trying to
20 understand the mechanism here that this is being
21 applied, I guess in a way of a systemic pacifier
22 to change the structure of the form and make them

1 more resistant to either disease or test. Could
2 you explain that a little more?

3 MS. ROSE: Well, it's my understanding
4 that the -- well, and with this particular
5 application, it is applied as a full year
6 application with pesticide or insecticide use.
7 So it is applied to the surface of the leaf.

8 There is some deposition in the cells
9 of the site, too. I am academically not a plant
10 scientist. So I guess I can't comment for
11 certain on the systemic portion of it and how
12 that works. But that is my understanding of what
13 happens.

14 I'm not sure that the cells
15 necessarily change. A plant will naturally take
16 up SiO_2 from the soil when it is available. And
17 will deposit it into cells. So I'm not sure how
18 different it is when it's applied as a full year
19 application.

20 MR. BRADMAN: I'd be interested to get
21 more information about kind of the mechanism and
22 its different application methods -- and that

1 would be helpful.

2 MS. ROSE: I'll look to see what I can
3 find and provide Michelle with some links to
4 articles.

5 MR. BRADMAN: Okay. Thank you.

6 MS. ROSE: Yes.

7 CHAIR CHAPMAN: Thank you. I also see
8 a question from Steve.

9 MR. ELA: Yes. And I think I -- and I
10 may have missed this as you were going through
11 things. But could you go back and just remind me
12 again, I know it can be an effective alternative,
13 but how much of it is actually being used at this
14 point? Just in the toolbox as a possibility or
15 is part of a regular program that growers are
16 using?

17 MS. ROSE: It is part of regular
18 programs. Because we don't sell directly to the
19 growers, we have an ag distribution company that
20 does this for us. I am not able to give you,
21 say, exact numbers. What they provided with me
22 is that we are selling it in 20 different states.

1 The way that we would recommend its
2 use is that it would replace -- it would be a
3 regular rotation with other fungicides such as
4 sulfur or something like that. It would be in
5 regular rotation with that, but it would replace
6 one of those rotations. So that would reduce the
7 number of applications in that sense.

8 Did I answer your question?

9 MR. ELA: Yes. It was unclear to us
10 as we were reading some of the materials whether
11 it was a material -- you know, it could
12 potentially could be used a resistance rotation
13 or whether it was actually being used. And I
14 think that was one of our questions for the
15 spring meeting was, you know, how we always
16 maintain as soon as possible for use.

17 MS. ROSE: Right.

18 MR. ELA: You know, but for use. But
19 if it has been sitting on the shelf and not being
20 used, and, you know --

21 MS. ROSE: Yes.

22 MR. ELA: -- then it becomes a little

1 less important. But if it's actually part of a
2 regular rotation, I think that's useful
3 information for us.

4 MS. ROSE: And I would say it is newer
5 tool. And it's growing and understanding and
6 learning. And people are learning about it. I
7 think the last time we had a Sunset review, we
8 didn't get any comments from growers that time
9 around.

10 And this time around we have several
11 growers who commented themselves and a couple of
12 the other organizations that indicated that they
13 have 100 users or something like that. So it's a
14 growing process.

15 MR. ELA: And have you -- I have not
16 gotten through all of the public comments yet.
17 But did you submit that data that we just
18 mentioned, like, 100 growers using it. Is that
19 in your written comments as well.

20 MS. ROSE: No, it's not in mine.
21 That's the information I gathered from the
22 written comments. I think there's three for sure

1 that are from growers themselves, that are saying
2 that they're using it. And then there was, I
3 forget which organization, but it was either
4 Organic Trade Association or something like that,
5 or maybe it was the Pennsylvania Organic
6 Certifiers said that they have 123, I believe,
7 sites using it.

8 MR. ELA: Sure, sure. That helps.
9 Thank you.

10 MS. ROSE: Mm-hmm.

11 MR. BRADMAN: Tom, can I ask another
12 question or comment?

13 CHAIR CHAPMAN: Yes.

14 MR. BRADMAN: Just to clarify, so I
15 definitely am interested in learning more about,
16 like, differences of full year application, you
17 know, irrigation type applications.

18 Do you have that technical report on
19 this material from January 2014? And it seems
20 like the primary impact here is more of a
21 systemic use. It looks like they have been using
22 it for position water or a soil application than

1 for the plant to take up the material and kind of
2 alter the structure of the plant itself and, you
3 know, that creates resistance. It's not clear to
4 me, at least if you review it quickly down here
5 online how much is foliar versus how much is
6 systemic.

7 MS. ROSE: Well, there are two
8 different ways to use potassium silicate.
9 However, the NOP only allows the foliar
10 application being used as a pesticide to
11 inorganic farming. So there is a lot of, say,
12 information, technical information out there, on
13 the benefits of applying it as, say, a
14 fertilizer.

15 But the NOSB and the NOP does not
16 allow that type of application in organic
17 farming. So as far as I'm aware, they're only
18 using it as a foliar application because that is
19 how the EPA approved label is worded.

20 So if they're following the rules of
21 how the label is listed, then it should be only
22 foliar application.

1 MR. BRADMAN: Right. Okay.

2 CHAIR CHAPMAN: Okay. I think that's
3 it for questions from the Board. Stephanie,
4 thank you for your comments and your answering
5 our questions here today.

6 MS. ROSE: Sure. Any time.

7 CHAIR CHAPMAN: Up next we have Aviva
8 Glaser. Aviva, are you with us?

9 MS. GLASER: Yes, hi.

10 CHAIR CHAPMAN: Hi. We can hear you.
11 You can start with your name and affiliation for
12 the record.

13 MS. GLASER: Yes, hi. This is Aviva
14 Glaser. I'm the Director of Agriculture Policy
15 at the National Wildlife Federation based on
16 Washington, D.C.

17 I want to thank you all for the
18 opportunity to provide these comments. I wanted
19 to focus my comments specifically on the NOSB
20 discussion document on eliminating the -- I'm
21 sorry, the proposal to eliminate the incentive to
22 convert native ecosystems to organic production.

1 The National Wildlife Federation
2 thanks you guys for continuing to move forward
3 and to make progress on this important issue. We
4 do have a few concerns in terms of implementation
5 of the proposal. But we believe that those can
6 be met through additional clarification or
7 guidance.

8 You know, we would strongly urge the
9 Board to approve this proposal given that the
10 organic program places a clear value on bio-
11 diversity and conservation. We believe that it's
12 critical that organic certification does not
13 incentivize either intentionally or
14 unintentionally the conversion of natural
15 ecosystems, such as native grasslands or other
16 natural ecosystems into agricultural production.

17 The organic program, we believe should
18 be helping to protect, not destroy our remaining
19 native ecosystems.

20 That's why we would urge the NOSB to
21 support this proposal and to move forward quickly
22 with closing this loophole.

1 I did just want to point out a few
2 concerns, specifically related to grazing of
3 natural ecosystems that we think can be addressed
4 and should be addressed through either guidance
5 or other appropriate means.

6 These are specifically related to
7 grazing. Grazing management is used as a very
8 important tool by ranchers and other land use
9 managers and resource practitioners.

10 When done right, grazing can be used
11 to restore habitat, control for invasive,
12 increase native vegetation and improve habitat
13 for birds and other wildlife. That's why you
14 often hear that term what's good for the bird is
15 good for the herd when you're talking about sage
16 grouse and ecosystems out west.

17 In organic grazing management, in
18 particular, can help to significantly improve
19 management and health over grazed or poorly
20 managed land. It wouldn't involve selling upland
21 or destroying vegetation, which is what we're
22 trying to avoid by this whole proposal.

1 So I'd encourage you to clearly and
2 explicitly state that organic grazing management
3 is allowed and encouraged on native ecosystems
4 when it's ecologically appropriate.

5 And then additionally, I'd request
6 clarification that previous grazing in native
7 ecosystems would not exclude them from the
8 definition since most native grassland in this
9 country in particular have been grazed at some
10 point in the past.

11 That's all I wanted to cover. Thank
12 you for the opportunity to provide these
13 comments, and I respectfully urge the Board to
14 act quickly to adopt the proposal and work toward
15 clear guidance to ensure the integrity of the
16 label and maximize the ecosystem benefits.

17 CHAIR CHAPMAN: Thank you, Aviva.
18 Questions from the Board? It looks like Emily?

19 MS. OAKLEY: Thank you. I wanted to
20 ask you, if I could, about the impact of -- I've
21 seen many operations converting small amounts of
22 needed ecosystems into production.

1 I think sometimes what happens is
2 people think that their small action may not have
3 a larger manifold impact. But even taken in
4 isolation, I was wondering if you could speak to
5 the impact of removing even 5 to 20 acres of
6 native ecosystems on wild life. Is that question
7 clear? Because I'm not sure if that came out.

8 MS. GLASER: Definitely. It is. Yes,
9 thank you for that question. Yes. So there's
10 impacts both in terms of the impact on wildlife.
11 There's direct impact of the loss of habitat.
12 Then there's also bigger impacts in terms of
13 broad mutation of habitat. When you have little
14 pieces here and there, you're losing contiguous
15 native habitat and that can have a very
16 detrimental effect.

17 There's also impact on climate when
18 you're thinking about the conversion of all the
19 acres. Even at the smaller scale, when you're
20 accumulating all of these conversions together,
21 the aggregate is a lot of carbon emissions
22 because native ecosystems store carbon in the

1 soil. All those deep roots, if they get plowed
2 up, that turns into carbon emissions and you lose
3 the carbon sequestering in the soils.

4 So you can have impacts on climate as
5 well and then impacts on waterways if you have
6 increased erosion. But certainly wildlife, the
7 loss of habitat and the fragmentation of habitat
8 is a big concern, even when you're talking about
9 conversion of small pieces.

10 CHAIR CHAPMAN: Thank you. Any other
11 questions from the Board? I'm not seeing any
12 questions at this time. Thank you, Aviva, for
13 holding on the line and giving us your comments
14 here today.

15 MS. GLASER: Thank you.

16 CHAIR CHAPMAN: Up next we have David
17 Marchant. David are you on the line with us?
18 David, are you with us now?

19 MS. ARSENAULT: He should be on the
20 line, Tom. I was just chatting with him.

21 MR. MARCHANT: Oh, hello.

22 MS. ARSENAULT: We hear you, David.

1 CHAIR CHAPMAN: We hear you. All
2 right, David. If you could start with your name
3 and affiliation for the record. David, we're not
4 hearing you anymore.

5 MR. MARCHANT: How about now?

6 CHAIR CHAPMAN: Yes. Now I can hear
7 you again. Although now I don't hear anything.
8 David, are you there? We're not hearing you.

9 MR. MARCHANT: Can you hear me now?

10 CHAIR CHAPMAN: I can hear you now.

11 MR. MARCHANT: Okay. I guess I'll
12 hold the button. I apologize. It's the first
13 time with this headset. And I wanted to address
14 the potential of bio-based, biodegradable
15 mulches. As the first slide shows, we've been
16 farming for 27 years. We use approximately four
17 to five acres of plasticulture.

18 Next slide, please. Okay. So we
19 focus on using remulch. Plasticulture is a huge
20 component of vegetable production. And done
21 properly you can do a lot with reduction of soil
22 erosion. It improves growth crop and whatnot.

1 But unfortunately, there's one major
2 issue with plasticulture. Next slide, please.
3 This is the amount of plastic trash we produced
4 just in one year from four acres. Okay?

5 We are a tiny farm. Now, when you
6 consider the amount of plasticultural acreage in
7 the United States, it's staggering to think of
8 the amount of trash that we produce.

9 Next slide, please. One hundred
10 seventeen thousand tons of polyethylene mulch is
11 landfilled or burned every year in the United
12 States from agricultural mulch fills. This is
13 what it ends up like and it just goes to the
14 landfill to the dump. It gets burned or dumped
15 in the ocean, unfortunately, in many places.

16 Next slide, please. All of this
17 polyethylene mulch, which is used just everywhere
18 anymore turns -- next slide, please.

19 It turns into this. Okay? Mountains
20 and mountains of polyethylene waste.

21 Next slide, please. Unfortunately, I
22 don't --

1 CHAIR CHAPMAN: David, we lost you
2 again.

3 MR. MARCHANT: Oh, can you hear me no?

4 CHAIR CHAPMAN: Yes. We lost you
5 again.

6 MR. MARCHANT: How about now?

7 CHAIR CHAPMAN: Yes. You're back.

8 MR. MARCHANT: Okay. Unfortunately,
9 NOP policies encourages massive amounts of waste
10 production. Next slide, please.

11 NOSB and NOP needs to encourage use in
12 development of biodegradable mulch film as an
13 alternative to the polyethylene acid that the NOP
14 rule now encourages.

15 Next slide, please. Bio-based
16 ingredients and biodegradable mulch films
17 continues to increase and has reached the levels
18 of 50 percent. As presently the rule has been
19 written that you need 100 percent bio-base for it
20 to be allowable.

21 I think instead of rejecting bio-based
22 mulch films that are not 100 percent bio-based,

1 NOSB and NOP should set realistic levels of bio-
2 based ingredients with the increased percentage
3 of bio-based ingredients over time.

4 This is very similar to how the NOP
5 rule is about organic seeds encouraging farms to
6 increase their use over time. If there was
7 discussion at the beginning of the NOP rule, they
8 have 100 percent organic seeds that was argued
9 against because it wouldn't encourage -- it was
10 hard to do. And the idea of having a gradient
11 has produced an increase in organic seed
12 production. And I think it's a system that has
13 worked very well.

14 Next slide, please. So plasticulture
15 is a very good component and kind of a component
16 of farms.

17 CHAIR CHAPMAN: David, we're coming to
18 the end of your time, if you could wrap it up
19 quickly. Given the technology issues, I'll give
20 you a couple more seconds.

21 MR. MARCHANT: Next slide, please. So
22 what --

1 CHAIR CHAPMAN: And, David, we lost
2 you again. David, are you there?

3 MR. MARCHANT: We need to be looking
4 at bio-based mulch. These are the recommended
5 references I would suggest that talk about the
6 degradation of biodegradable mulch film and as
7 they had done in Europe with 15 years of study,
8 they are showing that there are virtually no
9 residues whatsoever. So that's it. And I would
10 take any questions if there are any. Hello?

11 CHAIR CHAPMAN: Are you -- hi, David,
12 this is Tom. Are you hearing me?

13 MR. MARCHANT: Hello?

14 CHAIR CHAPMAN: Hi, David. I hear
15 you. Do you hear us?

16 MS. ARSENAULT: I can hear you, Tom.

17 CHAIR CHAPMAN: Yes.

18 MS. ARSENAULT: So you're not on mute.

19 CHAIR CHAPMAN: David, are you still
20 there? We're not hearing you, David. All right.
21 Looks like a little bit of a technology
22 disconnect there.

1 MR. MARCHANT: Hello.

2 CHAIR CHAPMAN: There you are. You're
3 back now. Are you still there, David? Yes,
4 David, we're not hearing you unfortunately.

5 Okay. I think we'll have to move on
6 at this time. David, thank you for your
7 testimony though. It looks like we had some
8 technology issues.

9 So after David on the list, we have
10 John Schumacher. John, are you on the line with
11 us? And, John, I'm not hearing you. So we'll
12 move on to Andrew Tomes. Andrew, are you on the
13 line with us?

14 MR. TOMES: Hello, can you hear me?

15 CHAIR CHAPMAN: Yes, I can. So,
16 Andrew, if you could start with your name and
17 affiliation for the record.

18 MR. TOMES: Yes. My name is Andrew
19 Tomes. I work for a company based out of Redmond
20 called WISerg. We are a manufacturer of organic
21 fertilizer.

22 And I'm addressing my comments on the

1 Sunset review of acidulated liquid fish
2 fertilizers. Acidulated fish requires careful
3 consideration during the Sunset review since much
4 has changed since the initial review in 1995.

5 These changes raise substantial
6 questions regarding the apparent validity of the
7 original rationale for including liquid fish as
8 an approved synthetic substance. It has not been
9 addressed in subsequent research and rulings
10 issued by the NOSB.

11 The 1995 TAP reviewer Michael Mosert
12 acknowledged the certification of sulfuric acid
13 changed the class of materials to synthetic, yet
14 he suggested that the preservative function would
15 not qualify as fortification, setting a 2 for 2
16 analysis fertilizer and with supplementing
17 sulfuric acid contributed 1.5 percentage points
18 to the fertilizers guaranty.

19 This rationale was later reversed by
20 the NOSB in 2006 when its sufficiency inclusion
21 of acids stabilized the anaerobics under 7 CFR
22 205.601 was rejected in part because the Board

1 ruled that stabilization with sulfuric acid
2 constituted an impermissible fortification of the
3 product.

4 This ruling was not addressed. A
5 technical review of the liquid fish in the same
6 year and as far as I am aware, it has not been
7 reconciled by the NOSB.

8 Liquid fish has not undergone
9 technical review since 2006. And changes to the
10 market have occurred in the intervening decade
11 which would require re-evaluation of, for
12 example, review questions 13 and 14. Are there
13 other already allowed substances that could be
14 substituted for the petitioned substance and are
15 there alternative practices, which make use of
16 the concessions unnecessary.

17 The answer to the first question is an
18 unambiguous yes, but it's technical review does
19 not identify many or any of the organic products
20 that avoid the use of fish or which use natural
21 acidulation methods and become not available.

22 The answer to the second question is

1 also yes. Synthetic identification is not
2 necessary as identified in the 1995 technical
3 report, citric acid and other natural acidulants
4 are available.

5 Furthermore the review has the
6 potential for direct environmental impacts
7 arising from the use of liquid fish but not from
8 the manufacturing process or source of
9 ingredients. But these are the required
10 considerations for synthetic ingredients. The
11 Board should consider the environmental impacts
12 of sulfuric and phosphoric acids. The former is
13 a known carcinogen and the latter is non-
14 destructive, leaving behind radioactive and
15 acidic waste that leech into the groundwater.

16 In addition, the Board should consider
17 the fish itself, which is often harvested
18 unsustainable. The Board has not, to my
19 knowledge, addressed a concern raised in 2015 by
20 The Cornucopia Institute that utilization of fish
21 for fertilizer may not so much be a waste
22 utilization practice as an additional marketing

1 opportunity for an over harvested resource. So
2 sustainability is one of the core NOP goals. In
3 fact, it makes the possibility of overfishing a
4 necessary consideration.

5 CHAIR CHAPMAN: I had myself on mute.
6 Thank you, Andrew, yes. That was your time. Any
7 questions from the Board?

8 MS. OAKLEY: Tom, I don't have my hand
9 raised, but I do have a question if that's okay.

10 CHAIR CHAPMAN: That's okay, Emily.
11 Go for it. Could you elaborate? Do you have any
12 evidence that you could point to about fish being
13 harvested specifically for fertilizer? Are you
14 aware of any specific examples that you could
15 share with us?

16 MR. TOMES: Yes. I can forward a paper
17 to someone that was published last year, I think,
18 that breaks down the use of forage fish. So
19 these are the fish that are not harvested for
20 human consumption. They're harvested for other
21 applications. And fertilizer is one of the uses
22 they are diverted to. And overharvest of forage

1 fish is having an impact on the fish
2 applications.

3 MS. OAKLEY: Great. If you could send
4 that to Michelle. That would be wonderful. Thank
5 you.

6 MR. TOMES: Okay. I will forward
7 that.

8 CHAIR CHAPMAN: Any other questions.

9 MR. BRADMAN: This is Asa. I think
10 you talked a little bit about all your points. I
11 just wanted to make sure I didn't miss anything.
12 Did you also submit written comments or?

13 MR. TOMES: I did not submit written
14 comments. I can provide a copy of what I was
15 reading.

16 MR. BRADMAN: That would be great if
17 you could send that to Michelle, that would be
18 great.

19 MR. TOMES: Okay.

20 CHAIR CHAPMAN: Any other questions?
21 Not seeing any, Andrew, thank you for your
22 comments.

1 MR. TOMES: Thank you for the
2 opportunity to comment.

3 CHAIR CHAPMAN: And I think that takes
4 us to the end of the list. So that would be our
5 last public comment for the day. Again, I want
6 to thank all of our commenters for providing
7 public testimony to us today. It's vital to our
8 process.

9 I appreciate the Board's time and
10 engagement and the NOP facilitating this. And I
11 apologize for the technological issues that we
12 have. It was bound to happen on some of these
13 webinars. It happened this time.

14 But I think overall we got the bulk of
15 what the public was trying to communicate to us.
16 So I thank you again for your time. And I hope
17 everyone has a great day. I look forward to
18 seeing the Board members in Tucson next week.
19 Everyone travel safe. Thank you very much.

20 (Whereupon, the above-entitled matter
21 went off the record at 3:41 p.m.)

22

Bogusz 94:13 100:5,5
100:21,21 103:12,18
104:4,10,13 105:8,20
bottom 107:13
bound 41:6 154:12
BRADMAN 1:12 4:10
16:18 17:1,5 130:16
130:19 131:20 132:5
135:11,14 137:1
153:9,16
Braun 40:3 53:15,18
54:4,4
breakdown 22:11
breaks 152:18
brief 57:17
bring 3:8 35:6 50:6 89:3
bringing 65:11 73:10
75:7 122:12
Briones 5:10
Britt 20:17 21:7 24:12
24:13,16,19 28:5,12
34:4 35:14,14
broad 141:13
broader 108:1
broadly 45:3
broken 23:3
broker 23:2,5
brokers 61:14,22 73:15
brother 95:4
brought 68:21
browning 11:10,13
BTI 15:17
Buie 1:12 4:12,13
building 85:15
buildup 92:1
bulk 154:14
bundled 8:14
burden 23:19
burned 144:11,14
burner 93:16
burners 90:16 92:18
burning 92:4
bushels 73:4 75:10
business 7:15,17 10:4
26:14,19 32:2 63:3
businesses 65:7
butcher 9:1 100:14
button 6:17 143:12
buy 81:2
buyers 73:15
buying 22:2 73:10
95:16 124:10
buzzer 81:13
byproducts 115:16

C

C02 14:2
CACS 28:17

calcifying 107:12
calcium 101:2 102:2
107:15
California 72:12
call 2:12 4:1 5:17 7:10
12:15 73:18 86:3
112:15 118:4 123:21
127:8
called 7:2,12 54:8
148:20
calling 7:7 30:18 82:9
98:5
calls 8:14 28:22
calories 120:3
Canada 47:22 117:10
Canadian 47:8,13
Canadians 47:19
candy 100:22 108:9
canola 109:4
capacity 58:9
capsule 108:7
carbon 141:21,22 142:2
142:3
carbonate 101:3
carcinogen 151:13
careful 149:2
carob 118:11 119:20
121:5,7
Carol 57:4 61:5 63:19
63:20 64:2,5 67:17
carry 55:15 58:6
case 68:18 82:10
107:14 111:5 112:19
cases 26:8 51:19
110:14
cash 79:12
catch 105:3
categories 10:19,21
category 10:3 12:12
50:5
cause 11:7 56:8 92:3
caused 74:15 90:19
93:10
causes 11:10 56:1
92:20
Celiac 115:3
cells 131:8,14,17
cellular 114:21
center 22:7 129:6
Central 79:7 95:6
centuries 35:5
certain 46:17 63:5
91:17 112:21 118:14
118:15 131:11
certainly 33:7 36:10
113:4 142:6
certificates 22:15 62:3
62:5,10,11,13 73:12

certification 23:17,19
24:3 41:15 42:21
43:21 47:3 58:22
61:10 64:8,10 90:15
95:1 122:12 123:8
138:12 149:12
certifications 66:20
124:16
certified 22:1,8,16 23:1
23:4 40:14,17,21 42:4
42:9,14,16 43:9,22
46:2,14 47:1 50:11
52:14,18,19 62:7 63:9
64:12 66:16 79:15
80:20 109:10 112:17
certifier 47:1
certifier's 62:17
certifiers 22:14 35:1,11
62:15,19 63:6 67:7
73:14 96:1,3 135:6
certify 61:15,22
certifying 48:20 49:5
Certs 105:11
cetera 23:13
CFR 149:21
chain 21:17 22:22 24:3
57:16 62:5 63:8 97:18
103:10
chairing 3:12
chairman 24:6,11,16
28:5,9 33:1,22 34:20
35:13,18 36:7 39:11
39:16 40:8 44:4 45:5
46:3 47:6,12 48:1
49:16 50:15 51:11
52:8,21 53:4,9,19
56:18 57:7,12 59:17
60:19 61:3 62:22
63:16 64:1 67:11,14
67:19 68:3 71:4,11,18
74:5 76:1,7,13 78:9
78:15 81:12,17 82:1
83:2,9,20 95:3
chairperson 7:6
challenge 85:4
challenges 84:15,21
challenging 111:5
113:2
chance 127:9
change 17:3 46:8 97:7
99:16 101:13 130:2
130:22 131:15
changed 93:9 149:4,13
changes 57:21 98:22
149:5 150:9
changing 47:21
channel 128:14
chapter 72:4,7 94:21

characteristic 107:20
characterize 33:18
charge 11:2 77:18
chatting 142:20
check 53:22 63:7
checking 104:21
chemical 14:11,21
96:10 129:22
chemically 115:21
chemicals 55:7 56:7,11
56:14 118:18
cherries 128:20
children 69:14 70:6
chloride 101:3
chocolate 23:13
choice 37:15
choose 32:17
choosing 26:2,5
Christie 79:1 83:14
89:18,20 90:1,9,10,10
94:4
chronic 55:5
citizens 55:11
citric 93:3 151:3
claiming 75:8
clarification 7:20 138:6
140:6
clarify 135:14
class 23:21 91:4 149:13
classic 34:17
clean 92:15
cleaning 18:14,20 19:1
19:5,11
clear 44:21 56:10 66:10
77:13 122:22 136:3
138:10 140:15 141:7
cleared 31:5
clearly 55:14,14 140:1
click 126:15
clients 22:14
climate 99:11 141:17
142:4
climates 93:20
close 3:9 8:4 24:1 75:21
closely 10:8 67:3
closing 109:18 122:3
138:22
Coalition 59:22
cold 119:3
colleagues 3:6
collect 22:15
come 75:21 119:8
comes 69:12 103:12,16
121:1 130:10
coming 17:17 75:15
80:13 98:16 110:9
146:17
comment 1:5 2:6 3:20

- 6:9,19 7:3 8:1,21
12:19 15:12 21:21
24:21 36:14 57:14
76:22 84:4 90:13 98:5
122:15 131:10 135:12
154:2,5
commented 36:20
134:11
commenter 7:5,21 8:2
8:7 13:2 107:1 110:2
commenters 6:21 7:13
8:3,9,11 29:4 50:20
127:7 154:6
commenting 114:13
comments 2:15 3:2,18
6:8,11 7:22 9:18 13:1
18:3 20:15 21:14 24:4
24:9 27:11 28:13,14
28:15,18 31:10 34:4
35:16 36:18 39:14
56:21 57:13 60:18,21
62:21 64:21 74:6 76:3
78:11 83:4 84:1 89:14
96:18 100:22 104:1
106:12,15,22 108:15
118:5 127:10 134:8
134:16,19,22 137:4
137:18,19 140:13
142:13 148:22 153:12
153:14,22
commercially 11:14
commitment 56:12
90:11
committee 1:18 2:22
19:17 58:16 59:19
95:1
common 12:9 31:8
69:11,12
commonly 108:16
communicate 154:15
communication 62:19
community 38:12 54:8
65:4 66:18 88:6 108:2
111:3
companies 23:10 73:9
company 9:20 100:22
132:19 148:19
company's 10:7
comparable 108:10
121:18
compared 37:17 108:21
120:19
compares 37:11
comparison 13:14
compelled 77:21
compelling 99:15
compete 75:4 80:10
complete 23:5 58:20
97:18
compliance 37:2 58:6
compliant 109:6
complies 51:18
comply 42:19 43:6
component 118:14
143:20 146:15,15
components 107:12
composition 14:11,22
25:11 34:13
compositional 129:22
compost 91:4 92:12
composting 15:2 92:12
compromises 115:11
computer 36:1
concept 27:7
concern 29:13 48:8
80:22 142:8 151:19
concerned 28:16 31:18
65:22 73:12
concerns 34:8 36:19
104:16 108:11 138:4
139:2
concessions 150:16
conclude 121:13
concluded 11:16
conclusion 34:16 43:17
condemning 77:10
conditions 73:11
conduct 58:9
confidence 95:17 96:14
confident 102:15
123:14
confirm 9:4 124:15,17
confirms 41:4
conform 47:20
conforming 51:21 52:7
conformity 42:18
Congress 60:16
Congressman 58:1
59:16 60:4
connected 41:7 42:11
connecting 65:6
connective 65:3
consequences 26:10
conservation 27:3,5
28:2 30:6,9 85:12
138:11
consider 110:15 111:1
114:18 116:8 122:11
144:6 151:11,16
consideration 20:7
78:8 110:16 149:3
152:4
considerations 151:10
considered 10:12 11:8
38:3 43:4 117:7
considering 28:18
consistency 120:20
consistent 66:9 107:19
constituted 150:2
consult 2:18
Consultants 90:10
consulting 36:11
consumed 56:7
consumer 30:1 31:22
31:22 32:6 56:3,7
58:2 60:5 77:4 96:14
106:20 120:5
consumers 11:14 32:4
54:18 60:13 65:7
77:19 107:20 119:8
consuming 54:19 55:1
55:4,8
consumption 92:16
152:20
contact 19:13
contain 55:7 109:5
containable 118:16
contained 59:10
container 42:8 43:14
48:6 49:9,10 107:13
containers 23:7 49:8
containing 72:12 130:6
contains 13:22
contamination 96:10
content 15:11 37:16
130:4,7,7
contiguous 141:14
continual 16:7
continue 10:22 12:1
49:5 60:6 66:17 74:1
77:5,12 80:12 85:21
106:21 124:19
continued 36:22 37:4,8
60:13 114:15 117:5
119:19
continues 145:17
continuing 36:19 138:2
continuous 36:16
contribute 119:1
contributed 149:17
contributes 107:18
contribution 91:18
control 12:8 37:5 91:12
91:16 139:11
controlling 92:6,9
controls 19:11 92:14
conventional 26:4
27:15 88:1,20
conversation 123:17
conversion 14:2 16:14
26:3 27:8 28:2 138:14
141:18 142:9
conversions 141:20
convert 25:3 26:1 27:3
27:16 29:6 31:6 33:13
137:22
converted 29:10,18
converting 30:14
140:21
cooked 105:13
copy 153:14
core 152:2
corn 72:1,13 73:4 74:21
79:11 80:3 95:5 113:1
Cornucopia 151:20
Corporation 128:1
correct 6:3,5 50:10
126:7
corrected 60:2
correctly 105:17
cost 80:3 93:4,15
Council 27:7 106:8
114:13 118:9 125:20
126:2,9,14
count 6:3
countries 41:16,22 42:6
46:6 55:10 62:11 81:7
81:8 96:6 103:13
country 50:1,5,7 68:16
84:9,14 85:7 95:10
96:11 140:9
couple 6:11 28:13 35:5
75:18 84:10 134:11
146:20
course 48:17 88:15
95:14 128:6
cover 72:2 85:14 87:18
88:3 130:12 140:11
covered 8:18 91:4
cows 25:19
created 13:17,19 59:12
creates 92:20 136:3
credibility 44:1
credit 73:2
crisis 69:9
criteria 38:18 124:12,15
critical 27:18 59:10
77:13,22 114:4
138:12
crop 123:3,9 143:22
cropping 20:2
crops 43:13 48:9 55:15
72:2 79:9 85:14 87:18
88:4 112:21 128:21
cross- 63:6
cross-checks 62:18
63:2
crucial 69:19
Cruelty 77:1
curious 124:4,22
current 14:18 19:18
25:7 28:17 30:16

44:12 72:3 121:14
currently 5:19 12:7
 25:21 26:4 41:16
 42:13 62:10 109:11
 119:22
curve 125:17
customer 23:6
customers 97:14
 111:21 112:1
cutting 31:13

D

D.C 137:16
D1 69:5
dads 70:15
dairies 27:14,16 32:8
dairy 25:14 27:21 31:9
 31:10 32:9 44:9 107:6
damages 44:1
damaging 27:20 59:16
dangerous 14:12
data 19:22 33:12 58:11
 118:20 134:17
date 74:13 81:10
Dave 1:14 5:1 71:12,15
 71:18 74:6,6,8 76:1
 80:8 81:19,19,19 98:3
 98:12,13,14 125:13
 125:13,14
David 63:20 67:20,21
 71:12,12,15,20 76:7
 90:3,4 94:6,6,9,10,18
 94:20 96:19 99:18
 142:16,17,18,22
 143:2,3,8 145:1
 146:17 147:1,2,11,14
 147:19,20 148:3,4,6,9
Davis 59:17 60:4
day 17:9 154:5,17
days 64:20
de 1:13 4:18,19
de-oiled 102:20 104:5
 108:14,15,18 109:2
 109:15,17 110:4,22
 111:2
de-oiling 108:20
de-oils 104:2 109:20
deadline 59:4
deal 35:9
Dear 10:1
debate 60:4
DeBates 53:21 57:6,10
 57:10,14
debris 116:17
decade 150:10
decision 25:14 38:7,14
 43:8
deck 7:12 17:17 40:2

79:2
decreased 91:9
decreases 91:10
decreasing 120:3
dedicated 36:14 93:5
deep 142:1
deeply 65:22
defenses 55:19
defer 123:13 124:16
deficiency 92:21
define 34:11
defined 27:6,11
definitely 29:2 88:8,10
 101:8 104:10 114:2
 125:5 135:15 141:8
definition 25:8 29:9
 30:8,15 31:17 34:5
 41:6 54:20 56:10
 140:8
degradable 130:6
degradation 130:5
 147:6
degraded 66:11 90:19
degree 69:4 91:2
degrees 69:10
delicate 12:6 108:22
deliver 54:21
demand 106:20 110:7
demands 121:15
demarcated 41:17,20
 42:1,3
demonstrates 129:13
denied 54:18 55:9
deny 54:22
DEPARTMENT 1:1
depends 34:10
deported 73:22
deposit 131:17
deposition 131:8
depressed 80:5
depth 30:11
derived 16:21 109:7
 118:13 122:13
derogation 47:7,13
describe 48:8 65:3
described 64:22
describes 14:1 25:12
describing 15:5
deserve 70:9
desire 107:1,20
desired 120:20
destroy 138:18
destroyed 73:22
destroying 139:21
destruction 81:1
destructive 151:14
detail 27:10 87:5
detailed 77:13

details 124:22
detect 62:20 63:13
detection 18:13
deter 62:20
determination 110:9
detrimental 10:4
 141:16
devastating 81:4
develop 101:19
developing 18:13
development 26:12,15
 26:22 42:1 78:1 123:2
 145:12
developments 40:19
deviate 62:16
devil's 124:21
DeVirgiliis 114:11,12
DeVirgillis 100:14
DEVON 1:19
dialed 78:18
dialogue 124:19
dictated 25:15
diet 54:10
difference 44:13,15
 88:18 130:4
differences 16:8 44:10
 45:7,12,12 47:15
 50:18 51:13,15 130:1
 135:16
different 14:9 15:2
 45:10,21 47:4,9 52:15
 63:9,12 80:13 88:13
 116:14 126:12 130:3
 130:9,11 131:18,22
 132:22 136:8
differently 44:16
difficult 12:6 39:2 70:13
 79:21 93:7
digestibility 129:20
digestion 130:5
diglycerides 114:14
 117:6,7,11
diligent 21:19 74:2
DiMatteo 21:8 24:12
 35:19 36:6,10,11,12
 39:15
diminished 66:12
dioxide 10:2 12:16
 50:20 51:1 102:3
 105:4,6
direct 31:4 60:3 92:6
 126:3 141:11 151:6
directly 92:22 105:9
 128:13 132:18
Director 1:17 64:6
 137:14
disclose 7:15
disconnect 147:22

discovered 46:22
discrepancies 81:9
discuss 28:20
discussion 20:5 43:14
 137:20 146:7
disease 55:2,20 56:8
 84:16 85:5 115:3
 131:1
disease-causing 70:21
diseases 91:17 92:20
disincentive 33:6
disposal 49:9
dispose 49:9
disregard 66:1
dissolving 92:10
distance 25:20
distribution 22:7 23:10
 128:14,18 132:19
disturbed 34:19
diversities 35:7
diversity 138:11
diverted 152:22
Division 1:18,20,20
docket 113:16 125:9,10
document 43:14 48:13
 137:20
documents 15:17
doing 31:12 34:10
 69:22
domestic 74:11
domestically 51:16
dose 129:9
DR 1:17
draft 59:11
dressings 120:2
dried 23:12
drill 84:19
drinks 107:6
dropping 74:18
drum 117:13
drying 117:13
due 130:1
dues 18:10
dump 144:14
dumped 144:14

E

earlier 98:4 114:2,5
easily 25:12
Eastern 103:13
easy 124:21
eat 68:12 69:3
Eating 70:12
echo 4:4 6:15 98:3
ecological 26:9 61:9
 64:6 124:7 129:8
ecologically 140:4
economic 66:13 82:17

economically 82:22
119:14
ecosystem 29:9 30:8
30:15 34:5 140:16
ecosystems 25:4,8
26:11 27:4,4,5,9,11
28:3,3 30:6,9 31:17
33:5 34:12 35:3
137:22 138:15,16,19
139:3,16 140:3,7,22
141:6,22
ecotoxicology 14:8,21
15:14
Ed 12:20,22
education 54:8 69:5
Edward 6:10 8:21 9:5,6
9:13,16,19 12:21
effect 37:22 120:12
129:10 141:16
effective 11:18 132:12
effectively 27:12
effectiveness 37:4
effects 13:20 14:9
74:19 129:11,17
efficiency 91:10
efficient 26:17 119:2
effort 19:18 31:1
either 8:12 113:16
116:18 131:1 135:3
138:13 139:4
Ela 1:14 4:21,22 53:1
105:2,16 124:4,20
125:6 132:9 133:9,18
133:22 134:15 135:8
elaborate 152:11
element 11:3 14:1,7,10
14:14
elemental 92:4
elements 13:22 15:7
92:11,11
eliminate 11:6 27:13
137:21
eliminates 91:7
eliminating 25:3 27:2
137:20
elimination 10:1 91:21
Elise 53:21 57:1,1,4
60:22 61:1,4,4,6,8
63:1,1,18
embarrassing 68:14
Emily 1:15 5:4 28:6,6
48:3 98:1 99:13 122:9
124:8 140:18 152:10
emissions 129:15
141:21 142:2
emphasis 58:8
emulsifier 115:7 121:3
emulsifiers 109:10

emulsions 108:17
EN 13:18
encapsulator 121:3
encourage 7:20 33:8
36:16 39:9 85:21
111:22 119:17 140:1
145:11 146:9
encouraged 140:3
encourages 117:3
145:9,14
encouraging 146:5
ends 144:13
energy 49:11,11,14
79:22
enforce 46:18
enforced 96:13
enforcement 22:22
58:7 66:10,18
engaged 84:6
engagement 154:10
engineered 112:22
engineering 109:7
England 25:13 29:17
34:18
enhances 116:16
enormously 99:1
ensure 13:19 14:14
15:8 37:1 121:21
122:4 140:15
entering 22:6
entire 8:14 10:5 58:13
67:14 109:14 110:7
110:13 112:18
entities 22:1 62:4 63:9
63:10
entity 62:7
entry 80:18
environment 18:15
37:17 63:3 112:20
115:14 117:2
environmental 151:6
151:11
environmentally 129:4
environments 19:10
EPA 136:19
equipment 18:15 91:14
equivalencies 46:7
equivalency 42:14,18
44:12,20 45:13,19
47:8,13 62:12
equivalent 101:5
erosion 142:6 143:22
especially 3:7 27:18
38:22 64:17 66:2,16
69:14 107:14 112:22
120:21
essential 65:9 78:5
110:17,19

essentiality 110:16
establishing 60:9
estimate 80:7
et 23:13
Ethanol 115:19
EU 41:4,14,19,19 42:5,7
42:13,16,17,20 43:3,4
45:18 46:13,21 52:6
52:18 81:5
Europe 10:9,11 13:16
16:22 50:12 51:3,4
52:17 147:7
European 14:17 15:8
15:13 40:20 41:2
43:10 44:10,19 45:7
45:22 47:16 50:13,21
52:3 129:6
evaluate 19:18,19
31:16 38:19
evaluating 34:11
evaluation 11:15
evaluators 34:15
eventually 75:21 82:16
everybody 103:1
evidence 66:14 152:12
evidently 95:21
exact 132:21
exactly 96:22
example 30:10 50:19
51:21 55:21 110:21
120:1 122:14 150:12
examples 28:21 111:9
152:14
exceeding 32:11
excellent 4:20 62:20
exception 51:20
exceptions 52:6
exclude 140:7
excluded 58:21
Executive 64:6
exercise 54:12
existing 41:4,21
exists 47:7
expand 25:15,17 26:7
26:16 27:14,17 30:22
31:12,19 32:18
122:21
expansion 121:12
expect 77:5 97:14
107:20 113:6 119:8
expectation 30:1 77:8
expectations 31:22
32:1,4,7
expected 25:10 70:8
expecting 97:16
expensive 23:14
experts 123:13
explain 131:2

explained 15:16
explicitly 140:2
exploding 75:20
export 46:13 51:2
exported 51:17
exporters 73:15
exposed 72:10
exposure 129:13
130:10
express 29:22 56:16
extend 11:10 65:2
extended 16:9
extensive 129:7
extent 111:20
extra 34:22 81:11 95:18
105:12 114:20
extract 23:13
extracted 120:17
extremely 12:5 26:21
79:21 95:15 98:6,9
120:16

F

face 26:15
face-to-face 2:10,16,19
faced 84:17
facilitate 8:5
facilitating 27:18
154:10
facilities 41:21 42:1
facility 19:12 22:18
facing 84:20 85:6
fact 22:16 68:11,19
116:2 152:3
factions 106:9
fails 77:17
fairly 85:1
fall 29:8 43:16 58:3
111:8 113:5,10 114:3
family 68:10 79:17
fancy 69:10
far 73:11 136:17 150:6
farm 19:11 25:17 27:19
29:7,10 57:18,21
58:14 59:2,3,11 61:9
63:11 64:7 72:20
79:13,17,17 80:3,8
82:16,20 93:20 97:7
97:20 144:5
farm's 79:6
farmer 14:15 25:22 44:9
58:2 71:22
farmers 26:1 27:21 29:6
29:19 30:14 33:8,13
40:12,14,18 43:7
64:18 65:7 74:16
77:19 82:19 84:8,17
84:21 85:6 86:12

88:20 89:1 98:4,9
103:14
farmers' 98:7
farming 83:19 84:5 85:3
88:19 89:2 136:11,17
143:16
farmland 29:18
farms 26:16 30:20,20
31:2,3,4,9,10,18 32:9
32:12,16 33:11 71:21
79:6 80:20 89:10
146:5,16
fashion 23:3
Faso 58:1
fast 59:5
faster 26:3
faults 11:8,12
FDA 55:16,21 115:17
fed 97:3,10,15,16
federal 2:22 65:6
Federation 137:15
138:1
feedback 122:19
feel 10:4 70:17 74:19
75:2,3,20 77:21 97:12
107:19 123:14
feeling 101:7
fees 23:20
fermentability 130:8
fermentation 115:20
Ferrara 100:22
fertility 86:20
fertilizer 92:2 136:14
148:21 149:16 151:21
152:13,21
fertilizers 149:2,18
fewer 61:18
field 6:10 8:21 9:11,15
9:19,20 10:19 26:4
32:17 43:15 44:2
66:11 75:2,5 79:11
80:3,11 86:19
fields 89:11
figure 84:19
fill 91:19
fillings 107:5 119:6
fills 144:12
film 13:18 14:13,16,19
37:12 145:12 147:6
films 145:16,22
filtration 93:18
final 38:6 59:5 115:20
115:22
finally 67:2 107:21
108:13 109:9 117:5
find 17:14 20:19 35:8
45:1 113:18 132:3
finding 17:12 57:1

70:20 80:16 104:2
111:4 112:20
finish 8:4
finished 7:21 85:1
105:15
firm 36:11
first 6:9,10,21 8:20,21
13:16,22 27:6 36:21
37:10 41:4 70:8 79:14
97:8 101:2 127:11
143:12,15 150:17
fish 149:1,2,7 150:5,8
150:20 151:7,17,20
152:12,18,19 153:1,1
fits 31:16
five 95:1 143:17
flags 75:14
flavor 54:17 108:21
flavoring 121:3
flavors 69:16 101:6,7
101:14,15 109:1
flexibility 32:16
focus 14:12 19:2 25:2
28:1 87:17 137:19
143:19
focused 18:12 27:2
31:9 54:6
foliar 136:5,9,18,22
folks 30:19 82:5 83:21
86:16 118:3,4 122:19
follow 43:10 98:20
follow-up 32:22 50:15
52:10,11,13,13
113:10 123:18 124:18
125:4
followed 8:21 10:16
13:3 17:11 20:16 21:7
24:12 35:19 39:17
53:21 56:22 63:19,20
67:20 71:12 76:15
following 40:1 90:4
125:3 136:20
food 18:15,22 19:4,5,7
41:10 43:2 55:14,16
56:3,5,12,13,14 61:9
64:6 68:15,16,17 69:8
69:16,18 70:10,10,12
70:15,18,20 79:10
86:20 97:16 106:8,9
106:11 108:22 114:12
115:1,9 116:1,15,16
117:13 118:8 119:9
120:1,12 125:20
126:2,8,14
food-grade 79:10
foodingredientfacts....
126:10,18
foods 37:3 43:18 54:21

55:15 69:13 71:3
107:4 109:8 115:2
117:8 118:15 119:7
121:9
forage 129:21 152:18
152:22
foreign 73:14 95:22
96:1,3,6
foresee 63:4
forest 25:13 27:6 29:18
30:14 34:18 35:6
forested 25:22
forests 26:21
forget 135:3
form 25:7 102:10,18,19
102:20,21 104:11
110:4 130:22
formal 31:2
format 104:18
formation 92:5,19
121:8
former 151:12
forms 104:8 120:6
formulated 115:9
formulation 108:7
formulations 104:19
105:6 115:1 116:13
formulator 110:21
formulators 106:20
111:9 112:6
fortification 149:15
150:2
fortified 107:15
fortify 107:9
forward 2:8 3:2 57:13
58:17 65:12 113:17
125:2 138:2,21
152:16 153:6 154:17
found 39:21 53:11,22
56:2 73:6 76:16 78:17
78:22 83:12 90:5
92:12 94:11,15 99:22
100:4 125:21
Foundation 83:19 84:6
foundational 87:20
founded 54:7
four 13:22 95:2 143:16
144:4
fourth 14:14
fraction 41:18
fragmentation 142:7
frame 33:9
Francis 24:13 35:19
39:17 40:3,5,10,11
44:5,8 48:5 49:17
53:6,10
fraud 22:21 23:19 57:17
57:22 62:20 63:13

fraudulent 43:4 61:16
72:6,11,15 74:15 75:3
75:7 80:2 95:9 97:1
free 54:14 115:4
friendly 129:5
frozen 120:21
fruits 23:12
frustrating 99:1
full 2:10 131:5,18
135:16
fully 37:9 109:6 111:19
fumigated 61:17
function 18:14 67:3,8
78:5 86:21 149:14
functional 106:19 108:6
functionalities 121:19
functionality 108:16,19
109:12 116:21 119:5
functioning 35:3
functions 91:16 115:6
funding 58:5 84:7
fungicides 129:3 133:3
further 2:19 7:20 73:5
118:19 129:19
Furthermore 151:5
future 38:22 49:13
107:2

G

game 73:16
gathered 134:21
gel 107:22
gelatins 107:5
gellan 101:18,21
106:17,18 107:3,8,18
107:21 109:19
gels 119:6
general 19:21 38:8
80:15
generalities 84:15
generally 99:11
generate 79:12 111:8
generation 27:20 70:7
70:8 79:18 82:15,20
generational 27:18
genetic 109:7
genetically 112:22
genus 121:2
George 53:21 57:1
60:22 61:2,8,8 63:4
GERALDINE 1:20
getting 4:3 46:5 74:20
74:21 83:20 87:15
97:14 102:18 104:5
122:19
GI 56:1
give 7:13 9:10 18:4
57:21 60:13 68:11

73:1 90:12 96:18
127:9,9 132:20
146:19
given 20:9 46:5 55:11
65:13 96:18 116:22
121:12 138:9 146:19
giving 65:10 70:19 84:3
142:13
gladly 81:16
Glaser 39:20 53:13
137:8,9,13,14 141:8
142:15
globally 57:16 117:9
gluten 115:3
glycerides 117:9
GMO 55:6,8
GMOs 96:10
goal 38:11
goals 25:5 152:2
Goland 57:4 61:5 63:19
63:22 64:4,5 67:18
gold 68:22
GONZALES 1:20
goods 22:13 23:2 123:5
gotten 40:6 134:16
gradient 146:10
graduate 69:4
grain 71:21 72:4,20
73:8,19 79:8 94:21
95:9 96:10
grains 75:3,8 97:4,11
grandparents 68:17
grandson 82:15
grape 128:20
grapes 12:11,17
grapple 30:4
grass 117:8
grassland 140:8
grasslands 138:15
grazed 139:19 140:9
grazing 139:2,7,7,10,17
140:2,6
greater 19:14 91:10
greatest 48:8
greatly 72:6
greenhouse 48:14,16
greenhouses 49:14
grossed 69:2
ground 98:22 99:12,14
groundwater 151:15
group 94:22
grouse 139:16
grow 10:22 72:1 106:21
growers 29:20 42:22
56:13 64:20 72:4,18
79:8 82:7 90:15,20
94:21 128:9,14,18,19
132:15,19 134:8,11

134:18 135:1
growing 10:22 43:14,15
52:17 128:8 134:5,14
grown 10:10 11:4,11
12:17 43:2 55:14
63:11
grows 128:15
growth 35:4 36:16 58:6
60:7 116:8 143:22
guar 118:11 119:20
120:16,17 121:14
guaranty 149:18
guard 95:20
guess 45:6 46:4 74:3
75:14 98:18 110:15
130:21 131:10 143:11
guidance 23:15 35:1,10
138:7 139:4 140:15
guide 68:9 70:5
guidelines 10:16 86:15
guides 85:2,9 89:6
gum 101:18,21 102:8
102:11 103:10 106:18
106:18 107:3,8,18,21
109:19 114:14,16,20
114:22 115:5,10,13
115:21 116:2,5,6
119:20,20,20,21
120:16 121:1,5,6,8,15
121:19
gums 102:7 115:11
118:10 119:19,22
120:7,9,19 121:21

H

habitat 139:11,12
141:11,13,15 142:7,7
halal 108:3
hand 16:3 52:9 74:7
152:8
handheld 6:18
handle 23:6 111:7
handled 23:3
handler 22:8,18
handlers 20:10 21:22
22:2 23:17 42:22
handling 12:15 20:3
38:10,17 60:12
hands 48:2
happen 22:22 99:3,12
154:12
happened 154:13
happening 47:16 66:15
98:21
happens 88:14 131:13
141:1
happy 113:9 125:4
harbor 116:18

harboring 18:18
hard 65:5 108:9 146:10
harm 66:13 115:14
harmful 115:16 129:5
harms 77:19
Harriet 1:11 4:5 16:1,2
16:4 34:1,20 49:16
52:8 87:11,12 89:16
96:20 112:9
Harriett 74:7
harvested 118:16 124:6
124:11 151:17 152:1
152:13,19,20
hay 79:11 95:6
hazardous 129:14
he'll 68:12
head 13:11 113:7
headset 9:9 143:13
health 13:20 15:9 26:10
54:5,8,15 69:7,9,13
69:20 85:2,9,11,12,13
85:14 86:5,10,20 87:4
87:9,14 88:5,12,16,18
89:3,9 97:10 118:21
129:6,14 139:19
healthier 56:16
healthy 54:7 70:12,19
85:15
hear 3:15 9:11,12 13:7
21:5 24:17 36:6 40:8
57:6 64:1,19 68:1
71:17 76:12 78:13
82:1,6 83:10 89:22
90:1 94:8 97:2 98:6,9
98:14 106:2,3,22
111:13 112:2,5 118:5
127:16,18 137:10
139:14 142:22 143:1
143:6,7,9,10 145:3
147:14,15,16 148:14
heard 29:2 66:14 72:9
103:4 105:17 122:6
122:20
hearing 3:2 9:4 12:22
20:20 53:12,14 81:10
81:21 82:5 100:2
127:13 143:4,8
147:12,20 148:4,11
heat 119:4
heavily 78:6
heed 67:1
held 1:8
hello 5:1 21:3 24:15
49:17 89:20 114:11
142:21 147:10,13
148:1,14
help 3:7 34:9 35:1
62:16 87:22 90:14

99:15 139:18
helpful 38:12 59:6
62:13 82:6 85:22
88:21 98:6 113:11
132:1
helping 3:14 54:7
138:18
helps 107:8 135:8
herbicide 88:4
herd 139:15
hi 5:7,9,12 16:5 24:19
34:21 40:5 61:8 74:8
74:9 81:12 87:12,13
90:9 96:21 100:7
106:2 112:10 127:17
127:19 137:9,10,13
147:11,14
high 27:3,5 28:2 30:5,9
77:5 90:22 91:2 93:4
93:8,21 119:22 130:5
higher 92:20 101:17
108:18
highly 35:3 106:18
108:6 130:6
historic 34:14
historically 102:11
hold 9:6 21:2,6 45:20
53:20 61:4 74:2 76:13
78:16 83:10 90:2
94:10 100:7 117:22
125:14 143:12
holding 52:9 73:2,3
142:13
home 44:2
hope 65:18 81:5 154:16
hopefully 29:19 99:13
hoping 82:16
Horticulture 59:18
hoses 91:20
hosting 64:14
house 22:7 58:14 59:11
59:16
huge 143:19
human 118:21 129:5,14
152:20
hundred 144:9
hundreds 23:10
hydrate 119:3
hydrates 120:18
hydrocoloids 121:11
hydroponic 41:5
hydroponic 40:21
41:15 42:21 43:11,21
43:22 46:22 47:1,14
48:18,20 49:6,19
52:17
hydroponically 41:9
43:2,9

hydroponically-grown 46:1
hydroponically-prod... 46:14 50:10
hydroponics 44:16 45:3,21
hydroxide 102:3

I
ice 121:8
ID 7:8
idea 46:20 146:10
ideal 92:9
identification 151:1
identified 11:18 35:22 85:4 87:3 100:10,16 151:2
identify 31:3 36:3 83:13 84:9 113:4 150:19
IFAC 106:8,17 108:4 111:17 114:15 116:4 116:8,10 117:2,5,13 119:18 121:13 122:3 123:13
ignored 66:8
imagine 70:4
immense 26:15
impact 23:18 37:17 56:6 62:2 75:1 93:11 95:10 135:20 140:20 141:3,5,10,11,17 153:1
impacted 72:6
impacting 82:7
impacts 117:2 118:21 141:10,12 142:4,5 151:6,11
imperative 24:1
impermissible 150:2
impervious 18:19
implement 86:13
implementation 138:4
import 46:13 49:21 57:17 62:3,5,10,10,12
importance 107:16 128:8
important 3:16 21:20 27:9 58:16 60:16 65:5 65:11 82:18 91:19 95:15 99:9 108:12 134:1 138:3 139:8
importantly 112:6 116:19
importation 41:9 46:1
imported 11:1 12:3 47:3 50:12 52:19 80:19 95:9
importers 61:14,21

importing 46:11 73:10 75:3
imports 42:19 61:13,16 62:14 72:6,11,15 74:15 75:11 80:2,6,12 80:22 95:9,22 97:1
impression 45:2
improve 58:11 63:12 120:2 139:12,18
improvement 36:17 91:3
improvements 61:12
improves 143:22
improving 18:12,13
in-house 70:2
incentive 25:3 27:3 28:2 137:21
incentivize 138:13
inception 10:7
include 12:1
included 15:1,8 16:10 58:14 62:9
includes 15:4 25:9
including 41:10 42:5 64:16 99:6 106:10 107:5 109:4 115:3 116:13 119:19 129:2 149:7
inclusion 149:20
income 79:12 80:5
Incorporated 9:21
incorrect 126:17
increase 26:18 75:13 139:12 145:17 146:6 146:11
increased 75:12 87:3 89:7 142:6 146:2
increasing 57:15
incredibly 62:13
Independent 21:12
indicated 134:12
indication 129:11,16
indicator 111:15
industry 10:5 17:2 18:7 19:6 23:18 32:5 56:5 58:6 59:22 62:2 65:8 65:16 67:8 74:12 109:14 110:14 111:14 116:15
inedible 120:13
inerts 36:21
inference 51:3
inflammation 56:1
inflammatory 55:3
inform 62:16
informal 30:17 33:17
information 2:19 22:19 45:18 65:20 85:10

88:6 98:8 111:4,22 113:18,21 119:16 123:14 124:17 125:8 126:4 131:21 134:3 134:21 136:12,12
infrastructure 93:14
ingredient 20:8 106:19 120:15,17 121:6,9,18
ingredients 22:2,10 23:11,14 70:22 102:4 105:9 106:10 107:10 109:7 145:16 146:2,3 151:9,10
initial 112:16 149:4
initiate 63:6
inorganic 136:11
input 66:2,7 67:1,7
inputs 49:20
insecticide 131:6
insecticides 129:3
inside 91:22
insisting 66:18
inspection 22:19
inspections 22:1
inspector 21:11,16 22:9 80:15 97:5
inspectors 22:17
installed 90:16
instance 88:4
Institute 151:20
instruct 22:14
integrated 128:22
integrity 12:12 22:4 23:7 30:2 32:3 36:15 44:1 66:11 69:20 70:13 72:16 74:3 81:1 95:14,21 97:13 140:15
intended 14:8 120:11 121:12
intent 35:2,2
intentionally 138:13
interacting 84:8 86:1
interconnected 93:17
interest 70:1
interested 75:18 125:18 131:20 135:15
interference 10:18 33:4 120:11
Intern 1:20
internal 92:1
international 58:12 61:20 106:8 114:12 118:8 125:20 126:2,8 126:14
internet 17:13
interpretation 31:15
intervening 150:10

introduced 58:2 96:11
introduces 41:5
invasive 139:11
invest 58:10
investigation 73:5
investigations 58:9
invoices 22:15,21
involve 139:20
involved 62:5 64:18
irradiated 61:18
irrigation 91:14,20,22 92:3,14,15 93:9 135:17
ISO 14:4 15:5
isolation 141:4
isopropyl 115:19
issue 47:19 49:12 56:5 57:17 58:20 77:9 82:5 95:8,9 99:4 138:3 144:2
issued 62:15 149:10
issues 12:8 21:20 24:5 35:10 36:18 57:18 65:11 69:7 72:5 87:9 102:14 120:5 146:19 148:8 154:11
issuing 59:5
item 48:6,10 104:17 111:14
items 3:5 101:1

J

jams 107:6,22
January 41:13 135:19
Jeff 94:13,14 100:3,3,6 100:7,7,19,21 103:7,8 103:8 105:19
jellies 107:6 108:1
Jesse 1:12 4:12
job 71:1
John 58:1 78:21,21 83:11,11,14 148:10 148:10,11
John's 78:22
join 18:2
joined 83:8 118:4 127:8
joining 2:9
Jones 76:15 78:12,13 79:5,6 81:14 82:12
justify 112:3

K

Kahl 21:1
Kahzakhstan 73:7
Katherine 21:7 24:12 35:19 36:4,10 39:12 39:12
keep 6:14 58:5

keeping 74:2
keeps 92:14
kernals 121:7
key 11:3
kids 70:7,19
kilo 55:22
knew 30:20 68:17
knowledge 56:4 151:19
known 120:4 121:5
 151:13
kosher 108:3
Kuenkel 8:22 13:6,10
 13:11 16:10,16,22
 17:3,8

L

lab 86:19
label 12:13 50:7 68:9,22
 70:5,14,18,20 136:19
 136:21 140:16
labeled 12:16 55:12
 80:19
labeling 51:1 52:15
 55:13
labels 22:20
labor 93:5
labs 70:22
laced 54:21
lack 126:7
lacks 116:4
lactic 11:6
land 25:13,15,16,19,21
 26:1,2,5,6,20 29:5,7
 29:10,17,19 31:5,16
 31:19 34:7,19 139:8
 139:20
landfill 144:14
landfilled 144:11
lands 90:19
landscapes 91:8
language 59:10,16
large 33:18 69:8 90:15
 92:6,19,21 93:3 102:8
 116:13
larger 141:3
Lastly 38:8
laudably 78:3
law 59:2,4 77:22
laws 55:13
lead 43:10 62:18 66:17
leadership 77:9
leading 11:2
leads 66:13
leaf 131:7
learned 40:19
learning 125:17 134:6,6
 135:15
leave 66:5 116:5

leaves 73:20
leaving 151:14
lecithin 102:17,20
 104:2,5,6,11,18
 108:14,15,18,19,21
 109:2,13,17,20 110:4
 111:1,2
lecithins 109:15
led 45:12
leech 151:15
left 13:21
legislation 58:4
legislative 57:20
legitimate 56:2
let's 29:7 49:11,18
letter 10:16 43:18
letting 18:2 76:5
level 15:6 72:17 75:2,5
 92:10
levels 86:16 118:22
 120:21 129:10 145:17
 146:1
LEWIS 1:17 2:3
license 47:2
lies 23:9
life 11:11 54:6,9,14
 96:15 141:6
lifeblood 65:8
light 9:13 49:11 116:2
lightly 39:6
likelihood 26:19
Lima 1:13 4:18,19
limit 39:7 55:21
limited 31:9
limiting 38:10 58:21
limits 32:19
Lincoln 18:8
line 7:5 9:5,7,8 20:18
 24:13 36:1,4 39:19,22
 53:16 61:1 63:21
 67:22 71:14 76:8,9,11
 76:16 83:7,12 89:18
 90:5 94:6,12 117:20
 127:12 142:13,17,20
 148:10,13
link 62:6,8 126:7 129:18
linking 63:8
links 84:20 85:5 132:3
liquid 149:1,7 150:5,8
 151:7
Lisa 1:13 4:18
list 6:20,22 7:4 12:16
 19:20 20:6 37:1 38:8
 38:10,15 39:3,4 59:13
 60:10 63:7 71:13
 78:18 81:7 101:8,19
 101:22 102:6,13
 109:11,20 114:16

116:5 118:2,12
 119:18,21 127:6
 128:7,10 148:9 154:4
listed 111:15 136:21
listing 37:8 106:13
 109:19 114:15,18
 116:8 117:6 118:12
 119:19
lists 81:9
literally 103:13
literature 118:20
little 4:3 6:14 9:13,14
 18:4 31:3 63:2 68:13
 74:17 84:18 86:9
 103:3 105:7 124:8,22
 131:2 133:22 141:13
 147:21 153:10
livestock 44:14 66:3
 74:12 77:11,14 97:3,9
 97:10
living 88:11
located 79:7 90:21
locations 103:15
 128:16
locust 119:20 121:5,15
log 25:22 26:2,5
logging 26:8 30:21
logistical 6:7
Lois 79:1 83:14 89:18
 89:18,22 90:3,6,9
 94:1,2,2,5
long 38:13 39:4 80:10
longer 23:2 26:20 42:4
 43:1 45:20 68:22
 93:13
look 3:2 34:13 48:10
 73:14 86:5,19 125:2
 129:19 132:2 154:17
looked 48:13
looking 2:8 27:8 29:6
 49:13 63:11 84:15
 85:10,12 86:11,13,16
 88:13,16 99:6 122:11
 123:3 147:3
looks 44:5 96:20 112:8
 122:8 135:21 140:18
 147:21 148:7
loophole 24:2 138:22
lose 47:2 73:16 95:17
 96:14 142:2
losing 141:14
loss 80:7 93:19 141:11
 142:7
lost 70:15 73:16 80:5
 95:12 145:1,4 147:1
lot 31:14 32:5 35:4 44:9
 45:6 51:12,14 62:9
 86:6 87:5,15 99:9

136:11 141:21 143:21
lots 22:11 23:5 73:1
 103:4
love 101:22
low 91:15 120:18,21
 130:7
lower 74:15
Lundgren 20:17 21:7
 24:12,15,19,20 30:17
 33:16 34:9 35:17

M

mafia 73:19
magnesium 108:5,5
 109:19
main 11:12 46:11 60:6
maintain 18:21 19:4
 36:15 54:12 133:16
maintaining 88:11
major 26:9 40:20 144:1
majority 11:22 55:2
 77:4
makeup 80:8
making 26:20 38:10
 46:12 50:21 51:1
 92:11
manage 30:19 55:18
 90:14
managed 139:20
management 26:5
 85:14 139:7,17,19
 140:2
managers 139:9
mandatory 55:13
manifold 141:3
manmade 56:11
manner 118:17 124:6,7
 124:12
manufacture 123:4
manufacturer 37:16
 128:2 148:20
manufacturers 111:18
 122:16 123:10
manufacturing 119:2
 151:8
Marchant 67:21 71:12
 71:13,15 76:8 142:17
 142:21 143:5,9,11
 145:3,6,8 146:21
 147:3,13 148:1
mark 8:5
marked 58:15
market 12:4 51:16,17
 66:12 96:15 106:21
 107:17 112:18 121:13
 150:10
marketed 108:3
marketing 151:22

Netherlands 49:19
never 73:17
new 13:17 25:13 29:17
 31:20 34:18 41:12,19
 42:1,7,17,20 45:18
 47:20 75:17 99:10
newer 125:16 134:4
nice 17:9 83:9
night 125:18
nil 128:12
Ninety 128:18
nitrate 37:18,20 38:2
Noelle 61:5 63:19 67:20
 67:21 68:4,7 71:4,5,5
noise 6:15 83:21
non- 23:10 114:18
 151:13
non-animal 107:22
non-EU 41:10
non-genetically 109:3
non-organic 38:16
 87:19 101:14 111:2
non-synthetic 116:9
 119:9
NOP 2:18 3:6,14 11:15
 23:21 24:1 27:12 37:3
 43:12 48:5 57:21 58:5
 58:10 61:12 62:3,16
 62:18 63:4 65:4 66:19
 67:5 128:7,10 136:9
 136:15 145:9,11,13
 146:1,4,7 152:2
 154:10
NOP's 58:8 77:18
Nordic 41:16,21 42:6
North 79:7
northeast 26:11,14
 27:21
northeastern 27:13
Northwest 71:22
NOSB 1:9 2:4,11,15 3:3
 3:4,18 7:19 10:1,14
 32:6 37:19 38:5 43:16
 48:15 57:18 58:18
 59:6,14 60:12 61:11
 65:3,6,9,13 66:7,17
 66:22 67:6 69:22 77:9
 78:4 85:17 96:17 99:5
 99:8,10 106:15
 110:15 111:7 113:6
 114:18 116:4,8
 119:17 121:20 123:3
 128:5 136:15 137:19
 138:20 145:11 146:1
 149:10,20 150:7
NOSB's 57:15 59:20
 77:22
note 5:16 8:11 14:3

noted 28:15 108:14
notes 65:19
noticeably 105:11
noticed 97:7
notifications 115:18
nourish 68:10
nourishing 70:6
November 17:4
number 7:7 17:15 20:19
 33:13,19 35:22 36:2
 39:18,21 56:14 57:2
 61:15 63:5 78:19
 83:13 94:15,16
 100:10,11,16,17
 101:17 106:10 133:7
numbers 62:9 128:15
 132:21
nutrient 93:7
nutrient- 54:9
nutrient-deficient
 54:11
nutrients 16:8 107:9
nutritional 25:18 101:4
 107:7
nutritious 97:15

O

Oakley 1:15 5:5,6 28:8
 28:10 32:21 33:2,5,21
 48:4 49:15 98:2
 122:10 123:1,16,21
 124:2 140:19 152:8
 153:3
oats 72:1
obesity 120:6
objections 115:17
observed 129:10
observing 22:9
obtain 24:3 110:22
obtained 109:16 121:6
Obtaining 111:4
obvious 37:13
obviously 98:19 112:2
occur 59:1
occurred 150:10
occurring 2:17
ocean 144:15
October 37:21
odors 11:7,13
OEFFA 61:10,21 64:7,7
 64:9,21,22 66:15 72:3
 72:4 79:15,17 94:21
OEFFA's 79:8
OEFFA-certified 64:20
OFA 40:13 43:17
offered 59:18
offering 10:17
offhand 30:20

Office 80:15
OFRF 84:5
Ohio 61:9 64:6 71:22
 79:7 95:6
oil 102:18 108:16
oiled 104:5 109:12
oils 104:2
old 68:8
once 69:1,2 111:6
ones 44:16 45:11 51:18
ongoing 77:12
online 17:13 65:19
 99:22 136:5
open 31:14 113:16
 125:9,10,10
operated 64:9
operates 2:21
operation 23:4 27:17
 31:11 95:11
operations 19:12 20:3
 21:17 23:1,22 27:14
 58:21 62:16 64:12
 140:21
operators 38:22
opportunity 2:14 9:21
 12:18 13:12 18:3
 24:21 36:13 56:15
 60:17 72:5 76:21 84:3
 106:15 122:4 137:18
 140:12 152:1 154:2
oppose 37:8
opposed 25:6 30:9
optimal 86:15
option 20:9,9 27:13
 102:1
options 32:20
order 6:20,22 12:3
 30:21 48:2 93:1 112:3
 112:4 118:3
Oregon 24:4
organically 10:10 11:4
 11:11 12:17 48:21
 49:20 50:11 55:14
 101:4 112:18
organics 14:20 60:14
 72:16 75:19 81:1
 82:18
organisms 14:9
organization 18:9
 40:14 85:4,19 87:3
 125:19 135:3
organizations 134:12
origin 50:1,5 55:3,7
 73:22
original 10:14 22:16
 149:7
OTA 24:4 57:20 59:15
out-of-date 37:1

outlines 84:13
outlive 70:9
outright 33:3
outside 99:8 106:15
overall 51:13 80:8
 85:15 89:9 154:14
overcome 84:22
overdosed 56:4
overfarming 90:20
overfishing 152:3
overharvest 152:22
oversight 57:15 61:13
overstate 65:5
overstep 35:1,11
overweight 120:5
overwhelming 55:19
owe 38:5
oxidation 11:10,20 12:8

P

P-R-O-C-E-E-D-I-N-G-S
 2:1
p.m 1:9 2:2 154:21
pace 58:5
pacifier 130:21
packing 22:7
Page 11:16
paid 70:2
panel 57:2 99:6
paper 152:16
paperwork 73:16 96:5
Pardon 28:8 47:10
 98:15
parents 70:4,9
Parliament 44:19
parlor 25:17,20
part 2:15 15:13 16:6
 38:9 74:4 79:7 128:22
 132:15,17 134:1
 149:22
participate 64:16
participating 23:20
 66:6
participation 2:12 66:5
participatory 78:4
particular 44:13 131:4
 139:18 140:9
particularly 12:9 82:6
partly 29:14
partner 36:11
partners 10:8 128:15
partnership 18:6
parts 10:13 12:10
 103:20 116:1
party 70:3
pass 59:18 82:20
passage 10:14
passed 41:2 44:18

regular 22:3 132:15,17
133:3,5 134:2
regulate 46:8
regulation 15:11 41:2
41:12,20 42:7,10,17
44:18 45:19 47:20
69:18
regulations 50:18
54:16 58:20 116:1
regulatory 43:19
reiterate 114:17
rejected 149:22
rejecting 145:21
relabeled 23:15
relabeling 22:12
related 46:7 47:14 67:4
139:2,6
relationships 30:19
relatively 89:9 102:8
released 59:11
relevant 7:15,16 57:18
58:18
reliable 86:11,18
relies 115:15
rely 78:6
remain 26:14 101:8,22
120:7
remaining 7:2 138:18
remind 132:11
reminder 6:13
removal 93:4,6 116:17
remove 69:17
removing 28:1 39:5
141:5
remulch 143:19
render 120:12
renewal 119:11
renewing 128:6
repacked 23:14
repacking 22:12
repeat 29:3
repeated 129:9
repeatedly 36:19
replace 121:19 129:1
133:2,5
replicate 119:14
report 11:16 29:15
58:13 119:10 129:12
135:18 151:3
represent 122:16
123:10
representing 106:9
represents 111:17
reprocessing 55:6
reproductive 129:11
Republican 59:17
request 12:14 38:5
114:17 140:5

requesting 22:18
require 24:2 42:19 59:4
123:7 126:5 150:11
required 15:11 61:22
62:9,11,14 77:22
80:17 92:7 126:20
151:9
requirement 16:13
31:20 52:16 101:12
requirements 13:15
14:15,19 32:10,11
37:2 61:20
requires 42:10 58:19
101:9 126:15 149:2
requiring 61:14 122:12
resale 128:18
research 13:11 18:11
19:2 20:1 83:19 84:5
84:7,7,9,11,14,19,22
85:18,19 86:4,7 87:4
88:9,10 89:7 149:9
researcher 85:18
researchers 84:8 86:1
reservoirs 91:14
residues 147:9
resistance 133:12
136:3
resistant 18:17 131:1
resolved 36:22
resource 139:9 152:1
resources 119:3
respect 8:3 14:21 19:9
20:4
respectfully 140:13
response 3:4
restore 139:11
restrict 26:18 27:15
result 58:1 109:5
resulted 16:7
resulting 55:19 92:4
retail 19:12
retailers 19:8
retaining 12:15
return 65:19
reused 92:15
revealed 118:20
reverse 59:15
reversed 149:19
review 38:4,17 59:20
80:18 101:1 102:13
106:13 119:11 134:7
136:4 149:1,3,4 150:5
150:9,12,18 151:5
reviewed 104:17
reviewer 149:11
reviewing 22:20 60:9
reviews 38:20
revise 28:1

rice 1:11 5:7,8 107:15
129:21 130:8
rich 54:10
rid 40:6
risk 11:6 23:7 61:15
62:17,18 66:21
risk-based 63:5
road 32:18
roadmap 70:16
Robert 100:8,8,13
106:1,4,5,7 109:22
110:1,1 112:7 114:7
125:8
robust 77:13
Rodney 59:17
role 15:16 59:20 60:12
60:17 69:8 77:22
88:11
roles 60:8
roll 3:22
ROMERO-BRIONES
1:13 5:11
room 22:21
root 56:8 88:11
roots 142:1
Rose 35:20,21 39:17
53:10,11 127:14,15
127:19,22,22 131:3
132:2,6,17 133:17,21
134:4,20 135:10
136:7 137:6
rotation 133:3,5,12
134:2
rotations 133:6
roughly 80:4
routine 31:10
rule 38:6 59:5 66:3
77:11 145:14,18
146:5,7
ruled 150:1
rulemaking 37:22 58:20
rules 37:3 72:18 95:19
96:13 136:20
ruling 10:15 150:4
rulings 149:9
run 7:3 38:13 118:2
Russia 73:6 81:7
rye 72:1

S

safe 18:21 68:10 70:19
116:3 118:22 119:14
154:19
safety 19:4 37:4 69:12
116:16
sage 139:15
sale 79:12
sales 10:20 128:11,14

Sanctuary 79:6
sanitation 18:1,6,12
sanitization 18:15 19:5
sanitizers 18:21 19:2
20:11
satisfactorily 11:18
saucers 120:2
save 119:3
saw 53:16 69:7
saying 32:17 45:6,15
45:17 135:1
scale 141:19
scenes 3:7 69:7
Schumacher 78:21
83:11 148:10
scientific 19:21 118:19
scientist 131:10
scope 49:4
Scott 1:11 5:7,9
SDBS 20:5
Sea 72:12 73:6
seal 60:5,14
sealed 23:6
seasonal 129:1
seaweed 118:15
sec 100:8 125:14
second 2:7 9:10 14:7
21:6 35:4 41:5 53:20
61:4 76:14 78:16
79:17 83:10 90:3
94:10 118:1 150:22
secondly 37:6
seconds 146:20
Secretary 1:11 38:1
Section 116:11 119:21
sector 36:15 65:1
secure 22:5
security 103:14
seed 146:11
seeds 120:18 123:7
146:5,8
seeing 12:21 20:14
24:7 39:13 53:6 56:19
60:20 71:6,13 76:9
78:10 83:3 89:13 94:2
99:18 117:18 127:1
142:11 153:21 154:18
seen 74:13 140:21
segments 116:14
select 63:5
selected 26:3
self-limiting 120:10
sell 50:1,6 52:4 72:19
128:13 132:18
selling 23:10 43:3
132:22 139:20
send 125:10 153:3,17
sense 30:12 33:11,12

Tom 1:9,10 3:10,11 4:2
4:15 5:16 6:1 32:21
48:4 53:3,19 67:9
81:22 125:15 135:11
142:20 147:12,16
152:8
tomatoes 128:20
Tomes 90:4 94:11
99:22 148:12,14,18
148:19 152:16 153:6
153:13,19 154:1
tons 144:10
tool 62:20 63:5 128:8
134:5 139:8
toolbox 38:9 39:7
132:14
tools 57:22 63:12 89:1
top 84:13 113:7 127:6
topic 21:16
topics 20:4
total 5:18 41:19 86:14
91:12
totally 72:19 126:19
tough 71:1 110:12
toxological 129:8
toxins 54:10,16,22 55:4
55:15,18
trace 54:10,16,22 55:4
55:4,15,18
traced 72:19
tracked 10:20
tracking 58:11
tracks 16:7
trade 10:21 57:11 58:12
61:20 135:4
trading 61:17
transcripts 8:13,15
transfer 27:19
transitioning 75:19
transparency 65:20
transparent 78:1,4
transport 77:15
trash 144:3,8
travel 154:19
traveling 5:18
treated 72:21
treatment 119:4
treatus 121:2
tree 121:7
trees 31:13 34:17
tremendous 75:1
tricked 70:17
tricky 46:16
trouble 102:18
troubles 73:9
true 50:2 95:16 104:7
trust 60:5,13
trusting 81:2

try 9:1 53:22 81:16
113:4
trying 30:1,4 46:13
84:19 89:5 101:13,16
101:19 126:11 130:19
139:22 154:15
Tucson 2:10 99:7
154:18
Tuesday 66:14
Turkey 73:4 75:12 81:7
turn 6:1 87:7
turning 3:9
turns 99:9 142:2 144:18
144:19
two 5:16,19 7:12 11:12
14:3 16:14 40:2 44:6
46:6 52:16 53:15
64:20 101:2 122:8
136:7
two-year- 68:7
type 87:1 126:18
135:17 136:16
types 58:21 104:9
130:3
typically 93:21 119:4

U

U.S 10:22 12:4 15:10
40:17,21 42:13,15,19
42:22 44:11 46:1,9,13
47:7,12,22 50:11,13
50:22 51:6 52:4 58:7
72:8,18 75:20 80:18
87:16 107:17
U.S.-certified 43:1
unable 80:16 122:5
126:1
unacceptable 11:14
unambiguous 150:18
unavailable 120:7
122:1,2
uncertified 21:17,22
22:2,6,18 62:4 63:9
unclear 59:3 133:9
undefined 89:9
undergo 108:20
undergone 150:8
undermine 81:4
undermines 77:19
understand 46:4,18
50:2 87:22 96:22
104:1,6 125:19
130:20
understanding 49:18
50:9 52:1 102:19
131:3,12 134:5
Understood 114:6
understory 35:7

undesirable 120:13
unfilled 5:20
unfortunately 144:1,15
144:21 145:8 148:4
unified 40:17
uniform 120:20
unintentionally 138:14
uninterrupted 121:21
Union 40:20 41:2 43:11
45:22 47:17 50:14,22
52:3
unique 78:5 101:20
106:19 108:15 119:14
United 1:1 39:9 41:10
49:22 52:14,20 56:9
144:7,11
university 18:7 69:6
unknown 45:3
unmute 6:17 9:10 68:20
100:11
unmuted 28:7,9,11
unmuting 71:7
unnecessarily 39:8
unnecessary 116:22
150:16
unstable 103:10
unsustainable 151:18
unwanted 11:6
upcoming 2:9,16 27:20
update 16:19 57:18
59:10
updated 65:18
uphold 66:22 77:17
upland 139:20
uplifting 98:6
urge 32:12 43:12 66:16
74:1 121:20 138:8,20
140:13
urges 27:22 43:7 116:4
116:8
URL 126:7,12
usage 19:18 120:10
USDA 3:4 12:13 43:8
58:19 59:5 60:5,13
64:11 68:9,22 70:5,14
70:18 73:1,20 74:1
USDA's 65:22 77:10
80:15
use 6:17 10:2,12 12:10
14:16 16:7,9 18:20
19:4,20 20:1 32:7
34:14 36:22 37:20
38:21 44:13 49:8,10
49:14 52:3 60:11 68:8
69:12 70:5,21 72:2
88:5 89:2 90:17 92:8
93:12 101:4,9 102:3,5
102:17 104:5 105:4,5

105:5,8 107:1 109:6
113:20 117:8,14
118:17 119:13 120:14
120:21 121:10 125:9
126:9 131:6 133:2,16
133:18 135:21 136:8
139:8 143:16 145:11
146:6 150:15,20,20
151:7 152:18
useful 62:4 65:21 87:21
114:1,2 134:2
user 102:8
users 112:3 134:13
uses 152:21
utilization 151:20,22
utilize 86:13 90:20
102:5
utilizes 101:20

V

vacancies 5:20
validity 149:6
valuable 64:17 98:9
value 27:3,5 28:3 30:6,9
66:5 138:10
values 30:2
vanilla 23:13
varied 102:12
varies 86:22 87:1
variety 85:11 88:15
107:4 116:13 117:11
121:22
various 91:15 115:1
121:1 130:4
vegetable 143:20
vegetarians 108:2
vegetation 139:12,21
verification 124:9
verified 96:5
verify 80:18 96:3
verifying 95:21
versa 42:16
versatile 120:17
versatility 116:21
versus 16:21 136:5
viable 12:7 26:14 82:22
119:15
vice 1:11 4:7 16:1,5,15
34:21 42:16 49:17
52:12 74:8,10 87:13
96:21 112:10 113:12
view 44:15,18 56:16
vigorous 107:11
virtually 147:8
viscosity 120:21
visited 52:2
vital 154:7
voice 4:4 40:17 65:10

68:13
voices 98:7 103:4 122:5
void 54:10
volume 11:1 128:19
volunteers 36:14
vote 113:6
voted 41:2
vulnerable 26:21

W

wait 77:5
walking 25:19
wanted 28:13 29:3,22
 33:2 51:2 60:15 69:2
 82:4,9 98:3 105:17
 130:12 137:18 140:11
 140:19 143:13 153:11
wanting 75:18
warehouse 22:6
Wartes- 20:22
Wartes-Kahl 17:17
 20:17 21:3,10,11,15
 24:10
Washington 72:10
 80:14 137:16
waste 92:17 144:20
 145:9 151:15,21
watch 81:7,9
water 18:19 85:13,13
 91:8 92:11 93:6,8,17
 93:21 108:17 129:16
 135:22
waterways 142:5
way 22:5 26:17 46:8
 63:10,12 82:21 96:15
 119:8 122:21 130:21
 133:1
ways 61:15 130:11
 136:8
web 86:21 94:14 100:9
 113:16 126:4
Weber 68:8
Weber-Strauss 61:5
 63:19 67:20 68:1,6
 71:9
webinar 1:5,8 2:6,8,13
 2:20 3:12,15,20 29:5
 64:15
webinars 3:17 8:12
 154:13
website 2:18 54:8
 125:21 126:9,19
weed 84:16 85:5
week 2:8 59:12 154:18
weight 55:22
welcome 2:4 3:20 39:15
welfare 77:6,14 78:7
well- 69:13

went 30:8 125:21
 154:21
weren't 33:17
west 95:6 139:16
whatnot 143:22
whatsoever 147:9
wheat 72:1 79:11 95:5
white 12:9
wholly 119:9
widely 115:2 121:2
wild 123:9 141:6
wildlife 137:15 138:1
 139:13 141:10 142:6
Wildwood 29:15
Wilhemina 68:8
willing 95:18
wine 10:3,5,15,20 11:5
 11:8,11,12,20 12:16
 50:21,22 51:1 52:13
winery 10:8
wines 10:10,11,13,17
 11:2,4,13,21 12:5,9
Wisconsin 68:7
WISerg 148:20
wish 68:14 81:14 82:20
withdrawal 77:10
withdrawing 66:2
Wolf 36:12
wonder 74:10 112:10
wonderful 153:4
wondering 48:7 74:13
 87:14,16 122:14
 141:4
woodland 29:10
woodlands 29:15 33:14
word 54:21 68:15
worded 136:19
work 2:12 3:5 19:3,7
 21:19 33:9 36:14
 43:15 48:7,10 57:15
 63:3 65:14,18,21 69:4
 69:5 103:1,5 140:14
 148:19
worked 10:8 59:15
 146:13
working 21:12 59:22
 101:11
works 131:12
world 55:10 82:10
 130:10
wouldn't 139:20 146:9
wrap 81:13 146:18
writing 113:10
written 24:4 27:10
 28:15 64:21 106:12
 108:15 119:11 134:19
 134:22 145:19 153:12
 153:13

www.ifac 126:13

X

xanthan 114:13,16,20
 114:22 115:5,10,13
 115:21 116:2,5,6

Y

year 11:1 33:6,9 59:1
 64:11 72:10 74:18
 75:14 80:4 84:13
 102:9,9 128:15 131:5
 131:18 135:16 144:4
 144:11 150:6 152:17
years 14:3 16:14 25:9
 29:8 32:6 34:7 38:2
 41:22 71:22 79:16
 84:6,10 95:1,7,11
 97:6 143:16 147:7
yeast 11:6
yesterday 58:16 59:19
 72:22
yogurts 107:7

Z

0

0.05 115:12

1

1.5 149:17
1:00 1:8
1:04 2:2
10 10:22 11:16 31:3
 33:6,9,11 41:22 74:20
 101:15
10,000 56:3
100 10:13 12:10 25:9
 34:6 134:13,18
 145:19,22 146:8
11 6:3
12 74:20
123 135:6
1250 64:12
13 5:19 6:3 150:12
14 71:22 150:12
140 80:4
15 147:7
17033 13:18 15:5
17556 14:4
189,000 95:12
19 1:7
1981 64:10 79:14
1995 149:4,11 151:2

2

2 149:15,15
2-1/2 77:2

20 11:1 97:6 128:16
 132:22 141:5
2002 64:11
2004 10:7
2006 149:20 150:9
2010 48:14
2011 11:15 38:7
2012 10:15 37:21
2014 135:19
2015 119:10 151:19
2018 1:5,7 43:16
2021 41:13
2031 42:3
205.601 149:22
205605A 114:19 116:9
205605B 108:5 114:22
 116:11 117:7 119:18
205606 108:14 119:21
205625A 106:18
21,000 80:4
25,000 93:16
25th 2:17
27 143:16
27th 2:17
28 42:5

3

3:41 154:21
30 31:4 33:11 80:7 84:6
30,000 93:16

4

40 29:8 95:7
450 95:4

5

5 55:22 58:10 75:10,11
 141:5
50 25:9 29:8 34:6
 145:18
500 115:22

6

6 6:16 75:11
6.5 92:10
60 55:10

7

7 6:17 75:11 149:21
75 128:16

8

83 79:15

9

9 74:21
90 14:2 16:13

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Spring 2018 Public Comment Webinar

Before: National Organic Standards Board

Date: 04-19-18

Place: webinar

was duly recorded and accurately transcribed under
my direction; further, that said transcript is a
true and accurate record of the proceedings.

Neal R Gross

Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2018 MEETING

+ + + + +

WEDNESDAY,
APRIL 25, 2018

The Board met in the Sabino and Pima Rooms of the Tucson University Park Hotel, 880 East 2nd Street, Tucson, Arizona at 8:30 a.m., Tom Chapman, Chairman, presiding.

PRESENT

TOM CHAPMAN, Chair
HARRIET BEHAR, Vice Chair
SCOTT RICE, Secretary
SUE BAIRD
ASA BRADMAN
JESSE BUIE
LISA DE LIMA
STEVE ELA
DAVE MORTENSEN
EMILY OAKLEY
A-DAE ROMERO-BRIONES
DAN SEITZ
ASHLEY SWAFFAR

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

STAFF PRESENT:

MICHELLE ARSENAULT, NOSB Advisory Board
Specialist, National Organic Program
DEVON PATTILLO, Materials Specialist, National
Organic Program
GREG IBACH, Under Secretary, Marketing and
Regulatory Programs, USDA
BRUCE SUMMERS, Acting Administrator,
Agricultural Marketing Service
DR. RUIHONG GUO, Acting Deputy Administrator,
National Organic Program, Agricultural
Marketing Service
DR. JENNIFER TUCKER, Associate Deputy
Administrator, National Organic Program;
Designated Federal Official
DR. PAUL LEWIS, Director, Standards
Division, National Organic Program
DAVID GLASGOW, Public Affairs Director,
Agricultural Marketing Service

ALSO PRESENT:

ISAURA ANDALUZ, Cuatro Puertas; OSGATA
CHRISTIE BADGER, National Organic Coalition
BRIAN BAKER, IFOAM North America
LAURA BATCHA, OTA
JO ANN BAUMGARTNER, Wild Farm Alliance
JENNIFER BERKEBILE, PCO
ALESIA BOCK, AgriSystems International
RICHARD CONN, Conn & Smith, Inc.
LYNN COODY, Organic Produce Wholesalers
Coalition
RYAN COSTELLO, Oregon Tilth Certified Organic
THEOJARY CRISANTES, Wholesum Harvest
JENNY CRUSE, Accredited Certifiers Association
KELLY DAMEWOOD, CCOF
NICOLE DEHNE, Vermont Organic Farmers
JACKIE DeMINTER, MOSA
MIKE DILL, OPWC
LINLEY DIXON, The Cornucopia Institute
HANS DRAMM, Dramm Corporation
JAY FELDMAN, Beyond Pesticides
LEE FRANKEL, Coalition for Sustainable Organics

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

RUIHONG GUO, Acting Deputy Administrator,
National Organic Program, Agricultural
Marketing Service

JEAN HALLORAN, Consumers Union
THOMAS HARDING, Green Ag Supply
CAMERON HARSH, Center for Food Safety
SHANNON HELMS, CP Kelco
ZEN HONEYCUTT, Moms Across America
KIKI HUBBARD, Organic Seed Alliance
WANDA JURLINA, CP Kelco
GARTH KAHL, Independent Organic Services, Inc.
MADISON KEMPNER, NOFA-VT
DEBORAH KLEIN, Ecolab
JESSICA KNUTZON, CP Kelco
PHIL LaROCCA, LaRocca Vineyards; CCOF
SARAH LEIBOWITZ, DeLaval
JAKE LEWIN, CCOF
ALAN LEWIS, Natural Grocers
NATE LEWIS, OTA
AMALIE LIPSTREU, Ohio Ecological Food and Farm
Association

EDWARD MALTBY, NODPA
DANIEL MARTENS, Novamont North America
RICHARD MATHEWS, WODPA
PATRICIA MAYER
MICHAEL MENES, True Organic Products
MELODY MEYER, UNFI
JOHANNA MIRENDA, OMRI
LUIS MONGE, Transastra
EMILY MUSGRAVE, Driscoll's
MARISOL OVIEDO, Northwest Horticultural Council
ALEXIS RANDOLPH, Quality Assurance
International

GERALD ROBERTSON, Reiter Affiliated Companies
ANNE ROSS, The Cornucopia Institute
BETH ROTA, Quality Certification Services
MARGARET SCOLES, International Organic
Inspectors Association

TERRY SHISTAR, Beyond Pesticides
MICHAEL SLIGH, RAFI
CYNTHIA SMITH, Conn & Smith, Inc.
ZEA SONNABEND, CCOF
ALBERT STRAUS, Straus Family Creamery
KENICHIRO TAKEI, Kaken Pharmaceutical Co., Ltd.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

JERRY TYLER, Heart of Nature
JESSICA WALDEN, QAI
RICHARD WALLICK
RUTH WATTS, BASF Corporation
JULIE WEISMAN, Elan, Inc, and Flavorganics, LLC
SAM WELSCH, OneCert, Inc.
ZAK WIEGAND, Oregon Tilth Certified Organic
BILL WOLF, Wolf DiMatteo + Associates
DALE WOODS, California Department of Food and
Agriculture
ABBY YOUNGBLOOD, National Organic Coalition

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

C-O-N-T-E-N-T-S

Call to Order, Welcome,
Introductions 6

NOSB Report 15

Secretary's Report 18

USDA Report: Mr. Greg Ibach 21

NOP Update: Ms. Jenny Tucker 46

Question and Answer Period 76

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 P-R-O-C-E-E-D-I-N-G-S

2 8:31 a.m.

3 MR. CHAPMAN: If people could take
4 their seats, we're about to begin. Again, if
5 people could take their seats or take their
6 conversations outside, we're about to begin the
7 meeting.

8 MS. GUO: Good morning, everyone,
9 we're getting started now. Welcome, we are
10 officially opening the Spring 2018 National
11 Organic Standards Board meeting. My name is
12 Ruihong Guo, I'm the Acting Deputy
13 Administrator of the National Organic Program.

14 The NOP is part of USDA's marketing
15 and regulatory program's Agricultural Marketing
16 Service. First, I want to thank everyone for
17 being here and making the trip to Tucson,
18 Arizona. It is great to see you all.

19 I have been working with the
20 National Organic Program for a few months now,
21 and it has been wonderful to connect with many
22 great people in the organic community. I'm

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 going to open by introducing USDA leaders and
2 staff, because we brought a lot of people who
3 wanted to meet you.

4 First, I'm pleased to introduce Mr.
5 Greg Ibach, sitting right next to me, the USDA
6 Under Secretary who oversees our agency and the
7 program. Mr. Ibach will be speaking with you
8 in a few moments.

9 I also want to introduce Bruce
10 Summers, the Acting Administrator for the
11 Agricultural Marketing Service. Bruce is
12 sitting right there. This is Bruce's second
13 NOSB meeting, so he's a pro by now.

14 Also from AMS we have David Glasgow;
15 he's in the back, and you met him too, at the
16 last meeting. He is our Director of Public
17 Affairs.

18 From NOP we have Jenny Tucker,
19 sitting right here, who is the NOP Associate
20 Deputy Administrator. Jenny will serve as our
21 designated federal officer for the meeting.

22 We also have Paul Lewis, our

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Director of Standards Division, Devon Patillo,
2 Specialist from the Standards Division, and
3 Michelle Arsenault, our Advisory Board
4 Specialist.

5 This meeting would not be possible
6 without Michelle. She does amazing work to
7 bring us all together like this. Let's have a
8 round of applause for Michelle.

9 (Applause.)

10 MS. GUO: Here's a quick overview of
11 our three-day agenda: This morning we will
12 share some updates from the Board and USDA, and
13 then we'll take a break. The rest of the day
14 will be dedicated to public comments.

15 Tomorrow morning you will hear from
16 some terrific panelists who will focus on
17 organic imports. This is a topic of great
18 interest in this room. In the afternoon we'll
19 turn to the subcommittees. This will continue
20 into Friday, and then we'll close Friday with
21 administrative activities and a look ahead.

22 Next, I'd like to offer a special

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 thank you to Tom Chapman, the Chair of the
2 Board and Chair of this meeting. Tom is a true
3 leader in every sense of the word, and we're so
4 grateful for his collaboration and commitment
5 to the Board. Let's give him a round of
6 applause in advance for a great meeting.

7 (Applause.)

8 MS. GUO: And now, Tom, I'll hand it
9 over to you.

10 MR. CHAPMAN: Thank you, Ruihong;
11 thank you for the very nice introduction.
12 Hello and welcome, everybody. Thank you for
13 traveling here today to participate and observe
14 the Spring National Organic Standards Board
15 meeting. I hope everyone traveled safely and
16 is enjoying Tucson's hospitality and very warm
17 weather.

18 If you don't know, Tucson has the
19 longest agricultural history of any city in
20 North America, extending back some 4,000 years.
21 It has a 300-year tradition in orchards,
22 vineyards, and livestock ranching. It was also

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the first city in North America to be
2 recognized as a UNESCO City of Gastronomy. So
3 with that, we'll be making sure we take our
4 lunch breaks this time.

5 We have a very full agenda with some
6 very weighty subjects up for consideration. We
7 also have a large number of guest attendees
8 present.

9 During my opening remarks for the
10 last two meetings, I've asked for patience from
11 the public and the community as the new
12 administration's leadership was getting
13 established and settled, and I'm excited that
14 the Under Secretary for Marketing and
15 Regulatory Programs, Mr. Greg Ibach, is present
16 here at this meeting. He'll be addressing and
17 taking questions from the Board in a moment.

18 It's rare that we're honored with
19 the attendance of such a prominent USDA
20 official, and I appreciate Mr. Ibach taking
21 time out of his busy schedule to join us here
22 today. We're eager to learn more about the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 administration's priorities for the organic
2 program, and I hope that this is a first step
3 towards a very close and collaborative
4 relationship with the NOSB and the current USDA
5 administration.

6 As Ruihong noted, this morning will
7 start with presentations by the Department and
8 proceed into public comments for the remainder
9 of the day. Thursday morning we'll have nine
10 additional guests, one coming from as far away
11 as Germany to be part of a panel of experts to
12 discuss import and fraud issues from the
13 inspectors, certifiers, and industry
14 perspectives. We think this dialogue will be
15 critical as the NOSB looks to further its
16 recommendations to the USDA on this pressing
17 matter.

18 Later on Thursday we will have the
19 CACS, Certifiers and Accreditation
20 Subcommittee, Compliance Subcommittee,
21 Livestock Subcommittees. And on Friday we'll
22 be wrapping up with the Handling Crops and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Materials Subcommittee.

2 Our work agenda for this meeting, as
3 approved by the NOP, includes a review of 41
4 sunset materials, four petitions, four
5 proposals, and two discussion documents. By
6 item, 90 percent of our agenda is comprised of
7 statutorily mandated reviews or NOP-requested
8 items, while the remaining 10 percent is NOP-
9 approved, NOSB-initiated items.

10 With the review of our agenda done,
11 I'm going to move on to introductions. Right
12 now you'll see that we have 13 board members
13 seated of the 15 seats that are normally
14 filled. We have two vacancies: a vacancy in
15 the environmental/resource conservation seat,
16 the one formerly held by Francis, who termed
17 out in January of this year and has been vacant
18 since.

19 Also -- which may be news to some
20 folks -- Joelle Mosso, the other handling
21 representative, resigned earlier this year in
22 February, and her seat has also been vacant

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 since.

2 With that, we'll start introductions
3 of the members who are present and seated, and
4 I'll start with myself. I am Tom Chapman,
5 Chair of the Board. My day job is working as
6 the Director of Ingredient Sourcing at Cliff
7 Bar and Company, based in the Bay Area of
8 California. Now we'll start with A-Dae and
9 work our way around.

10 MS. ROMERO-BRIONES: A-Dae Briones,
11 and I work for First Nations Development
12 Institute as a director of programs for the
13 Native Food and Agriculture Initiatives,
14 originally from Cochiti Pueblo, New Mexico.

15 MS. DE LIMA: Good morning, Lisa De
16 Lima in the retailer's seat. This is my fourth
17 year on the Board. I work for MOM's Organic
18 Market; we're an organic grocery store chain
19 out of the mid-Atlantic.

20 MR. BRADMAN: Asa Bradman, and I'm a
21 professor of environmental health sciences and
22 public health at Berkeley.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. ELA: Steve Ela, Ela Family
2 Farms, Hotchkiss, Colorado, organic tree fruit
3 grower, peaches, pears, apples, cherries, and
4 such.

5 MR. MORTENSEN: Dave Mortensen, an
6 agricultologist at Penn State University. I sit
7 in the scientist's seat on the Board.

8 DR. SEITZ: Dan Seitz; I serve as a
9 consumer member of the Board. My day job is
10 serving as Executive Director for the Council
11 on Naturopathic Medical Education at U.S.
12 Department of Education, recognized accrediting
13 agency for doctoral programs in naturopathic
14 medicine. I also serve on the board of a food
15 cooperative.

16 MS. BEHAR: Harriet Behar, Sweet
17 Springs Farm, certified organic farmer;
18 University of Wisconsin outreach specialist,
19 organic educator, organic inspector, and
20 organic advocate.

21 MR. RICE: Scott Rice, I'm the
22 External Affairs Coordinator with the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Washington State Department of Agriculture, and
2 I serve in the certifier's seat.

3 MS. SWAFFAR: Ashley Swaffar, I'm
4 from Fayetteville, Arkansas. I sit in the
5 farmer's seat. I have a small certified
6 organic mixed vegetable farm, and I also do
7 animal welfare and organic inspections.

8 MR. BUIE: Jesse Buie, Ole Brooks
9 Organics, Brookhaven, Mississippi. I'm
10 certified in mixed vegetables, melons, ginger,
11 and turmeric. I sit in the farmer's seat.

12 MS. BAIRD: Sue Baird, and I am the
13 Executive Director of the Mid-America Organic
14 Association. We also implement a food hub and
15 training for farmers and for prisoners to
16 become farmers. I serve as special interest.

17 MS. OAKLEY: Emily Oakley, I have
18 Three Springs Farm in northeastern Oklahoma.
19 I'm a full-time farmer, and I sell diverse
20 mixed vegetables and some fruits.

21 MR. CHAPMAN: Thank you, Board
22 members. As we just heard, the representation

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of the Board is made up of various stakeholder
2 interests, farmers, processors, consumer
3 representatives, environmentalists,
4 conservationists, retailers, scientists, and a
5 certifier.

6 Decisions of this board need to be
7 made by a two-thirds vote, necessitating a lot
8 of dialogue, discussion, and ultimate
9 compromise to satisfy enough stakeholders to
10 pass proposal.

11 Oftentimes, this threshold is
12 reached, and other times it's unattainable.
13 I've read recently a lot in the press and heard
14 swirlings around the Capital that the NOSB is
15 sometimes considered dysfunctional. I hear at
16 the same time that the NOSB is stacked with
17 large agribusiness and filled with
18 unrepresentatively small farmers and
19 businesses. Apparently, we can be both at the
20 same time, both too large and too small.

21 These criticisms, I think, reveal
22 the strength of the National Organic Standards

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Board, that we do represent a wide set of
2 interests, and that one interest or viewpoint
3 does not predominate; rather, they are
4 balanced.

5 I'd like to briefly read from a
6 letter sent to the Congressional Agriculture
7 Leadership by the Organic Trade Association
8 that was signed on by 138 American businesses,
9 one of which is represented by myself here
10 today:

11 The NOSB is the sole authorized
12 forum for consensus-building within the organic
13 community, providing an opportunity to develop
14 formal recommendations to the Secretary prior
15 to the USDA implementing changes to the organic
16 program.

17 Engaging with consumers,
18 transparency, and sustainability are important
19 to our businesses and our brands, and we are
20 not willing to walk away from the only forum
21 that provides consumers, environmentalists,
22 farmers, ranchers, and food makers a seat at

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the same table.

2 In testament to the bounty that's on
3 that table, we have received over 3,300 pages
4 of public comment. We will have received over
5 12 hours of verbal testimony by the end of
6 today, and an additional three hours of expert
7 testimony tomorrow.

8 The Board has dedicated an immense
9 amount of personal time on the issues before us
10 today, and this is an all-volunteer board. Our
11 time working here this week and the hours and
12 hours over the last six months is time not
13 spent on our businesses, research, farms, and
14 families.

15 I look forward to working more with
16 this remarkable board on the issues before us
17 today and on the material reviews and other
18 items of importance to the organic community
19 and the Administration.

20 And with that, we'll move on to the
21 Secretary's report. Scott?

22 MR. RICE: Thank you. The summary

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 notes of the October/November 2017 biannual
2 meeting have been distributed to the Board
3 members. Do we have any corrections or
4 comments on those? Hearing none, without
5 objection, we'll approve the report by
6 consensus.

7 MR. CHAPMAN: So moved. And the
8 report is approved. With that and the
9 morning's formalities taken care of, I will
10 hand it back to the acting deputy
11 administrator, Ruihong Guo for the USDA, AMS,
12 and NOP report.

13 MS. GUO: Thanks, Tom. Now it is my
14 honor and my pleasure to introduce Mr. Greg
15 Ibach. Mr. Ibach was confirmed by the Senate
16 as USDA's Under Secretary for Marketing and the
17 Regulatory Programs on October 26th, 2017.
18 That was only a few days before the last NOSB
19 meeting in Jacksonville.

20 In his role as the Under Secretary,
21 Mr. Ibach carries out a broad mission of
22 facilitating domestic and international

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 marketing of U.S. agricultural products and
2 ensuring the health and care of animals and
3 plants. The agencies under Mr. Ibach's
4 leadership are active participants in setting
5 national and international standards that
6 impact people around the world.

7 Before becoming Under Secretary, Mr.
8 Ibach served as Nebraska's Director of
9 Agriculture. He started in that role in June
10 2005. He was a visionary leader for Nebraska's
11 agriculture, effectively leading departmental
12 staff and programs, analyzing issues,
13 developing strategies, and creating solutions
14 for domestic and global initiatives.

15 In that role, Mr. Ibach had
16 oversight of Nebraska's plant and animal health
17 regulatory functions. He has been actively
18 involved in foreign and domestic marketing and
19 development activities for much of his career.

20 Mr. Ibach has been inducted into the
21 Nebraska Hall of Agriculture achievement, and
22 was honored with a Service to Agriculture

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 recognition from the University of Nebraska-
2 Lincoln. He's also a former president of the
3 National Association of State Departments of
4 Agriculture.

5 Mr. Ibach earned his Bachelor of
6 Science degree in agriculture from the
7 University of Nebraska, with majors in animal
8 science and agricultural economics. He and his
9 wife, Theresa, have three grown children. They
10 own a farm and a ranch in Sumner, Nebraska.

11 On a personal note, all of us at NOP
12 have truly enjoyed getting to work with Mr.
13 Ibach. His support for our program has been
14 clear, and we are grateful for his feedback and
15 insights as we move forward.

16 And now, please join me in welcoming
17 Under Secretary Ibach.

18 (Applause.)

19 MR. IBACH: Thank you very much,
20 Ruihong. It's my great pleasure and privilege
21 to be able to be here and be with the National
22 Organic Standards Board for your meeting today,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 as well as being able to learn more about the
2 different aspects of the organic industry
3 across our United States, as you discuss issues
4 today.

5 I'm going to be here for a while
6 this morning, through the questions and answers
7 of the Board on the presentations; not only
8 mine, but Jenny Tucker's as well.

9 And then they have plans to take me
10 out and about here in Arizona for a while, but
11 I'll be back in the morning for some more
12 activities around this event as well. So
13 hopefully I might get a chance to see more of
14 you casually and be able to have some
15 conversations, as you might wish.

16 Also, I do want to thank Ruihong for
17 her service to the organic program and stepping
18 up out of her normal day-to-day duties at USDA
19 to be able to be the acting deputy
20 administrator for the NOP. She told me she's
21 very much enjoying this, but I've got to
22 believe that she also is looking forward to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 getting back to her regular day-to-day duties,
2 and we hope to soon have a new associate deputy
3 administrator that can be named and introduced
4 to you all.

5 I want to thank Tom for your service
6 as chairman and the good work. This is a
7 volunteer board, and I want to thank each and
8 every one of you on the board for the time that
9 you take to serve the organic industry and the
10 thoughtful contemplation you put into the
11 decisions and recommendations that you make to
12 USDA.

13 To the audience, thank you for
14 traveling; Tucson is in a far corner of the
15 United States for some people, so the effort
16 you made to be here today to be informed about
17 the actions of the Board and to have the
18 opportunity for input into the organic industry
19 is much appreciated at USDA.

20 Ruihong shared a little bit about my
21 background in her introduction. That was
22 probably the more technical part. As I think

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of myself, I still believe I'm a cow-calf and
2 row crop farmer and rancher from central
3 Nebraska. My children represent the fifth and
4 sixth generation of both my mother's and my
5 father's sides of my family to be farming and
6 ranching in our community of Sumner, which has
7 a population of 250 people.

8 And as I was Director of Agriculture
9 in Nebraska, and as I serve in my role here at
10 USDA, I still challenge myself to be very
11 cognizant that the decisions I make and the
12 actions I take, whether they be regulatory or
13 the way they affect the administration of
14 promotional or marketing programs, have a
15 direct impact on individual farmers and
16 ranchers like yourselves in the audience; those
17 of you involved in the industry, and active
18 producers here on the Board, much like they
19 impact my neighbors back home in Sumner,
20 Nebraska.

21 I still look forward to the times I
22 get to go back to Sumner. As Director, I was

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 there almost every weekend; it hasn't panned
2 out to be exactly the same experience at USDA,
3 but if I'm not remembering my roots, when I
4 walk into Tub's Pub for my chicken fried steak
5 when I'm home, they'll let me know where my
6 roots come from.

7 So anyway, as Ruihong mentioned, my
8 wife and I are the proud parents of triplets.
9 They're 26 years old; we have a son and
10 daughter-in-law who live in Minneapolis; a son
11 and daughter-in-law who live in Kearney,
12 Nebraska, which is only 30 miles from the
13 ranch, and a daughter who lives in Denver,
14 Colorado.

15 They're all involved in some phase
16 of the agricultural industry, and we're hoping
17 that some of them return to the farm. But it
18 was also very important to us that they spend
19 some time off the farm and realize a little
20 about how the world works and what it's like to
21 be employed by someone, and what it's like to
22 be able to branch out and have different

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 experiences other than just production
2 agriculture.

3 So I've had the chance since being
4 at USDA to get out a little bit and start
5 seeing a vast expanse of U.S. agriculture,
6 spent some times at ports in Washington and
7 California and in Miami to understand the
8 process we go through, not only to be able to
9 bring agricultural goods in for consumers
10 across our United States, but also the
11 opportunity to be able to ship our products
12 around the world.

13 So that is very important because,
14 in the role at USDA and MRP, we have both the
15 responsibility for protecting animal and plant
16 health and welfare and we also have the
17 responsibility for supporting those marketing
18 programs, both domestically and
19 internationally. So it's a very challenging
20 and diverse role which I am very much enjoying.

21 I look forward to the next few
22 months and years of working together, not only

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 with the National Organic Standards Board, the
2 National Organic Program and individual organic
3 producers, but the wide variety of production
4 agriculture and agriculturally related
5 industries that exist in these great United
6 States.

7 And I think that as we look at our
8 agricultural system in the United States, I'm
9 very much committed to promoting market
10 opportunities for all factions within the
11 agricultural community.

12 I remember as a child going to the
13 grocery store with my mom and dad, and most of
14 the time, my mom had the sales circular with
15 her when she went to the grocery store. She
16 looked very much, and probably all we bought
17 that day was the stuff that was on sale. We
18 waited for other staples to be on sale later
19 on.

20 Today I watch my daughters in law
21 shop, I watch my wife shop, and it's a very
22 different experience in that they're worried

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 about where their food came from; they're
2 worried about maybe some of the production
3 practices that were behind that food. They are
4 maybe more concerned about quality than price
5 at times, and I think we very much do that, not
6 only in the U.S., but around the world.

7 So I think there are great
8 opportunities to provide food at higher values
9 for customers who want to exercise that
10 discretion and pickiness, if you will. But
11 there also still remains the responsibility and
12 the need for us to be able to provide
13 affordable food to people across our United
14 States and parts of the world as well that are
15 interested in price and affordability, so I
16 very much look forward to working with all
17 factions of agriculture to be able to support
18 and ensure their success.

19 Tom mentioned that we had couple of
20 openings on the National Organic Standards
21 Board, and I'm pleased to announce that we will
22 be filling those this morning. They are not

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 here at this meeting, but we're announcing
2 them, and we'll be looking forward to their
3 presence and participation from here on out and
4 their attendance at the Fall meeting.

5 Dr. James Greenwood has been
6 selected to fill the open environmental
7 protection and resource conservation seat. He
8 is from California; he is an organic avocado
9 farmer and handler, and has served on the Board
10 of Directors for the U.S. Hass Avocado Board.

11 He's also on the faculty at the
12 School of Public Health at UCLA, and he has
13 been part of the Center for Public Health
14 there. He holds two master's degrees, one in
15 public health and one in microbiology, and a
16 doctorate in microbiology as well.

17 Our next appointee is Mr. Eric
18 Schwartz, who has been selected to fill the
19 open organic handling seat. He is also from
20 California and serves as the Chief Executive
21 Officer for the United Vegetable Growers
22 Cooperative. He has served on panels and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 boards including the California Healthy Soils
2 Initiative and co-chairman for the startup of
3 the Arizona and California Leafy Greens
4 Marketing Agreements.

5 Mr. Schwartz has been involved in
6 different aspects of organic growing,
7 harvesting, and processing over his 20 years in
8 the industry, and he hold a bachelor's degree
9 in logistics management from Penn State
10 University.

11 So with that, over the course of the
12 rest of my comments I want to talk about the
13 administration's priorities for the organic
14 program. I also want to report on some
15 significant successes that we've had recently
16 in overseeing organic imports. I'm also going
17 to preview some of our enforcement plans and
18 actions as we move forward.

19 So with that, just a brief
20 introduction: When Secretary Perdue came to
21 USDA, he made it clear that he wanted USDA to
22 become the most efficient, the most effective,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and the most customer-friendly department in
2 all of federal government. That has very much
3 been heard across USDA. We're looking at ways
4 to serve our customers. Those customers are
5 our regulated industry, as well as consumers
6 who rely on those regulations for confidence in
7 their food.

8 Part of the approach that Secretary
9 Perdue is really emphasizing is a teamwork
10 approach, or a one-USDA approach to
11 administrative and leadership at USDA.

12 As you think about the marketing and
13 regulatory programs and our interaction with
14 the National Organic Program, you quickly
15 realize that it's not just housed within and
16 fully within the confines of MRP. We also have
17 different aspects of the program that relate to
18 the other mission areas, whether they be trade
19 or food safety, as well as even more.

20 So it is very important that as we
21 as Under Secretaries approach our jobs, we have
22 open door policies towards each other and to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the other mission areas to be able to
2 accomplish the goals of each one of our
3 programs by working together.

4 One of the top priorities that we
5 have, and one of the areas that we are also
6 counting on that cooperation in is probably our
7 number 1 priority is to protect the integrity
8 of the organic seal. And that's something
9 that, as I went through my confirmation
10 process, was very important to many members of
11 the Senate in the interviews I conducted there.

12 They were concerned about the
13 integrity of the organic program and the
14 fairness within the organic program to current
15 organic producers, as well as producers who
16 were interested in embracing organic
17 production.

18 That we upheld standards and that we
19 held not only domestic producers to a high
20 standard, but we also looked at the imports
21 coming in internationally and made sure that
22 they were meeting those same standards that our

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 domestic producers were meeting.

2 As you know, if we allow imports to
3 come in that aren't meeting those same
4 standards, they aren't having to comply with
5 the same production costs and facing those same
6 challenges that end up resulting in higher
7 costs of production that require you to be able
8 to get some reward from the marketplace for
9 your effort for those higher costs of
10 production.

11 So we look forward to continuing to
12 work, as one of our primary roles, to regulate,
13 enforce, and to protect the organic farmers
14 that we serve as part of the National Organic
15 Program.

16 Another core goal is to provide
17 efficient and effective oversight of organic
18 production practices and make sure that organic
19 production meets consistent standards. So fair
20 and consistent organic certification is
21 something we are very much interested in and
22 very much focused on across all operations.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 The existing standards are public,
2 they're strong, and they're transparent, and we
3 wish to continue to make sure we maintain that
4 as we move forward. The standards have been
5 built using a robust process that encompasses
6 many different interests, as many of you across
7 the room will recognize that. And we want to
8 make sure that the USDA-certified farms adhere
9 to the same standards as we expect to hold
10 businesses around the world to those same
11 standards.

12 So the regulations, as you know,
13 allow many types of businesses to participate
14 in the organic market if they follow the rules,
15 which is very important to us as we move
16 forward. So we need to maintain those stable
17 regulations so producers and handlers know what
18 to expect. That means stable, consistent,
19 effective oversight to ensure that adherence by
20 everyone.

21 And third, we want to emphasize that
22 we continue to strongly support innovation both

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 for farmers and across USDA. Many innovations
2 are occurring in the organic market, from
3 production practices to technology tools, and
4 these innovations are leading to a diversity of
5 organic practices.

6 There are many entrepreneurial farms
7 and businesses that have innovated new
8 practices that have made significant
9 investments to be organic, and so we continue
10 to support their ability to be in the market as
11 equal members, if they are, again emphasizing,
12 following the rules.

13 Technology innovation is a priority
14 at USDA as we modernize systems for tracking
15 certification and overseeing international
16 trade. And finally, as I mentioned before, it
17 was Secretary Perdue's charge to us to be
18 efficient and focus on customer service.

19 We want to respond to our customers,
20 which are each and every one of you in this
21 room, in a timely and straightforward way. I'm
22 emphasizing again that we want to support

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 consistency and fairness in all of our
2 interactions, and we have asked all of our
3 programs, not only in NOP, but to look for
4 inefficiencies in our business processes.

5 Efficiencies don't necessarily mean
6 cutting corners; that means eliminating those
7 steps that maybe don't add anything to the
8 process. Because at the end of the day, we
9 want to be efficient, but yet we have to
10 achieve the end goal and the focus of why that
11 regulation or oversight was put into place the
12 first time.

13 So maybe to summarize a little bit
14 on our National Organic Program goals: organic
15 integrity, fair and consistent organic
16 certification, innovation, and then
17 efficiencies and customer service.

18 So to highlight, as we've started to
19 implement these goals, some of the successes
20 that we've had in the past several months; and
21 I've mentioned to you about the interest I have
22 as a farmer myself in making sure that there is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 a level playing field out there for all U.S.
2 producers, and that is focused mainly on
3 imports and making sure that the rules that
4 imported goods coming into the United States
5 follow are the same rules that our producers
6 are following.

7 I don't think, at the end of the
8 day, agricultural producers are opposed to
9 imports, as long as they are competing on the
10 same basis. I think that's what part of the
11 discussion you see in trade right now is
12 challenging other countries around the world to
13 follow the same rules in trade that the United
14 States upholds as we send products abroad. We
15 want those products that are coming in to the
16 United States to meet those same standards.

17 So at the start of this year, there
18 were over 26,400 certified organic operations
19 in the United States, which represents a seven
20 percent growth over last year. There are also
21 more than 41,000 certified operations around
22 the world, which is an 11 percent growth over

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 last year.

2 This growth and increased market
3 complexity has obviously created more
4 opportunities for consumers to have access to
5 organic products, but has also created some
6 oversight challenges as the rapid growth has
7 been occurring over a number of years.

8 One of those challenges is the
9 fraudulent imports that undermine farmers. So
10 as we have looked at this and tried to be more
11 cognizant of those imports, in the cases of
12 fraud, we have revoked organic certificates of
13 the businesses involved and made it so they
14 could not use the organic label. Also, because
15 of our oversight, other businesses have
16 surrendered their certifications and are no
17 longer in the organic marketplace.

18 Specifically in Eastern Europe, we
19 have taken action against 96 different
20 operations that have surrendered certification,
21 and 30 more that we have suspended or revoked
22 their organic certification since 2016. We are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 also targeting the importation of organic
2 grains in two major supply chains. NOP has
3 directly issued proposed or final revocations
4 for four operations engaged in fraudulent
5 activities in that sector.

6 Thirteen of our organic certifying
7 agencies have been directly involved in import
8 investigations, and four have been of central
9 interest. And the National Organic Program has
10 traveled extensively over the past year to
11 conduct onsite audits of certifier offices.

12 So cooperation across agencies
13 within USDA and mission areas, as well as
14 across agencies within the federal government,
15 has been key to our successes here. APHIS and
16 AMS each play a great role in working together
17 on the marketing side as well as on the
18 oversight side, with APHIS understanding the
19 rules for bringing products in.

20 Through that cooperation, we have
21 been able to identify three incoming shipments
22 that have been blocked from entering the United

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 States; two of these shipments were corn, just
2 recently, and they included about 39,000 metric
3 tons of corn, valued at over \$14.5 million.

4 In addition, APHIS rejected a
5 chickpea shipment from Eastern Europe in
6 January of 2018. The trade data suggests that
7 some of our enforcement activities are starting
8 to have an impact on the flow of those goods
9 coming into the U.S., where we've seen a
10 decline from some Eastern European market areas
11 of 35 percent in organic corn imports and a 15
12 percent decline in organic soybean imports
13 because of the noted enforcement activities
14 that we've been taking.

15 We've also heightened our
16 cooperation with customs and borders protection
17 for the role they play as shipments come in, to
18 make sure we're communicating with them and
19 raising awareness to be able to make sure that
20 the proper oversight is given to those
21 shipments as they approach the United States.

22 We're also working hand in hand to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 make sure that we understand, across AMS and
2 APHIS and Customs, those products that are
3 coming in from other countries that require
4 fumigation as a condition of entry because of
5 sanitary conditions in those countries, and
6 communicating so that we make sure that
7 products that require fumigation cannot come in
8 under the organic standards as well, if that
9 fumigation eliminates their qualifications.

10 So we continue to improve our
11 systems to be able to better detect fraud in
12 the future through the increased number of
13 inspections and the amount of testing we're
14 doing. We're also providing instruction and
15 training for certifiers on how to better track
16 organic products throughout the supply chain,
17 and we want to encourage certifiers to provide
18 more frequent and more complete data into the
19 Organic Integrity Database.

20 Through these steps, we hope to make
21 it harder for bad actors to commit fraud and
22 help us enforce the law when violations are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 found, thus creating a level playing field for
2 all organic producers, and especially
3 protecting our organic producers who are
4 adhering to the standards here in the United
5 States.

6 So in our enforcement plan of
7 action, our team has learned a lot this year.
8 It's clear that the National Organic Program
9 needs to implement new practices to deepen its
10 oversight and enforcement, and we also need
11 stronger rules related to oversight
12 enforcement.

13 Our plan of action for organic
14 enforcement has three components. The first
15 component is strong organic control systems,
16 which is what I call the framework, to make
17 sure we have trusted people, processes, and
18 rules.

19 The second component involves the
20 farm-to-market traceability for the records
21 part, to make sure we can trace that supply
22 chain integrity. And the third component, of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 course, is enforcement.

2 So within that strong organic
3 control system or the framework, we want to
4 make sure we're working with USDA, with
5 certifiers, with organic businesses, and that
6 we share their role in protecting that
7 integrity of the organic seal, and to have the
8 control systems in place that protect that.

9 We also want to call attention to
10 the standards themselves through a robust
11 accreditation of the certifier oversight
12 process. We want to make sure the certifiers
13 understand their roles and responsibilities at
14 the very beginning of our system.

15 So we're going to be focusing on
16 training of certifiers, not only here in the
17 United States, but internationally as well, to
18 make sure they understand our expectations. We
19 want to make sure the oversight is as diverse
20 and complex as the operations are, and that
21 includes livestock operations as well as crop
22 and produce operations.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So we're going to be continuing to
2 focus on new models that make us more
3 effective, but we are particularly focused on
4 risk and risk-based approaches to the
5 accreditation. So as we identify areas that
6 show more risk to the system or more risk to
7 fraud, we will be stepping up our oversight in
8 those areas to try to bring everybody into
9 compliance.

10 We want to, through the import
11 process and the traceability process, we
12 especially want to look at the import process
13 and try to move to more electronic records, a
14 system that will allow us to be notified in
15 advance and be aware of where those shipments
16 are coming from, and where they are going to
17 enter the United States.

18 Many of our answers and the
19 practices that we're going to be putting into
20 place are part of our response to last fall's
21 Office of the Inspector General's report on
22 international trade. And this again is partly

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 due to technology and the implementation of
2 technology to be able to enhance our ability to
3 do this.

4 We are also looking at the rules
5 regarding our ability, and we would like to
6 remove the current exclusion for uncertified
7 handlers. Those are people within that chain
8 of the marketplace that we have, in the past,
9 said that they don't have to understand and be
10 certified in the organic chain. I think
11 there's an opportunity for us to certify them
12 and make them aware of their roles and
13 requirements and responsibilities in that
14 process.

15 So as we continue to move forward,
16 the third component is robust enforcement, and
17 I think we've talked a lot about that and the
18 focus that we have there, and the fact that we
19 have identified, within a short period of time,
20 the number of shipments that we're concerned
21 about shows that we need to continue to focus
22 on the enforcement piece in imports, but not

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 ignore the enforcement piece across our
2 domestic production as well.

3 Again, that's going to be focused on
4 putting internal investigative capabilities at
5 the staff level and expediting administrative
6 proceedings when we identify the need to do
7 that. Again, we're going to focus on being
8 risk-based and investigating resources in the
9 places in the market chain where we believe
10 needs us the most.

11 We want to institutionalize
12 unannounced inspections as part of the vital
13 role they play in organic control systems.
14 Again, those will be focused on high-risk areas
15 as well.

16 We're hoping that through this
17 process, we're enhancing opportunities for the
18 entire organic industry and leveling the
19 playing field for the entire organic industry.
20 Many of you out there are dealing with the
21 challenges on a daily basis, and we understand
22 that the panels that you will have tomorrow are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 going to address some of the challenges I've
2 talked about today.

3 I hope that we'll be able to
4 surface, for the staff of the National Organic
5 Program, areas that we can continue to focus on
6 to make our program stronger. Again, I want to
7 close by thanking all of you for being here and
8 being part of the process for the
9 implementation of the National Organic Program
10 and the role that the National Organic
11 Standards Board plays in advising the
12 Department of Agriculture.

13 Growth depends on the ability to
14 effectively trace products across the supply
15 chain and ensure the integrity of the organic
16 products to deter fraud, and our goal is to
17 support the prosperity of every farmer,
18 rancher, producer, and processor, and to the
19 many other people who support their success,
20 and that's what ultimately brings us all here
21 today.

22 I want to close with the charge that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Secretary Perdue levels at the end of almost
2 every discussion that we have, and that is to
3 do good and feed everyone. So thank you very
4 much.

5 (Applause.)

6 MR. IBACH: So now it's my pleasure
7 to turn the microphone over to Jenny Tucker.
8 She's the Associate Deputy Administrator, and
9 she's been working very hard, very engaged.
10 She's been in my office a number of times with
11 Ruihong as we work through the different
12 concerns and opportunities within the National
13 Organic Program, and she's going to provide the
14 National Organic Program update for you today.

15 DR. TUCKER: Thank you very much.
16 Welcome, everybody. Thank you so much for
17 being here. Again, this is my second meeting
18 this year, I was at the Jacksonville meeting
19 with you. So, happy to be here again.

20 Before I go into the planned
21 presentation, we have some very happy news to
22 share that is literally fresh off email this

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 morning; a new National List proposed rule that
2 will implement the NOSB's recommendations from
3 November 2017, related to materials is on its
4 way to the Federal Register. So we'll look
5 forward to people's public comment on that
6 proposed rule once it is published.

7 The Under Secretary mentioned the
8 importance of efficiency in our operations, and
9 I think the fact that we are at a proposed rule
10 stage so soon after the last meeting is really
11 a tribute to how the standards division has
12 been translating that goal into a reality. So
13 many thanks to Paul Lewis and his standards
14 team for getting that across the finish line so
15 quickly. So, look for a Federal Register
16 announcement on that soon. Again, thank you so
17 much, Paul.

18 Okay, let us get into the agenda.
19 First, I want to share some welcomes and thank-
20 yous; second, I'll provide more details into
21 the imports and enforcement work we've been
22 doing over the last several months. Then in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 closing, a comment. This is a pretty focal
2 agenda, so we can bring you up to date with the
3 specific actions we've been doing over the last
4 few months in some very mission-critical areas.

5 I would be remiss if I didn't
6 celebrate our certified organic operations in
7 Tucson. There are seven certified organic
8 operations right here in Tucson; six of them
9 are handlers, and we have one crops grower, and
10 that crops grower produces cactus. Who knew?

11 In fact, I found that so intriguing
12 that I searched the Organic Integrity Database
13 for cactus, and it turns out there are 64
14 operations that do some kind of either cactus
15 growing or handling. The Organic Integrity
16 Database produces all sorts of cool trivia like
17 that. There are 214 certified operations in
18 Arizona, so if any of you are here, welcome,
19 and thank you very much for everything that you
20 do.

21 I also want to thank everybody in
22 the organic community. The spring meeting

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 engagement has, as with past meetings, been
2 really high. We got 1,600 written public
3 comments. Tom shared the page count of those,
4 so we do an average pages per comment. Tom and
5 I are both very into the statistics of all of
6 this.

7 We had 48 oral commenters on two
8 webinars. Those webinars have been a really
9 nice opportunity for folks to contribute to the
10 process who might not be able to physically
11 make it to the meeting, so that's been a nice,
12 now institutionalized practice.

13 We had 146 folks call in for those
14 webinars to listen in, and then we had 84 folks
15 signed up to speak in Tucson. So again, if
16 you're here to provide public comment, we thank
17 you for that engagement and effort.

18 Last time we met it was Halloween,
19 and today is Happy Administrative Professionals
20 Day. So I want to note Administrative
21 Professionals Day by celebrating our secretary,
22 who is Joan Avila. I have a feeling many of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you in the room have spoken with Joan. Joan's
2 been with NOP for about five years; she runs
3 the place. She answers hundreds of calls and
4 emails each month, many of them from
5 prospective organic producers and handlers.
6 They call her from all over the world to find
7 out how to get certified.

8 I recently did Joan's mid-year
9 performance review, and she said what she loves
10 about her job the most is talking to people who
11 want to start an organic business and feeling
12 like she's helped them.

13 So I wanted to mention Joan today,
14 it being Administrative Professionals Day, and
15 just because she is awesome. Joan manages
16 regulations and requisitions with ease and good
17 humor, so if you call the main office, do take
18 a second to thank Joan, because she is an
19 amazing part of the team.

20 Okay; Mr. Ibach mentioned the three
21 key components of our action plan. The focal
22 aspect of these components is really helping us

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 pick the top priority projects for what really
2 needs to get done here.

3 So the strong organic control
4 systems, the farm-to-market traceability, and
5 robust enforcement -- that's really how we are
6 organizing our work plan moving ahead, so I'd
7 like to walk through some of the actions we've
8 been taking in those areas as we're moving
9 forward.

10 Organic control system: Again, the
11 absolute key framework here, and I want to
12 mention the control system again because of the
13 central importance that certifiers play in
14 everything that we do. We've taken a lot of
15 enforcement actions in the last few months, and
16 certifiers are taking a lot of those actions.
17 So they are really a critical element of
18 everything that is happening in protecting the
19 control systems.

20 They are taking more enforcement
21 actions, they are asking better questions and
22 tracing supply chains in more depth. So we

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 have all been learning over the last year here,
2 and certifiers are learning right along with
3 us, and I think that's really critical to point
4 out as part of this larger framework. We are a
5 network of people who are protecting the
6 organic seal in the areas of standards,
7 accreditation, certification, and enforcement.

8 So I walked through this slide at
9 Jacksonville, and I think it bears repeating.
10 It's really critical to all of our organic
11 enforcement work. Everything that we do rests
12 on, and is dependent on, these three core
13 pillars: The Organic Foods Production Act,
14 USDA organic regulations, and evidence that can
15 stand up in a court of law.

16 So again, this is ball game for all
17 enforcement and really defines the rules of the
18 game that we're overseeing. So we have to
19 govern and enforce based on these regulations.

20 I mention it because, as we're
21 talking about new practices, new directions,
22 ways we want to go, the first question is,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Well, are you allowed to do that within the act
2 and within the regulations? Mr. Ibach
3 mentioned some areas where we're aware that we
4 need some new rules, which will change this
5 landscape that we're able to enforce against.

6 I wanted to give more details about
7 some of the training we've doing for
8 certifiers. We did two face-to-face trainings
9 with certifiers in February. We were in the
10 U.S., we went to San Antonio and met with a lot
11 of U.S. certifiers. Then, not a week later, we
12 went over to Europe and did certifier training
13 at BIOFACH. That was the first time we had
14 been to BIOFACH in quite some time, and we're
15 really happy that we went.

16 These are all the European
17 certifiers who came; they are right in the
18 middle of dealing with the challenges that we
19 have been talking about today, and were really
20 receptive to the training that we are doing in
21 imports and how to do effective adverse actions
22 that will hold up through an appeals process.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 In both Europe and the U.S., we did
2 training on the pasture standards. We needed
3 to do a grazing refresher, and that was an
4 important part of the training. We also
5 covered a number of other topics that are about
6 enforcement and oversight of the standards.

7 Those have been great opportunities
8 to get out and spend real time with certifiers
9 to hear what some of their questions and
10 challenges are. In this picture we have Penny
11 Zuck, who is one of our wonderful accreditation
12 managers, and Lars Crail, who is our lead
13 auditor. They are both in our accreditation
14 and international activities division.

15 That division is absolutely critical
16 for the oversight that we do of certifiers. We
17 often talk about our compliance and enforcement
18 team that's investigating complaints; our
19 auditors and accreditation managers are really
20 on the front line of working with our
21 certifiers every day. So I wanted to mention
22 Penny and Lars, because they've done just a

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 terrific job at helping to build the certifier
2 capabilities.

3 I also wanted to mention a new self-
4 guided training that we've published. The
5 control system rests really heavily on
6 certifiers and on businesses, in addition to
7 USDA. So increasing training that everybody
8 can access on compliance and enforcement is
9 really a key priority so that all participants
10 in the control system have the skills and
11 capabilities to effectively operate in the
12 market.

13 So at the recent face-to-face
14 certifier trainings, we launched a new
15 interactive training on how to conduct an
16 investigation. So like the Road to Organic
17 Certification, which is a filmed story of two
18 farmers who are seeking organic certification,
19 this one is also a real-life, choose-your-own-
20 adventure video that follows an investigation.

21 It involves three certifiers that
22 are participating in an investigation that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 crosses the boundaries of all certifiers. So
2 by walking through a number of scenarios, the
3 viewer, the trainee can pick paths. And
4 depending on whether the paths they pick are
5 correct, they will either detect fraud by the
6 end of the video, or they will not.

7 So the important learning point of
8 the video is asking the right questions,
9 following the right trail, pulling the right
10 thread, in order to detect fraud in the system.

11 I invite folks to take a look at the
12 training and walk your way through it and see
13 if you can find the fraud that occurs in the
14 story. This is available publicly; it is on
15 the AMS website. If you search for organic
16 training, you will find it fairly easily.

17 It was an interesting movie to make
18 because it really required us to walk through
19 what are all the different steps, and questions
20 that everybody has to ask across the system, so
21 I encourage you to take a look.

22 Next, an update on our imports

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 instruction: In October we shared this interim
2 instruction, and comments were closing right
3 around the time of the Jacksonville meeting.
4 Those comments are available in
5 regulations.gov. The instruction remains
6 available in the NOP handbook.

7 The instruction explains current
8 regulatory requirements for certifiers
9 overseeing organic products imported into the
10 U.S. It also recommends best practices and
11 provides examples of actions that certifiers
12 can take to comply with the existing
13 regulations.

14 We received a lot of thoughtful and
15 thorough public comments on the instruction,
16 and many of those are helping to shape our next
17 steps. In fact, a lot of those comments were
18 about the additional regulatory needs that will
19 help make organic import oversight stronger.

20 It really does take all of us
21 working in the system to protect the integrity,
22 so this instruction remains online. It is an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 interim instruction, which means certifiers are
2 following it. So certifiers are following the
3 best practices in the document to continue
4 their oversight in better ways. We do want to
5 thank everybody who submitted public comments
6 on the instruction; very helpful in moving
7 forward.

8 So at the last meeting we shared
9 certifier directives that have increased
10 testing and inspections in Eastern Europe.
11 Certifiers who are involved in those activities
12 were required to send reports to the National
13 Organic Program. We have been reviewing those
14 certifier reports, and we're designing new
15 directives based on what we learned through
16 that process, and where we think some of the
17 weakest points are.

18 So in this risk-based oversight
19 approach, where do we need to look next? So we
20 will be issuing new directives to certifiers,
21 but are probably going to be asking for
22 slightly different things as we target the high

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 risk areas.

2 So for the certifiers who have gone
3 above and beyond in implementing those
4 directives, we appreciate that investment. We
5 know that that has been an additional labor and
6 expense, but it is helping us get to where we
7 need to go.

8 We've had a number of enforcement
9 actions taken against both operations and
10 certifiers. And as mentioned earlier, some
11 significant numbers of surrenders and
12 suspensions in the four countries previously
13 mentioned.

14 I want to also expand on some of
15 this collaboration discussion about CBP and
16 APHIS, both very important agencies. We always
17 like to put the acronyms up to remind everybody
18 of all the different agencies we're talking
19 about.

20 APHIS has a lead at the border with
21 CBP. Both of these agencies have really been
22 terrifically helpful at the ground staff level

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to provide us with information, to get
2 information from us. The flow of information
3 between these agencies is moving much smoother
4 over the past year, and I think it's really
5 helping everybody moving forward.

6 APHIS has its own regulatory
7 interest in some of these shipments, and so
8 where two agencies have different but
9 compatible interests, that collaboration is
10 incredibly important. I wanted to mention
11 their role in supporting us here.

12 More specifically, looking at CBP
13 and organic imports data, this builds on a
14 presentation we made in Jacksonville to explain
15 how this landscape worked. At our last meeting
16 we had our panel of government folks who came
17 in from CBP and APHIS to help us understand the
18 landscape better. So some of this is a little
19 bit of a review in that the reality right now
20 is that the CBP system, called ACE, the
21 Automated Commercial Environment, is actually
22 not programmed right now to mark products as

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic.

2 So some of the actions we've taken
3 is, there has been a formal joint meeting;
4 there's also been a lot of staff level
5 meetings, but a formal joint meeting to really
6 chart out future collaboration options and what
7 that could look like.

8 We have also submitted an official
9 request for development to CBP for organic
10 message sets. As folks might remember from the
11 last meeting, the organic message set is what
12 translates the USDA organic import certificate
13 into the form that ACE can use.

14 Now, we're actually ahead of where
15 we thought we were going to be on this, so
16 folks may be aware that Congress gave us some
17 supplemental funding in the FY 18 budget. So
18 there's \$3 million that Congress gave us, the
19 appropriations in 2018, in addition to our
20 nine-million-dollar budget.

21 So we are hoping -- the \$3 million
22 is dedicated to enforcement, and we're hoping

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that we can use some of that to fund CBP to
2 develop these message sets. So that would put
3 us considerably ahead of where we thought we
4 might be at this stage in the game. So this
5 collaboration is really working well.

6 The request for development was
7 briefed to a group called the Border Inter-
8 Agency Executive Council. It includes all the
9 participating government agencies that have an
10 interest in ACE, so when we briefed our project
11 we were prioritized. There are a number of
12 projects that the ACE folks need to consider.
13 We have been prioritized, and we are in the top
14 four priorities for moving forward, and the
15 three ahead of us are all really critical, like
16 bug fixes, things that absolutely must be
17 fixed.

18 So the next step in that is, they
19 will be getting us an estimate on both the
20 timing and the cost of programming these
21 organic message sets. Again, we're kind of
22 ahead of where we thought we would be on that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 particular project.

2 We're also in the midst of reviewing
3 our existing memorandum of agreement with CBP
4 in order to request broader access to trade
5 data. In the government, you often need
6 memoranda of agreements to see data that other
7 agencies have. A lot of data is
8 protected for very good reasons, and you have
9 to have a very good reason for accessing that
10 data. So we're working to change the
11 memorandum of agreement to allow us that
12 broader access that we need to protect organic
13 integrity.

14 Now let's turn to the fumigation
15 work. APHIS is now providing fumigation
16 notifications, so I really want to highlight
17 that this is a significant change from last
18 year. When we ask, What's really happened over
19 the last year, this is real stuff; it's real
20 progress.

21 We have received 1,600 fumigation
22 records in eight months, and we weren't getting

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 those before. We weren't getting those before,
2 and we have that data now. That's a lot of
3 data, so let me walk through what we're doing
4 with that data.

5 We have done requested targeted
6 investigations by certifiers. Interestingly,
7 the data that comes from APHIS, you can't
8 always tie it back to a 10-digit code in the
9 Organic Integrity Database. So not every one
10 of those fumigation notices is associated with
11 a certified operation.

12 It turns out that not all of the
13 notifications are actually organic. For
14 example, there was a ceramic tile shipment that
15 was coded as organic. Some of this is a matter
16 of training, and we now have APHIS folks who
17 are on the lookout for organic for us, but they
18 don't always know exactly what that is. So if
19 they're not quite sure, they might click
20 organic when it perhaps had the word organic on
21 it somewhere. But we'd rather them be safe
22 than sorry on that one.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So learning how to read these
2 fumigation notices and how to tie it back to
3 certified organic operations through the supply
4 chain is part of our learning process right
5 now.

6 I really want to emphasize that just
7 because there are 16 records does not mean that
8 those products were sold as organic. APHIS
9 would have notified the importer of the product
10 of the pending fumigation; we get the notice as
11 well. Then the product would have either been
12 redirected to another port or it could have
13 been sold as conventional. So we are following
14 up when we have these fumigation notices with
15 these targeted investigations.

16 We're also doing training for
17 certifiers on how to access APHIS fumigation
18 rules. An APHIS representative came for a
19 certifier training in February to literally
20 show all the APHIS handbooks for how you know
21 whether something is automatically going to be
22 fumigated coming from another country.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So now, certifiers can really be on
2 the lookout. If I know this commodity from
3 this country is always going to be fumigated,
4 it really shouldn't be selling it as organic.
5 So they are now introducing more practices to
6 prevent that.

7 So we're taking both a top-down and
8 a bottom-up approach on this, and the top-down
9 is learning about the data, getting the rule
10 book out to everybody. The bottom-up is these
11 targeted investigations for specific fumigation
12 events.

13 We're doing a lot of data analysis
14 on this to identify these commodities and
15 countries and working with APHIS to access data
16 reports in more usable ways. Right now we're
17 getting a pdf attachment; we're talking to them
18 about getting a data stream directly from their
19 system. They've been really amenable to
20 figuring out how to get us that data in ways
21 that we can crunch better.

22 We stole a data analyst from ERS,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Economic Research Service, on a detail with us,
2 and he's just been phenomenal in generating
3 different ways of looking at the data. It's
4 really helping us move the ball forward.

5 Okay. Investing in data is a huge
6 part of all of this, so full traceability
7 really requires accurate and timely data. So
8 the Organic Integrity Database -- there's a
9 data quality dashboard now, so certifiers can
10 see what they're doing well with their data and
11 what they could improve on.

12 We launched in February, investing
13 in integrity awards. Good data and complete
14 data is really invisible labor. It takes a lot
15 of time to get data in a useful form where it
16 can inform decision-making. So we wanted to
17 celebrate the top certifiers who are really
18 investing this time to make sure their data was
19 sound. We awarded top six certifiers, based on
20 their data quality and quantity for the data
21 deposits at the beginning of 2018.

22 I just want to highlight them here:

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 we have CCOF, California Certified Organic
2 Farmers; the County of Marin Organic Certified
3 Agriculture; New Jersey Department of
4 Agriculture -- New Jersey, by the way, is also
5 the very first certifier that got data into the
6 Organic Integrity Database, so they've really
7 consistently invested over time. Go, Jersey.

8 Next, NOFA New York, the Northeast
9 Organic Farming Association of New York; One-
10 Cert, Inc., from Nebraska; and OTCO, Organic
11 Tilth Certified Organic. So these folks are
12 providing data in useful and complete forms,
13 and it's really helping us move the data
14 quality world forward. If any of you are here,
15 thank you, and again, congratulations.

16 Let's talk about some of the key
17 tools for data. We're really focusing on
18 acreage and certificates. Organic farm acreage
19 is absolutely critical for investigations and
20 for data analysis and reporting.

21 We held a working session in late
22 February, a webinar, specifically on acreage

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 reporting. It was terrific to hear the
2 certifiers perspectives on this. Some of the
3 folks on the call were already depositing
4 acreage data into the database, so they were
5 able to describe how they're doing it, using
6 the different templates for the database, and
7 how they are reporting on acreage -- how they
8 figured that out with their own systems.

9 Then there were a lot of certifiers
10 who hadn't quite gotten there yet, but want to
11 get there. So they heard from the people who
12 are doing it, about how they can report on
13 acreage.

14 What we learned through that is, a
15 lot of certifiers are taking a phased approach
16 of engaging with the integrity database; this
17 year, they are doing this project. For
18 example, adopting the product taxonomy. Next
19 year they're going to turn to acreage, using
20 the taxonomy to report acreage.

21 A lot of these certifiers have great
22 strategic plans on engaging with the data,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 which will really raise the playing field
2 across the board. So we appreciate the
3 certifiers who gave their time and their
4 knowledge, and who were open about what their
5 questions and challenges were.

6 We're also continuing to encourage
7 federal certificate use. Last fall we had two
8 early adopters of the certificate module,
9 specifically LETIS and the Rhode Island
10 Department of Environmental Management. Now,
11 if you look in the database, there's a total of
12 five certifiers that have generated
13 certificates from the system, and we have a
14 number who are also considering adding that on.

15 They are now reporting that now
16 operations are starting to ask for a federated
17 certificate. Certifiers can still provide
18 whatever attachments they want, with all of
19 those details, but there are operations out
20 there that are really looking for that
21 consistent cover sheet from the integrity
22 database. So many thanks to the certifiers who

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 have been adopting that.

2 There's another technology
3 initiative that we've been investing in since
4 we last met. We are developing an electronic
5 export certificate option. It will support
6 organic businesses that are shipping to Korea,
7 Japan, Taiwan, and Mexico. Those are the
8 modules that we have been programming in.

9 This is an existing tool that AMS
10 already has; it's the Electronic Trade Document
11 Exchange System. We're really building on
12 systems that are already in place. We did an
13 initial pilot test with some interested
14 certifiers, and that went very, very well. The
15 feedback was, Oh, well, this is sort of like
16 traces. We need to use that, so that works.
17 So that looks good, we'll use it.

18 So we'll be doing a launch this
19 summer, and again, it will be an option for
20 those who want to produce export certificates.
21 One of the benefits of this is that we are
22 programming in the ability to transfer data

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 from the Organic Integrity Database, so that
2 saves some typing. But it's also an added
3 incentive to keep data up to date in the
4 integrity database, because it will push over
5 current data into this export certificate
6 system.

7 It's also providing a lot of
8 valuable learning as we engage in future
9 international systems development work. You
10 pick a small project, so you can learn about it
11 and learn what all the different touch points
12 are. This has been very valuable in both
13 providing a new tool for certifiers, but also
14 learning a lot through that process.

15 And now, here's a teaser: On May
16 10th, we are having a technology webinar,
17 Organic Integrity Through Technology
18 Innovation. We're going to cover three topics:
19 the Organic Integrity Database, some updates on
20 what we've been doing there; we're going to
21 give a road show of the export certificate
22 module, so if you weren't part of the pilot,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and you want to know about it, come on to the
2 webinar, and we'll show you what it looks like
3 and how that will work; and then we're going to
4 share some of our future ideas in terms of
5 planning. Part of our response to the OIG is
6 going to include our vision for international
7 systems and how could this work.

8 So May 10th will be the first time
9 that we launch some of our initial thoughts on
10 that, and we're going to be really eager for
11 some feedback. So if you would like some
12 details, you can go to the Organic Insider,
13 which hopefully everyone is a subscribed to.
14 There you can get more details about the time.
15 It will be a standard ready-talk webinar like
16 we always use.

17 Okay. I want to close this
18 enforcement section by really highlighting very
19 seriously our commitment to boots on the
20 ground. We have heard this many times, and we
21 finally have some resources that we can devote
22 to boots on the ground.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I present the picture as both a
2 commitment and a metaphor; we are taking this
3 very, very seriously. Betsy Rakola, our
4 Compliance and Enforcement Director, and I
5 recently traveled to visit with a grain
6 importer on the East Coast. This is an
7 importer who is actually doing really well, who
8 is doing full supply chain traceability. It's
9 incredibly impressive, the devotion and
10 dedication they have to the process.

11 We wanted to really visit with folks
12 who were doing this right, so we can see what
13 this looks like when it's working really well.
14 They walked us through the processes that they
15 use. We took this picture because we saw it as
16 sort of our opportunity to share with you that
17 we get it. We understand the importance of
18 these onsite investigations and surveillance.

19 This year we have a program for
20 unannounced inspections with U.S. dairies.
21 We're going to be doing site visits and
22 inspections with grain importers. Now, I say

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 site visits because some of this is -- we're
2 still learning, so we are visiting with folks
3 who have figured this out at the operation
4 level, so we can learn from them. But we're
5 also doing inspections and investigations.

6 We're going to continue to do our
7 certifier audits in Eastern Europe. We've
8 mentioned before that the number of satellite
9 office inspections has gone up significantly;
10 that's going to continue this year.

11 Then we're going to figure out how
12 to do a commodity- and country-level certifier
13 audit. How do you do a mass balance at a
14 country level, involved with all the certifiers
15 in a country? We think that would provide a
16 tremendous amount of learning around supply
17 chain verification, so that's one of the
18 projects we'll be doing this year.

19 We're going to out there; we're
20 looking forward to seeing folks out there, and
21 thank you for everything you're doing.

22 To close the loop on the OIG report,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 this was published in September of 2017. We are
2 on track to complete all of our responses to the
3 OIG by the deadline of July 2018. In fact, an
4 awful lot of what I've been talking about here
5 today is going to be captured in that response.

6 We mentioned last time that in some
7 cases, we're laying out a response that lays out
8 the plan for the future. We can't build all the
9 systems by July 2018, but we can say what kinds
10 of systems we think we need and what that might
11 look like to spark that future development. But
12 we are on track to have a published response by
13 July.

14 I'm going to close here. I was going
15 to leave the Secretary's principles for organic
16 up on the screen during question and answer.
17 Again, protecting the integrity of the organic
18 seal and delivering efficient and effective
19 oversight of organic production practices; we're
20 all working together to make sure that organic
21 products meet consistent standards.

22 So thank you so, so much for being

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 here; it's a pleasure talking to you. I look
2 forward to being here at the meeting with you,
3 this week.

4 (Applause.)

5 MR. CHAPMAN: Thank you, Jenny; thank
6 you, Greg, for sharing all that information with
7 us. I am sure we could use the rest of the day
8 to ask you questions on what was shared here,
9 but I know we don't have that much time. But
10 thank you for all the incredible work you've
11 been doing on this and for providing this update
12 to the Board and the community.

13 At this time we will open it up to
14 questions from the Board. I'll take a speaker's
15 list of folks who have questions. Can you raise
16 your hand? I will start with my question first,
17 and then move through the list that I've got.

18 My question is for you, Mr. Ibach.
19 The primary objective of the NOSB is to review
20 substances used in organic production and to
21 advise the Secretary on the implementation of
22 OFPA. As a member of the administration's

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 leadership that we are advising, I'm curious to
2 hear your perspective on how well the NOSB is
3 functioning in its role today.

4 MR. IBACH: I think that over the
5 past year, with Ruihong and Jenny working
6 together with the Board, we have some great
7 progress relationship that the USDA's
8 communicated to me, the relationship that we
9 have with the Board.

10 I think we have a great dialogue
11 that's been developed and continue to look
12 forward to working together with the Board on
13 those recommendations and the evaluation of the
14 recommendations to be able to try to implement
15 as many of the recommendations as possible.

16 Do you have anything you would like
17 to add, Jenny?

18 DR. TUCKER: No, I'm good.

19 MR. CHAPMAN: Thank you. I have
20 Emily next.

21 MS. OAKLEY: Thank you for being here
22 with us today. I wanted to say that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 collectively as a board, we represent the
2 diverse interests of the organic community, and
3 as representatives, we hear from them about
4 their interests.

5 Some of the items on our work agenda
6 that have originated from public comments
7 include addressing uncertified handlers and
8 eliminating the incentive to convert needed
9 ecosystems to organic production, as just
10 examples.

11 As representatives, members help
12 facilitate the dialogue between stakeholders and
13 the National Organic Program, and that's a
14 critical aspect of maintaining integrity in the
15 label and the success of the label. So how do
16 we balance priorities of the administration, for
17 example, with the priorities of our
18 stakeholders, particularly with regard to our
19 work agenda? Thank you.

20 MR. IBACH: I'll let Jenny and
21 Ruihong also comment on this. I think that
22 communication is the first step. We need to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 hear from you; that's your role here on the
2 Board, to tell us what you're hearing in your
3 various segments of the industry.

4 Then I think working with leadership
5 on the Board, as well as understanding the
6 priorities that we have within USDA, our
7 responsibility to react to oversight that we
8 have from the OIG's report and the priorities
9 that we have there, to mix that together to be
10 able to come up with things that we think are
11 most important for the Advisory Board to work on
12 at any particular point in time.

13 There are more subjects than a
14 volunteer board should be expected to address
15 and spend time concentrating on, so we have to
16 figure out those priorities to be able to make
17 the most out of your time and your volunteered
18 effort, as well as being able to move the
19 program forward as quickly as possible.

20 DR. TUCKER: Yes, that's exactly
21 right. I would say that the new work plan that
22 Tom spearheaded the development of, the newly

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 formatted work plan, will really help with that
2 dialogue and communication, because it really
3 helps us see everything that is on the list and
4 where it is in the process.

5 I think that introduces a
6 transparency into the work plan that supports
7 that dialogue, so we can really see everything
8 in front of us and make those choices and
9 priorities.

10 So kudos to Tom for having really re-
11 worked that work plan in a way that facilitates
12 that dialogue, I think in different ways than
13 we've been able to discuss before.

14 MR. CHAPMAN: Ashley?

15 MS. SWAFFAR: Thank you for being
16 here. The NOSB has provided recommendations to
17 the USDA on the care of organic livestock since
18 1990. These recommendations have always
19 included both materials and practice standards.
20 The organic livestock and poultry practices
21 final rule was in step with this history and was
22 the product of over 10 years of work on the part

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of the Board and the public stakeholders.

2 Members of this board and our
3 community are saddened by the USDA's decision to
4 ignore our recommendations in withdrawing this
5 rule. Part of the justification for the final
6 rule was that the final rule would exceed the
7 USDA's statutory authority.

8 Can you please explain why the NOSB
9 and NOP worked on an issue that is now
10 considered outside of their authority for so
11 many years under different administrations, only
12 to be notified that it was out of scope in the
13 final hour?

14 MR. IBACH: First of all, as you are
15 aware, there are several lawsuits pending on
16 this, so we probably can't be as in-depth and
17 frank about our conversation here as I might
18 like to be. If I am, there will be a frying pan
19 that will hit me across the back of the head to
20 stop me, probably.

21 But I think it's important that we
22 realize what the statutory rules are, and while

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 there are other issues and marketing dimensions
2 that organic producers and organic value chains
3 might want to take advantage of, we have other
4 programs within USDA that would allow that
5 opportunity through certification processes like
6 our PVP program, to make claims that might be
7 outside of what the statutes provide for us to
8 be able to do through the organic shield itself.

9 So we look forward to being able,
10 moving forward, to look at those other programs
11 that USDA might have in place that might help
12 accomplish some of those same end goals, but
13 would be outside of the organic program itself
14 and maybe be a wrapper on top.

15 Maybe I'll go one step farther and
16 relate some of my specific experiences as
17 director in Nebraska. We did a lot of
18 certification programs in the beef industry,
19 because that's our number one industry, to be
20 able to export. We had producers who exported
21 products to Europe regularly.

22 So there was that core program that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 USDA had, the NHTC program, but some producers
2 wanted to talk about whether it was a Hereford
3 or an Angus. And so those were like wraparound
4 programs that we had certifications that either
5 that breed association went through with USDA to
6 be able to gain a USDA certification that yes,
7 there's a program in place that says that's a
8 Hereford animal, but it was an NHTC Hereford.

9 We also had a program that we
10 implemented on a state level, a PVP process, so
11 producers could say it was born and raised in
12 Nebraska and had USDA put a shield that through
13 the PVP that said, yes, that was true.

14 So you would have an NHTC Hereford
15 born and raised in Nebraska. So there were
16 wrappers that you could stack on. And I think
17 that's an opportunity that could be considered
18 within the organic industry as well, and Jenny,
19 maybe --

20 DR. TUCKER: I really don't have much
21 to add to that.

22 MR. CHAPMAN: Dave?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. MORTENSEN: Thank you for the
2 comments; it was really helpful to hear all of
3 the things that are going on. The Board has
4 been expressing concern about grain import fraud
5 for a while, and we often are out hearing from
6 growers. There was a group of us that were
7 recently at the Midwest Organic Education
8 meeting, where there was a special meeting held
9 where no fewer than 50 commodity organic grain
10 producers were in attendance.

11 We heard from one after another about
12 losses of \$15,000 a year to almost \$120,000 a
13 year on individual grower farms from Nebraska to
14 Wisconsin to Iowa, etc., and I hear the same
15 thing in Pennsylvania and New York.

16 So we want to be sure that you know
17 that the Board stands ready to serve. I would
18 just ask, are there ways that you think we could
19 help advance the cause of leveling the playing
20 field?

21 MR. IBACH: That answer might be a
22 little bit above my current familiarity and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 knowledge level, but maybe going back to a step
2 before that -- I think that's appropriate that
3 we work with you to make sure that we create a
4 level playing field and understand how that's
5 going.

6 We definitely want to hear from you,
7 whether the standards that we are putting in
8 place, and the new practices and procedures that
9 we're putting into place at the border, you
10 think will be effective.

11 Throughout American agriculture, we
12 feel that we are most efficient and effective,
13 and we can compete with anybody in the world.
14 But we have to be able to compete on a fair
15 basis, so if products can be priced coming into
16 the U.S. from a foreign country very cheaply
17 because they don't have to adhere to the same
18 production practices, and they are circumventing
19 our organic expectations, that's not fair to our
20 producers.

21 As we go through this process and
22 identify and protect the integrity of those

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 shipments coming in, one of my concerns is that
2 we have organic livestock producers who are
3 counting on some of those certified organic
4 shipments to meet their feed needs.

5 So that could create some real
6 opportunities for U.S. farmers that have been
7 transitioning, a way to enter that organic grain
8 business, to be able to enjoy profits and enjoy
9 pricing and enjoy providing to that marketplace.

10 DR. TUCKER: I think in terms of
11 specific Board activities, this imports panel
12 tomorrow is really important. I think all of us
13 have been really encouraged by the number and
14 depth of public comments that have come in. I
15 think that's a tribute to the CACS that
16 developed a lot of very thoughtful questions and
17 put them out there and have got a lot of very
18 thoughtful answers.

19 I think that culling through that
20 data is going to be incredibly important moving
21 ahead, and figuring out, Okay, what can CACS and
22 the entire Board do to help identify the really

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 focal projects? We're going to, at NOP, keep
2 you guys very well informed on what we're
3 thinking and working on in concurrence, because
4 a lot of these wind up being parallel efforts.

5 I'm really eager for this imports
6 panel tomorrow; I think it's going to tell us a
7 lot. This was the first time we've had a
8 discussion document on imports; this is the
9 first time we've asked that question in this
10 particular forum, and I think that the amount of
11 response -- you mentioned earlier the importance
12 of providing that bridge to the stakeholder
13 community -- on imports, that is beautifully
14 illustrated through the work that's just
15 happened in the last few months.

16 MR. CHAPMAN: Harriet?

17 MS. BEHAR: There are quite a few
18 organic advocates in the audience that have
19 worked with Congress and with the USDA and have
20 been able to secure appropriations for the
21 National Organic Program. I know that not only
22 in the past, but even in the latest House

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 version of the upcoming Farm Bill, there are
2 significant dollars for the National Organic
3 Program, but we're currently sitting with many
4 vacancies in staff.

5 A lot of them are direct support to
6 the National Organic Standards Board, as well as
7 the need for continued technical reviews, both
8 of newly petitioned products and sunset
9 materials.

10 So I was wondering, what are the
11 plans for using those resources to beef up our
12 work so we can continue to do our critical
13 function, and so can the National Organic
14 Program?

15 MR. IBACH: So your question is two
16 different issues: one is new money because of
17 the growth in the program to be able to meet the
18 expectations of serving that growth. We've
19 figured that into the process we went through,
20 which is the other part of your question.

21 You know, every new administration
22 that comes in usually has that period of time

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 where they say, Oh, let's put a stop on things
2 and look at the hiring process and make sure
3 we're comfortable and put our seal of approval
4 on this.

5 That was one of the first things
6 facing me when I came on board at the beginning
7 of November. We were the first mission area
8 that actually had our staffing plan approved,
9 and so we've had that in place now since before
10 Christmas.

11 So where we're really at is just that
12 process that you go through to advertise and
13 interview and fill those positions, but we're on
14 track now to be able to move that process
15 forward and get staffed up at the levels that
16 were projected.

17 I'm not saying that every job out
18 there that's open -- we saw in our future
19 staffing plan as necessary, so we made a shift
20 and said that we've got to have more people in
21 this location or in this focus area, and maybe
22 less here because of work load.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Those were driven by career staff
2 more than political staff, so I feel very
3 confident that moving forward, especially with
4 the increased resources, we're going to be able
5 to deliver on the expectations that the organic
6 community has.

7 Jenny, do you have anything to add?

8 DR. TUCKER: Just a little specific
9 update. I know there's a lot of interest in the
10 room on the National List position. The
11 administration has been really supportive of
12 moving that position forward very quickly. In
13 fact, that position has both opened on USAJOBS
14 and closed on USAJOBS. So all we're doing now
15 is waiting for the list of names that are
16 eligible for that National List position.

17 That's a really critical position for
18 the work that you guys do here, so that has been
19 high on the hiring priorities list.

20 We've brought in some wonderful
21 staff, and both accreditation, international
22 activities and compliance and enforcement, that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 speaks to this reallocation of resources, where,
2 yes, there are some positions we're just going
3 to re-fill, because right now, we don't need
4 those positions.

5 One example is, we had a chief of
6 staff, and that was really important for some of
7 the activities that we were doing for a while.
8 But honestly, we're holding down the fort pretty
9 well without a chief of staff right now. So
10 we're probably not going to backfill that
11 position because it's more important to steal
12 data analysts from ERS to help us with imports
13 data.

14 So we're making really strategic
15 choices that help us get the mission done. But
16 the National List one is coming, I promise.

17 MS. BEHAR: And technical reviews?

18 DR. TUCKER: Technical reviews -- I
19 understand -- I'm going to sort of be open here
20 a little bit; hopefully that's okay. We often
21 run budget drills and budget scenarios, and I
22 know that there were some very early scenarios

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 in planning FY 18 that proposed eliminating
2 technical reports, and I know that's gotten a
3 lot of attention.

4 Those were very early budget drills,
5 and they were related to a budget that didn't
6 happen. We have a budget now, and we have
7 increased money. We have not cut technical
8 reports at all.

9 So we have asked the Board, just out
10 of efficiency and fiscal responsibility, to take
11 a look at, do you really need that technical
12 report, or actually, this material is probably
13 not going to be on the list. And if it's not
14 going to be on the list, do you really need a
15 technical report?

16 But I think the Board has been really
17 responsible about that, and there have been a
18 number of items where the Board has not asked
19 for technical report. I don't think there are
20 any technical reports that the Board has asked
21 for, that we have not funded, and I don't see
22 that changing.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So again, early budget scenarios --
2 we always run different scenarios of what might
3 happen in different circumstances; that's just
4 part of what we do. But we are still funding
5 technical reports. Everybody take notes on
6 that. We get a lot of questions on this.

7 MR. CHAPMAN: Thank you. Steve?

8 MR. ELA: I'm curious that you talked
9 about efficiency and, Jenny, you talked about
10 how the NOSB is the bridge from stakeholders to
11 the USDA and the National Organic Program.

12 I think it's important that in that
13 bridge and in that conveyance, we put a lot of
14 time into reviewing documents, reviewing public
15 comments, evaluating substances. And one of the
16 key components is essentiality; is this material
17 or is this product essential to organic
18 production?

19 Obviously, things change, and organic
20 production continues to improve, and organic
21 supply continues to expand. Some products that
22 weren't available organically become available

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organically, and that provides an opportunity
2 for new companies to expand and hire, as long as
3 we don't allow a previously approved product
4 that's not organic to flood the marketplace, so
5 to speak.

6 So I'm a little concerned in the past
7 little bit of time that maybe the definition of
8 essentiality for the NOSB, and the way we look
9 at it has started to differ a little bit from
10 what the National Organic Program within the
11 administration views.

12 We go through lots of public
13 comments, spend lots of time, coming back to
14 efficiency, and make a recommendation. And then
15 when it's opened up for public comment and the
16 rulemaking stage, a company comes in and says,
17 Well, this was essential. And this co-opts that
18 whole process.

19 How can we work together with the
20 National Organic Program, the National Organic
21 Standards Board, to get at that essentiality and
22 have that be on the same page so we don't spend

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 a lot of time and come up with different
2 answers?

3 MR. IBACH: That's a great question,
4 and I think that's a little bit of what you
5 mentioned is a concern or a problem or a
6 frustration is just inherent in the process that
7 is in place.

8 You have a role to play with advising
9 us; we have a role to play with evaluating that
10 advice and creating a proposed rule, and then
11 the public has a role to play in reacting to
12 that proposed rule. As technology has evolved
13 over the last decade or so, those public
14 comments to proposed rules take on all kinds of
15 shapes now.

16 There's the computerized, mass-driven
17 comments that are fairly uniform, and then there
18 are comments that come in from industry that are
19 very unique and based on personal experience or
20 company experience. They all have to be weighed
21 somehow in whole, to come with a decision of
22 what the final rule should look like.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So I think it's just an ongoing
2 process to try to anticipate what public comment
3 might be, while we look at your advice and
4 counsel, and what the experts on this board that
5 look at science and those that have that role to
6 play, as well as working with staff to try to
7 figure out.

8 We probably never will bat 100
9 percent on this. It might not be a right
10 process if everything you recommend made it
11 clear the way through public comment, because at
12 the end of the day, we're all representative of
13 the greater industry.

14 MR. CHAPMAN: So a quick follow-up on
15 that: If I understood your comments right, you
16 don't see a need to change the essentiality or
17 criteria. The discrepancies that we have are
18 just inherent in the system, but the system
19 itself is fundamentally sound. Is that correct?

20 MR. IBACH: Yes. I think that's
21 essentially the theory behind my answer. Jenny,
22 do you want to specifically address the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 essentiality?

2 DR. TUCKER: I think it's important
3 to emphasize that the vast majority of times,
4 the USDA has implemented the NOSB
5 recommendations. So we're thinking about a very
6 small set of materials where USDA did go in a
7 different direction than the Board had
8 recommended.

9 So USDA looks at the totality of
10 public comment, the way Mr. Ibach just
11 mentioned, and yes, sometimes that's going to
12 lead to a different answer than the Board
13 recommendation. But I would emphasize how often
14 it's in agreement.

15 We just mentioned that we're going to
16 be publishing a proposed rule very shortly here,
17 that implements the recommendations from the
18 fall. So I think most of the time, we agree;
19 there are going to be times when we don't, but
20 those are pretty rare. And the process matters;
21 the process is incredibly important.

22 MR. CHAPMAN: Not to belabor this

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 point, but again, to summarize what I think I'm
2 hearing, the leadership believes that the
3 process itself is intact. It has value, it's a
4 consistent, predictable process, and the fact
5 that there are disagreements itself are not a
6 sign that the process is not working.

7 DR. TUCKER: Agreed.

8 MR. IBACH: Right, right.

9 MR. CHAPMAN: Correct?

10 MR. IBACH: That's correct.

11 MR. CHAPMAN: Okay. Sorry, I'm
12 getting back to my list. Asa?

13 MR. BRADMAN: Thank you for the
14 opportunity to ask some questions. I wanted to
15 comment and ask a question about the development
16 of a list of inert materials for organically
17 approved pesticides and other tools for organic
18 production.

19 This has been an issue that's been
20 percolating in the Board for many years now,
21 going back to 2012. Right now, the Board is
22 actually well situated to work on these issues

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and would like to see some more progress between
2 NOP and EPA and the NOSB to work together to
3 evaluate the current list of inerts we have,
4 look at the current list for materials, and
5 actually develop a more specific set of
6 materials that are specific to the organic
7 program, rather than just relying on a generic
8 list.

9 So I'd like to hear if you have any
10 comments on that, and also ask the USDA to see
11 if we can move forward on those relationships
12 with the EPA to make some progress on this
13 issue.

14 MR. IBACH: Okay, I'm going to pass
15 the answer to that question to Jenny.

16 DR. TUCKER: The inerts project is
17 something that has been of a lot of interest to
18 the Board, and I think this goes back to -- it's
19 almost the same question as how are we
20 prioritizing the work plan.

21 So it is an example of that question,
22 and I think the answer is kind of the same: How

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 do we look across all the different requirements
2 right now in the program? Inerts is a really
3 complex topic, and so continuing to work with
4 EPA, continuing to work with all the different
5 partners who have a stake in this -- this is
6 going to take some time.

7 It is still under review with the
8 program, and right now the other priorities that
9 we talked about today are higher on the list
10 than inerts. I know there are folks who are
11 going to be disappointed by that, but I have
12 promised to be honest about it.

13 So that's an area where I'm going to
14 be honest and say that inerts is likely not
15 going to be something on our work plan at a
16 program level in the next year.

17 MR. BRADMAN: Do you have a sense of
18 what the time frame might be? Because we
19 represent stakeholders, we see many, many
20 comments from stakeholders who are very
21 concerned about this issue.

22 DR. TUCKER: Understood. It is an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 important topic; it's just right now, not the
2 most important topic. Let's see where we are in
3 six months on some of these other topics, and if
4 we're getting to a place where some of the
5 really pressing enforcement issues have been
6 resolved and are moving on, then we can think
7 about, Okay, what can we pick up again, that
8 perhaps we've had to set aside for right now
9 while we're working on this other thing. It
10 would be unfair and irresponsible to commit to a
11 time frame.

12 MR. IBACH: I think it's your job as
13 representatives of the industry to continue to
14 surface those things and to continue to make
15 your case for what you think should surface to
16 the top of the work plan.

17 We're looking at it, we're evaluating
18 it with an eye to what our expectations are from
19 administration, what our expectations are on the
20 program from oversight outside the NOP program.
21 So we want to work together and formulate that
22 work plan over time.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: We have two other
2 questions from Board members, and we'll wrap it
3 up there. As a quick follow-up to Asa's
4 question, embedded in that was our cooperation
5 with other agencies, particularly EPA on this
6 subject, also FDA, and I know that question has
7 come up in the past.

8 Does the program have the sufficient
9 -- or as you say, the sufficient connections
10 with the other Departments to provide the NOSB
11 with the expert information and connections with
12 the EPA and the FDA if needed, on issues that
13 come before the Board? Is there any additional
14 work you are doing in that area?

15 MR. IBACH: Maybe I'll answer it
16 specific to NOP, more general to the
17 relationship that USDA and FDA and EPA are
18 developing, and that is much more of a
19 cooperative relationship, and interactive
20 relationship than I believe that the agencies
21 have had lately or over the last maybe decade or
22 more.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 The Partnership for Rural Prosperity
2 that the president put into place at the
3 beginning of the administration to look at ways
4 that agencies could come together to address
5 rural issues, that Secretary Perdue chaired,
6 really opened up that dialogue, as well as set
7 the expectation that agencies should listen to
8 each other and try to work on common goals,
9 especially those that impacted rural America,
10 and definitely organic agriculture is part of
11 rural America.

12 So I think that just that leadership
13 at the very highest levels of our government
14 have shown that we're supposed to have a better
15 dialogue and a better working relationship with
16 each other. At the White House level, that
17 continues at the Office of Science and
18 Technology, to be that expectation that FDA and
19 EPA and USDA work together on issues that are
20 common to them.

21 MR. CHAPMAN: Thank you, and I
22 realize we are running a little bit over time.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We had two more questions, and if you have a
2 moment, we'll do those, and then we'll thank you
3 for your time.

4 So up next is Dan, and then after
5 that is Scott. Dan?

6 DR. SEITZ: Again, I'd also like to
7 thank you for this opportunity for dialogue. I
8 think it's very rich, very helpful.

9 As a consumer representative on the
10 Board, I have the feeling that a big part of the
11 success of the organic standard has been based
12 on giving consumer choice and also on
13 transparency. You mentioned the anecdote of
14 your mother shopping, and there was a time when
15 people didn't focus so much on things that
16 differentiated the food that they ate.

17 And the organic seal really did fill
18 in an important hole in that, because there were
19 people who were concerned about the quality of
20 their food, how their food was grown, even how
21 animals are treated and so forth.

22 And in a way, I feel that the organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 seal is still very much the gold standard for
2 sending a message to the public about what the
3 quality of food is that's associated with the
4 organic seal.

5 So my question, though, relates a
6 little bit to your idea of a wraparound
7 certification that you mentioned at the start.
8 We're seeing right now a welter of new types of
9 certifications out there in the marketplace. We
10 see grass-fed, or pasture-raised, or cage-free
11 eggs, humanely raised animals. There's talk
12 about a certification type for soil-based or
13 regenerative approaches to agriculture, and you
14 also have this non-GMO project, although
15 interestingly, as part of the organic standard,
16 GMOs are not allowed.

17 But the sense I'm getting is that on
18 both the farmer level, because farmers have
19 different levels that they strive for, and
20 really appreciate the opportunity to be
21 transparent about what they do.

22 And then on the consumer side,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 there's really an appreciation of being able to
2 differentiate, understand where your food is
3 coming from, it seems to me that that's why
4 we're seeing this new welter of new
5 certifications.

6 And even within our process, we see
7 some contentious issues like the question of
8 whether hydroponics should be allowed under the
9 organic standard. So my question is, whether
10 under the organic process, within the NOP,
11 within the work of the NOSB, there may be a
12 place for these wraparound or add-on
13 certifications.

14 I could imagine, for instance, just a
15 simple one like, is the product certified
16 organic and hydroponically grown? That way,
17 you're doing two things: You are providing
18 information to the public, but at the same time,
19 it's within the context of a very well-
20 established and, I think, very thoughtful
21 regulatory process that already is in existence.

22 So I'm curious to know whether there

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 may be a place to satisfy that need for
2 transparency and information, but in the context
3 of the organic standard.

4 MR. IBACH: I think I could spend
5 half a day telling you what I think about some
6 of those different comments, because they're
7 complicated, and they have lots of different
8 issues that are associated with them.

9 One of the dimensions that you talked
10 about is labeling in general, and proliferation
11 of all the labels we see at a consumer level.
12 When we're labeling carrots gluten free and
13 water GMO free, at some point in time, are we
14 going to ruin the meaning of labels to
15 consumers, because they're just like, Come on,
16 what does this mean anymore?

17 And then, is there a responsibility
18 for consumers to know that carrots don't have
19 gluten? Is it even right that we put that on?
20 I'm talking outside organic now, just so that I
21 don't touch nerves, but as we think about
22 labeling -- at some point in time, I'm fearful

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that consumers are going to have so many labels
2 out there that it gets confusing if they don't
3 have meaning behind them, and some regulatory
4 process for putting those labels on, because
5 they do actually have meaning.

6 I think there's also the difference
7 between a system that has regulatory oversight
8 that's based in statute like an organic label;
9 and then there's value in labeling that is
10 driven by market demand and is voluntary. I
11 think both of those have an opportunity and a
12 role to play.

13 And I think that when I was talking
14 about the wrappers -- there was one core that
15 was required to get into the European
16 marketplace; there were others that were put on
17 because we thought they added value to the core
18 program. So I think that's a philosophy that's
19 worth contemplating and discussing as you think
20 about adding labeling opportunities. There are
21 opportunities on a voluntary basis and maybe not
22 regulated opportunities.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I think there's a lot of discussion
2 available in that context. Even when we go to
3 natural -- what does that mean? And sustainable
4 hasn't been defined yet.

5 So there are many terms that people
6 are using on labels that I don't know if
7 consumers, when they go to the grocery store and
8 pick up that product and take it home, if their
9 definition of what they paid for is the
10 definition that went behind that label.

11 MR. CHAPMAN: And our last question
12 is with Scott.

13 MR. RICE: Thank you. This is
14 somewhat of a follow-up on the labeling
15 discussion to a degree, but I also just
16 appreciate hearing about the focus on fair and
17 consistent standards and that being a priority,
18 as a certifier representative, I can certainly
19 appreciate consistent standards.

20 We hear in comments before our board
21 and from producers and certifiers about
22 inconsistent interpretation of the pasture rule,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and we are optimistic that the OLPP rule would
2 address some of those things. We are happy to
3 hear about upcoming unannounced inspections of
4 U.S. dairies, as Jenny mentioned in her remarks.

5 But in the absence of OLPP further
6 defining those pasture standards, your thoughts
7 on how the community might address some of those
8 issues so that we can ensure consumer
9 expectations are met under the label that we
10 already have.

11 We offer the wrapper labels or the
12 PVP; we've worked on a transitional PVP, but
13 have not seen that move forward, despite being a
14 recommendation from this board in the past. I'm
15 just looking for any thoughts you might have on
16 that. Thank you.

17 MR. IBACH: So in a lot of ways, I
18 think we've already talked about a lot of the
19 dimensions that you're asking about. As I walk
20 up to an egg case, especially in Nebraska, it's
21 not quite as diverse as it is in Washington,
22 D.C., or if I go to Steamboat Springs, Colorado,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to the grocery store and what we're out there; I
2 think there are 150 different ways to label eggs
3 at the point of consumption.

4 So we are offering consumers lots of
5 information there. What I worry about is
6 whether or not the labels -- and I think that's
7 what the core -- where we need to start with at
8 USDA in the organic program, and where we are
9 starting -- to make sure there's value in that
10 very first and that very primary label of, Does
11 this meet the U.S. organic standards?

12 And after we have addressed that
13 problem and made sure that we're comfortable
14 that we've achieved the goal that, when a
15 consumer sees that seal, it meets the U.S.
16 standards, and that the international products
17 coming in also meet those U.S. standards --
18 which is a big challenge right now that we've
19 identified -- we have a lot of would to do to
20 make sure, especially on an international basis,
21 that we're meeting that expectation.

22 Then I think we have a chance to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 maybe start talking about some of these other
2 levels and other certifications and other
3 labelings.

4 MR. CHAPMAN: Okay. So it's a little
5 after 10:30. I really want to thank Mr. Ibach
6 for your time here today, taking our questions
7 and having this thoughtful dialogue. I don't
8 know if you have any other closing remarks, but
9 again, thank you for your time. I hope to see
10 you in St. Paul for our next meeting so we can
11 continue this dialogue, and I look forward to
12 working with the administration in the time in
13 between.

14 With that, we will move to a recess.
15 Originally, we were going to recess from 10:15
16 to 10:30; we'll recess until 10:45 and start off
17 with public comment at that time. So please be
18 back in 11 minutes now, at 10:45.

19 (Whereupon, the meeting regarding
20 above-entitled matter went off the record at
21 10:34 a.m. and resumed at 10:52 a.m.)

22 MR. CHAPMAN: All right everyone.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We're going to get started now. If members
2 could take their seats, and if the public could
3 take their seats, as well.

4 Okay, welcome back everyone. We're
5 going to be getting started with public comment
6 momentarily. Just going to take care of some
7 quick housekeeping items.

8 And one of that is WiFi. If people
9 are looking for WiFi, the password is the very
10 hack-proof NOSB2018. N-O-S-B-2018. So that's
11 the password for that. And I need to speak
12 louder, apparently. Okay. Ooh, really loud.

13 So, I'm going to start with speaking
14 about the NOSB conflict-of-interest policy and
15 then I'm going to move into public comment
16 rules, and I'll try to make this as brief as I
17 can.

18 But the NOSB is governed by its
19 conflict of interest policy. It's in accordance
20 with the policy and procedures manual. NOSB
21 members are classified as representatives under
22 the Federal Advisory Committee Act.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Each representative is appointed to
2 articulate the points of interest of their
3 particular interest group. The Organic Food
4 Product Act describes interest groups that
5 include farmers and growers, handlers,
6 certifiers, environmentalists, conservationists,
7 scientists, consumers, public interest groups
8 and retailers, and as such, NOSB members are not
9 expected to provide independent expert advice.
10 Rather, advice based on the interests of the
11 groups they serve.

12 NOSB members represent interests of
13 that particular group, and as such, those
14 interests are considered acceptable interests.

15 Interests. Any interest that is
16 acceptable, that is carried down by half of the
17 represented group, and if the Board member
18 receives no disproportionate benefit, expressing
19 that interest.

20 True conflicts of interest arise when
21 the interest is direct, or disproportionately
22 benefits a person associated -- the person or

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the persons associated with that member, could
2 impair the member's objectivity in representing
3 their group, or has the potential to create an
4 unfair competitive advantage.

5 The appearance of a personal conflict
6 and loss of impartiality, while not a true
7 conflict, must also be considered when
8 conducting NOSB business.

9 Once discussion documents and
10 proposals are posted for public comment, each
11 NOSB member is to review those documents across
12 all the subcommittees, researching potential
13 conflicts of interests, due to their
14 organizational affiliations or relationships,
15 and disclose those to the NOSB and NOP.

16 Prior to the meeting, the program
17 provides a matrix to all NOSB members that lists
18 the items being considered for the meeting.
19 Members use this matrix to disclose conflicts of
20 interest for us to reference recusals when
21 voting on those items -- voting or discussing
22 those items.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 If an individual's unsure if they
2 have a conflict of interest, the question's then
3 posed to the NOPDFO, and working with the USDA
4 Office of Ethics, as needed, will make a
5 determination as to whether a conflict exists.

6 There were no recusals at this
7 meeting and, therefore, we won't be reminding
8 Board members at the start of each subcommittee
9 about the need to recuse themselves. If Board
10 members wish to disclose any information at this
11 time about their interests, they're welcome to
12 do so, but not required, given it's already been
13 done. Does anyone wish to make a statement?

14 Seeing none, we'll move on to some
15 housekeeping about public comments. I asked
16 folks to be courteous to their neighbors, public
17 commenters and to the Board, please silence your
18 phones, computers, and take any conversations
19 outside to the hallway.

20 Please try not to be distracting to
21 the Board or presenters if walking around, or
22 using media to document the meeting. We have

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 stanchions placed and tables. We ask the public
2 to refrain from coming behind the Board, as it's
3 distracting to Board members listening to the
4 testimony and deliberating on issues.

5 This isn't to deter public
6 interaction with individual members during
7 breaks, and I remind the public that photography
8 use and other media is allowed at this public
9 meeting.

10 We've provided some space off to the
11 side of the podium for members to take photos of
12 speakers as necessary, but I ask that you don't
13 get distracting and block the speaking members,
14 and come between the speaking public and the
15 Board.

16 Those being disruptive will be
17 warned, and if disruptions continue, we will ask
18 those individuals to leave the meeting.

19 To start public comment, I want to
20 remind folks of some of the requirements
21 outlined in the policies and procedures manual.
22 Comments are three minutes. The lighting will

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 start after you do your name and affiliation.

2 It starts with green. A yellow
3 warning light comes at one minute left, and then
4 when the time up -- when the time's up, a red
5 light will flash and a sound will beep. Please
6 finish your sentence at that red light.

7 While I hate interrupting folks, we
8 need to ensure equal access. And so, I ask that
9 you finish that sentence as quickly as possible.
10 But don't run away from the podium just yet,
11 because we may questions from the Board as well.

12 If you have a presentation, there's a
13 remote up there that you can use to move the
14 slides forward. And if you have a presentation,
15 make sure you get it to Michelle well before
16 your time on the schedule.

17 I'll be asking everyone to start by
18 stating their name and affiliation for the
19 record. We ask that you disclose all relevant
20 affiliations pertaining to matters of business
21 before the Board. If members want further
22 clarification, I encourage you to ask questions

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 after the commenter has finished.

2 Just some more -- please get to the
3 next slide -- just more items to bring up. No
4 proxies are allowed. Commenters shall refrain
5 from making personal attacks or remarks that
6 might impugn the character of any individual.

7 If I hear something of this nature, I
8 will interrupt the commenter and ask him to
9 refrain from the activity. We ask that public
10 commenters please be clear and succinct in your
11 comments. It's your time to talk on the
12 subjects that you wish, but please keep in mind
13 that we can only hear so many words within a
14 three-minute time span. So, speed-reading might
15 not best -- might not be the best way to get
16 your comments to us.

17 That's it. Michelle, did I miss
18 anything? Okay. I talked about the timer.
19 Yeah. Okay. So, up first is Kelly Damewood.
20 On deck is Phil LaRocca, CCOF, followed by Zea
21 Sonnabend.

22 Before we start with public comment,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I realize we had one question that I skipped
2 over -- I inadvertently missed from the program
3 report. So, I was hoping that Jenny -- not to
4 put you on the spot, you might be able to field
5 the questions from Harriet.

6 MS. BEHAR: Hi, Jenny. I am
7 wondering if there are plans for another peer
8 review for this year of the National Organic
9 Program's accreditation program.

10 DR. TUCKER: Yes, there is. We have
11 contracted again with ANSI, and it's actually
12 scheduled for, I think about two weeks -- two or
13 three weeks from now. They will be
14 coming -- we've modified it this year to have
15 them come onsite.

16 It's been virtual for the last couple
17 of times, and we all agreed that it would be
18 best if they came and just sat with us. So,
19 they're going to actually be with us almost a
20 full week going through records.

21 In the -- do you want -- I can share
22 a little bit more data if -- okay. We

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 are -- the peer reviews have been super helpful.
2 I've -- at the end of the November
3 meeting -- and I sort of shared what some of the
4 findings have been. We have found that the peer
5 reviews -- last year it ended up being a lot
6 of -- you know, they didn't sign this document,
7 or they didn't sign that document, or this
8 procedure needs to be updated.

9 So, with some of the challenges that
10 we're having right now in import oversight in
11 particular, we've asked them to really focus
12 actually on a set of sort of accreditation
13 documents that are directly related to some of
14 the challenges that we're having right now, so
15 we have a fresh pair of eyes that are looking
16 at, okay, how are we doing accreditation audit,
17 and are we finding what we really need to find
18 in this environment?

19 And so, we're kind of -- so it's
20 still the exact same process that we've used in
21 the past, but we have asked them to look through
22 it through different eyes, through a more

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 systems-level eyes of, are we doing everything
2 we possibly can through the accreditation
3 process to detect some of these problems in a
4 better way?

5 So, I'm actually really eager and
6 interested to see what they come back with. I
7 think they're going to come back with some
8 different kinds of recommendations, instead of,
9 well, you didn't update this procedure.

10 I think that they're going to be more
11 foundationally system-driven. And so, that's
12 why we crafted it a bit differently this year,
13 so we can get feedback from a third party.

14 So, short answer, yes. We are doing
15 a peer review, and we find them helpful.

16 MS. BEHAR: Will it be just ANSI, or
17 there will be some outside --

18 DR. TUCKER: So, they have, again,
19 convened a team, as they have in the past. I
20 don't have all of their names. This time we
21 have Organic folks, but we also have folks who
22 are not from Organic, that are taking -- who

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 don't know us, but do know quality systems, and
2 do know oversight and do know systems thinking.

3 And so, I think it's going to
4 be -- it's a -- because of that, ANSI decided to
5 add an extra person. We didn't ask them to, but
6 they've added an extra person.

7 The other thing they're doing is,
8 there has been an update to
9 ANSI's -- the -- whatever the number is -- and I
10 know I should have this memorized, but I don't
11 remember the number --

12 MS. BEHAR: Is that 17011.

13 DR. TUCKER: Thank you -- 17011. So,
14 ANSI has updated 17011 into -- in the new one
15 has either just been released, or is about to be
16 released, has a risk-based component to it, in
17 terms of risk-based systems management.

18 And so, they're also going to be
19 doing a bit of a gap analysis between the
20 existing 17011 that we're using, and the brand
21 new one, so we can figure out what do we need to
22 do as a program, to incrementally change our

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 operations to be consistent with the latest
2 standards.

3 So, they're doing a gap analysis,
4 which is also part of why they're also bringing
5 another person in. So, we have a really strong
6 team that's managing that process within NOP and
7 facilitating documents.

8 And, again, we'll be kind of holed up
9 with them for a whole week on this, coming up
10 fairly soon, which means that at the next
11 meeting we'll present the findings of that week
12 and the past, publish the report online as well.

13 MS. BEHAR: Thank you.

14 DR. TUCKER: Yeah, thank you. Good
15 question.

16 MR. CHAPMAN: All right. So, we'll
17 move on to public comment. First up is Kelly,
18 followed by Phil. Phil, there's an on-deck
19 chair for everyone. There's an on-deck chair
20 over here behind Michelle. And Kelly, if you
21 can start with your name and affiliation for the
22 record.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. DAMEWOOD: Hi. My name is Kelly
2 Damewood. I'm the Director of Policy and
3 Government Affairs for CCOF. We're a non-
4 profit, organic certification agency and member-
5 based advocacy organization based in Santa Cruz,
6 California.

7 I'll admit, I was a little alarmed to
8 see I was the first speaker today, but I am
9 relieved to say that I am speaking on a far less
10 controversial topic than our last few meetings
11 together.

12 Today, I just want to elaborate on
13 our written comment regarding the native
14 ecosystems proposal. CCOF is not opposed to
15 this proposal. We, of course, support the goal
16 to protect native ecosystems, and are not
17 opposed to moving this proposal forward if the
18 NOSB believes this is the best tool to achieve
19 that goal, the right means to the end.

20 Our general sense is, the goal of
21 protecting native ecosystems, of protecting
22 fragile habitats and species, is actually best

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 achieved through local, state, federal and
2 international policy, and very much believe
3 Organic needs to be at the table working on
4 those broad issues.

5 Because at the end of the day, a ten-
6 year waiting period to convert to organic may
7 disincentivize conversion to organic, but it
8 does nothing to stop conversion to conventional.
9 So, in some senses, you could see a disincentive
10 to convert to organic as an incentive to expand
11 and perpetuate conventional production.

12 What CCOF would propose is that if
13 it's appropriate to consider disincentives
14 within the standards, we should also consider
15 incentives in the standards. In
16 California -- the state with the highest volume
17 or organic production -- less than four percent
18 of our agricultural land is farmed organically,
19 and less than one percent nationally.

20 So, we really do have sufficient
21 agricultural land in the United States to
22 support healthy, productive organic systems.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So, what we would propose is that we consider
2 how to move the needle. How to help growers
3 overcome the three-year transition period and
4 other barriers to organic. We should also be
5 exploring incentives to convert existing
6 agriculture land.

7 So, again, in sum, we are not opposed
8 to the proposal, and would welcome the
9 opportunity to explore incentive-based
10 approaches. Thank you.

11 MR. CHAPMAN: I have a question, then
12 Harriet. So, what -- do you have examples of
13 incentives that you would propose?

14 MS. DAMEWOOD: No. We haven't
15 thoroughly thought through what the
16 possibilities could be. You know, I think there
17 have been efforts around a market for a
18 transitional label. And I'm not saying that
19 that's something we would support or not, or
20 what the merits would be, but that's one idea.

21 Another idea we have tossed around
22 is, would it be possible to allow transitional

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 ingredients in that five percent allowance and
2 process products? Again, just an idea we've
3 tossed around. Nothing we've thoroughly vetted.

4 But if the NOSB wants to consider
5 this disincentive in the standards and would put
6 out a call for proposals on incentives, we would
7 thoroughly explore those options.

8 MR. CHAPMAN: Harriet?

9 MS. BEHAR: Do you think there's
10 something in research priorities that we could
11 add that might help us discover what incentives
12 could be? I'm just thinking about things that
13 we can actually do on the NOSB. So, I'm
14 wondering if maybe we could put in the research
15 priorities.

16 MS. DAMEWOOD: I think you could put
17 it in the research priorities in terms of
18 production barriers during that three-year
19 transition period. Yield -- you know, how to
20 increase yields during those three years.

21 I guess what we're referring to more
22 is, if we're looking at the standards itself at

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 disincentives, are there areas in the standards,
2 like allowance of some percent of transitional
3 product -- you know, not saying that's the right
4 solution, but, you know, can we look in the
5 standards itself to look at ways to support
6 growers who seek to convert conventional land?
7 And I'll think more on the research question and
8 follow up.

9 MR. CHAPMAN: Dave, then Emily.

10 MR. MORTENSEN: The research -- and
11 we've actually done some of this in my
12 lab -- that underpins the thinking in this
13 proposal strongly indicates that in landscapes
14 with predominantly ag use, it's the slivers of
15 non-disturbed land that contain upwards of 80
16 percent of the biodiversity, even when they only
17 occupy five or ten percent of the land area.

18 And so, it's the goal of this
19 proposal that we are stewarding that
20 biodiversity. And at the same time, it's ironic
21 that we have implemented numerous federal
22 programs -- like EQIP and others -- to increase

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 biodiversity, when we actually know that the
2 slivers of undeveloped space are sort of the
3 hotspots of biodiversity within our agri-
4 ecological matrix.

5 MS. DAMEWOOD: Right. I agree, and
6 completely understand and support that goal.

7 MR. CHAPMAN: Emily.

8 MS. OAKLEY: I just really wanted to
9 thank you for your comments, and I also wanted
10 to say that, you know, coming from a state like
11 California that has quite a bit of regulation, I
12 think that can be a good tool in those
13 instances.

14 But coming from a state like Oklahoma
15 that doesn't have nearly as much regulation,
16 this can be a tool to help even that playing
17 field out. So, just a comment.

18 MS. DAMEWOOD: Yeah, well exactly,
19 Emily. You know, my sister lives in Oklahoma,
20 so I completely understand the differences
21 between the regulation in California versus
22 Oklahoma.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And one question we would have is,
2 are there regional approaches we could take?
3 Santa Cruz County, where CCOF is located, has
4 incredibly robust regulation.

5 I'm confident that an organic
6 producer cannot convert a native ecosystem in
7 our county. Yet, keep in mind that this
8 requirement would apply to every new
9 application, every new parcel added, so it's
10 going to be an additional requirement for all of
11 those growers, regardless of your region.

12 So, one more requirement, one more
13 cost, you know. It's already challenging for
14 certain populations to show three-year land use
15 history. I'm not saying CCOF can't do it, we
16 can't figure it out, because we would -- you
17 know, if this passes, we would be at the table
18 to work on how to figure it out.

19 So, I think we would ask that maybe
20 some regional consideration, but I completely
21 recognize the differences.

22 MR. CHAPMAN: Thank you.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. DAMEWOOD: Thanks.

2 MR. CHAPMAN: Up next we have Phil,
3 followed by Zea. Phil, if you could start with
4 your name and affiliation.

5 MR. LaROCCA: Good morning. My name
6 is Phil LaRocca. I'm the owner and winemaker of
7 LaRocca Vineyards, and I am also -- excuse
8 me -- the Chairman of the Board of Directors for
9 CCOF.

10 Like Kelly, I think if I was number
11 two in the line at a ski slope, I'd be a little
12 bit more excited than to be number two to
13 address everybody here.

14 But I'd like to talk about the issue
15 of drift a little bit. It's always been a
16 concern to myself personally, but also to the
17 entire organic industry. And when I'm referring
18 to drift, I don't just mean pesticide/herbicide,
19 but also GMO drift.

20 I've had this discussion a lot at
21 CCOF, and in my heart, my true belief -- to be
22 fair to the organic industry, the organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 consumer, the organic grower -- there's should
2 be a zero tolerance level.

3 But the negative side of that is that
4 some innocent grower could be affected by that,
5 and I personally have seen a grower be put out
6 of business because their crop was drifted by
7 GMOs in the Midwest.

8 A very sad affair, and I honestly
9 cannot justify seeing that. So, yesterday I was
10 talking to a past NOSB member. He mentioned
11 that there was a whitepaper that this board
12 reviewed several years ago regarding a
13 Superfund, that dealt with pollution, government
14 pollution.

15 And certainly, if you are drifted by
16 roundup, you are being polluted if you are an
17 organic farmer. So, I guess what I'm asking is
18 this Board to re-look up that whitepaper, and
19 maybe take some interest in that and see what we
20 can do as a group about pesticide and genetic
21 drift.

22 I know it may be an impossibility of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 money from the government for something like
2 that, but if we look at it that way, as an
3 impossibility, it will be. So, we got to take a
4 step forward.

5 The next thing I'd like to talk about
6 briefly is sulfur. I've been using sulfur for
7 over 47 years, in both growing apples and
8 grapes. I mostly use a mined, elemental sulfur.
9 I have used dust in the past, but as the guy
10 putting it on, I hated it, and so when my sons
11 were going to follow me, I didn't feel fair.

12 But I see nothing wrong with it as a
13 material, and I was -- mentioned another
14 farmer -- organic farmer friend of mine
15 mentioned that the duster that I was using in
16 the '70s is way improved on in the 21st century.

17 But I also want to make the point
18 that I'm constantly being bombarded with new
19 fungicides for powdery mildew. And what's
20 interesting is, every one gets replaced by
21 another one, because what we're seeing in the
22 industry -- especially the grape

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 industry -- that powdery mildew is getting
2 tolerant to these synthetic fungicides.

3 And they actually recommend to the
4 grower that you don't use the same fungicide
5 that you intermix. The only one that can be
6 consistent through all these years is elemental
7 sulfur.

8 And it's kind of funny, but one of my
9 old mentors was John Parducci, and he told me
10 that 2000 years ago, the Romans used sulfur.
11 They used to hang them underneath their
12 grapevines.

13 And one of my sons was with me, so
14 he's got six vines by his house, and he hangs
15 bags of sulfur, and he doesn't get mildew.

16 MR. CHAPMAN: Thank you.

17 MR. LaROCCA: Thank you.

18 MR. CHAPMAN: Thank you, Phil. Any
19 questions? Asa, then Harriet.

20 MR. BRADMAN: I just wanted to thank
21 you for your comments, and also ask about sulfur
22 and dust versus wettable solutions. We've had

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 some conversations with, I think it's Greg Clark
2 and -- is it Tom Linegar at -- from Sonoma?

3 And at least in Sonoma, they've been
4 encouraging moving away from dust applications.
5 And I'm wondering if you feel that the wettables
6 are as efficacious or not, and other issues with
7 cost or relative balance, and if there would
8 be -- if it would make sense to discourage the
9 use of dust in organic applications.

10 MR. LaROCCA: Well, here's the
11 advantage if you're using wettable, which we do.
12 I haven't used dust since 1982. But you're
13 running a spray rig in your vineyard. So, if
14 it's -- your ground is wet, it's easier to just
15 hook a small duster in the back that's -- a
16 great grower friend of mine uses that only when
17 he can't get in the vineyard.

18 But there are times when you're under
19 such distress for powdery mildew, that to have
20 that tool to be able to go in, in that moment,
21 where you can't go in with a big rig with 400
22 gallons of water behind you, I think is valuable

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to keep dust on the list.

2 Again, I don't use it. I didn't like
3 it because it was really annoying to me as the
4 guy putting it on.

5 MR. CHAPMAN: Harriet.

6 MS. BEHAR: So, on pesticide drift, I
7 know when Miles was deputy administrator, there
8 was discussion with inside the National Organic
9 Program about putting out some guidance.
10 Because right now, you can't get crop insurance,
11 doesn't cover it.

12 Basically, the only thing that you
13 can do is litigate. And in many areas, it's
14 hard to get a settlement based on the organic
15 price, or even in understanding -- in Minnesota
16 you don't even lose your organic certification
17 if you get drifted upon, according to the
18 Minnesota Supreme Court.

19 So, I just am wondering -- it's not
20 necessarily fulfilled, but wondering if inside
21 the National Organic Program, if there would be
22 some guidance to actually have the National

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Organic Program somewhat state that, in very
2 clear terms, that land that has gotten drifted
3 cannot be sold as organic.

4 And also to give some more
5 consistency to certifiers, because some will say
6 just that crop is not certified, some will say
7 it's one year, two years, three years, they add
8 extra buffer zone, there is not consistent
9 implementation what happens on an organic farm,
10 and as well just loss of certification.

11 DR. LEWIS: Thank you, Harriet. So,
12 I'll try to respond to the question. So, yes,
13 we're aware of the issue. It's an area that we
14 have been looking at over time. Obviously, we
15 have a number of competing priorities up -- we
16 spoke about the past hour.

17 So, we don't have a guidance drafted
18 at this time, but something that we recognize.

19 MR. LaROCCA: Thank you.

20 MR. CHAPMAN: Thank you. Thank you,
21 Phil. Up next I have Zea, followed by Richard
22 Wallick.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. SONNABEND: Hello, everyone. I'm
2 Zea Sonnabend, representing CCOF, a small farmer
3 from Fruitilicious Farm in Watsonville,
4 California, and a former NOSB member in the
5 scientist's seat.

6 I am also one of the people who's
7 been coming to many of these meetings since
8 almost the very beginning, so I am a potential
9 historical resource for you, if you have
10 questions of what might have gone on in the
11 past.

12 Today, I'd like to talk about a few
13 issues of interest to CCOF and their growers.
14 First of all, the seed integrity discussion
15 document. We thank you very much for keeping
16 this work in front of the public. We need, I
17 think, to move towards a goal in the future, of
18 adopting some sort of threshold to assure the
19 genetic integrity of seeds, both organic and
20 non-organic.

21 We recognize that it's a complicated
22 issue and it really needs people with

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 specialized expertise if you're going to take on
2 the issue of testing protocols and
3 quantification of pollution and interpretation
4 of results.

5 And so, we very much urge you to try
6 to keep the effort moving forward to appoint a
7 seed purity task force, which is something the
8 NOSB has now been asking for, for close to a
9 year. No, close to two years in August. And
10 would really help you deal with some of the
11 issues that you don't have your own expertise to
12 resolve.

13 Meanwhile, we think it's important to
14 keep working on it and focus on concrete actions
15 and action steps that can keep this moving
16 forward, until a task force can be appointed and
17 hammer out the details.

18 So, one of these would be to
19 encourage growers to hold back seed samples of
20 their at-risk seeds for 18 months, and my
21 colleague, Jake Lewin, will speak a little bit
22 more about that later.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Next, we had a proposal that was
2 presented when I was on the Board on
3 strengthening the requirements for the use of
4 organic seed, that has been worked on several
5 meetings, and is almost done, and we were hoping
6 to see it at this meeting. And it is not here.

7 So, we would like to strongly
8 encourage you to keep moving forward and come to
9 a proposal, a recommendation, on that.

10 And then, partially moving on from
11 seed, I want to remind both the NOSB and the NOP
12 that in 2016 the Board adopted clarifications
13 for guidance on excluded methods.

14 This work is urgently in need of
15 being formalized so that the GMOs are kept out
16 of organics. I realize that you're under
17 pressure from the rest of the USDA to relent,
18 but the organic community is firmly behind, and
19 it was a unanimous vote to pass definitions,
20 criteria, and more for guidance.

21 And I can talk about sulfur if anyone
22 has a question.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Thank you, Zea. Emily?

2 MS. OAKLEY: Can I ask you about
3 polyoxin D zinc salt, as well? Because that was
4 originally petitioned when you were on the
5 Board.

6 MS. SONNABEND: Yes.

7 MS. OAKLEY: So, I just wanted to
8 know if the concerns that the Board expressed in
9 2012 you felt were resolved in this current
10 petition?

11 MS. SONNABEND: Okay. First of all,
12 take off my CCOF hat for this, because CCOF does
13 not take a position on new petitions. But I did
14 review it as a scientist on the Board, and I did
15 -- felt that the new information and the
16 information presented to the Board was enough to
17 satisfy many of the concerns we have.

18 And I think it is a material that
19 could be very useful. In my area, for instance,
20 you almost cannot grow basil outside anymore,
21 because of downy mildew. And so, it's really a
22 necessity in order to produce many of the crops.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And also, what we're just -- what was
2 just being spoken about, about resistance
3 management, so they can alternate materials.
4 Those are important considerations.

5 MR. CHAPMAN: Harriet?

6 MS. BEHAR: Do you feel that having
7 transparency on the seed tag for at-risk crops
8 is maybe a first step towards looking at
9 possible thresholds? Or do you feel that that
10 would not be a useful tool?

11 MS. SONNABEND: No. I do think that
12 would be useful, but I'm not sure if you have
13 the ability to require it for non-organic seed.
14 You know, that's something -- for organic seed,
15 you could, I suppose, put an additional
16 requirement that bags be tagged.

17 But I think you really would need to
18 poll the seed production community to see if
19 something scary would end up on the tag that
20 would then put them out of business. So, I do
21 think it's an action step to explore, for sure.
22 But whether we're ready for it I'm not

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 too -- I'm not positive.

2 MR. CHAPMAN: Asa.

3 MR. BRADMAN: I'm just asking you
4 about sulfur.

5 MS. SONNABEND: Thank you. Well,
6 first of all, I'm glad that the Board decided
7 the research that was done by you and your
8 group, it is well-conducted research, and does
9 point to some areas of concern.

10 It's not enough by itself to build
11 the case to take some form of sulfur off the
12 list. It's not replicated, it doesn't
13 distinguish between wettable and dusting sulfur.
14 While both are used in the Salinas Valley, but
15 it's not a real clear -- because you didn't
16 study which fields were dusting sulfur, and
17 which fields were wettable sulfur, you don't
18 know that one or the other is causing them.

19 I would like to point you
20 particularly to the comment submitted by Juan
21 Hidalgo in the public record, who is the Ag
22 Commissioner for Santa Cruz county, and it's

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 particularly about sulfur use in strawberries,
2 which it would be the main crop that gets sulfur
3 applied in the Salinas Valley.

4 There's grapes in the southern part
5 of the valley, but it's mostly strawberries that
6 would have it there. And he talks a lot about
7 mitigation measures.

8 And if you just follow the label
9 instructions for the proper protective equipment
10 and the wind -- there are wind requirements,
11 that you don't spray when it's too windy -- and
12 he believes that a lot of it could be just
13 solved with label enforcement -- a lot of the
14 drift issues.

15 Secondly, I would really refer you
16 to the -- we compiled comments from CCOF growers
17 about the reasons why they could or couldn't use
18 wettable versus dusting. Many of the ones who
19 say they only use wettable, are only in tree
20 fruit.

21 Like, I use it on my tree fruit. I
22 wouldn't -- do not need dusting sulfur. But the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 berries, the grapes, and there was one person
2 who said they used it on their melons, you know,
3 very low to the ground crop with mildew
4 problems, and those are the issues. Some of
5 them said they didn't even have water, they had
6 dry farm grape orchards, and it would be hard to
7 fill up their spring tanks with water.

8 Some of them would have to buy new
9 equipment. The sprayer that we have costs, you
10 know, \$12,000, and that's not even that big of a
11 one. So, there's some very real issues, which
12 are obstacles to the growers for being able to
13 make that change.

14 So, if you want to make that change
15 in the future, you really need to build a case
16 and study it quite thoroughly.

17 MR. CHAPMAN: Thank you, Zea. A-Dae?
18 So, okay. I think Paul had a follow-up?

19 DR. LEWIS: Thank you, Zea. I just
20 want to follow up in terms of some of the
21 comments about excluded methods, and Harriet
22 might want to add to this also.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Since the Board met at our last
2 meeting, the Department hired a biotechnology
3 coordinator, Fan-Li Chou, who serves a role
4 dealing with biotechnology issues across
5 Department.

6 We were fortunate to invite her to a
7 recent material subcommittee meeting. So, this
8 provides an opportunity for her to share with
9 material subcommittee, in terms of what's
10 happening with biotechnology issues across
11 Department, and to help material subcommittee
12 with their work in excluded methods.

13 So, Harriet might want to at least
14 add to some of that. But in terms of what we
15 see her role is, an important liaison role
16 between the Department and material
17 subcommittee, in terms of excluded methods work.

18 MS. BEHAR: Why would someone who is
19 promoting biotech help the Board keep biotech
20 products out?

21 DR. LEWIS: It's not that -- an issue
22 of promoting. It's more in terms of informing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the subcommittee in terms of the work that's
2 happening across the Department.

3 MS. BEHAR: The few terms that are
4 still left to review? Because the others have
5 been decided.

6 DR. LEWIS: In terms of
7 that -- helping the Board in terms of its work.

8 MS. BEHAR: Mm hmm. Okay. Well, we
9 hope that it does stay on the work plan.

10 DR. LEWIS: And it is. Thank you.

11 MS. BEHAR: So, we did have some
12 discussion with Dr. Chou, and there was an
13 understanding that the National Organic Program
14 does have the statutory authority to choose
15 which methods are excluded.

16 So, we're -- there is a little bit of
17 a discussion on which -- what is the meaning of
18 biotechnology, and which materials would fit
19 under a USDA definition, and Codex, and National
20 Academy of Sciences, and all of these things.

21 But our rule is structured in a way
22 that we're looking at methods as excluded. And

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 so, if they fall under what we've worked out for
2 the terminology and the criteria and the
3 definitions of what should be excluded, I think
4 we do have that authority.

5 So -- but we want to make sure that
6 the rest of the USDA and the rest of the
7 government is also -- understands where we're
8 headed. So, we're trying to open those channels
9 of communication.

10 MS. SONNABEND: And that -- you know,
11 we were careful to craft our sub-definitions
12 under excluded methods to be consistent with
13 international norms, with Codex, with IFOAM, and
14 with the other entities in the rest of the world
15 that are tackling the same issues.

16 MR. CHAPMAN: Thank you.

17 MS. SONNABEND: Thanks.

18 MR. CHAPMAN: Up next we have Richard
19 Wallick, followed by Jenny Cruse.

20 MR. WALLICK: My name is Rich Wallick
21 and I have no affiliations whatsoever. OMRI,
22 with products by Monsanto, Dow, Bayer and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 commercial compost that contain lead, arsenic
2 and cadmium, for use under USDA Organic. Next
3 slide, please.

4 According to the USDA, NOP 3012, and
5 other USDA instructions document, certifiers
6 cannot accept OMRI-approved materials for
7 organic production, and must verify them
8 themselves. Next slide, please?

9 We have here a document, it is Notice
10 of Non-Conformance, issued to OMRI by the USDA.
11 It is redacted completely, including dates.
12 Next slide, please.

13 We have here a complaint issued by
14 NOP to -- regarding OMRI, that OMRI has
15 incorrectly evaluated and approved the product,
16 and that OMRI has refused to immediately delist
17 the product containing, in this case, natamycin,
18 as directed by NOP. Next slide, please.

19 We have here the result of the
20 investigation done by the USDA. As you can see,
21 the investigation clearly states, based on NOP
22 rulings, OMRI is non-compliant to the NOP rule.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 They remain in conformance with ISO/IED 17065.

2 OMRI has followed all the procedures
3 in their manuals that represent the quality
4 management system. 17065 accreditation is not
5 to the NOP. It is independent of the NOP. It
6 does not require OMRI to abide by the Organic
7 Food Production Act, USDA regulation, or NOP
8 directives, according to the USDA. Next slide,
9 please?

10 ISO 17065 certification is eligible
11 only for accredited, certified bodies or
12 entities. According to the USDA itself, the
13 QADs are granted OMRI ISO certification.

14 Accreditation to these standards is
15 contingent upon certification body being in good
16 standing as a USDA NOP-accredited certifying
17 agent. OMRI is not a USDA NOP-accredited
18 certifying agent. That's it.

19 MR. CHAPMAN: Thank you. Any
20 questions? Thank you. Up next we have Jenny
21 Cruse, followed by Beth Rota. Jenny, you can
22 start with your name and affiliation for the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 record.

2 MS. CRUSE: I'm Jenny Cruse,
3 coordinator for the Accredited Certifiers
4 Association. The ACA mission is to ensure
5 consistent implementation of the USDA organic
6 regulations through collaboration and education
7 of accredited certification agencies, and over
8 90 percent of US-based certifiers are accredited
9 by the USDA National Organic Program are members
10 of our organization.

11 Our comments for today are in
12 response to the CACS's questions of whether
13 reporting of whether reporting of production
14 acreage and yield information to the organic
15 integrity database would strengthen global
16 organic control systems, and whether this
17 information is currently accumulated by
18 certifiers.

19 In the ACA best practices on
20 verifying traceability in the supply chain, the
21 working group concluded that lack of
22 transparency and production in marketing was a

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 barrier to ensuring organic integrity on a large
2 scale.

3 Part of the problem is that there
4 isn't a clear picture of the total organic land
5 base to enable a mass balance calculation across
6 the supply chain.

7 The working group further concluded
8 that certifiers should all submit data on
9 organic acreage for inclusion in the organic
10 integrity database. However, we recognize that
11 not all certifiers are readily able to do this,
12 and that use of various databases makes it
13 difficult to implement a uniform solution.

14 In response to the CACS's discussion
15 document questions on this topic, we conducted a
16 survey of our membership. We received responses
17 from 29 out of 54 of our certifier member
18 organizations, a response rate of 53.7 percent.

19 I provided a report of this
20 information in the AC's written comment
21 submitted on April 4th. We collected a few more
22 survey results since then, and I'll leave an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 updated report here with Michelle for reference.

2 When asked whether including
3 production acreage information in the organic
4 integrity database would strengthen global
5 organic control systems, 50 percent said yes,
6 about 29 percent said maybe, and about 21
7 percent said no.

8 When asked whether, given current
9 resources, organizations could readily -- within
10 two hours -- report on total organic acreage by
11 crop type and state, within a five percent
12 margin of error, about 17 percent answered yes,
13 about 22 percent said maybe, and about 62
14 percent said no.

15 When the no respondents were asked
16 what amount of time would be sufficient to put
17 into place a system to enable this, about 37
18 percent said it could happen in less than a
19 year, 30 percent said a year to two years, 12.5
20 were uncertain, 21 percent said they could not
21 practically implement such reporting given
22 current resources.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We support further conversation on
2 this topic, recognizing the importance of
3 production and marketplace transparency, but
4 also acknowledging the challenges inherent in
5 moving toward data systems that are more robust,
6 transparent and useful.

7 The solution isn't clear, but further
8 conversation is important, and we look forward
9 to that.

10 MR. CHAPMAN: Questions. Harriet?

11 MS. BEHAR: Hi, Jenny. I'm wondering
12 how much communication there is between
13 certifiers if clients of the certifier has a
14 question. Can they work through their own
15 certifier if they're not getting answers from
16 the certifier of the supplier of the product
17 they're trying to buy?

18 MS. CRUSE: One thing that kind of
19 came about, or was noted as a challenge during
20 the working group project on traceability, was
21 kind of a lack of uniformity on understanding of
22 what information is okay to share during either

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 a process of investigation, or an inquiry that
2 is maybe less formal. So, that was noted as a
3 challenge.

4 MR. CHAPMAN: Dave?

5 MR. MORTENSEN: Jenny, I was
6 wondering if you were to do a triage, what might
7 be the one or two most impactful steps to take
8 to increase our understanding of what's out
9 there and how much? What might they be?

10 MS. CRUSE: My perspective is that
11 conversation with our European counterparts is
12 very important. It seems that they have made
13 strides that we haven't quite made yet, and they
14 have given us some great guidance so far. And I
15 think that conversation is pretty critical.

16 I also, when I heard the phrase
17 research priorities earlier today, I kind of
18 went, hmm. So, those are my two current
19 thoughts on that.

20 MR. CHAPMAN: Do you have some of
21 those European examples you could share with us?

22 MS. CRUSE: We had a couple of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 members of the working group. I could get you a
2 list of participants and kind of the
3 contributions that they made. I'm afraid I
4 don't have it at the top of my head.

5 MR. CHAPMAN: That would be great.
6 Thank you.

7 MS. CRUSE: Mm hmm.

8 MR. CHAPMAN: Thank you very much.
9 Up next is Beth Rota, followed by Shannon Helms.
10 Beth, you can start with your name and
11 affiliation.

12 MS. ROTA: Good morning. My name is
13 Beth Rota and I work with Quality Certification
14 Services. QCS is a USDA-accredited organic
15 certifier. We certify over 1400 NOP certified
16 operations in more than 40 states and more than
17 ten countries.

18 And this morning I want to talk
19 really briefly about imports oversight. The
20 NOSB put together a great discussion document
21 with a lot of questions, and I wanted to cover
22 some of those from a certifier perspective, and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 elaborate on my written comments.

2 First, I would like to applaud the
3 presentation from the NOP this morning, and the
4 USDA really taking the lead in gathering and
5 analyzing data. And I think that's going to do
6 a lot to move us forward as an industry, and I'd
7 like to see that continue, and to have, you
8 know, just continued leadership for the supply
9 chain oversight.

10 And I think we need to not limit
11 ourselves to just looking at the oversight of
12 imports, but to looking at the entire supply
13 chain, and where there is the risk of fraud in
14 the entire supply chain, because it's not
15 limited to just imports.

16 And as a certifier, when we're look
17 at the supply chain, it's very piecemeal. We're
18 really only looking at one step back in the
19 process. When we're reviewing -- doing a sample
20 audit or a sample mass balance, a traceability
21 audit as part of our inspections, we're just
22 going back to the last certified organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 producer in the supply chain.

2 And so, we don't have the -- we
3 really don't have a whole transparent picture of
4 the entire supply chain, and I think that's
5 where we need some leadership from the NOP that
6 they have more information, or access to more
7 information, than just any one certifier can
8 get.

9 And we touched on -- you touched on a
10 couple of these topics this morning, and I think
11 they're really important, and the questions that
12 were in your discussion document.

13 We do think that all the documents
14 that are issued by handlers or by certifiers,
15 should identify the product as organic, but it
16 may not be feasible to require documents that
17 are issued by other agencies outside of the
18 purview of the certifier, to identify
19 docu- -- the product as organic.

20 Things that are issued, you know, at
21 the port of entry, like you were talking about,
22 the CEBP doesn't currently have a way to mark

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 products as organic, so it'd be important to
2 work on that. But we can't enforce that, as
3 certifiers.

4 Also, requiring organic certification
5 for all handlers in the supply chain, including
6 importers, would really do a lot to increase
7 oversight and detect and deter fraud.

8 One of the things that doing that
9 will cause is a big growth in the industry, and
10 certifiers will need help to be able to handle
11 that growth in the amount of operations that
12 we're certifying.

13 And so, we ask the NOSB and the NOP
14 to support certifiers, as we have to train new
15 staff and new inspectors to meet that demand.
16 Thank you.

17 MR. CHAPMAN: Questions?

18 MS. DE LIMA: Okay, I have a question
19 about one of your written comments --

20 MS. ROTA: Yeah?

21 MS. DE LIMA: -- it was mono- and
22 diglycerides. And I think you guys have -- you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 had said that you would support the removal,
2 because there were alternative substances
3 available for drum drying, and alternative
4 methods.

5 And I was wondering if you had any
6 more specifics, if you'd actually seen those
7 alternative methods being used by any producers?
8 Because that was something that was mentioned in
9 the TR, but we haven't heard any specific
10 comment about, like, real-life use.

11 MS. ROTA: I would be happy to
12 address that question later. I'm going to have
13 to go back through my emails with our handling
14 expert who submitted those comments, and I'd be
15 happy to --

16 MS. DE LIMA: That would be very
17 helpful.

18 MS. ROTA: Yeah.

19 MS. DE LIMA: Thank you.

20 MR. CHAPMAN: If I could follow up on
21 that, particularly in potato applications, would
22 be of interest if you know --

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. ROTA: It's here.

2 MR. CHAPMAN: -- of alternatives for
3 potatoes. Yeah.

4 MS. ROTA: Okay.

5 MR. CHAPMAN: Scott, then Ashley.

6 MR. RICE: Beth, you mentioned the
7 certification of the entire supply chain
8 taking -- or putting a burden on certifiers.

9 Do you see -- what would you see as a
10 realistic timeline as, like a phase-in, or what
11 does that horizon look like once -- assuming
12 that would be required at some point in the
13 future?

14 MS. ROTA: The certification of the
15 entire supply chain? So, I think that -- I
16 think it would have to be a multi-year. Of
17 course, I would have to go through the rule-
18 making process. It would require a rule change.

19 But helping certifiers ramp up and
20 get more staff and get inspectors trained would
21 take, I think, as we anticipate that, but giving
22 some time, maybe a year for the transition.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Ashley?

2 MS. SWAFFAR: Thank you for your
3 comments. I have two questions for you. One is
4 glycolic acid on livestock. You had said that
5 your producers have not indicated that the
6 alternatives are not working for them.

7 And I was just kind of wanting to get
8 a sense of your poll of those producers. Was
9 that the majority of your producers, or just a
10 few handful that you heard from? Do you know?

11 MS. ROTA: That was just a general
12 consensus of our livestock managers having
13 discussed with inspectors about whether the
14 substances that were currently available were
15 effective.

16 MS. SWAFFAR: Okay, great. And the
17 follow-up, I have one on native ecosystems --

18 MR. CHAPMAN: Please speak up into
19 the mic.

20 MS. SWAFFAR: Sorry. On native
21 ecosystems you questioned the authority of this
22 Board to define that, which I halfway agree

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 with, and -- but the thing you said was it would
2 be very difficult for certifiers to validate
3 that. Could you expand upon that a little bit
4 for us?

5 MS. ROTA: Yes. So, when a operation
6 applies for organic certification, we have to
7 review their organic system plan, and then plan
8 an inspection at the time that there is
9 something there to inspect.

10 So, a crop, for example, there to
11 inspect. So, we would not have the opportunity
12 to go visit a site prior to the conversion of
13 that site to production of a crop intended for
14 an organic market. And we could look at GPS
15 data, maps, but we wouldn't have actual
16 opportunities to do a physical inspection of a
17 site prior to that.

18 MR. CHAPMAN: Emily?

19 MS. OAKLEY: Thank you. Are you
20 concerned that the web-based resources would be
21 insufficient?

22 MS. ROTA: That is one of our

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 concerns.

2 MS. OAKLEY: I think that some of
3 that could be addressed through the guidance
4 process and rule-making. And I think that the
5 Wild Farm Alliance was going to be speaking
6 later, might be able to also help address some
7 of those concerns, but thank you.

8 MS. ROTA: Great.

9 MR. CHAPMAN: I had one last -- we'll
10 go with Lisa first.

11 MS. DE LIMA: I've got another
12 handling question for you. And if you need to
13 get back to us after -- it's about gum arabic.

14 MS. ROTA: Yeah.

15 MS. DE LIMA: You guys had mentioned
16 that you did think there was organic gum arabic
17 commercially available. But if we could get any
18 more details about how many producers, or in
19 what quantity, and if that was a consistent
20 supply, or if there were, you know, a sporadic
21 supply, that would be helpful to know, as well.

22 MS. ROTA: Okay. We'd be happy to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 get that for you.

2 MS. DE LIMA: Thanks.

3 MR. CHAPMAN: And the last question I
4 think is mine, which is, you mentioned you
5 agreed with the certification of uncertified
6 handlers excluding retailers, so, does that
7 include all operations, like warehouses?

8 MS. DE LIMA: That's a very good
9 question. I don't think that warehouses
10 necessarily would need to be certified, as long
11 as they're included in an organic system plan
12 where they could be inspected, and their records
13 could be inspected, because they don't
14 necessarily have -- if they were to have
15 ownership of the product, I would say yes.

16 And I think that's where we need to
17 be looking at. Not just physical handlers, but
18 owners and handlers of the product.

19 MR. CHAPMAN: So, financial owners
20 you would think would need to be certified in
21 all cases?

22 MS. DE LIMA: Right, so we can be

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 looking at the supply chain through ownership as
2 well.

3 MR. CHAPMAN: Okay.

4 MS. DE LIMA: Because I think there's
5 a lot of risk for fraud in that.

6 MR. CHAPMAN: What about warehouses
7 that handle products -- warehouses or other
8 operations that handle products that aren't
9 packed, so they're exposed to the environment,
10 be it a -- it could be a produce warehouse, it
11 could be a railcar, it could be a bulk vessel.

12 MS. DE LIMA: I think that anything
13 that is being handled that is not packed would
14 need to be certified under the existing
15 regulation.

16 MR. CHAPMAN: Okay. Anything else?
17 Okay, thank you very much for answering our
18 plethora of questions.

19 MS. DE LIMA: Sure.

20 MR. CHAPMAN: Up next is Shannon
21 Helms, followed by Jessica Knutzon. Shannon, if
22 you can start with your name and affiliation.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. HELMS: Absolutely. My name is
2 Shannon Helms, I'm a global regulatory manager
3 at CP Kelco.

4 MR. CHAPMAN: Could you speak into
5 the mic a little closer?

6 MS. HELMS: Yes.

7 MR. CHAPMAN: Thanks.

8 MS. HELMS: Get a little bit closer.
9 So, my name is Shannon Helms, I'm a global
10 regulatory manager at CP Kelco. CP Kelco is
11 providing comments in support of the relisting
12 of 205.605a, gellan gum, and 205.605b, xanthan
13 gum.

14 CP Kelco's customers and organic
15 community benefit from the use of gums because
16 they are used in very small amounts in
17 ingredients and foods and beverages. Gums also
18 provide options for healthier choices and
19 dietary considerations, such as fat
20 replacers -- replacements, for gluten, or
21 replacements for traditional thickeners.

22 CP Kelco supports gellan gum and its

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 relisting as an approved food additive regulated
2 by the US Food and Drug Administration under
3 21 CFR 172.665.

4 Gellan gum also meets the FDA
5 definition of a stabilizer and thickener, and as
6 such, gellan gum may be used to achieve a
7 technical, functional effects listed in the
8 standards of identity.

9 Gellan gum provides the organic
10 industry with unique properties to formulate
11 products for consumers across various
12 application segments.

13 For example, gellan gum can be used
14 in fortified beverages to suspend proteins,
15 minerals, vitamins, fibers, and pulp. Calcium-
16 fortified beverages are of great interest to the
17 organic consumer.

18 Gellan gum also provides milk solid
19 suspension, and diluted milk drinks.

20 Gellan gum will also provide the
21 organic community with a non-animal source
22 suitable for vegetarians, vegans, and those of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 religious dietary restrictions.

2 Based on the unique functionality of
3 gellan gum in numerous organic food
4 applications, this substance is essential to the
5 organic production, and should be retained on
6 the national list.

7 Additionally, CP Kelco has recently
8 filed a petition to include low acyl gellan gum
9 to the 205.605 non-synthetic list,
10 allowing -- allowed listing in support of
11 requests from our customers.

12 CP Kelco also supports the continued
13 listing of xanthan gum. We would like to
14 reiterate our previous request that the NOSB
15 consider listing this substance as a non-
16 synthetic under 205.605a, as xanthan gum is a
17 natural extracellular polysaccharide, and is
18 produced through the natural process of
19 bacterial growth.

20 Xanthan gum contributes unique
21 attributes to foods and beverages, thus allowing
22 many more organic products to be formulated and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 marketed to the consumer.

2 Xanthan gum functions as an effective
3 thickener, stabilizer, and emulsifier, with
4 texturing attributes that are attractive to many
5 applications.

6 The typical amounts of Xanthan gum
7 are used in various small amounts. Thank you.

8 MR. CHAPMAN: Thank you. Any
9 questions? Thank you very much. Up next is
10 Jessica, followed by Wanda Jurlina. Jessica, if
11 you can start with your name and affiliation.

12 MS. KNUTZON: Sure. My name is
13 Jessica Knutzon, and I'm a marketing manager of
14 CP Kelco. So, my colleague, Shannon Helms, just
15 reviewed the regulatory elements of CP Kelco's
16 comments. My portion of our comments to support
17 the relisting of xanthan gum and gellan gum, I
18 will go over the essentiality of these products
19 in several applications.

20 One application that is important for
21 consumers today is plant-based, or dairy
22 alternative beverages. Since the dairy

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 alternative market is competing with dairy
2 beverages, there's a need to match or exceed
3 dairy's calcium claims to make these products
4 competitive in the market. Soluble calcium
5 causes destabilization of proteins during
6 pasteurization. Therefore, soluble calcium is
7 used in non-dairy beverage applications.

8 Soluble calcium is heavy and dense,
9 making it difficult to suspend during processing
10 in hard packs during storage. Therefore, an
11 ingredient that provides suspension is vital in
12 this application.

13 Other challenges in these types of
14 formulations include creaming or fat separation,
15 and insoluble cocoa.

16 So, what can be used for suspension
17 in these applications? Carrageenan, high acyl
18 gellan gum and CMC can be used. Carrageenan
19 provides some suspension with mouthfeel, but
20 does not suspend materials like calcium very
21 well.

22 There's a negative consumer

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 perception of carrageenan, which may discourage
2 some food manufacturers from using this
3 ingredient. However, it is suitable for use in
4 organic products.

5 High acyl gellan gum is flexible and
6 works across all beverage applications, is easy
7 to use, and provides the best suspension, with
8 the lowest mouth feel. High acyl gellan gum is
9 also suitable for use in organic products.

10 CMC, which can be labeled as
11 cellulose gum or cellulose gel, could also
12 provide suspension, but cannot be used in
13 organic products.

14 You can see in this image that a .15
15 percent use level of locust bean, this
16 application has no suspension. However, at only
17 .03 percent use level of gellan gum,
18 this -- excellent suspension in the same
19 product.

20 For gellan gum essentiality compared
21 to other gums such as carrageenan, pectin, guar
22 gum and locust bean gum, I want to highlight

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that there are limited options in beverages for
2 using other stabilizers.

3 High acyl gellan gum is the one
4 ingredient that works across neutral and
5 acidified systems with protein, without -- with
6 or without protein, to provide stability. Many
7 of the other ingredients cannot -- are only used
8 for mouthfeel.

9 Let's see, I'm running out of time?
10 So, for xanthan gum, what makes it unique is
11 cold soluble, pH stable, temperature stable.
12 And you can see it outperforms the suspension
13 across several applications, as well.

14 Xanthan gum versus the competition.
15 You'll see that xanthan gum performs in acid
16 stability, viscosity, and suspension. Locust
17 bean can only perform comparably in acid
18 stability, and guar gum can only perform
19 comparably in viscosity.

20 So, for looking at the other
21 alternatives across other applications, I want
22 to highlight that for dressings, xanthan gum is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the best product to use both in production and
2 at the end-use products.

3 For gluten-free applications, it can
4 provide volume in the same mouthfeel qualities
5 that consumers are looking for in non-gluten-
6 free products. And --

7 MR. CHAPMAN: Thank you. Any
8 questions? Thank you very much. Up next is
9 Wanda Jurlina, followed by Theojary Crisantes.

10 MS. JURLINA: Yep, no worry. All
11 right, my name is Wanda Jurlina. I'm the Tech
12 Service Manager for CP Kelco. I have over 25
13 years of experience working with gums and
14 hydrocolloids in the food industry.

15 So, first off, I would love to see
16 xanthan gum and gellan gum relisted, but I
17 wanted to spend a little bit of time today
18 talking about gums and hydrocolloids in general.

19 In the industry -- particularly the
20 food industry -- we use those two terms
21 interchangeably. At this meeting, we're
22 currently reviewing gums. But I want to remind

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you that really, the broader term would be
2 hydrocolloids. It's ingredients that love
3 water, and provide some sort of viscosity or gel
4 structure.

5 When we talk about hydrocolloids,
6 we're talking about a wide range of ingredients.
7 Not only those that have gums in the name, but
8 those, like agar, pectin, carrageenan,
9 alginates, gelatin, that are also approved for
10 use in organic products. So, when we talk about
11 these, we really need to look at the broad
12 category.

13 This is a table in the technical
14 report on gums that details some differences
15 about gum arabic, tragacanth, guar, locust bean
16 gum, gellan and xanthan gum. It is kind of hard
17 to understand what's going on and really develop
18 any information on essentiality from this table.

19 So, what I've done is I've taken that
20 table and I've adapted it a little bit based on
21 my experience with hydrocolloids. And I've
22 changed some of the categories to try and give

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you a better picture of how these particular
2 ingredients compare in different attributes that
3 they bring to products.

4 So, if you're looking at things like
5 suspension, really, there are limits as to the
6 ingredients that can provide suspension in food
7 applications for those who are trying to produce
8 products for the organic consumer.

9 If we're talking about things like
10 forming gel structure, with the table the way
11 it's structured now, it is hard to understand
12 what's going on. With these ingredients here,
13 with the exception of high acyl gellan gum, all
14 of these ingredients are thickeners, and on
15 their own can't create gel structure.

16 So, it's a little misleading having
17 it on that table -- table 6 I think it is -- in
18 the technical report.

19 So, from there I wanted to -- because
20 this is so focused on thickeners -- include a
21 table that would give you an idea on the gelling
22 agents. While very few of these have gum in the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 name, they are in the same category of the
2 ingredients that we are talking about here, to
3 highlight how unique each one of these
4 ingredients are.

5 So, across the products that have gum
6 in the name, or truly are in the hydrocolloid
7 realm, there are a significant number of
8 different functionalities.

9 Now, Shannon mentioned before,
10 because of the needs of the processors, we have
11 petitioned for low acyl gellan gum to be added
12 to the list of approved ingredients for use in
13 organic products. Thank you.

14 MR. CHAPMAN: Steve?

15 MR. ELA: In the spirit of
16 hydrocolloids --

17 MS. JURLINA: Yes?

18 MR. ELA: -- I'll learn here.
19 Alginates are also on the list, I'm guessing
20 that you may not manufacture them, I'm not sure.
21 But do you have any comments on alginates versus
22 some of these other gums?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. JURLINA: I actually would have
2 comments on alginate. When I first started
3 working at Kelco, we were the major alginate
4 producer, and I went into applications research
5 for alginates.

6 So, alginates is actually very unique
7 when we look at it, as compared to the other
8 gelling agents. It is cold soluble, so it has
9 some functionality that you can use that it's
10 very hard to do with the other ingredients that
11 are listed on this product.

12 It does have some issues with acid
13 stability. So, if you're working at very low
14 pHs, it can be difficult to work with. It does
15 have a very typical texture.

16 If you see on the range that I've
17 posted there on the bottom, all the way from the
18 soft, elastic texture, to very firm, brittle
19 texture, it's kind of in the middle of the road,
20 so it has a very distinct texture, versus some
21 of the other gelling agents.

22 And there are many places where it is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 beneficial. It does have heat stability in the
2 gels that it creates, one of the original
3 applications for alginates is the pimento strip
4 in the olive, where my very first boss at Kelco
5 was part of the team that developed that
6 technology back in the '50s.

7 It's a heat-stable gelling agent, so
8 when you go through the retort process in the
9 jar, the pimentos don't melt when you go through
10 it. So, anything else you want to know about
11 alginates, or -- I'd be happy to tell you
12 stories at lunch.

13 MR. CHAPMAN: Thank you very much.

14 MS. JURLINA: All right, thank you.

15 MR. CHAPMAN: Up next is Theojary,
16 followed by Zak Wiegand from Oregon Tilth.
17 Theo, if you could start with your name and
18 affiliation.

19 MR. CRISANTES: Hi. Good afternoon,
20 ladies and gentlemens. Welcome to Arizona. My
21 name is Theo Crisantes. I'm a grower at
22 Wholesum Harvest. We grow organic vegetables in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 open field -- shade houses, green houses, both
2 in ground and in containers.

3 I would like to take this opportunity
4 to comment on the Crops Subcommittee request for
5 comments on the following materials. First
6 would be elemental sulfur. For us it's an
7 elemental tool, an essential tool as a disease
8 and pest control. It is widely used in our
9 operations.

10 In our case, we use it as a mineral
11 spray application, since it's a lot easier to
12 handle. Secondly, I would like to comment on
13 liquid fish products.

14 For us, it's a good source of
15 nutrition for organic agriculture, and provides
16 good food for organisms in our compost, and it's
17 a good source of micronutrients.

18 Talk a little bit about pH. We found
19 it that sometimes some applications do have a
20 very, very low pH when we receive it. So, I
21 guess, talking about pH, I think there is
22 something to be said about the pH when it's

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 being manufactured.

2 So first, acid. For us, it's a very
3 essential tool, especially here in Arizona,
4 because of the well water that we have. Because
5 we use it to treat pH in irrigation of water,
6 because we have high levels of bicarbonates.

7 So, it provides an effective tool to
8 maintain clean irrigation systems, and to help
9 us reduce built-up mineral sediments and
10 irrigation lines and drip lines.

11 And lastly, potassium chloride. We
12 find it to be a great source of potassium, and
13 in our experiences, we have not observed any
14 accumulations of chloride in the soil.

15 I would like to move a little bit on
16 to the topic of imports. You know, it's been
17 something that has been a lot of focus on grain
18 imports.

19 And, as the Board looks to strengthen
20 the organic integrity of the supply chain,
21 please bear in mind that a lot of other
22 products, like fruits and vegetables, are being

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 imported and exported.

2 And that these products have very
3 different supply chain than grain. And that
4 difference in the supply chain will require
5 differences in how to approach that
6 strengthening.

7 Because, you know, fruit and
8 vegetable takes a few hours, or maybe a day, to
9 get here, compared to a grain that takes months.
10 Anyways, thank you for the opportunity to
11 comment, and any questions?

12 MR. CHAPMAN: Questions? I see
13 Emily, Harriet, myself.

14 MS. OAKLEY: Thank you. You
15 mentioned using liquid fish?

16 MR. CRISANTES: Correct.

17 MS. OAKLEY: And some of the
18 questions that we asked this time around are
19 around the sourcing of those fish --

20 MR. CRISANTES: Correct.

21 MS. OAKLEY: -- and we've learned
22 that there are not an insignificant number of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 products that are gathering, or harvesting, wild
2 fish solely for the purpose of fertilizer. I
3 was wondering if, as a grower, you have any
4 concerns about that.

5 MR. CRISANTES: It's a good question.
6 The source that we use is for -- it's a company
7 that uses it. It's a byproduct of making
8 soy -- I'm sorry, not soy -- fish meal. So,
9 it's like a byproduct. They don't harvest it
10 for -- to make a fertilizer.

11 But I'm concerned about the pH level,
12 because sometimes you get -- you could get it
13 like a very, very low pH, and then it becomes a
14 problem. So, that's my only comment there.

15 MS. OAKLEY: So, if I follow up with
16 you, you say you use a product that's primarily
17 bycatch -- would you -- or is exclusively
18 bycatch. As a grower, would you want to use a
19 product that was sourced from fish, harvested
20 exclusive for fertilizer?

21 MR. CRISANTES: I don't -- I think
22 there is plenty of, you know, fish that has been

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 caught for something else, that the byproduct
2 could be used as fertilizer. I definitely think
3 I would agree with that.

4 MR. CHAPMAN: Harriet?

5 MS. BEHAR: You mentioned potassium
6 chloride.

7 MR. CRISANTES: Correct.

8 MS. BEHAR: And how are you meeting
9 the annotation? Are you doing testing, or to
10 make sure there's no chloride accumulation in
11 the soil? What are you doing, and how often do
12 you do it?

13 MR. CRISANTES: Correct. We do
14 testing, and we have our -- we schedule it once
15 a month. We schedule it once a month in our
16 fields, and we do run a complete test of all the
17 elements, and we use it in combination, usually
18 with potassium sulfate.

19 So, it's definitely something that
20 we, you know, haven't seen any accumulation.
21 So, just wanted to give that information out
22 there. I wouldn't know if there is, but in our

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 case we have not seen any.

2 MR. CHAPMAN: So, you were talking
3 about imports?

4 MR. CRISANTES: Correct.

5 MR. CHAPMAN: And the risk to the
6 fresh produce industry, the fresh produce
7 industry being different.

8 We received some comments from the
9 public around the need for certifying warehouse
10 that further distribute organic products,
11 because of their open nature and testing, how
12 they're handling their maker. Do you agree with
13 those sentiments that --

14 MR. CRISANTES: I couldn't hear your
15 question, Tom.

16 MR. CHAPMAN: Sorry. These mikes are
17 a little finicky. We received some comments
18 around warehouses that distribute organic
19 produce, and the fact that they're open and
20 available for contamination with the environment
21 or other areas around them, and also are subject
22 to quality tests and other tests unique to the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 produce industry.

2 Do you think all handlers of organic
3 produce should be certified? Do you think
4 there's an integrity risk with those types of
5 operations?

6 MR. CRISANTES: Definitely. I
7 believe that all -- every handler should be
8 certified, especially in the produce industry,
9 for sure. And I think there is risks associated
10 there as well in the produce industry, for sure.

11 MR. CHAPMAN: Okay. And then, you
12 were speaking a little bit before your time ran
13 out, about the speed to market in the produce
14 industry, and how that's unique.

15 Do you have some concerns with some
16 of the questions we posed, or areas that we were
17 looking at, including testing, or import
18 certificates that -- or other areas --

19 MR. CRISANTES: So --

20 MR. CHAPMAN: -- that would be unique
21 to the produce industry?

22 MR. CRISANTES: So, for example, I

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 think on the import certificates, I think there
2 was a period of time last year that we tried to
3 implement import certificates coming from Mexico
4 into the United States.

5 And that posed a great deal of
6 problems because of the ability for certifiers
7 to provide those import certificates in a timely
8 manner, as shipments were coming from Mexico
9 here, especially for the produce industry, since
10 the shipment was, you know, leaving the
11 warehouses, and it would take one or two days to
12 get to the order, and the certifiers, you know,
13 could come back and turn around, then at the
14 fastest they could do it, it would take three to
15 four days.

16 So, then, there would be a great
17 disconnect between the time the certifier could
18 provide that information, and the time of travel
19 between the produce leaving the facilities and
20 getting to the order.

21 So, those are the things that
22 are -- you know, we need to look at when we're

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 strengthening the supply chain, especially in
2 fresh produce, and being so close by, you know,
3 in the United States, Canada, and so on and so
4 forth -- Mexico and Canada.

5 MR. CHAPMAN: And as we're trying to
6 evaluate imports on a risk-based system, are
7 there attributes that we should consider that
8 would be of higher risk in the produce industry?

9 MR. CRISANTES: For sure.
10 Definitely, contamination from pesticide use,
11 stuff like that. I would think that's
12 definitely one that I would stress, for sure.

13 MR. CHAPMAN: Thank you. Thank you,
14 Theo.

15 MR. CRISANTES: Thank you.

16 MR. CHAPMAN: Up next, we have Zak,
17 followed by Ryan Costello. Zak, if you start
18 with your name and affiliation.

19 MR. WIEGAND: Good morning. My name
20 is Zak Wiegand. I am the Processing Program
21 Technical Supervisor for Oregon Tilth Certified
22 Organic. We are a leader in organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 certification, and we certify over 1900
2 operations in six countries.

3 I'm here to talk about imports and
4 provide a few suggestions to the Board, as well
5 as the NOP if they'll listen, which I believe
6 they have.

7 Some background as it pertains to
8 organic -- Oregon Tilth, and what we've done
9 around imports. We've implemented an internal
10 import policy back in June 2017 that required
11 all at-risk product coming from any country be
12 subject to preapproval review by Oregon Tilth.
13 I would continue to do that today, as well.

14 Since then, we have verified and
15 approved -- verified, reviewed, and approved,
16 hundreds of import documentation chains, and
17 today I'm happy to report that we've heard a lot
18 of forward movement regarding import oversight
19 from the NOP, and really, I want to reinforce
20 three primary areas we want to see improvement
21 on, just based on the current situation.

22 So, number one, we want to require

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that all importers and exporters be certified.
2 Uncertified handlers -- particularly importers
3 and exporters -- possess and maintain critical
4 data for certification, but they're not subject
5 to the same oversight, and we're often missing
6 information.

7 Additionally, because of this,
8 manipulated or falsified documentation runs a
9 greater risk of going undetected.

10 The second thing is, we would like to
11 require transaction certificates for every
12 export and import. They are incredibly
13 valuable, as they provide specific information
14 that connect the dots in audit trails.

15 Some opportunities for use of these
16 transaction certificates in the verification
17 process, we feel that electronic -- an
18 electronic system is essential for this, just
19 due to the high volume, and it will help
20 eliminate any document tampering and improving
21 efficiencies and accessibility.

22 Additionally, we would like to see an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 incorporation of production volumes -- acreage,
2 and things like that -- to help improve the
3 traceability for entire crops.

4 The third thing we would like to
5 reinforce is, we'd like to see education
6 outreach and information on fumigation
7 activities at US ports. We need to develop
8 efficient systems to collect and share
9 information about -- around streamlines for
10 certifier notification, and detailed information
11 for investigation when fumigation does occur,
12 and better information at understanding of
13 fumigation expectations at US ports, because the
14 information is very limited.

15 Additionally, we'd like to see more
16 education and outreach opportunities provided to
17 stakeholders. Buyers need resources to
18 understand documents and verification
19 requirements, and certifiers and inspectors need
20 ongoing training on how to use these systems and
21 interpret the information.

22 So, those are the three things we

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 would like to see, and we feel are very
2 important.

3 MR. CHAPMAN: Thank you. I got a
4 couple of questions, and then we got Harriet and
5 Sue.

6 So, in the case -- which there's a
7 lot of public information out there
8 about -- that was highlighted in the Washington
9 Post last year. It involved certified handlers
10 and organic transaction certificates.

11 And yet, the fraud was still
12 implemented. So, given that it -- like, in that
13 well-documented case, certification of handlers
14 that did need to be certified -- brokers, and
15 the presence of transaction certificates -- were
16 insufficient and blocking that fraud. Why are
17 those your two critical areas?

18 MR. WIEGAND: If we look to other
19 countries and their electronic systems, they
20 provide a lot more transparency and regularity
21 to these systems. And seeing those examples, we
22 feel that focus on electronic versions of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 transaction certificates, rather than paper
2 systems -- which can be falsified easily -- are
3 just really important, and a move forward.

4 MR. CHAPMAN: And then, you talked
5 about an at-risk system. What are your
6 attributes to determine as-risk supply chains?

7 MR. WIEGAND: There's a lot of
8 criteria. We are focusing on known crops and
9 materials and commodities that are subject to
10 fumigation import, as well as regions that are
11 known for fraud, based on information that has
12 been provided to us through the NOP.

13 We also want to focus on commodities
14 that have been identified through APHIS that
15 have been -- organic commodities that have been
16 fumigated upon entry into the United States.

17 MR. CHAPMAN: Okay. And then, one
18 last one. Sorry to put you on the hot spot.

19 MR. WIEGAND: That's fine.

20 MR. CHAPMAN: The interim guidance,
21 interim instructions, 4013, provide some
22 guidance to have certifiers kind of go beyond

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 just a broker, certified or not, to get further
2 documentation, or require handlers to get
3 further documentation. Why is that practice not
4 sufficient?

5 MR. WIEGAND: Well, it's
6 difficult -- that system is difficult. It's
7 challenging, especially for small operations.
8 They typically, when we're talking about
9 handlers, small operations don't have the
10 purchasing power of somebody like Clif Bar, and
11 cannot turn around and say, hey, provide me all
12 this information, you're a distributor, you're
13 an uncertified entity, give me information all
14 the way back to your supplier that is certified.

15 They'll say, no, we just won't do
16 business with you. No thanks, we don't want to
17 disclose that information.

18 So, that's one challenge. And so,
19 it's small operations that's challenged.
20 Otherwise, there's just a general reluctance for
21 these uncertified operations to provide that
22 information.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And a few ways around that, and some
2 certifiers have produced certain documents and
3 forms that people can fill out, and we're
4 providing things like a letter to clients that
5 they can show to their suppliers that'll help
6 that information provide information clearly.

7 MR. CHAPMAN: Harriet? Sue?

8 MS. BEHAR: You mentioned that there
9 had to be preapproval. Are you saying that a
10 buyer then notifies you that they want to
11 purchase a product and they supply you some
12 documentation, and then you approve it?

13 MR. WIEGAND: Correct.

14 MS. BEHAR: Can you explain what
15 you're looking for in that preapproval?

16 MR. WIEGAND: Yeah. So, we -- we
17 request all documentation that's relevant to the
18 import of a commodity be provided at a timeline
19 prior to actually recei- -- usually, when the
20 product's on the water, or bef- -- usually, it
21 has to be on the water before we receive the
22 information.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 But it includes things like
2 phytosanitary certificates, transaction
3 certificates, quality certificates, testing
4 results, organic certificates, bill of lading,
5 certificates of weight, certificates of origin,
6 the giant pile of paperwork that comes with an
7 imported product.

8 We don't necessarily know every piece
9 of information that's required. We're
10 requesting as much as we can, and going from
11 there.

12 MS. BEHAR: Have you ever rejected
13 any because the documentation is not present?

14 MR. WIEGAND: Certainly.

15 MR. CHAPMAN: Sue?

16 MS. BAIRD: Yeah, about that. You
17 almost have implemented an export certificate
18 requirement for the import. My question, you're
19 saying that you think that all companies should
20 have a transaction certificate. And if -- and
21 do you implement that now?

22 And it sounds like perhaps you do for

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 all imports. Do you do that for
2 all -- actually, domestic products, as well?

3 MR. WIEGAND: I think I may need to
4 clarify a little bit on my comment. Is
5 the -- we would like to see transaction
6 documentation provided for any import or
7 export --

8 MS. BAIRD: All right.

9 MR. WIEGAND: -- activities. Not
10 solely domestic transactions.

11 MS. BAIRD: Yeah, not for domestic.
12 Okay.

13 MR. WIEGAND: Correct.

14 MS. BAIRD: And -- I'm sorry, I
15 could -- okay. And on the transaction
16 certificate, normally there is a balance of
17 product -- potential product into product being
18 sold. Do you think that all certifiers would
19 have the ability to do -- to maintain all the
20 database it would take to do that balance-in,
21 balance-out thing?

22 MR. WIEGAND: Absolutely not.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. BAIRD: Okay.

2 MR. CHAPMAN: Scott?

3 MR. RICE: Sue, you just asked
4 partially my question. But also, can you talk
5 about your experience with cross checks and just
6 communication with other certifiers, and how you
7 bridge those data gaps, if so?

8 MR. WIEGAND: Absolutely. It's
9 incredibly varied. It depends on who you talk
10 to. If you're talking to a domestic certifier,
11 generally you get a faster response.

12 If we're verifying information from a
13 certifier, say in India or in Europe, it can
14 vary. We can get a month turnaround time to get
15 verification of information or no response at
16 all. It all just kind of depends on the
17 circumstances. Sometimes it's easy, sometimes
18 it's hard.

19 MR. CHAPMAN: Thank you. Thank you
20 for that.

21 MR. MORTENSEN: Yeah, briefly,
22 that --

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Yeah.

2 MR. MORTENSEN: I'm just curious. If
3 something did take a month to get that
4 information, what happens to the shipment then?

5 MR. WIEGAND: It sits.

6 MR. MORTENSEN: It sits.

7 MR. WIEGAND: And then, a lot of
8 these operations look to the domestic market to
9 purchase organic product. They won't have to go
10 through these processes.

11 MR. MORTENSEN: Okay, thanks.

12 MR. WIEGAND: Mm hmm.

13 MR. CHAPMAN: Thank you for answering
14 our many questions.

15 MR. WIEGAND: Sure.

16 MR. CHAPMAN: Up next is Ryan,
17 followed by Lee Frankel.

18 MR. COSTELLO: Hi. My name is Ryan
19 Costello, and I am the Farm Technical Supervisor
20 with Oregon Tilth Certified Organic. Thanks for
21 giving me the opportunity to provide an oral
22 comment today, in addition to our written

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 comments.

2 I'm going to comment on seed purity,
3 and on vaccines. For seed purity, we would like
4 to continue to thank the Board for your focus on
5 seed purity and GM contamination in organic
6 production.

7 The organic farms we certify use a
8 variety of process-based measures to prevent GM
9 contamination, which is an increasingly
10 difficult challenge in the corn and soy regions,
11 like in the Midwest, where we have a lot of
12 farms we certify.

13 The pesticide residue program that
14 was put in place by the NOP in 2013 drew from an
15 existing EPA maximum-residue level, and then FDA
16 action levels, to establish a baseline for an
17 acceptable threshold of residues in organic
18 products.

19 And similarly, we would encourage the
20 Board to collect data to understand the baseline
21 levels of contamination for each crop that has
22 GM varieties, prior to developing purity

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 thresholds for GM contamination and seed.

2 Third-party verification programs, as
3 well as large scale organic buyers, may have
4 this data that they can provide to the Board to
5 help determine the scope of this problem.

6 We also strongly support the
7 development of additional guidance and
8 instruction from the NOP for laboratory criteria
9 and GMO testing methodologies.

10 We would advise caution before
11 mandating GM testing disclosures for seed use in
12 organic production. Non-organic seed companies
13 may be hesitant to comply with such a disclosure
14 method for reasons of liability.

15 And then, you have the bulk of the
16 testing requirements left to the organic seed
17 producers. GM tests range from \$300 to \$600 in
18 our experience, and if you're testing every seed
19 lot, it can -- that could add up really quick
20 and cause a burden.

21 For vaccines, we would also like to
22 address the topic of non-GMO verification, which

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 currently allow vaccines without further review
2 of the ingredients within them, per 205.105e and
3 603.804.

4 We believe that the majority, if not
5 all, of the available livestock vaccines have
6 been produced using some form of GM technology.
7 With limited treatment options available,
8 organic livestock producers are even more
9 reliant on vaccines to prevent disease than to
10 non-organic counterparts.

11 We certify more than 250 producers
12 that use five or more vaccines in their organic
13 livestock production system, demonstrating a
14 clear value, and the need for vaccines in
15 organic livestock management.

16 Similarly, requiring vaccines to be
17 listed individually on the national list, it
18 would place organic producers at a disadvantage,
19 because new vaccines would have to be approved
20 through a petition process, and so we would urge
21 the Board to continue to allow livestock
22 producers to use vaccines produced through any

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 method which will permit the organic industry to
2 react nimbly to future disease outbreaks.

3 The use of current generation
4 vaccines plays a vital role in the prevention of
5 illness, which is the -- also, subsequently
6 prevents animal suffering. And that is a goal
7 of the livestock healthcare section of the rule.
8 Thank you. All right.

9 MR. CHAPMAN: Thank you. Harriet?

10 MS. BEHAR: So, your point in the
11 vaccines is to -- you don't want to see any
12 change to the rule? Just kind of, don't ask,
13 don't tell kind of --

14 MR. COSTELLO: Yes, that's --

15 MS. BEHAR: -- view here on the
16 vaccines?

17 MR. COSTELLO: I guess we just would
18 advise caution before requiring anything new for
19 vaccines, because it's one of the few things
20 that organic livestock producers really rely on,
21 since we don't have many treatment options
22 available.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And, unfortunately, a lot of vaccines
2 use GM methods at some point in their
3 production. So, I guess we would just advise
4 caution.

5 MR. CHAPMAN: Dave, then Ashley.

6 MR. MORTENSEN: Right. Ryan, we
7 are -- we have begun collecting data on --

8 MR. COSTELLO: Excellent.

9 MR. MORTENSEN: -- purity out of the
10 seed bag, going into the planter box. And I
11 would just say to the audience, we would love to
12 hear from folks that have data that they're
13 willing to share.

14 I met with someone this morning over
15 breakfast, who is quite willing to share data on
16 seed purity out of the bag. And so, I agree
17 with you, we need to get -- we need to get our
18 heads wrapped around what are we working with,
19 and then go from there. But any data that
20 anyone is willing to contribute, would help us
21 to wrap our head around where we are right now.

22 MR. COSTELLO: Okay. Thanks, Dave.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We have a small dataset we could help with.

2 MR. MORTENSEN: Thank you.

3 MR. CHAPMAN: Ashley?

4 MS. SWAFFAR: Yeah, I just wanted to
5 state on the vaccine part is, we were just
6 asking those questions. There's no intention
7 right now --

8 MR. COSTELLO: Sure.

9 MS. SWAFFAR: -- to do anything. So,
10 everybody take a deep breath on vaccines. So --

11 MR. COSTELLO: Thanks, Ashley.

12 MR. CHAPMAN: Thank you.

13 MR. COSTELLO: Thank you.

14 MR. CHAPMAN: So, quick time check.
15 It's 12:24. We're running about 45 minutes
16 behind schedule, so we will eat up a little bit
17 into lunch. We have an hour-and-a-half
18 scheduled for lunch, so we will go until
19 1 o'clock. Hope you guys had a hearty
20 breakfast.

21 Then, we'll break at 1 o'clock.
22 Whenever we get to in the list, we'll break at

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 1 o'clock, and reconvene at 2:00. So, Lee,
2 you're up. After Lee, we have Terry Shistar.
3 Lee, if you can start with your name and
4 affiliation.

5 MR. FRANKEL: Okay. My name is Lee
6 Frankel, and I'm here on behalf of the members
7 of the Coalition for Sustainable Organics. The
8 Coalition for Sustainable Organics is a group of
9 environmentally and socially responsible growers
10 committed to maintaining the USDA's current high
11 standards for certifying organic produce.

12 Comprised of growers big and small,
13 we advocate for the continued -- allowance of
14 containerized growing methods under the National
15 Organic Programs, while enabling growers to
16 select the most appropriate production system
17 for their site-specific and commodity needs.

18 First of all, I'd like to thank the
19 members of the National Organic Standards Board
20 support for the time that you devote to help
21 maintain and strengthen the organic brand and
22 the organic program. I really appreciate your

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 dedication.

2 In addition, I'd like to thank the
3 staff of the US Department of Agriculture for
4 their thoughtful oversight of the industry, and
5 first-hand efforts to maintain the integrity of
6 their organic label.

7 Furthermore, I wanted to express my
8 appreciation to Under Secretary Greg Ibach for
9 his participation today, and his recent letter
10 to the coalition explaining the legal foundation
11 for continued certification of container and
12 hydroponic methods. I'll quickly read his
13 letter to us:

14 Dear Mr. Frankel: Thank you for your
15 letter of March 21, 2018 on behalf of the
16 Coalition for Sustainable Organics. We
17 appreciate your support of the US Program of
18 Agriculture's statement on the allowance of
19 hydroponic, inorganic production.

20 Our statement on hydroponics is
21 driven by the Organic Food Production Act.
22 Section 6503 of the OFPA required us to consult

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 with our Federal Advisory Committee and National
2 Organic Standards Board, when developing organic
3 certificates and program.

4 Section 6512 of the OFPA also states
5 that if a production of handling practice is not
6 prohibited, or otherwise restricted under this
7 chapter, such practice shall be permitted,
8 unless it's determined that such practice would
9 be inconsistent with the applicable organic
10 certification programs.

11 Hydroponics has been allowed in
12 organic agriculture since the National Organic
13 Program began. During its 2017 fall meeting,
14 the NOSB voted on a motion to prohibit this
15 production method. The motion failed. Based on
16 the provisions of the statute outlined above,
17 and the NOSB's absence of a recommendation
18 prohibiting hydroponic production systems,
19 hydroponics may continue as an acceptable
20 production practice for the organic operations,
21 to comply with the USDA organic regulations.
22 Thank you for your support of our organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 agriculture. Sincerely, Greg Ibach, Under
2 Secretary.

3 If the NOSB sees the need for
4 specific regulations on greenhouse and container
5 production methods in the future and puts the
6 topic back on its active agenda, the members of
7 the coalition are happy to work with the NOSB in
8 the future, to make sure you have accurate
9 information to inform your recommendation.
10 Thanks again.

11 MR. CHAPMAN: Thank you, Lee. Emily?

12 MS. OAKLEY: I'm not sure if you'll
13 be able to answer this question. It's related
14 to the look at fish fertilizer question. I'm
15 guessing that some members within the coalition
16 use liquid fish, and I was wondering if they
17 would have any concerns about products that were
18 derived strictly from wild caught fish just for
19 the purposes of fertilizer.

20 MR. FRANKEL: Yeah, I haven't
21 specifically polled the members on it, but yeah,
22 in general, people are looking to -- you know, I

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 think our members take a broader view of their
2 operations in general.

3 Not just what they're doing on the
4 farm, but kind of what's the origin of products,
5 or particular -- like, sprouts, micro beans, as
6 an example.

7 You're looking at, you know, where
8 was this grown, I guess an additional -- when
9 you're generating green waste in a urban
10 facility, you're looking for partner farms to
11 compost that material and feed it into organic
12 livestock operations. And so -- and I think
13 that members, in general, are sensitive to that,
14 and I'd be happy to help educate them further,
15 if the NOSB ever develops specific guidelines.

16 MR. CHAPMAN: Thank you. Up next is
17 Terry, followed by Deborah Klein. Terry, if you
18 can start with your name and affiliation.

19 MS. SHISTAR: Hi. My name is Terry
20 Shistar, and I'm on the Board of Directors of
21 Beyond Pesticides. Our board members have
22 expertise in many areas, and guide us in our

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 efforts to promote organic practices.

2 We submitted comments on all of the
3 issues before the Board at this meeting.

4 As organic production has grown to
5 nearly \$50 billion enterprise, the NOSB needs to
6 exert its authority. Organic integrity depends
7 on the NOSB, and the NOSB's authority is under
8 attack on several fronts.

9 The Organic Foods Production Act
10 gives a leadership role to the NOSB in advising
11 the USDA on all aspects of the National Organic
12 Program, from the nationalist materials, to
13 staffing.

14 Thus, the law gives the NOSB broad
15 authority and responsibility. The integrity of
16 the organic production and consumer confidence
17 in the organic label, depend on NOSB's
18 leadership, and USDA's respect for NOSB
19 guidance.

20 Although organic sales continue to
21 climb, indicating a strong desire for organic
22 food, interest in add-on labels has indicated

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 some dissatisfaction with the way organic
2 program is being implemented.

3 Add-on labels are most evident in
4 organic egg sales, for they reflect consumer
5 demand for outdoor access and other elements of
6 the OLPP.

7 However, the creation of the Real
8 Organic Project and regenerative organic
9 certification, reflect broader dissatisfaction
10 by both consumers and farmers, and need for
11 clear and consistent standards that prohibit
12 hydroponics, require meaningful outdoor access
13 for poultry, and prohibit feedlot barriers.

14 On the other side, politicians are
15 seeking to weaken organic integrity by attacking
16 the NOSB. The goal is quite clearly to weaken
17 organic standards by reducing NOSB control over
18 the national list, and allowing practices never
19 intended to be certified organic.

20 A minority of the organic operations
21 benefit by weakening standards. But large
22 operations provide a lot of organic food.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 The NOSB represents the organic
2 community. You are responsible for upholding
3 integrity in the face of political pressures on
4 the USDA. You must maintain consumer confidence
5 in the organic label.

6 In order to do so, you must maintain
7 control over the NOSB work agenda. You must
8 ensure continuous improvement by addressing
9 difficult issues, like eliminating incentives to
10 convert native lands to organic production.

11 Hydroponics and container production,
12 contaminated inputs, excluded methods,
13 sanitizers, and inert ingredients. You need to
14 speak up when USDA fails to base its national
15 list on NOSB recommendations, as it did with
16 carrageenan. Thank you.

17 MR. CHAPMAN: Emily?

18 MS. OAKLEY: I did just want to say
19 thank you for making a comment on everything
20 before the NOSB, because that is definitely
21 helpful.

22 And I wanted to ask you to elaborate

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 a little bit more on your comments on sulfur as
2 a molluscicide, and your concerns with the
3 proposal.

4 MS. SHISTAR: With?

5 MS. OAKLEY: And your concerns with
6 the proposal that we have before us now.

7 MS. SHISTAR: Okay. There's a sided
8 road on everything.

9 MS. OAKLEY: I know. I should have
10 asked you probably -- or told you I would ask
11 you about that. I'm sorry.

12 MS. SHISTAR: I think part of the
13 concern with sulfur as a molluscicide is that
14 it's, you know, when it's used as a dust, it is
15 hazardous to the user. And it also does have
16 some effect when it's broadcast on the soil.

17 MR. CHAPMAN: Steve?

18 MR. ELA: Kind of -- on the polyoxin
19 D zinc salt petition --

20 MS. SHISTAR: Okay.

21 MR. ELA: -- as well, what -- you
22 submitted comments on that.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. SHISTAR: Right.

2 MR. ELA: Do you -- I guess
3 what -- you know, it's obviously potentially an
4 alternative for sulfur and copper --

5 MS. SHISTAR: Yeah.

6 MR. ELA: -- you know, we heard other
7 public comments that there's really no
8 alternative for some crops. But yet, I mean, I
9 guess, could you elucidate a little more on your
10 feelings about it? And again, I know it's --
11 we're kind of catching you off-guard here.
12 So --

13 MS. SHISTAR: Well -- yeah. It's a
14 general fungicides. Right? Fungicide. So, it
15 has effects on non-target fungi, as well as the
16 target fungi. So, I guess that's what I'm
17 remembering the -- my main concern -- as an
18 ecologist, my main concern is that when you use
19 something that's broad -- that has a broad
20 effect on all fungi, then it's affecting
21 beneficial fungi that you depend on -- depend
22 upon, not only in the soil, but on the plants,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 as well.

2 MR. CHAPMAN: Thank you. So, up next
3 is Deborah, followed by Lynn Coody. Deborah, if
4 you could start with your name and affiliation.

5 MS. KLEIN: Good afternoon. I'm Deb
6 Klein, I'm the Principal Regulatory -- oops.
7 Sorry. Good afternoon. I'm Deb Klein. I'm a
8 principal regulatory specialist with Ecolab.

9 We appreciate the many passionate
10 commenters, NOSB efforts today to preserve the
11 integrity of organic -- food safety and organic
12 handling.

13 First, I'd like to comment in support
14 of sodium chloride acidified to the national
15 list as an organic teat dip treatment. I urge
16 the NOP to finalize rulemaking as quickly as
17 possible. Our certifiers are anxious to see
18 this finalized for conserving dairy herd health.

19 Secondly, and of critical importance,
20 I urge Board members to please support the
21 addition of sodium dodecylbenzene sulfonate to
22 the national list for handling and processing of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic foods.

2 We acknowledge the Board's concerns
3 as to whether or not SDBS is essential, and
4 whether alternatives exist. Chlorine, ozone,
5 peracetic acid, are alternatives. However, as
6 previously addressed, these technologies, other
7 than chlorine, are not practical at the retail
8 grocer, nor in restaurant settings.

9 So, while the national list includes
10 these alternative chemistries for industrial
11 use, NOSB must also consider the role the
12 retailer and restaurants play in food safety,
13 who are the front line and food safety to our
14 organic consumers, and they need a practical,
15 easy-to-use, safe technology, to wash fruits and
16 vegetables.

17 It's time for a kill step for
18 pathogens on produce at retail, and this has
19 been widely distributed in several magazines.
20 USDA, FDA, CDC, recognize that, historically,
21 fresh and fresh-cut produce cause more illnesses
22 and higher number of food-borne diseases than

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 any other commodity, including beef, poultry and
2 seafood.

3 Fruits and vegetables don't typically
4 have a kill step, such as cooking, and they are
5 often used fresh in sandwiches and salads in the
6 home, restaurant, and mail order. So, they are
7 a food safety risk.

8 Just this past week, we saw the
9 outbreak with romaine lettuce, and that put many
10 consumers in the hospital, five with severe
11 kidney failure.

12 Wash steps are critical to prevent
13 cross-contamination. And retailers and
14 restaurants and small processors need an
15 alternative synthetic that are designed for
16 their kitchens and processing operations.

17 Retailers tell us, I don't want to
18 have to navigate between using SDBS for my
19 traditional produce, and nothing in the wash
20 water that I use on my organic produce. That's a
21 food safety risk.

22 Lactic acid is on the national list,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and this organic acid is used as a fruit and
2 vegetable wash, and boosted by SDBS. SDBS is on
3 the safe -- EPA safe-listed. And that should be
4 support to the Board for their consideration of
5 SDBS for national listing.

6 Please consider in your vote the
7 urgency of safe synthetic substances available
8 for the retail markets, and urgency of
9 promoting --

10 MR. CHAPMAN: Thank you.

11 MS. KLEIN: Can I finish my sentence?

12 MR. CHAPMAN: Yeah, go ahead and
13 finish the sentence.

14 MS. KLEIN: Just the urgency for
15 promoting safe handling of organic fruits and
16 vegetables to our organic consumers.

17 MR. CHAPMAN: Thank you. Questions?
18 So, you just commented that you have heard from
19 retailers and small operations about the
20 necessity for the substance, but I -- in
21 reviewing the public comment -- unless I missed
22 something, and I invite Board members to correct

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 me if I'm wrong -- I did not see any retailers
2 or certified operations, or potentially
3 certified operations, speaking up and requesting
4 this substance. So, how do we balance that from
5 our perspective, when we don't hear from the
6 industry that would need to use this substance?

7 MS. KLEIN: We did go back to the
8 industry. One of the things -- I think you saw
9 some petitions that were signed by some
10 major -- well, Marriott, for example -- that did
11 sign the petition.

12 I think we also had a couple of
13 retailers also sign these petitions. We did go
14 out. The problem is, is that their using fruits
15 and vegetable washes, but they're not certifying
16 those as organic.

17 When we eat here in these kinds of
18 operations, you know, we're not just just
19 consuming organic produce, so it makes it more
20 difficult, and our organic -- some of our
21 retailers, like what we're talking about,
22 grocers -- other than, like a Chipotle, or

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 something like that -- but the grocers
2 themselves can't differentiate between -- they
3 just don't have that way to do that.

4 So, when they're serving in salad
5 bars and so forth, they either use a fruit and
6 vegetable wash, or they don't. But,
7 that's -- you're right, did they publicly
8 comment? We did go back and ask them to. Some
9 of them weren't comfortable with doing that,
10 because maybe they're not comfortable with the
11 practices that they're using at the retail
12 level. So -- but certainly, we can see, even
13 three years ago with Chipotle and those kinds of
14 organizations, they probably would have
15 benefitted by being able to use our fruit and
16 vegetable wash, but they didn't have one
17 available.

18 MR. CHAPMAN: Steve?

19 MR. ELA: And so, I'm a little
20 unclear. Maybe my memory is faulty here, but
21 why wouldn't chlorine materials be an
22 alternative in that situation?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. KLEIN: They are an alternative,
2 and we've talked about that several times. The
3 issue with chlorine is that it breaks down in
4 the presence of organic matter. So, it's not as
5 effective as, like a peroxyacetic acid, or
6 something like this lactic acid and SDBS
7 combined.

8 And so, when we're talking about
9 efficacy, do we want to use the most efficacious
10 thing, or do we want to use something that's a
11 little bit less?

12 And also, chlorine's difficult to
13 manage, and a lot of -- a lot of the customers
14 and smaller retailers and that sort of thing,
15 they don't -- either don't know how to use it,
16 or they don't manage it in their process. It's
17 more difficult to manage. Any other questions?
18 Sure.

19 MR. RICE: One question on -- when
20 you speak of retailers and restaurants, those
21 are not currently required to be certified. Do
22 you see having other tools would encourage more

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of those operations to become certified?
2 Or -- do you have any thoughts on that?

3 MS. KLEIN: You're right, they're not
4 certified. But certainly, from an organic
5 consumer perspective, we would like to know that
6 when we're purchasing products that are organic,
7 or that we're voting with our dollar, such as
8 with, like, Blue Apron, or something like that,
9 that the products that we get in are
10 treated -- you know, are treated and safe. Did
11 I answer the question?

12 MR. RICE: I think so, yeah.

13 MR. CHAPMAN: Thank you.

14 MS. KLEIN: Thank you.

15 MR. CHAPMAN: Up next is Lynn,
16 followed Kiki Hubbard.

17 MS. COODY: Hi. My name is Lynn
18 Coody, and I'm presenting comments for the
19 Organic Produce Wholesalers Coalition, seven
20 businesses that distribute fresh organic produce
21 across the United States and internationally.

22 In our comments to the NOSB, we

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 express our own ideas, and also provide a
2 conduit for the voices of the many certified
3 growers who supply our business.

4 OPWC has provided detailed comments
5 on 15 of the 2020 sunset materials specifically
6 focused on how these materials are currently
7 used and needed by produce growers and handlers.

8 We emphasized responding to the
9 Board's request for information about the
10 continued need for ethylene for ripening
11 tropical fruits and degreening citrus. We note
12 that bananas are the number three import crop by
13 value, and documented their great importance to
14 OPWC-member businesses.

15 Ethylene is needed to maintain the
16 quality of this fruit, which must be shipped
17 before it fully ripens, due to its
18 susceptibility to bruising.

19 The alternative to ethylene, using
20 heat to induce ripening, creates inconsistent
21 results due to uneven penetration, and failure
22 to bring out the full color of the fruit.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We are due to view the photos of
2 banana ripening rooms in our comments, to see
3 produce wholesalers' significant investment in
4 handling bananas.

5 Our written comments mainly focus on
6 the import to oversight document, which is
7 indicative of the importance that OPWC places on
8 maintaining organic integrity throughout the
9 supply chain.

10 We especially appreciated the
11 inclusion of question 7, about supply chain of
12 perishable products. We think some of the most
13 effective changes with regard to organic produce
14 supply chain, would be, (1) to require supply
15 chain documents to show the organic status of
16 the product, and (2) to require product
17 packaging, including bulk packaging, such as
18 produce cartons, to show sufficient information
19 to support the trace-back process.

20 OPWC members believe that in the
21 produce trade, the most effective method for
22 preventing fraud, would be to certify the entire

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 supply chain, while allowing special
2 consideration for transport operations that
3 provide service under agreements with certified
4 operations.

5 OPWC asserts the current system of
6 excluding some handlers from the requirement to
7 be certified disrupts the standard operating
8 procedures of the organic trade, and results in
9 the need for additional management by all other
10 entities throughout the supply chain and
11 regulatory systems.

12 In our opinion, special attention
13 must be directed toward certification of
14 distribution of operations run by retailers. We
15 know such operations are conducting activities
16 that do require certification, such as
17 repacking, sorting, labeling with stickers, and
18 managing ripening rooms, all without these
19 distribution operations being certified.

20 We ask the Board to continue
21 certification of the impacts -- consideration of
22 impacts of fraud on all types of organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 products, in addition to the commodities that
2 made recent headlines, and also to develop a
3 proposal for regulatory change, to close the
4 gaps in the supply chain caused by lax
5 requirements for labeling, product
6 documentation, and certification. Thanks.

7 MR. CHAPMAN: Questions for Lynn?
8 Steve?

9 MR. ELA: Lynn, I guess just in light
10 of the sanitizing issue that we were just
11 talking about, do you have any thoughts? I
12 mean, on your retail level, I mean, this is kind
13 of where we're getting at about SDBS --

14 MS. COODY: Yep.

15 MR. ELA: -- use and whether it's
16 critical or not.

17 MS. COODY: We did submit comments on
18 that, and we did not consider it to be critical,
19 because we felt like there were other options
20 that certified handlers, such as OPWC members,
21 do use on fresh produce, and we thought that
22 that was adequate for use by retailers and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 restaurants.

2 MR. CHAPMAN: Dave?

3 MR. MORTENSEN: Lynn, my area of
4 expertise is not in the supply chain and folks
5 being certified throughout the supply chain.
6 Could you give us just a brief idea of how far
7 away from that we are, and, you know, what it
8 will take to get there?

9 MS. COODY: Well, as I said, we
10 really appreciated the emphasis, or the special
11 question, about perishable supply chains,
12 because we have very different needs than green
13 supply chains.

14 For the first difference, is that the
15 boxes and containers that produce are in are
16 open. They're very able to be affected by
17 environmental contamination through water, or
18 even air.

19 We also have a problem with potential
20 for commingling, because in many cases, produce
21 is literally taken out of the boxes that it
22 comes in, and it's either re- -- it's stickered,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 it's sorted.

2 Have you ever had a bowl of oranges
3 on your counter and one of them gets that blue
4 gray mold on it? That happens in warehouses,
5 too. You have to sort them out. They are
6 stickered, etc.

7 And we have to do a lot of quality
8 testing, such as brix quality, or quality for
9 ripening and hardness, and things like that.
10 So, produce has a lot of differences. And we
11 have to be able to have a supply chain oversight
12 for each of those steps.

13 In our view, and we have participated
14 in work on this with both ACA and OTA, we have
15 come to the conclusion that the only way we can
16 handle it is through certification, which brings
17 in expertise and training to the people who are
18 doing these actual activities.

19 So, we tried every way of thinking
20 ourselves out of this box with many different
21 people, and we did not find any other answer,
22 other than certification.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. MORTENSEN: Okay.

2 MR. CHAPMAN: So, I'll go with a
3 couple of questions, and I'll also keep going
4 around. So, I'll go before you, Harriet.

5 MS. BEHAR: Okay.

6 MR. CHAPMAN: So, you talked about --
7 -- made it clear that you wanted to certify -- on
8 certified warehouses at the current time. Does
9 that extend beyond the produce industry? Do you
10 think that's also a requirement of other
11 industries? What's the threshold for --

12 MS. COODY: Yeah. In our view, we
13 felt like if a product was fully packaged in a
14 container that was not -- that was
15 impermeable --

16 MR. CHAPMAN: Yeah.

17 MS. COODY: -- that the requirements
18 could be lessened. But we don't deal with that.
19 So, we just -- our opinion just applies to what
20 should happen in the produce world at this time.

21 MR. CHAPMAN: Okay.

22 MS. COODY: Yeah. But we felt like,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 because we're vulnerable through permeable
2 packaging, that there could be a distinction
3 between those two if -- you know, if other
4 industries felt differently, we would listen to
5 their ideas.

6 MR. CHAPMAN: Okay. And then, you
7 talked about produce boxes needing to be labeled
8 to be fully traceable?

9 MS. COODY: I'm having a hard time
10 understanding you, Tom. So --

11 MR. CHAPMAN: You talked about
12 produce boxes needing to be labeled to be fully
13 traceable?

14 MS. COODY: Yes.

15 MR. CHAPMAN: What information is
16 missing currently?

17 MS. COODY: Oh my goodness. Well,
18 tomorrow my colleague from Organically Grown
19 Company, Mike Dill, will be showing some
20 pictures, in that he's one of the presenters for
21 the panel.

22 So, you'll have to hold on for the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 actual pictures of it. But in your mind, you
2 can imagine a general produce box. It simply
3 just says, Northwest Produce. It doesn't
4 necessarily have a -- information about the
5 actual product, no lot number, no declaration
6 about certification.

7 There's really not -- unfortunately,
8 you -- we're unhappy with the amount of
9 information that comes through the supply chain,
10 that links the documents to the actual product.
11 And we would like to see that -- see a major
12 upgrade in that area.

13 Tomorrow, like I said, Mike will show
14 you the actual pictures about that.

15 MR. CHAPMAN: Do you find those are
16 they're labeled now to be, based on your
17 interpretation of the standards, compliant with
18 the standards as the way they're done now, or --

19 MS. COODY: We do find some that are
20 compliant. Yeah.

21 MR. CHAPMAN: So, that lack of
22 labeling is still compliant. It's still

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 regulated -- easily auditable.

2 MS. COODY: Oh, maybe I'm not
3 understanding.

4 MR. CHAPMAN: Do you -- is it your
5 understanding that that lack of labeling is a
6 compliant practice?

7 MS. COODY: No, it is not. We -- in
8 fact, in our business we have to do a lot of
9 verification to overcome that very lack of
10 labeling. So, we have to make calls back and
11 back and back in the supply chain, to actually
12 verify what is on maybe a certificate, that that
13 is actually the box -- what's in the box.

14 So, it takes a lot of work while the
15 product is literally deteriorating in the
16 cooler. And this is a huge problem for all
17 produce businesses, starting from the farmer,
18 the second it's picked, all the way through the
19 time it gets to the retailer.

20 And we don't -- in our business, we
21 don't consider that to be compliant.

22 MR. CHAPMAN: Okay. And did I

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 understand you correctly that produce stickering
2 was occurring at uncertified operations?

3 MS. COODY: Yes, you did.

4 MR. CHAPMAN: Okay.

5 MS. COODY: That is true. We know
6 that to be as a fact.

7 MR. CHAPMAN: And then, I realize
8 that our written comments -- we talked about
9 residue testing of green shipments, and
10 I -- from previous, I -- we didn't talk about
11 residue testing of produce.

12 Our previous commenter talked about,
13 speak to marketing concerns about that. What
14 role do you see residue testing playing in the
15 perishable products space?

16 MS. COODY: Ooh. We did discuss this
17 a bit, and I think our conclusion was, it's
18 limited, because it takes so long for the
19 analysis to be done, and you get the results and
20 then, in the meantime, you have a puddle of
21 melted produce.

22 So, it doesn't really -- it's not a

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 really viable or good tool for most produce.
2 You have to have really -- the supply chain has
3 to be freestanding, with documentation,
4 certification, and really clear linkages between
5 the actual product and the documentation.
6 That's what would work for us.

7 MR. CHAPMAN: Thank you. Harriet?

8 MS. BEHAR: I pulled out my handy-
9 dandy rule --

10 MS. COODY: Oh?

11 MS. BEHAR: -- the definition of
12 retailer --

13 MS. COODY: Mm hmm.

14 MS. BEHAR: -- but especially, you
15 know, that they're doing this
16 repacking -- they're doing the repacking --

17 MS. COODY: Uh-huh.

18 MS. BEHAR: -- in another facility?
19 Or is this the --

20 MS. COODY: Yeah.

21 MS. BEHAR: -- retailer repacking in
22 the back of their store?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. COODY: No. We are concerned
2 about a new trend where retailers are now
3 running their own distribution centers. So,
4 may -- I won't use any names -- but say a
5 retailer has 15 stores all around an area. They
6 have their own warehouse, which is owned by a
7 retailer which is exempt from certification, but
8 they're doing exactly the same handling
9 activities that normally you would expect to be
10 certified under -- as a distributor.

11 MS. BEHAR: Right. So, I'm really am
12 looking at the definition of a retailer, and
13 they don't actually -- that would not fit in
14 that definition.

15 MS. COODY: Yes. In my mind I agree
16 with you totally, Harriet. But in practice, the
17 way things have happened is, there is a big,
18 giant gap in this retail handling operation.

19 So, this is not just in the back of
20 the store. This is a big, big operation, with
21 many coolers and, interestingly, both
22 conventional and organic produce being handled

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 in the same cooler. Yeah.

2 MR. CHAPMAN: Scott?

3 MR. RICE: So, obviously, that sounds
4 like it does require certification. But --

5 MS. COODY: Yes.

6 MR. RICE: -- would -- do you have
7 thoughts on how best to -- we've heard a lot of
8 ideas about education and outreach, and do you
9 see that as NOP's role, or what -- what do you
10 see as some good bridges for that gap?

11 MS. COODY: Ooh, that's a good
12 question, Scott. This is my personal opinion,
13 but I see this as very similar to the types of
14 enforcement activities that the NOP has
15 explained many times to us, where they see a
16 product that is not certified and they know it
17 should be, and then they -- someone maybe makes
18 a complaint or turns it into the NOP, and they
19 write them a nice letter and say, you should be
20 certified.

21 That's what I think should happen
22 here. You should be certified. They should get

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 a letter, and suddenly, they're confronted with,
2 well, they can put in their application, or they
3 can figure out another way to handle the organic
4 part of their supply chain.

5 MR. CHAPMAN: Emily? Did you have a
6 question?

7 MS. OAKLEY: Is there someone else
8 before me, though?

9 MR. CHAPMAN: I don't know. I was
10 going around the room, and so Ashley,
11 Jesse -- nope, it's you.

12 MS. OAKLEY: Okay. This is changing
13 the subject.

14 MS. COODY: Okay, Emily.

15 MS. OAKLEY: Thank you for your
16 comments on ethylene and pineapple.

17 MS. COODY: Oh, yes.

18 MS. OAKLEY: And I wanted to ask you
19 your thoughts about some other comments that
20 were received suggesting that the criteria used
21 for ethylene doesn't fit the off-the-criteria,
22 because it's basically -- in pineapples, that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 is -- because it's basically an economic
2 rationale, and so I wanted to know what your
3 thoughts were on that.

4 MS. COODY: I understand that
5 concern, and I do think it's a little bit of an
6 oddball situation, as far as that goes. But I
7 also think that it's been in use for a really
8 long time, and it was understood even way before
9 the NOP, to be something that was appropriate
10 for organic use.

11 So, that issues has only recently
12 been of concern. And we now have allowed, you
13 know, many growers to be reliant on it. It's a
14 very, very important crop for the whole supply
15 chain.

16 So, yeah, there are many economic
17 issues related to it. But there are also
18 agronomic issues, as well, and that's kind of
19 where we focus with our growers, is
20 understanding, could you do this differently?
21 Is there any other option?

22 And we have not been able to identify

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 any other option that's workable for them. Most
2 of the people that are using it -- well, they're
3 the ones that are exporting/importing into the
4 US, and they -- they're not really the tiny,
5 tiny growers that are growing the crops for the
6 local use.

7 And so, in order to do that, there
8 has to be a harvest at -- all at one time in
9 order to make it viable for that type of supply
10 chain. That's what we focus on.

11 MR. CHAPMAN: Thank you, Lynn.

12 MS. COODY: Thank you.

13 MR. CHAPMAN: So, up next we'll have
14 Kiki. And then, we'll stop with Kiki, break for
15 lunch, when we come back from the break, Abby
16 will be up first at 2 o'clock.

17 MS. HUBBARD: Good afternoon. My
18 name is Kiki Hubbard. I'm the Director of
19 Advocacy for Organic Seed Alliance. We are a
20 non-profit that works nationally to ensure that
21 organic farmers have the seed they need through
22 research, education and advocacy.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I want to thank the Board for all of
2 your work, and for your commitment to this very
3 important public process. My comments will
4 touch on three seed-specific topics.

5 First, we thank the Board for keeping
6 conversations about seed integrity moving
7 forward. We agree that testing for and
8 monitoring unwanted genetically engineered
9 material and seed sourced for organic systems,
10 is a good idea.

11 After four discussion documents, we'd
12 like to see those four taken to the next level.
13 We know a proposal can't be put forward with any
14 degree of competence at this time until we have
15 more data, which is something public comments
16 have repeatedly called for.

17 We still lack information that helps
18 us understand the extent of the problem in
19 organic and other forms of non-GMO seed. Seed
20 companies that serve organic growers are testing
21 and tracking levels of contamination in agriseed
22 crops.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And as was mentioned earlier, this
2 data could possibly be collected in a way that
3 protects the anonymity of companies, to help us
4 understand the scope of the problem, and what
5 threshold, if any, is feasible.

6 We're very much supportive -- we very
7 much support establishing a task force on seed
8 integrity. We also support the idea of a pilot
9 project focused on a single at-risk crop.

10 Organic seed companies and growers
11 would have to be closely engaged in this process
12 from the beginning, however, to avoid undue
13 costs and burdens down the road.

14 Such a pilot project could also help
15 answer some of the questions that were listed in
16 the discussion document before you this week,
17 including those related to testing methods and
18 protocols.

19 Secondly, we're disappointed that the
20 topic of excluded methods isn't moving forward
21 at this meeting. This is a critical area in
22 which the materials in GMO subcommittee was

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 making much progress in clarifying the
2 terminology used for making determinations about
3 which methods are excluded, or aren't excluded,
4 in organic systems.

5 We believe the subcommittee has
6 established a useful framework to serve as
7 guidance for making strong and consistent
8 decisions regarding compliance in this regard.

9 We hope to see the working excluded-
10 methods proposal move forward with a terminology
11 chart and list of methods that includes more
12 background information, and definitions to
13 support this work and this conversation, moving
14 forward.

15 Lastly, we hope to see the crops of
16 committee's proposal to strengthen the NOP's
17 2013 organic seed guidance document, back on the
18 fall agenda.

19 This proposal clarifies and
20 strengthens the organic seed requirement, and
21 signals to the broader organic community, that
22 organic seed is important to the integrity of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the end-product, and that further investments in
2 organic seed will have a positive ripple effect
3 that leads to more high-quality organic seed
4 options that are well-suited to organic
5 production systems.

6 We hope to see an improved version of
7 this proposal at the fall meeting, and encourage
8 the NOSB to make organic seed policy a priority
9 moving forward. Thank you.

10 MR. CHAPMAN: Thank you. Real quick,
11 I just to make a clarity, and then we'll go to
12 questions. So, excluded-methods terminology is
13 on our active work agenda. There was no product
14 produced by the subcommittee to be ready in time
15 for this meeting, but doesn't mean if there's a
16 product ready by the fall meeting, then that's
17 when we'll hear it next. It is on the active
18 work agenda.

19 MS. HUBBARD: Thanks, Tom.

20 MR. CHAPMAN: So, questions.
21 Harriet?

22 MS. BEHAR: What would be the impact

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of requiring non-organic seed to have some
2 testing. It would maybe not have to be on the
3 seed tag, but before an organic producer could
4 use non-organic seed, they would have to have
5 some sort of tracking of the GMO contamination.

6 Or do you think we should just only
7 stick with the organic seed suppliers.

8 MS. HUBBARD: Oh, absolutely not No,
9 I think -- I like the idea of requiring some
10 verification that the testing has been done on
11 untreated, non-organic, conventional seed being
12 sourced by organic growers.

13 I absolutely think that non-GMO, non-
14 certified organic seed should be part of this
15 conversation, and process, as well, if not more,
16 because organic seed suppliers, organic seed
17 production companies, in particular, are doing a
18 really good job of testing and monitoring the
19 problem, and taking measures internally to
20 address it, meaning they are working hard to
21 meet customer demand, or customers'
22 expectations, in the way GMO pre-seed.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Dave?

2 MR. MORTENSEN: Kiki, if you could,
3 you know, now or after we break, any ideas you
4 have about how we gather existing data and cite
5 about crop species, and, you know, data that is
6 being kept and could be shared with us, we would
7 really benefit from hearing that.

8 MS. HUBBARD: Yeah, it's -- I
9 definitely think it's a conversation that needs
10 to be had with seed suppliers first,
11 especially -- starting with seed suppliers who
12 sell mostly organic, if not sell all, if not
13 mostly, organic seed, because they're going to
14 be most committed to helping us address the
15 problem.

16 The challenge is going to be when we
17 try to gather data from the larger genetics
18 firms that have strict intellectual property
19 right protections, including restrictions on
20 testing for genetically insured material, and
21 the seed they're selling probably -- including
22 seed that is conventional and treated -- and so

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that is going to be a barrier for sure.

2 But I do think there is a way to come
3 up with a solution with organic stakeholders, to
4 try to create a model or system for doing that
5 research.

6 We keep talking about it, and now is
7 the time to really be more coordinated and
8 motivated to come up with that plan. And I'm
9 happy to talk further about ideas, and engage
10 other stakeholders, as appropriate.

11 MR. CHAPMAN: Dan?

12 DR. SEITZ: So, I'm not an expert in
13 excluded-methods terminology. My sense is that
14 because this technology has evolved so rapidly,
15 there really isn't at this point necessarily
16 settled agreement on what constituted excluded
17 methods.

18 And there may well be some
19 differences between people in the GE industry,
20 and people involved with organic -- the organic
21 industry, as to what constitutes excluded
22 methods from -- using our terminology.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I imagine there are also differences
2 between how Europeans are looking at this, and
3 the US looks at this. And I'm just curious, I
4 mean, obviously this is a big subject, but if
5 you could just take a minute and explain, where
6 are some of these differences, and where are you
7 seeing some good degree of consensus within the
8 organic industry, about how excluded methods
9 should be -- how the terminology should be
10 classified?

11 MS. HUBBARD: Well, let me start
12 by -- yeah, thank you for the question, Dan.
13 Let me start by saying that the definitions that
14 the subcommittee has been working on in the
15 context of excluded-methods discussion, have
16 been reviewed by a number of people, including
17 plant breeders, and other scientists.

18 There is general consensus that the
19 methods that have been determined as excluded,
20 should be excluded with the current excluded-
21 methods definition.

22 Now, one of the benefits, or one of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the strengths, of the framework that the
2 subcommittee has put forward, is that it
3 provides additional definitions to help clarify
4 the excluded-methods definition, including
5 definitions around conventional breeding, and
6 what a GMO is.

7 It goes beyond the excluded-methods
8 definition, to provide more clarity, to help us
9 all -- especially the NOP, the NOSB with the
10 recommendations, as well as certifiers and
11 others who are enforcing the rules -- helping
12 all of us to make strong, consistent
13 determinations and decisions, so that we're in
14 compliance with prohibiting those excluded
15 methods.

16 Now, yeah, there is going to be
17 disagreement, especially within the biotech
18 industries, but -- including with the
19 definitions themselves.

20 But my understanding is that the
21 USDA's regulations governing biotechnology,
22 including their definition of bioengineering,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 should have no impact on the NOP's excluded-
2 methods definition, and should have no impact on
3 the efforts of NOSB to determine which
4 techniques should and should not be excluded.

5 MR. CHAPMAN: Thank you. Thank you.
6 And so, we'll break now for lunch. We'll start
7 back up sharply at 2 o'clock. At 2 o'clock, just
8 so you're aware, is Abby Youngblood, followed by
9 Margaret Scoles. Thank you. We're in recess.

10 (Whereupon the above-entitled matter
11 went off the record at 1:06 p.m., and
12 resumed at 2:04 p.m.)

13 MR. CHAPMAN: If folks can take their
14 conversations outside, we'll get started. First
15 up is Abby, in the unenviable spot of first
16 after lunch. After Abby is Margaret Scoles.
17 Abby, if you can start with your name and
18 affiliation.

19 MS. YOUNGBLOOD: All right. Thanks,
20 Tom. I'm Abby Youngblood, Executive Director at
21 the National Organic Coalition. And I want to
22 start by expressing my gratitude to members of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the NOSB. Thank you so much for your
2 dedication.

3 NOC wants to convey our support for
4 the proposal on eliminating the incentive to
5 convert native ecosystems. We urge the NOSB to
6 seize this opportunity to make progress on an
7 issue that is critically important to organic
8 stakeholders.

9 We agree that further clarifications
10 are needed to address concerns about forested
11 land in the northeast region, but we believe
12 this can be done through guidance. The
13 fundamentals of the proposal provide a solid
14 foundation for moving forward on this issue.
15 Please vote yes on this proposal tomorrow
16 afternoon.

17 On excluded methods, NOC urges the
18 NOSB and the NOP to continue work in this arena.
19 Please publish the NOSB's draft discussion
20 document on this topic and put this item on the
21 agenda for the meeting in St. Paul this fall.

22 The NOSB's work on this topic is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 incomplete, and next steps are essential to
2 protect the integrity of organics. There are
3 nine new genetic techniques that the NOSB has
4 already voted on and unanimously determined that
5 they should be prohibited.

6 The NOSB must continue its evaluation
7 of the eight technologies that are still listed
8 in the terminology chart as to be determined.
9 The Board also needs to provide definitions for
10 agroinfiltration, cisgenesis, and intragenesis to
11 accompany the unanimous recommendation from the
12 fall of 2017.

13 NOC commented on silver dihydrogen
14 citrate. Because the NOSB has received a
15 petition to add this material to the national
16 list, NOC urges the NOSB to vote against this
17 petition when it comes before the Board. The
18 material is a type of nanosilver.
19 Nanotechnology and nanomaterials are
20 incompatible with organic production due to
21 strong evidence that they are not safe for human
22 health.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Unfortunately, the NOP policy memo on
2 nanomaterials from March of 2015 has left the
3 door open to petitions like this one and to the
4 inclusion of nanomaterials on the national list.
5 Nanomaterials are becoming an increasingly
6 common, and companies are seeking to market
7 their products to organic producers.

8 Without an effective prohibition on
9 nanomaterials in organic, the NOSB may encounter
10 many similar petitions in the future detracting
11 from their ability to work on other critical
12 issues.

13 We urge the NOSB to put the topic of
14 nanotechnology on your work agenda. We need an
15 NOSB recommendation to permanently prohibit this
16 technology. Thank you for considering my
17 comments.

18 MR. CHAPMAN: Thank you, Abby. Any
19 questions for Abby? Ashley?

20 MS. SWAFFAR: So on the native
21 ecosystems, back to that, you say that a lot of
22 the concerns can get worked out through

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 guidance. And guidance is just guidance. And
2 we're depending on the program to hear those
3 concerns. Any thoughts or elaborations on that.

4 MS. YOUNGBLOOD: Yes. So our thought
5 on that is that not all wood lots in the
6 northeast are native ecosystems. So we would
7 expect the NOP to clarify this issue and others
8 through guidance with support from a broad-based
9 team of organic experts including farmers,
10 conservationists, certifiers, and others.

11 MR. CHAPMAN: Any other questions?
12 Emily?

13 MS. OAKLEY: On the inspector
14 qualifications documents, I know that you
15 expressed concern about leaving some of the
16 guidance up to the NOP. Would you suggest
17 voting on this proposal as it is, given the
18 complications of sending it back for further
19 work?

20 MS. YOUNGBLOOD: We support the
21 proposal. And my colleague, Christie Badger, is
22 going to speak a little bit more on this topic.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 While we support the proposal, we do believe
2 that NOSB should remain involved in that issue.

3 MR. CHAPMAN: Thank you, Abby. Up
4 next is Margaret followed by Jay Feldman.
5 Margaret, if you can start with your name and
6 affiliation.

7 MS. SCOLES: Margaret Scoles,
8 Executive Director, International Organic
9 Inspectors Association. A year ago, I asked the
10 NOSB to focus on inspector qualifications.
11 Thank you for doing that. We're moving toward
12 our goal, better inspections and better
13 inspectors.

14 The timing is critical. Yesterday, I
15 heard several people speak about the importance
16 of qualified inspectors in detecting fraud,
17 whether for imports or domestic fraud.

18 To respond to your first four
19 questions, Question 1, are the criteria on
20 qualifications in the ACA best practices
21 sufficient? IOIA supports this document. It
22 was a collaborative effort of a cross section of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 large and small state agency and private
2 certifiers, and IOIA.

3 What changes do we suggest? Work
4 that IOIA did for the NOP is Appendix 1 to your
5 proposal, IOIA Criteria for Inspectors and
6 Reviewers, November 2011. It included two
7 important items that were above baseline
8 competency and therefore were not incorporated
9 by the working group.

10 IOIA recommends additionally, first,
11 expanding guidance to differentiate inspector
12 levels. We propose three levels of professional
13 inspectors based on experience, background, and
14 expertise.

15 Many but not all certifiers have
16 systems to identify and assign the most
17 qualified inspectors. Due to rapid growth of
18 organic and lack of incentives to retain
19 experienced inspectors, we are over-relying on
20 inexperienced inspectors. This creates
21 inconsistency and risk.

22 Second, minimum hours of continuing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 ed in level-appropriate content.

2 Question 2, what resources are
3 available? Good resources are available, for
4 example, the ACA annual training. IOIA offers
5 100, 200, and 300 level webinars and in-person
6 training. Self-directed learning is a focus
7 this year.

8 We are developing training on natural
9 resource assessment and biodiversity with the
10 Wild Farm Alliance. There is still a need to
11 shift to a more risk-based approach for both
12 certifiers and inspectors and, with that, a need
13 for training.

14 IOIA and ACA are in close
15 communication about training needs. NOP
16 provides staff to speak at inspector training.
17 Any NOP guidance should require a documented
18 number of hours of level-appropriate continuing
19 ed.

20 Should there be inspector licensing?
21 Yes, eventually. The documents IOIA created for
22 the NOP included a concept of operations for

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 licensing inspectors and reviewers.

2 At this point, requiring licensing or
3 ISO accreditation would add burdensome costs and
4 negligible value. How do you think such a
5 system could work? I refer back to the work
6 that's already been done by IOIA, plus two
7 supplemental papers including a schematic of
8 IOIA's new tiered inspector certification
9 program. I left it right there.

10 MR. CHAPMAN: Thank you. Scott?

11 MR. RICE: Thanks, Margaret. In
12 terms of if we don't go down the road of a
13 licensing program now, and to Ashley's earlier
14 point, guidance being only guidance, how do we
15 ensure that certifiers are interpreting guidance
16 or are truly implementing minimum or standard,
17 if you will, qualifications? How do we keep
18 that a strong system?

19 MS. SCOLES: It is true that when we
20 do things in the private sector, IOIA, ACA can
21 get together. Not all certifiers belong to ACA.
22 Not all inspectors take training, not all

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 certifiers require training. And so I think
2 some method of licensing is getting pretty
3 important. And it needs to be in the near
4 future.

5 The problem with licensing or the
6 challenge with licensing, not a problem with it,
7 is that in order for the government to recognize
8 -- the state of Texas, for example, couldn't
9 require IOIA accreditation, because it's not a
10 governmental sanction. And that's if we have a
11 licensing program, it needs to be --- that's
12 where ISO accreditation could be valuable. It
13 could allow NOP to recognize it.

14 And we see at least three different
15 ways that it could happen. I mean, the NOP
16 could simply put together a licensing program
17 for inspectors. I don't think that's necessary.
18 Or we could get ISO accredited in the private
19 sector. IOIA and ACA could take the work that's
20 been done, and create a system, and have it ISO
21 accredited. And then the NOP could approve it
22 that way.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 What we proposed in 2011 was a
2 public/private partnership. I've never been
3 convinced that's the right way, but that is the
4 challenge to make something that fits everybody.
5 It doesn't required membership and allows the
6 government to --- losing the word that I want --
7 - endorse it.

8 MR. CHAPMAN: Any other questions?
9 Harriet?

10 MS. BEHAR: So for inspectors, once
11 they pass the IOIA training, and they are taking
12 the webinars or whatever, is there any further
13 testing or proof of competency that occurs as
14 they maybe would move up in those tiers or
15 whatever?

16 MS. SCOLES: The system that we
17 currently have, we have -- what is new is field
18 training. It used to be that we knew people
19 were not ready for basic training when they came
20 --- or ready to do inspections when they came
21 out of basic training. We knew that. And
22 apprenticeship wasn't always available.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So we created field training which we
2 still consider that entry level, 100 level
3 training. And it does require a pass/fail. And
4 then the 200 level series of webinars, or in-
5 person training like the biodiversity and
6 natural resources, those would be things that
7 would all have a competency test. And they are
8 things that we think every working inspector
9 should have. That's kind of the definition of
10 the 200 level. And they do all have an
11 assessment.

12 MR. CHAPMAN: Dave?

13 MR. MORTENSEN: Margaret, during the
14 meeting yesterday, the NOC meeting, you were
15 sitting next to me. And there was a discussion
16 about that not all crops or cropping systems are
17 equal and that certification of livestock on
18 grass pasture-base was challenging and that a
19 number of certifiers were not up to speed to do
20 it well. That was the general --- some of the
21 things that were being said.

22 Could you speak to, you know, how we

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 achieve a state where certifiers are, if that is
2 true, where certifiers are equally competent
3 across the systems that they work in, or how we
4 maybe have people that are specialists in a
5 given kind of cropping system, and cover those
6 things?

7 MS. SCOLES: Dairy is a really ---
8 dairy is problematic. It's not so much of ---
9 I'm the person that reads all the applications
10 and decides if people can take training. And I
11 see people who are --- their references are
12 their cousin, and they went to their grandpa's
13 farm in the summer. And they want to take crop
14 inspection training. And sometimes those people
15 get into crop inspection training.

16 And I've seen the certifiers send
17 them back to us. They have to have a livestock
18 certificate in order to do livestock
19 inspections. But they don't know --- I've had
20 cows all my life. I don't feel qualified to
21 inspect a raw dairy. I mean, I've done
22 everything you can with a cow but not dairy

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 cows, particularly.

2 I think that we have a risk of people
3 that are not qualified being trained and then
4 certifiers maybe being too willing to use some
5 of those people. But that's definitely a
6 problem between certifiers.

7 Some certifiers are much more
8 careful, and they have a smaller number of dairy
9 inspectors, for example. And some consider
10 their operations low risk. And, you know, well,
11 if they're small dairies, somehow they're not
12 risky, which isn't really true.

13 MR. CHAPMAN: Thank you. So just a
14 reminder to the Board, we're operating about an
15 hour and ten minutes late at this moment. Up
16 next is Jay Feldman. On the deck is -- I lost
17 my spot -- Jo Ann Baumgartner.

18 Jay, start with your name and
19 affiliation.

20 MR. FELDMAN: Hi, good afternoon.
21 I'm Jay Feldman, Executive Director of Beyond
22 Pesticides. I served on the Board from 2010 to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 2015. And I'd like to thank you all for your
2 service. I feel your pain.

3 The work of the NOSB is first and
4 foremost about ensuring the integrity of the
5 USDA organic label, ensuring public trust. This
6 establishes, and protects, and helps to grow the
7 market. To the extent that the NOSB does not
8 embrace this task fully against all attempts to
9 override the Board's authority, the label is
10 damaged.

11 To that end, strengthening and
12 clarifying the requirements for the use or
13 organic seeds should remain on the agenda to
14 eliminate inconsistencies in the enforcement of
15 NOP's broad exemption that allows the use of
16 conventionally produced seed in certified
17 organic.

18 Excluded methods, terminology should
19 be maintained on the NOSB agenda to keep up with
20 the fast moving biotechnology industry. Organic
21 regulations prohibit the use of genetic
22 engineering, as you know.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 It's critical that we have deadlines
2 for these topics and others so that something on
3 -- we know, as the public, that something on the
4 active list, the active work plan, is moving to
5 closure.

6 It is important for the NOSB to
7 maintain a focus on the problem of contaminated
8 inputs, another key issue which threatens the
9 quality of organic products and soil on organic
10 farms. The NOSB last addressed this issue in a
11 report in the spring of 2015.

12 We urge the NOSB to insist that NOP
13 move forward with implementation of the NOSB
14 recommendation on inert ingredients. To that
15 end, I think the Board should reject the
16 petition for sulphur use as a molluscicide for
17 which the petitioner, I believe, has a label
18 with a 99 percent ingredient statement.

19 In cases where you cannot determine
20 the inert ingredients, which is considered
21 proprietary information or CPI, you should
22 annotate that allowance, or that material, or

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 substance pending a policy being put in place,
2 given what we heard earlier today that it's not
3 on the agenda or not on the work plan.

4 The fraud problem extends to both
5 imported and domestically-grown organic food.
6 The topics of inspector qualifications,
7 inspector training, are integral to fraud
8 protection. BPA, and other ingredients, and
9 packaging should be eliminated. And this should
10 be a priority issue of the Handling Subcommittee
11 in a TR of BPA. And its alternative should be
12 commissioned.

13 We support the CACS proposal on
14 native lands, and that proposal should be
15 approved.

16 I'd like to talk about polyoxin D
17 zinc salt, which was raised earlier. We are
18 against this petition expressly because of the
19 impact it has on soil and biological systems.
20 The soil ecosystem, as you know, depends on
21 fungi for breaking down organic matter and
22 supplying nutrients to plants. This issue is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 basic to the NOSB's charge to ensure material
2 compatibility of organic soil systems. Thank
3 you.

4 MR. CHAPMAN: Thank you, Jay. Emily?

5 MS. OAKLEY: Thanks for bringing up
6 polyoxin D. So I have some reservations,
7 because the technical review that was
8 commissioned, which is supplementary, is relying
9 on the petitioner's information regarding the
10 impacts of soil. And I'm wondering if you would
11 elaborate on that.

12 MR. FELDMAN: Well, I think that's
13 always problematic. If the TR is insufficient
14 then certainly I think that the Board needs to
15 go back and read the sufficiency standard that
16 we typically require of the TRs.

17 But I think the larger issue in this
18 case is that we found with these materials,
19 other similar ones, that it's really the
20 inactive, well, I shouldn't say inactive,
21 because as you all know, inert ingredients can
22 be biologically and chemically active, and often

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 more so than the actual active ingredient.

2 In this case, the active ingredient
3 is sulphur, but the inert ingredients may be
4 ethoxylated compounds. We don't know. But it
5 would very easy for the Board, in the absence of
6 an inerts policy, to annotate an allowance. In
7 this case, I think when there's a petition
8 coming up, it should be rejected for lack of
9 information on the full product formulation.

10 In the case of a sunset with the
11 material that you know has ethoxylated
12 compounds, or could have ethoxylated compounds,
13 and the manufacturer is unwilling to disclose
14 that information --- and understand that most
15 inert ingredients comprise the majority of the
16 product formulation. This is not unique to
17 polyoxin D.

18 So I hope that answers the question.
19 But it's something you can do something about.
20 This is a classic example where, you know, you
21 have the authority to annotate. And in the case
22 of a petition, you have the authority to reject

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 pending complete information on the product
2 formulation.

3 MR. CHAPMAN: Dan?

4 DR. SEITZ: A couple of questions.
5 First, on the question of polyoxin D, so I've
6 heard a couple of --- I don't know anything
7 about this as a substance, and I'm a consumer
8 not a pharmacy.

9 So my understanding, or one of the
10 argument's I've heard, is that there are other
11 substances that are used that do more harm than
12 this. So that by having this, you may actually
13 lessen the accumulative harm of some of the
14 substances that are already on the list. And
15 I'd just be curious to hear how you respond to
16 an argument like that.

17 MR. FELDMAN: Yes. I mean, I like
18 that argument. If we had the authority to
19 remove materials off the market, I mean, if we
20 had before the Board a petition to remove other
21 more hazardous materials, and we were bringing
22 in a new material, it doesn't necessarily, and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 in most cases doesn't have that effect.

2 But I think that there's a deeper
3 problem here, and that is we don't really know
4 what the full formulation is. We know we're
5 talking about an active ingredient, but we know
6 there's iron in there, but we don't know the
7 full formulation. So how do you make a
8 judgement as to the hazards nature of the
9 material?

10 And I understand the Board is not
11 listing products, right, the Board is not
12 listing products. But that's why you have
13 annotation authority. To preclude the
14 ingredients that you have not gotten information
15 on has not been fully disclosed.

16 DR. SEITZ: Then what would be one or
17 two examples of something that is labeled an
18 inert that would be a highly toxic or
19 problematic material, just so that we have that
20 understanding that inerts are not truly inert?
21 I mean, what ---

22 MR. FELDMAN: Right. Well, you know,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the one I like to use the best, because the
2 reason I use this example is because EPA, you
3 know, has a program in which it identifies green
4 materials, right. So this is the safer
5 chemicals program.

6 And they have literally identified
7 these surfactancy ethoxylated compounds as
8 materials that should be taken out, and it's not
9 just pesticides. These are in household product
10 shampoos, different materials, because there are
11 alternatives on the market.

12 So what are these chemicals do? I
13 mean, these are chemicals that are neurotoxic.
14 Some of them are carcinogens or endocrine
15 disrupters, in the case of the ethoxylated
16 compounds, which affects all our organ systems
17 if you adversely affect the endocrine system.

18 So that's an example where we do have
19 products on the market. The Inerts Task Force,
20 as part of the NOSB with EPA staff assisting the
21 process, was able to identify this as a
22 category, the ethoxylated compound, in a couple

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 dozen or more products on the national list of
2 allowed and prohibited substances that had these
3 compounds in it.

4 Those could be pulled out by
5 annotation as part of the sunset review or, in
6 the case of a petition, it could be rejected
7 because of the failure to be able to evaluate
8 these questions.

9 MR. CHAPMAN: Thank you.

10 MR. FELDMAN: Thank you.

11 MR. CHAPMAN: Next we have Jo Anne
12 followed by Ed Maltby. Jo Anne, if you'll start
13 with your name and affiliation.

14 MS. BAUMGARTNER: Thank you. Jo Anne
15 Baumgartner, Wild Farm Alliance. We urge the
16 NOSB to pass the proposal to eliminate the
17 incentive to convert native ecosystems to
18 organic production. Voting yes is a vote for
19 storing carbon and conserving biodiversity.
20 It's a vote for continual improvement of the
21 standards, and it's a vote for the integrity of
22 the label.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We're not charting new waters.
2 Twenty-four other eco-labels require similar
3 native ecosystem protection. Over 1,200 organic
4 consumer comments support this proposal. They
5 are appalled that they may be paying extra for
6 products that are destroying habitat when
7 already half the world's wildlife has been lost
8 since 1970.

9 Many native ecosystems can be grazed
10 organically as long as they can still contain
11 dominant and characteristic plant species. I've
12 seen myself how good grazing can improve oak
13 tree and native grass regeneration. Maple
14 sugaring can occur in native ecosystems as long
15 as the requisite plant species are conserved.

16 Not all abandoned lands are native
17 ecosystems. It takes time for disturbed areas
18 to recover. In New England, about one and a
19 half million acres of land quit being farmed in
20 the last 50 years. What hasn't been developed,
21 may be eligible for organic certification. Many
22 of these wooded areas grew back too tightly with

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 too few species to contain the required plant
2 composition and structure. Native ecosystem
3 definition says that recovery tends to occur in
4 50 to 100 years.

5 The verification process we outline
6 uses state of the art online maps and
7 NatureServe native ecosystems' descriptions and
8 field keys for the US and similarly for much of
9 the America's, Europe, and Australia. Google
10 Earth, Global Forest Watch, and ground truthing
11 can be used elsewhere.

12 Let's not miss the bigger picture.
13 We are running out of time to save the earth's
14 declining in rare species and ecosystem
15 functions. Specific concerns that have been
16 raised can be dealt with in guidance.

17 You will not be able to satisfy
18 everyone. You have to choose what is right.
19 Voting for this proposal will protect hundreds
20 of thousands of acres of native ecosystems all
21 around the world.

22 We need to keep this issue moving

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 forward. Wendell Berry has said, "Land
2 destruction is easy for it only requires
3 ignorance and violence. But to restore the land
4 and to conserve it requires humanity in its
5 highest, completest sense." Are you for or
6 against biodiversity?

7 MR. CHAPMAN: Emily?

8 MS. OAKLEY: Thank you, Jo Anne. I'm
9 going to open up something from the public
10 comments that I wanted to get your perspective
11 on. There was a written comment from someone
12 who works on a ranch in southwestern Missouri or
13 southeastern Missouri.

14 And he was writing as a private
15 individual. So I just want to stress that. But
16 I wanted to read a couple of the sentences that
17 he wrote in about and get your perspective on
18 them. He talks about this first incentive to
19 convert native ecosystems.

20 And he said, "We totally did this on
21 our ranch. And I wish we couldn't have.
22 Because we have suffered a lot of soil erosion

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 from cutting down the trees and not immediately
2 seeding the cover crop.

3 "Having a hard time growing grass
4 now. We really shot ourselves in the foot by
5 rushing things before we had an adequate plan
6 together. With the passage of this new
7 regulation, the NOSB would incentivize the
8 transition of non-organic farms while minimizing
9 the loss of lands with important habitats from
10 conversion.

11 "Please help other farmers avoid the
12 mistakes we've made and are paying for dearly."

13 I wanted to get your perspective on
14 that.

15 MS. BAUMGARTNER: Yes. Well, as soon
16 as you clear a native ecosystem, you better do
17 something with it right away, because it
18 probably will erode or invasive species are
19 going to come in. And that Farmer obviously
20 wasn't paying attention, and now he has the
21 added problem of trying build soil, I mean,
22 block soil.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 And he --- it's really interesting
2 that he is thinking about this twice, and he
3 thinks it was a wrong move in the first place.

4 MR. CHAPMAN: Ashley?

5 MS. SWAFFAR: I got a whole bunch of
6 questions for you. In your mind, what does
7 conversion mean?

8 MS. BAUMGARTNER: Well, conversion is
9 conversion of a native ecosystem. And the
10 definition of a native ecosystem is spelled out
11 in the proposed rule. I think the guidance will
12 explain that more. And that's, you know, the
13 NOP didn't want, as I understood it, didn't want
14 a huge proposal on the subject. They wanted
15 concise language knowing that there was going to
16 be guidance.

17 And so the guidance can explain that
18 to determine if it's a native ecosystem you have
19 to use dominant and characteristic plant
20 species, and native ecosystem classifications.

21 Guidance can also explain how to use
22 the USGS maps that map native ecosystems and the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 related NatureServe documents that explain what
2 each native ecosystem is and their related field
3 keys. So all of that can go in guidance.

4 And the thing about NatureServe is
5 they are associated with the Nature Conservancy.
6 They're non-partisan, and they work really
7 closely with government. They keep all of the
8 rare and endangered species data for all the
9 states in the union and for the feds. And
10 because animals know no borders, they are
11 talking internationally to people who are
12 managing the same kinds of ecosystems.

13 MS. SWAFFAR: Multiple questions for
14 you.

15 MS. BAUMGARTNER: Okay.

16 MS. SWAFFAR: So I think what is
17 getting everybody confused is around the semi-
18 natural definition and what that is compared to
19 some of the New England stuff. Can you expand
20 upon what is the semi-natural vegetation? Is
21 there a universal definition for this? Who
22 defined it, that sort of thing.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. BAUMGARTNER: Yes. Well, the
2 difference between a natural and semi-natural
3 ecosystem has to do with how much that ecosystem
4 has been used by people, basically. And semi-
5 natural has recovered enough to be called that
6 native ecosystem.

7 So the native --- there are certainly
8 areas in the northeast where there has been
9 abandoned farmland, and it has not recovered
10 enough to be called a native ecosystem.
11 Likewise, there are areas that haven't been
12 farmed for 50 to 100 years, as our definition
13 says, that are likely a native ecosystem.

14 But it depends. Like I showed in my
15 slides, right, if you have a forest that's
16 growing back really tight, it's never going to
17 be a native ecosystem. So taking those tools
18 that I described, first you look at the USGS
19 maps, see where you're at, see what kind of
20 native ecosystem might be there, and then look
21 further at the definition that NatureServe has
22 and, if you need to, go out in the field with

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that key.

2 And that key is basically what plants
3 are there. And the thing about it is farmers
4 know plants. For the most part, they do know
5 plants. They may not know the Latin names of
6 them or all of the plants, but it's not out of
7 their purview, their world view. And the same
8 with certifiers. And so using this process can
9 help get to clearly defining the difference
10 between what is non-native and what is a native
11 ecosystem.

12 MS. SWAFFAR: So my question was the
13 definition of semi-natural vegetation and who
14 defines that?

15 MS. BAUMGARTNER: Oh. Well, I did
16 mention that the difference between the two ---
17 I mean, yes, the difference between the two is
18 that one has been managed more by people. Both
19 native ecosystems have dominant and
20 characteristic plant species. This definition
21 is coming from NatureServe.

22 MR. CHAPMAN: Thank you. A-Dae.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. ROMERO-BRIONES: Hi, Jo Anne.
2 Thank you so much for all your work on this and
3 particularly for getting into the weeds with
4 NatureServe. So there's tribal communities that
5 own over 100 million acres in this country which
6 is --- they're one of the largest land owners
7 outside of the federal government.

8 Can you tell me if you talked to any
9 tribal stakeholders? We do have tribal organic
10 stakeholders who are very concerned about this.
11 Did you consult with any of them or talk with
12 any of them in defining some of these terms that
13 are in the proposal?

14 MS. BAUMGARTNER: Yes. We've talked
15 with a couple of the native communities in the
16 West Coast and then, I'm sorry, I don't remember
17 the names of them, Jamie Simms and Kara Johnson.
18 And they each -- Jamie is an attorney in the
19 mid-west that works on policy all across the
20 country.

21 And so we made them aware of this
22 issue. We were really outreaching to them to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 try and understand where they were at, and you,
2 where Native American peoples are at with this.

3 What we had heard was that, up in the
4 Northeast, some Native American communities were
5 concerned about the effort to bring back some of
6 the, sorry, some of the wooded --- the abandoned
7 land that now has reverted to native ecosystems.
8 Because as soon as you cut those down, it's
9 going to impact their fisheries.

10 We also heard about how there's
11 harvesting in native lands without permission.
12 But that's kind of a different issue.

13 MR. CHAPMAN: I have to stop you
14 there. We going to have to move on. Thank you,
15 though.

16 MS. BAUMGARTNER: Sure.

17 MR. CHAPMAN: We're an hour and ten
18 minutes late, or an hour and 20 minutes late at
19 this point. Thank you, Jo Ann. Up next is Ed
20 followed by Garth.

21 MR. MALTBY: Good afternoon. And my
22 name is Ed Maltby. And I'm with Northeast

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Organic Dairy Producers Alliance. I'd first
2 like to thank you all for your service. And I
3 realize more than most exactly what the work
4 entails. And you must disregard anything that
5 the Senate says about this body. Because you do
6 great work. Thank you.

7 We heard this morning Secretary Ibach
8 talking about some of core tenets of organic
9 certification, organic animal welfare, the OLPP,
10 and the concept that this would be not part of
11 the organic label, but it would be an extra, an
12 add-on, a wraparound, whatever you would like to
13 call it.

14 I represent organic dairy farmers
15 that went into organic dairy, invested hundreds
16 of thousands of dollars into becoming proficient
17 stewards of the land and organic dairy people.
18 We're now being told that animal welfare is not
19 a tenet of organic certification. I hate to
20 think what they're going to do to me when I go
21 back.

22 Origin of livestock, we heard this

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 morning about the NOP meeting the requirements
2 of the Inspector General report, the 2018, '17,
3 on imports. I would like you to meet the
4 requirements of the Inspector General Report
5 2013 which talked about the origin publication
6 of the origin of livestock being one of the
7 recommended solutions that NOP proposed. At
8 this point, it's not even on the NOP work plan.

9 And we're seeing widespread fraud,
10 not import fraud, domestic fraud. And I know
11 it's more of a sound-bite to say that import
12 fraud, America First, and I say America First
13 when it comes to the domestic, organic market.

14 I see the little yellow light is
15 hitting me here.

16 Access to pasture, qualified
17 inspectors, people to understand bearing, people
18 to understand nutrition, people to understand
19 how a dairy of 4,000 cows can get the access to
20 pasture requirements correct.

21 If you need to bring in specialists,
22 there are plenty of nutritionists out, plenty of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 grazing experts. Don't just rely on your in-
2 house inspectors.

3 Conversion of native ecosystems, we
4 support the National Organic Coalition position.

5 It's a long time from yellow to red.

6 Length of grazing season --- well, I
7 spoke too soon, sorry.

8 MR. CHAPMAN: Thank you, Ed. Any
9 questions for Ed? Ashley?

10 MS. SWAFFAR: Thank you for your
11 comments. I didn't see where you commented on
12 glycolic acid as a teat dip. And I was just
13 wondering how are the alternatives working? Do
14 you feel like you need another teat dip?

15 MR. MALTBY: We didn't comment
16 because we have a divided opinion amongst our
17 members. We obviously need as many materials in
18 the tool box that we can have. And as an
19 organization, we couldn't reach consensus about
20 exactly what a position should be.

21 MR. CHAPMAN: Emily, then Harriet.

22 MS. OAKLEY: We've heard from

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 northeast dairy farmers that they might need to
2 convert native ecosystems to pasture land for
3 productive purposes. And I was wondering, as a
4 northeastern dairy farmer, what your thoughts on
5 that were.

6 MR. MALTBY: For the purpose of
7 producing more milk?

8 (Laughter)

9 MR. MALTBY: We're now in an organic
10 milk surplus of skim milk, mostly. The pay
11 price to organic dairy farmers has dropped by \$5
12 per 100 pounds which is roughly 25 percent. If
13 you're into the grass-fed milk, it's dropped by
14 \$10 per 100 weights.

15 So the immediate problem for
16 northeast organic dairy farmers and organic
17 dairy farmers across the country is not
18 converting more land.

19 It's not looking at the high expense of going
20 into something, whatever ecosystem you have,
21 spending time and money to perhaps log it, to
22 perhaps rid of the stumps, perhaps put down some

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 cover crops, perhaps do this, perhaps do that.
2 It doesn't affect northeast organic dairy
3 farmers that way.

4 There is plenty of land that is not
5 used, plenty of land that is available and,
6 right now, what we're looking at, and for the
7 next three or four years, unless some changes
8 are made to the way in which different
9 regulations are interpreted. We won't have an
10 organic dairy industry if we don't.

11 MR. CHAPMAN: Thank you, Ed.

12 MR. MALTBY: Thank you.

13 MR. CHAPMAN: Up next is Garth Kahl
14 followed by Richard Mathews. Garth, you can
15 start with your name and affiliation.

16 MR. KAHL: All right. My name is
17 Garth Kahl, and I am president of Independent
18 Organic Services, Incorporated, IOS. IOS
19 provides organic consulting to operators, and
20 inspection and review services, to certifying
21 bodies throughout North and Central America.

22 Since 1996, I have worked as an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic inspector, reviewer, program manager for
2 a national certifier, and a consultant to both
3 certified operators and certifying bodies. I am
4 an IOIA accredited inspector in all scopes and
5 an IOIA trainer. I have also been a certified
6 organic farmer since 1993, currently producing
7 multiple classes of livestock and crops.

8 I want to sincerely thank the Board
9 for all of the work and unimaginable hours of
10 work that you put in. You have my written
11 comments on a number of issues before you this
12 week. But right now, I want to concentrate on
13 the CACS inspector qualifications and training
14 proposals, particularly with respect to training
15 for reviewers.

16 As the standards have become
17 increasingly prescriptive, most notably as
18 regards to the pasture rule, the number of tasks
19 that the inspector is expected to complete
20 onsite has increased dramatically. If the
21 initial reviewer has not ensured that the
22 operator has submitted a complete OSB update, it

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 can easily add several additional hours to the
2 inspection.

3 This is time taken away from
4 activities that can only be performed onsite
5 like mass balance exercises or observations of
6 field borders. I cannot tell you how many times
7 I have had to triage items I spent a significant
8 amount of time on during the inspection because
9 I had to spend an inordinate amount of time
10 performing the tasks that the initial reviewer
11 could have completed before I got there.

12 How do I know this, because I also
13 perform initial and final reviews. In the early
14 days, organic certification, both prior to and
15 after the implementation of the NOP, the general
16 practice was for certifiers to bring their best
17 inspectors onboard as reviewers.

18 Miles McEvoy, Harriet Behar, Jake
19 Lewin, and many other current directors of North
20 and Central American CBs came up by this route.
21 I contend that this is still the best practice
22 and that the organic industry would benefit from

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 recommendations that encourage the use of
2 inspector reviewers.

3 In short, reviewers need to know how
4 to do inspections. And more experienced
5 inspectors should be encouraged, where possible,
6 to perform reviews. More than anything else,
7 performing a final review requires that the
8 reviewer see the gray areas and not just be able
9 to quote the rule, chapter and verse.

10 I suggest that the Board should
11 consider including some best practices for
12 reviewers which include mandatory cross-training
13 as inspectors and the completion of a minimum
14 number of inspections as part of their training.

15 Thank you.

16 MR. CHAPMAN: Thank you. Questions,
17 okay. Harriet?

18 MS. BEHAR: I agree that that cross
19 training is extremely valuable.

20 MR. CHAPMAN: Thank you, Garth.

21 MR. KAHL: Thank you.

22 MR. CHAPMAN: Up next is Richard

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Mathews followed by Kyla Smith. Richard, you
2 can start with your name and affiliation.

3 MR. MATHEWS: Richard Mathews,
4 Executive Director of the Western Organic Dairy
5 Producers Alliance.

6 WODPA recommends renewing the 2020
7 lifestyle substances. Producers need these
8 substances to provide proper animal care. We
9 also make note of the fact that these materials
10 were renewed in 2017 and are actually scheduled
11 for March of 2022, so it's obvious that you're
12 trying to spread out your reviews.

13 WODPA supports adding glycolic acid
14 as an aid in preventing mastitis. WODPA
15 supports defining emergency but opposes sub-
16 paragraph 4II which is inconsistent with section
17 205 238A3. Sub-paragraph 4II requires
18 prevention.

19 Section 205 238A3 requires practices
20 that minimize the occurrence and the spread.
21 WODPA strongly encourages development of a USDA
22 inspector training, testing, and licensing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 program that includes continuous education and
2 periodic license renewal. WODPA is willing to
3 help with this for dairy inspections.

4 I'm really heartened by the fact that
5 the USDA is planning to do, unannounced, their
6 inspections in 2018. We hope this means
7 inspections by NOP. We recommend robust,
8 detailed, in depth, and thorough inspections
9 intent on finding violations. They're out
10 there. We just have to look below the surface,
11 no superficial inspections that are more show
12 than substance.

13 USDA needs to pursue enforcement
14 actions through the courts if needed. We can't
15 have the USDA rolling over because a violator
16 threatens to take them to court. Anything less
17 will bring more bad press.

18 Any questions?

19 MR. CHAPMAN: Thank you, Richard.
20 Questions? Ashley?

21 MS. SWAFFAR: So you supported adding
22 glycolic acid to the national list. Are you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 seeing that some of the other alternatives that
2 your producers are currently using might not be
3 getting the job done on mastitis prevention?

4 MR. MATHEWS: I think if you look at
5 mastitis nationwide in the organic community,
6 the answer is obvious. It's not being solved.
7 So more tools may bring healthier animals.

8 MR. CHAPMAN: Thank you, Richard.
9 Despite what I said before, up next will be
10 Jennifer Berkebile followed by Albert Strauss.

11 MS. BERKEBILE: Good afternoon. My
12 name is Jen Berkebile. I'm the materials
13 program manager at Pennsylvania Certified
14 Organic. I'm also a member of the Accredited
15 Certifiers Association Board of Directors.

16 PCO certifies over 1,500 organic
17 crop, livestock, and handling operations in the
18 United States. Today, I'll be commenting on the
19 2020 sunset materials as well as paper chain
20 pots.

21 First, I'd like to comment on
22 livestock materials. PCO does not currently

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 inquire about the GMO status of registered
2 vaccines. Allowing only non-genetically
3 modified vaccines may result in our producers
4 losing access to crucial vaccines.

5 Additionally, allowing only GMO
6 vaccines when non-GMO vaccines are not
7 commercially available may be a burdensome
8 requirement for our producers. If commercial
9 availability is adopted, PCO would request more
10 guidance on how the commercial availability
11 criteria of form, quality, or quantity are
12 applicable to vaccines.

13 Vaccines are an essential tool that
14 producers rely on, and PCO advocates for their
15 continued allowance.

16 Regarding mineral oil, organic
17 producers commonly use mineral oil externally as
18 a parasiticide. It may be used as an active or
19 inactive ingredient that the EPA lists for
20 inert. It is often used as a lubricant, applied
21 to administer treatment such as artificial
22 insemination.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 The confusion about the allowance of
2 internal uses of mineral oil is likely due to
3 the fact that the term lubricant is commonly
4 used throughout the industry to describe
5 internal uses such as for a laxative or for
6 internal impaction.

7 So PCO doesn't allow mineral oil for
8 those uses, but clarification from the NOSB
9 regarding the prohibition of these particular
10 uses may be helpful.

11 Next, I would like to comment on crop
12 materials. The Crops Subcommittee expressed
13 concerns about plastic mulch degradation and
14 about burning of plastic mulch. PCO policy
15 requires the monitoring and removal of plastic
16 mulch prior to degradation. PCO does not permit
17 the burning of plastic on organic operations so
18 therefore would support an annotation to
19 prohibit this practice not just for plastic
20 mulch, but for all plastics.

21 Finally, I would like to comment of
22 paper pots. Paper chain pots have recently been

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 prohibited by the NOP. The NOP stated that they
2 had determined that the use of paper chain
3 transplanting pots does not comply with the
4 requirements at section 205 601 of the national
5 list.

6 This reasoning is somewhat vague and
7 PCO requests a more detailed explanation on why
8 these paper pots are prohibited. The reasoning
9 will likely affect certifiers and material
10 review organization policies, and it will help
11 inform how a petition for this type of product
12 should be structured. Thank you all for your
13 service and for the opportunity to comment here
14 today.

15 MR. CHAPMAN: Emily?

16 MS. OAKLEY: Paul, is it possible to
17 ask you to elaborate a little bit further on the
18 decision for paper chain pots, is that something
19 you are ready or able to answer now.

20 DR. LEWIS: Thank you, Emily. I know
21 we spoke about this previously. I'm going to
22 turn to my colleague, Dev Pattillo, who was

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 involved directly with this analysis in terms of
2 the position on this issue. Thank you.

3 MR. PATTILLO: Thanks, Paul. I
4 believe the decision to prohibit it is was based
5 on an interpretation of 601 which allows
6 recycled paper as mulch and as a compost feed
7 stock, so use as a pot in this application
8 wasn't compliant with the regulations.

9 MS. BERKEBILE: Thank you.

10 MR. CHAPMAN: Harriet?

11 MS. BEHAR: So for Devon as well. So
12 it had nothing to do with glues or anything like
13 that?

14 MR. PATTILLO: They are classified as
15 a synthetic substance, so recycled paper is on
16 601. And in this application, it would also be
17 classified as synthetic.

18 MR. CHAPMAN: Thank you. Up next we
19 have Albert Straus ---

20 MR. MORTENSEN: Tom, could I just ask
21 a question of us here? What is the procedure
22 that would follow for opening the ---

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: A petition, someone
2 would need to petition the ---

3 MR. MORTENSEN: A petition.

4 MR. CHAPMAN: Yes.

5 MR. MORTENSEN: Okay.

6 MR. CHAPMAN: Up next is Albert
7 Straus followed by Cameron Harsh. Albert, you
8 can start with your name and affiliation.

9 MR. STRAUS: Hello, I'm Albert
10 Straus, from Straus Family Creamery. We were
11 the first certified organic dairy and creamery
12 west of the Mississippi River, and the first
13 verified non-GMO creamery in North America, as
14 well as being the first to have a carbon farm
15 plan, or regenerative agriculture some people
16 know it as.

17 There's a lot of challenges in the
18 dairy industry.

19 (Off the record comments)

20 Anyway, we've tried to make a model
21 of farming, and working with our eight other
22 family farms besides my own, to kind of make a

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 farming system that's viable for farmers so they
2 can pay themselves, they can do best management
3 practices on the farm, and invest in
4 infrastructure, and pass it on to the next
5 generation.

6 We work very closely to manage our
7 supply of milk to keep it in line with our
8 sales. And I think that what we are seeing is
9 that we're --- it's not only the big dairies,
10 it's all organic dairies, for the most part. As
11 an organic farmer, I know that we produce more
12 milk when the price is low, we produce more milk
13 when the price is high.

14 So one thing I've been trying to talk
15 about in these meetings is how do we get better
16 data to be able to understand what's happening
17 in the market place?

18 I was able to pull data to look at
19 Sonoma County to see what the average herd size
20 was over the last --- it's grown by 14 percent
21 over the last four years. And organic acreage,
22 pasture acreage, hasn't increased.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So it brings to -- a concern to my
2 mind is that if they had enough organic acreage
3 to meet those cows they had, I don't know if
4 they'll meet it with 14 percent more.

5 So having the data, collecting the
6 data, and then having --- let me see, what else
7 --- oh, having certifiers understand what dairy
8 farming is, getting metrics to be able to
9 measure and to have farmers actually reporting
10 real data rather than speculation, or
11 calculations, or estimations, and having
12 inspectors actually looking at this data.

13 Here, we are actually using --- we're
14 working with NASA to quantify our dry matter
15 production per acre on our farm. So it's taken
16 satellite imagery to acuate it dry matter. And
17 this is actually one of our carbon farmed
18 pastures that actually is more resilient after
19 we put the compost and started the grazing
20 practices. But it can also be used as a tool to
21 kind of really show that pastures are
22 productive.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We also are using our farm where
2 we're using floating plate meter to measure
3 before and after grazing and calculate the
4 amount of dry matter that's coming from the
5 pastures.

6 MR. CHAPMAN: Emily?

7 MR. STRAUS: I do have one other.

8 MS. OAKLEY: I just wanted to say
9 thank you for providing such great and detailed
10 information. And were you going to say
11 something else?

12 MR. STRAUS: I have one other comment
13 I want to bring up if you're allowing it.

14 MS. OAKLEY: But could I ask what
15 that is? No, yes?

16 MR. STRAUS: I'll just quickly say
17 the issue we're having in Point Reyes National
18 Seashore is that the six organic dairies and the
19 other livestock farms are being threatened at
20 their organic status because the Park Service
21 doesn't allow them to do best management
22 practices even though they're required by their

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 lease, they're required by organic certification
2 to improve soil and improve crops.

3 The park doesn't allow compost
4 application, they don't allow fencing, they
5 don't allow a lot of practices, saying they're
6 for many different reasons. But it's a big
7 issue that I hope that the USDA can put pressure
8 on the Park Service and the Department of
9 Interior saying you have to allow them to be
10 successful in organic practices and organic
11 businesses.

12 Thank you for letting me do that.
13 And also, I'll pass it around, I have a gold
14 standard.

15 MR. CHAPMAN: Yes, I have a question
16 for you on this. So I see the litany of
17 additional labels here on the left-hand side.
18 It looks like a Boy Scout merit badge sash.

19 The Under Secretary recently spoke
20 about the value of these additional labels. And
21 I'm curious to know, as an organic producer, do
22 you see add-on labels as adding value or should

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 those be encompassed under the USDA organic
2 seal?

3 MR. STRAUS: My thought is that
4 organic is a work in progress. It needs to be
5 improved. It's the gold standard. All these
6 single label claims are talking about one aspect
7 of what organic is and confusing consumers.

8 We have employees, we have consumers
9 that think that non-GMO is organic. We have,
10 you know, 100 percent grass-fed. There's all
11 these claims that are confusing consumers. And
12 I resist putting more seals and more
13 certifications on my label. I have far too many
14 already.

15 MR. CHAPMAN: So your perspective as
16 a business is that the additional labels are
17 creating confusion?

18 MR. STRAUS: Yes.

19 MR. CHAPMAN: Thank you, Albert.

20 MR. STRAUS: Thank you.

21 MR. CHAPMAN: Up next is Cameron
22 Harsh followed by Sam Welsch. Cameron, you can

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 start with your name and affiliation.

2 MR. HARSH: All right. Good
3 afternoon, my name is Cameron Harsh. I'm with
4 Center for Food Safety.

5 It is imperative that the NOSB have
6 control over its work agenda. We are pleased to
7 hear that the excluded methods terminology chart
8 remains on the active work agenda. The
9 scientific and organic community has
10 participated extensively in this process with
11 the goal of informing and NOP guidance.

12 As the Board continues reviewing
13 methods, categorizes to be determined, and
14 addresses new terminology or techniques as they
15 emerge, we urge that transposons be corrected so
16 that the term accurately captures a method
17 rather than a genetic element. We suggest the
18 term use of transposons in genetic engineering.

19 Embryo transfer in animals should
20 also be defined as excluded. The Board must
21 also move forward with its review of packaging
22 substances. This is vital to consumer trust in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the organic label and to protect consumers from
2 harmful chemicals that leach into foods.

3 This is a complex issue. NOSB must
4 continue consulting with scientists and other
5 experts and take steps to prohibit the most
6 egregious substances as soon as possible.
7 Addressing phthalates should be a top priority.

8 We appreciate the Livestock
9 Subcommittee using the sunset review of
10 biologics to raise important questions about the
11 availability of vaccines made without excluded
12 methods for the organic producers.

13 NOSB should add to its work plan
14 developing resources for organic producers to
15 identify and source non-GMO vaccines including a
16 comprehensive list that documents all accrued
17 vaccines, the diseases they treat, and whether
18 or not they are produced using excluded methods.

19 NOSB should also clarify that use of
20 GMO vaccines is prohibited. It may be the case
21 that exemptions for certain vaccines should be
22 considered. Any proposed exempted products must

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 go through the rigorous NOSB petition and public
2 input process. It must be demonstrated that
3 non-GMO vaccines and alternative prevention
4 strategies are unavailable.

5 There is a petition for silver
6 dihydrogen citrate submitted before the NOSB
7 which highlights the limitations of NOP's
8 current policy on nano materials which creates
9 unnecessary work for the Board. It is a
10 nanosilver product. And nano materials are
11 incompatible with organic. Nanosilver displays
12 aquatic toxicity as well as persistent and acute
13 inhalation toxicity.

14 Given the increasing applications of
15 nano in conventional foods, it is reasonable to
16 assume that similar petitions will continue to
17 be submitted. While CFS is confident that this
18 Board and future boards would vote down any nano
19 material, this undue burden can be prevented by
20 recommending to NOP that nanotechnology be added
21 to the regulations at 205-105-1 as prohibited in
22 organic.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 CFS also urges NOSB to add to its
2 work plan the issue of antibiotics using
3 hatcheries, and on the first day of life of
4 chicks. Consumers respect that all organic
5 products are raised without antibiotics. NOSB
6 should work to eliminate this is exception and
7 foster a robust organic hatchery industry.

8 CFS also looks forward to continuing
9 discussion of container-based production systems
10 for public comment, and we reiterate that
11 systems that completely eliminate soil and rely
12 exclusively on liquid fertility inputs cannot
13 comply with OFPA.

14 Thank you, and thank you, Board
15 members, for all the time and energy that you
16 dedicate to improving and protecting organic.

17 MR. CHAPMAN: Thank you, Cameron.
18 Questions? That's some pretty good timing you
19 got there.

20 (No audible response)

21 MR. CHAPMAN: I am not seeing any
22 questions. Thank you. Dan?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 DR. SEITZ: So my understanding from
2 what you were saying and other reading is that
3 nanotechnology is not yet regulated by the NOP.
4 Is that correct?

5 MR. HARSH: NOP issued a policy memo
6 stating that nano materials are prohibited in
7 organic and thus they would have to be
8 petitioned for inclusion on the national list in
9 order to be used by organic producers.

10 And due to the fact that nano
11 materials have unique environmental and human
12 health impacts and significant risks they should
13 be prohibited full stop so you don't have to
14 deal with petitions constantly coming up for
15 nano materials.

16 DR. SEITZ: And you said that one of
17 the materials before us now is, involves
18 nanotechnology? I didn't quite catch that.

19 MR. HARSH: Yes. A petition has been
20 submitted to add silver dihydrogen citrate to
21 the national list. And according to the AMS
22 website, there is a TR in development on that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 petition. And it will eventually come before
2 you for review. Because that petition is
3 publicly available online. We were able to see
4 it and address it now in our comments.

5 DR. SEITZ: Great, thank you.

6 MR. CHAPMAN: Thank you, Cameron. Up
7 next is Sam Welsch followed by Madison Kempner.
8 Sam, if you can start it with your name and
9 affiliation.

10 MR. WELSCH: Sure.

11 MR. CHAPMAN: And congratulations on
12 your award on data integrity.

13 MR. WELSCH: Thank you. My name is
14 Sam Welsch. I'm with OneCert and OneCert
15 International. I also recently became chair of
16 the Accredited Certifiers Association.

17 I can't talk to you without
18 mentioning that OFPA requires fertility to
19 primarily come from management of organic matter
20 in soil. So whenever you're looking at
21 container growing regulations, that should be
22 kept foremost in mind.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 But today I want to talk about
2 certification of excluded operations. That is
3 something that's a problem worldwide, but
4 especially here in the US it's a big problem.

5 But certification, it sounds like
6 there's a lot of movement towards people wanting
7 to require certification of those who are
8 currently excluded. But such certification must
9 be meaningful. For example, what does it mean
10 for a certified warehouse to be certified when
11 the certifier of that warehouse does not verify
12 that the products they're handling are actually
13 organic.

14 And we see this a lot. We've asked
15 because we have a lot of uncertified handlers in
16 the supply chain. So we ask is the product
17 organic from the certifier of the supplier. The
18 supplier, well, that's just the warehouse.

19 Well, what does it mean to be
20 certified as a warehouse if nobody's verifying
21 the products that they're handling. So then you
22 back to who are they getting it from? And

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 they're uncertified. And you keep going back to
2 the supply chain, and you do not find a
3 certified operation you can verify.

4 Compliant labeling is very important.
5 What does it mean to get a product that's not
6 labeled as organic, but an invoice says it's
7 organic? That's kind of meaningless. Unless
8 you can connect the product that you receive to
9 a certified operation, you can't verify that
10 it's organic.

11 So the --- I don't really have enough
12 time to give examples, but maybe people have
13 questions. There's a lot of them out there.

14 MR. CHAPMAN: Thank you, Sam. Any
15 questions for Sam? Yes?

16 MR. RICE: Sam, when you talk about
17 not --- certification being meaningless without
18 being able to trace back to what I understood
19 you to say is the last certified operation, so
20 are you then performing kind of what we've been
21 talking about, a full supply chain audit, or
22 what is your practice when you find those

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 instances?

2 MR. WELSCH: We're certainly trying.
3 It's been very difficult to accomplish. One
4 example is in some capsules that are used ---
5 pullulan capsules that are claimed to be
6 organic. And they're used by a lot of people
7 who are packaging herbs and other products.

8 And the box, it arrives in and our
9 operator, it's not labeled as organic other than
10 the sticker that the uncertified supplier has
11 applied to it. And when we try to obtain
12 records that can trace it back to its
13 manufacturer in China, we cannot connect the
14 dots.

15 And we tried it from both ends of the
16 supply chain. We can't get documentation from
17 the manufacturer about who they're selling it
18 to. That line breaks down, we can't get the
19 documents to verify it. And we can't get the
20 documents to verify from the people receiving
21 the product at the other end. And they make
22 both organic and non-organic forms.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 So just one example, you know, there
2 are also examples in fresh produce, mushrooms.
3 You know, the boxes that arrive that are being
4 distributed don't always say that they're
5 organic other than a sticker that might be put
6 on the box. And the product inside is not
7 otherwise labeled.

8 And there's no certifier identified
9 on some of these boxes. And it's being supplied
10 sometimes by an uncertified distributor,
11 sometimes by a certified distributor. But if we
12 go back to the certifier of that distributor, if
13 it happens to be certified, and ask them to
14 verify it, they haven't verified it because it's
15 a package product. And packaged products are
16 excluded from certification by handlers.

17 So there are some big loop holes
18 right not in the current practice. Even when
19 you're certified, so getting a certificate from
20 somebody in the supply chain doesn't mean the
21 products they're handling or organic. Because
22 they can handle both.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Sam, so I want to
2 follow up on your pullulan example. I think
3 first my question might be for the program. But
4 you say that an uncertified operation is
5 applying an organic label to a product. And, I
6 guess, my question for the program is applying
7 an organic label, does that require a
8 certification under the NOP?

9 DR. TUCKER: So we would consider the
10 act of labeling to be part of the handling
11 definition.

12 MR. CHAPMAN: And it requires
13 certification?

14 DR. TUCKER: Yes.

15 MR. CHAPMAN: Yes. So, I mean, in
16 that case, have you filed a complaint against
17 the operation who was clearly violating the ---

18 MR. WELSCH: It's complicated. And I
19 can't say ---

20 MR. CHAPMAN: Yes.

21 MR. WELSCH: -- too much about the
22 details. But there are some other parties,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 other certifiers in that chain that we need to
2 talk to because of the --- how we learned the
3 information.

4 MR. CHAPMAN: Okay.

5 MR. WELSCH: But, yes, it's in the
6 works now.

7 MR. CHAPMAN: Yes. And, Sam, we have
8 you back tomorrow to discuss this issue of
9 integrity in more detail. I look forward to
10 asking you some more questions about how you
11 envision, say, something like warehouse
12 certification operating, if we were to look to
13 propose rules in that area.

14 So I'll look forward to talking to
15 you tomorrow about maybe some of your ideas on
16 what a warehouse certification would look like
17 if we wanted to look at proposing rules in that
18 area. So please come prepared tomorrow.

19 MR. WELSCH: Just to plant the seed,
20 you know, we have a very complex supply chain
21 and oftentimes very simplistic verification. So
22 we need to get those things matching.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Yes. Emily, did you
2 have a ---

3 MS. OAKLEY: I think you got a chance
4 to elaborate on your other examples, is that
5 right? One of the benefits of sitting next to
6 Devon is I can see the timer. And you still
7 have 40 seconds.

8 MR. WELSCH: That's all right.

9 MR. CHAPMAN: Okay.

10 MR. WELSCH: Thanks.

11 MR. CHAPMAN: Thank you. Up next is
12 Madison followed by Christie Badger. Madison,
13 you can start off with your name and
14 affiliation.

15 MS. KEMPNER: Sure. My name is Maddi
16 Kempner. And I am Membership and Advocacy
17 coordinator at the Northeast Organic Farming
18 Association of Vermont. Northeast Vermont is
19 one of the oldest organic farming associations
20 in the country with 1,200 members who are both
21 consumers and certified organic farmers.

22 Our certification program, Vermont

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Organic Farmers, is a USDA accredited certifier
2 representing over 700 certified organic farmers
3 and processors.

4 I appreciate the opportunity to
5 comment on the NOSB's agenda items today. And I
6 sincerely thank you all for the work you do.

7 First, I want to say that we support
8 the work of the Compliance Accreditation and
9 Certification Subcommittee in recommending that
10 the NOP develop minimum qualifications,
11 training, and continuing education guidelines
12 for inspectors.

13 Secondly, we appreciate and support
14 the clarification provided in the NOSB's
15 proposal related to what constitutes an
16 emergency for use of synthetic parasiticides and
17 organic livestock production.

18 We feel the NOB's proposal will
19 assist certifiers in enforcing these regulations
20 consistently, and we support the community's
21 recommendation for an approach that starts with
22 management practices as the first tool to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 prevent parasites followed by non-synthetic
2 treatments before turning to the use of approved
3 synthetic parasiticides when the first two
4 approaches are found to be ineffective.

5 We also support the clarification
6 that changes to the operation must be made and
7 documented in order to prevent similar
8 reoccurrence in the future. This is already in
9 line with the process that Vermont Organic
10 Farmers is using and we appreciate the
11 clarification to improve consistency among
12 certifiers.

13 We also appreciate the NOSB's
14 commitment to addressing the issue of genetic
15 integrity of seed used in organic systems. We
16 support additional efforts to increase
17 transparency and data collection on seed
18 contamination.

19 We, as other commentators have
20 mentioned earlier, still lack adequate data that
21 helps us understand the extent of contamination
22 in at-risk organic seed and crops, the sources

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of that contamination, and the best strategies
2 for mitigation.

3 Data currently being collected by
4 seed companies on levels of contamination in at-
5 risk crop seed and crops could be utilized in a
6 way that protects the anonymity of companies,
7 helps us all understand the scope of the
8 problem, and what if any threshold is feasible.

9 Finally, we request, reiterate the
10 request to NOSB that the advisory role to the
11 USDA to communicate that stronger regulations
12 are needed to ensure manufacturers, patent
13 holders, and users of GE crops share the
14 responsibility of preventing contamination.

15 This responsibility currently falls
16 solely on organic producers, but the organic
17 sector's comprehensive approach to prevention is
18 only so effective without prevention occurring
19 across the fence.

20 We request that the issue of
21 hydroponics stay on the Board's work plan moving
22 forward. We want to reiterate, as I'm sure

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 members of the Board are aware, that this issue
2 has not been resolved and still represents an
3 area of significant disagreement within the
4 organic community.

5 And lastly, I just want to say that
6 we appreciate the added clarification just now
7 regarding paper pots transplanters, which many
8 of our certified producers strongly wish to
9 continue using after this 2018 growing season.

10 And I'm happy to answer any
11 questions.

12 MR. CHAPMAN: Ashley?

13 MS. SWAFFAR: So I have a question
14 unrelated to vaccines. Are you the one that
15 could speak to that?

16 MS. KEMPNER: Nicole, our
17 certification director, will be commenting on
18 that later. But I can share that I think our
19 approach differs from some of testimony that's
20 been given earlier in that we do verify whether
21 vaccines are GMO or not. We do have a process
22 in place for that.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. SWAFFAR: And she would be the
2 one that I could ask about that stuff or you?

3 MS. KEMPNER: I can share a little
4 bit with you. So we think it's important to
5 ensure that non-GMO vaccines are used whenever
6 possible. We would support the use of GMO
7 vaccines in the case when the non --- when no
8 non-GMO vaccines are available.

9 And we currently allow --- we only
10 allow the use of non-GMO vaccines on certified
11 farms. And we require vaccine manufacturers to
12 sign an affidavit stating which vaccines comply
13 with NOP's and the NOSB's working group
14 definition of non-GMO production methods.

15 MS. SWAFFAR: Right. Which is what
16 you wrote in your comments about ---

17 MS. KEMPNER: Yes.

18 MS. SWAFFAR: -- detailed questions
19 about that.

20 MS. KEMPNER: Okay, yes. I think the
21 detailed questions would be for Nicole. She'll
22 be testifying later today.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Harriet?

2 MS. BEHAR: About how many producers
3 do you have that are currently using the paper
4 pots? And would NOFA-Vermont be willing to put
5 forward a petition to approve it, to add to our
6 recycled paper and have the annotation so it
7 would say pots, and compost, and mulch?

8 MS. KEMPNER: I don't have those
9 numbers off the top of my head. But I can
10 certainly get them for you and follow-up. And I
11 think we would consider submitting a petition.

12 MR. CHAPMAN: Thank you.

13 MS. KEMPNER: Thank you.

14 MR. CHAPMAN: Up next is Christie
15 followed by Gwendolyn Ward --- Wyard.

16 MS. BADGER: Hi, my name is Christie
17 Badger. And I'm speaking today on behalf of the
18 National Organic Coalition. Thank you for the
19 opportunity to address the Board and thank you
20 for the important work that you do as volunteers
21 on the NOSB.

22 Inspector qualifications, NOC agrees

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 with CACS that fraud impacts all players in the
2 trade. And the need for qualified inspectors,
3 experienced in a broad range of operations,
4 diverse in scope and scale, has never been
5 greater. The topic of inspector qualifications
6 and training is an integral part of fraud
7 prevention and should be recognized as such.

8 NOC supports the overall proposal
9 presented by the CACS and the supporting
10 documentation from the ACA.

11 NOC strongly opposes the
12 recommendation of the CACS that the NOP develop
13 minimum qualifications and training, as well as
14 continuing education guidelines to ensure a
15 professional and competent inspector pool, and
16 strongly encourages the NOSB to move forward
17 with a proposal that develops recommendations
18 around accreditation requirements for
19 organizations that license inspectors and
20 reviewers and allows for continued stakeholder
21 input.

22 Field and greenhouse container

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 production, the NOSB must have the ability to
2 advance issues of critical importance to organic
3 stakeholders in collaboration with the NOP. The
4 field and greenhouse container production issue
5 is an important issue.

6 In NOC's recent meeting with Under
7 Secretary Ibach, he expressed his commitment to
8 a consistent standard and a level playing field
9 as well as working with certifiers to ensure
10 fair competition and fair application of the
11 rules.

12 NOC agrees that clear and consistent
13 standards are paramount, and we urge the NOSB
14 and NOP to advance work on field and greenhouse
15 container production by putting this topic on
16 the agenda for fall 2018. Further action is
17 essential to ensure clarity and consistency in
18 the organic standards and to prevent multiple
19 conflicting requirements across certifiers.

20 Biologic vaccines, vaccines are an
21 essential tool in the production system of
22 limited treatment options for livestock. We

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 currently allow vaccines that may have been
2 produced with GMOs for 205-105E but further
3 understand this section indicates they should be
4 on the national list, although this is not
5 currently being addressed.

6 Inconsistency in implementation of
7 the organic regulations leads to lack of trust
8 in the certification system as well as in the
9 marketplace. To level the playing field, NOC
10 urges the Livestock Subcommittee to add vaccines
11 to its work agenda. Don't ask, don't tell is
12 not a strategy that leads to trust and
13 transparency.

14 Thank you.

15 MR. CHAPMAN: Questions for Christie?
16 Scott?

17 MR. RICE: Thanks, Christie. Do you,
18 on the inspector qualifications, do you see any
19 room for the Board passing that proposal with
20 the idea that the program would come forth with
21 draft guidance or instruction that would
22 continue a participatory process?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. BADGER: I'm just not sure it's
2 there yet, Scott. To go ahead and pass it,
3 you're passing it off to the NOP without further
4 stakeholder input. And I know they'll come
5 forward, there'll be a comment period. But
6 we've kind of seen how that goes. And I'm just
7 not sure that it's there yet.

8 MR. CHAPMAN: Thank you. Up next is
9 Gwendolyn followed by Kenichiro Takei. And if
10 you'll start with your name and affiliation.

11 MS. WYARD: Okay. Good afternoon,
12 NOSB members, and NOP staff, and ladies and
13 gentlemen of the gallery. My name is Gwendolyn
14 Wyard, and I serve as the vice president of
15 Regulatory and Technical Affairs for the Organic
16 Trade Association. And I'm here commenting on
17 behalf of over 9,500 organic businesses across
18 all 50 states.

19 We've submitted extensive written
20 comments on all agenda topics. I'll focus my
21 time here today on import oversight, genetic
22 integrity of seed, and evaluation of sanitizers.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Import oversight, in our comments we
2 provided you with the current draft of our best
3 practice guide to preventing organic fraud that
4 was developed by our Global Organic Supply Chain
5 Integrity Task Force. The acronym is a new
6 acronym on the block, that's GOSI.

7 You'll be hearing more about the
8 guide tomorrow from my colleague, Monique Marez.
9 But for now, I want to quickly share some
10 background on its framework that we did not
11 include in our comments. Essentially, what the
12 guide does is it provides an organic business
13 with a systematic risk-based approach to
14 developing internal mitigation measures for
15 preventing organic fraud that can be integrated
16 into the organic systems plan.

17 The approach that we've taken is
18 based on a model that was developed by the Food
19 Fraud Prevention think tank out of Michigan
20 State University and then formally adopted by
21 the Global Food Safety Initiative, GFSI.

22 As of January 2018, any company

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 operating under the GFSI certification scheme is
2 required to carry out the vulnerability
3 assessment process that's described in our guide
4 and develop a written fraud prevention plan.

5 Now, our guide is unique, of course,
6 in that the end goal is not food safety but
7 rather organic integrity. I bring this up
8 because food fraud is not new. It's been
9 illegal since 1938 under the FD&C Act, as such
10 there are many developed systems and solutions
11 that we can draw from as we've done with our
12 best practice guide.

13 The model that we're pulling from
14 will also provide tremendous insights and
15 support as we move into the pilot phase of our
16 project and then into our ultimate goal which is
17 industry wide adoption.

18 Okay, turning to genetic integrity of
19 seed, we've submitted extensive comments on this
20 topic for six years, this round included. And
21 while we're glad to see such a critical issue
22 remain on NOSB's agenda, we really do need to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 pick some low hanging fruit that we can act on
2 now while we continue to work towards the
3 formation of seed purity advisory task force.

4 In our comments, we've identified
5 three action steps. The first is to prioritize
6 the organic seed usage proposal, bring it back,
7 pass it.

8 The second is to adopt guiding
9 principles for a seed purity standard. We've
10 recommended seven. Feel free to ask me to read
11 them.

12 And third is to develop a
13 recommendation to NOP requesting guidance on GMO
14 testing for ACA and industry. This guidance
15 would be an expansion of NOP's existing guidance
16 on pesticide residue testing and would establish
17 clear and consistent sampling and testing
18 protocols that can be followed now with or
19 without a seed purity standard.

20 And finally on sanitizers, we're
21 encouraged to see the topic of cleaner
22 sanitizers and disinfectants on NOSB's work

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 plan. It's critical that organic producers and
2 handlers have a tool kit of antimicrobials. And
3 we do recommend that you convene an expert panel
4 to help educate NOSB and the public on the
5 appropriate use of sanitizers in organic
6 production and handling.

7 Thank you.

8 MR. CHAPMAN: Thank you, Gwen. I
9 have a question then we'll go to Lisa and ---
10 would you maybe --- okay. So I asked this
11 question of Kim earlier, and then I'll toss it
12 to you as well. As you move your best practices
13 manual for industry into its pilot and
14 implementation stage, what role does the NOSB
15 have in supporting or getting the adoption of
16 this into industry practice.

17 MS. WYARD: Great. Thanks, Tom. You
18 did ask Kim that, and therefore I should have
19 expected this question. I think that, you know,
20 first and foremost, because I know that you
21 already have done, reviewing the best practice
22 guide. That's step number one. This is an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 opportunity for a private/public partnership.

2 I think that NOSB can be a
3 recommendation, endorse the best practice guide.
4 That could be passed on to the National Organic
5 Program. The National Organic Program could
6 also endorse the best practice guide. There's
7 examples out there that we could look at right
8 now. FDA has been working on a dialogue with
9 further collaboration with GFSI.

10 I think Monique can probably speak to
11 this a little bit more tomorrow. But there's a
12 Taiwan exporter guide that was endorsed by NOP
13 and FAS. So endorsing the guide would be
14 absolutely fantastic. And I think there are
15 some --- it's a very realistic thing that you
16 can do. So thanks for that question.

17 MR. CHAPMAN: Yes, thank you. And
18 then you guys in your comments outlay, like, 14
19 points. Your first point was requiring
20 certification of ports brokers, importers, and
21 online auctions. I notice warehouses weren't on
22 that list. Do you guys have an opinion on the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 certification of warehouses?

2 MS. WYARD: I think that warehouses
3 fall under that as well. And there are
4 certainly a lot of examples that have been
5 brought up, particularly with the produce
6 warehouses where warehouses can be certified as
7 well, yes.

8 MR. CHAPMAN: Yes.

9 MS. WYARD: And I think there's a lot
10 of activity that's already occurring in
11 warehouses that requires certification without
12 making any changes to the regulations.

13 MR. CHAPMAN: Lisa?

14 MS. DE LIMA: Over here. Hey.

15 MS. WYARD: Hi, Lisa.

16 MS. DE LIMA: I have a question about
17 magnesium chloride reclassification and the
18 comments that you submitted. So it seemed like
19 you --- OTA was generally supportive but wanted
20 to see more clarification in the proposal for
21 outlining what processes would be synthetic and
22 prohibited and which would be non-synthetic and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 allowed. And I'm wondering if OTA thinks that
2 that could be accomplished during rulemaking?

3 MS. WYARD: Okay, right. There's
4 several processes that are described in the
5 technical review. Some would be deemed
6 synthetic, and others would be non-synthetic.

7 It would be most helpful for the
8 recommendation that you pass to provide some
9 examples. That would be ideal, but I don't
10 think that it's necessary if the question is
11 whether or not you could pass the proposal. I
12 think the answer is yes.

13 There's an opportunity to provide
14 that clarification in rulemaking, also through
15 the classification of materials guidance. Right
16 now, there's guidance for crop materials. The
17 guidance on handling materials has not been
18 developed.

19 And so analogous to the one that
20 exists for crop materials, it provides a number
21 of different examples on which materials would
22 be synthetic and non-synthetic. So that's an

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 obvious place to do it. But I think that you
2 could work with the program even through
3 rulemaking and provide some examples there.
4 Thank you for that question.

5 MR. CHAPMAN: Ashley?

6 MS. SWAFFAR: So you touched on a
7 little bit about the guiding principles for
8 developing a seed purity standard. Can you
9 briefly talk about those?

10 MS. WYARD: Thank you, you bit. I
11 put that out there and thank you. So I'm just
12 going to read down them very quickly. Because I
13 think this is something that you can do.
14 There's going to be a lot of time going ahead, I
15 think, in terms of developing a seed purity
16 advisory task force and getting the data that's
17 needed to set appropriate thresholds.

18 So this is something that you can put
19 out there now. You could put it in a
20 recommendation. So I'm just going to quickly
21 read through the guiding principles that were
22 developed by our task force.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Number one, any seed purity standard
2 needs to incentivize the development of the use
3 of organic seed.

4 It needs to be established per crop.

5 It needs to be based on data
6 conducted through feasibility studies for this
7 intended purpose.

8 It needs to apply to adventitious or
9 unavoidable presence only, so the intentional
10 use or presence of GMOs will continue to be
11 strictly prohibited with a zero tolerance level.

12 It needs to be acceptable to
13 consumers, seed growers, and users of organic
14 and non-organic seed.

15 And finally, it needs to avoid
16 inadvertent and negative impact on organic
17 farmers, and organic seed growers, and genetic
18 diversity of organic seed. So those would be
19 guiding principles that you could follow.

20 Thank you.

21 MR. CHAPMAN: All right. And I had
22 one last question for you on SDBS. Can you help

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 me understand OTA's position on SDBS? I got
2 from it that you agree with the work on ---
3 essentiality around sanitizers. But does the
4 OTA have a position on SDBS?

5 MS. WYARD: We did extensive
6 outreach. We reached out to retailer members, we
7 reached out to a number of our members, as well
8 as retailer organization groups. And we
9 consistently heard back that it wasn't needed.

10 So I think it would be very difficult
11 to pass a recommendation to put something on the
12 national list that you've received zero comments
13 from industry on saying that you need it. I
14 also definitely see, I hear the comments that
15 have been submitted in terms of having a robust
16 toolbox and a selection of materials to rotate
17 in terms of avoiding any antimicrobial
18 resistance.

19 One idea is to put it back out for
20 public comment again after you have the panel
21 and further discussion on sanitizers. But
22 again, we did not hear from any of our members

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that it's needed. So I think that's a pretty
2 important focus point for you.

3 MR. CHAPMAN: Thank you. Thank you,
4 Gwen.

5 MS. WYARD: Thanks, everyone.

6 MR. CHAPMAN: Up next is Kenichiro,
7 sorry if I said that wrong. And then following
8 is Cynthia Smith. And you can start with your
9 name and affiliation. Correct anything I said
10 wrong.

11 MR. TAKEI: Good afternoon. I am Mr.
12 Takei, Kaken Pharmaceutical from Japan, the
13 petitioner for polyoxin D zinc salt. Kaken has
14 responded to all the requests and the concerns
15 expressed by the members of the 2013 NOSB
16 meeting, spring meeting in Portland, especially
17 -- specifically, Kaken has demonstrated that
18 polyoxin D zinc salt is compatible with US
19 grower organic agriculture. We have
20 demonstrated that polyoxin D zinc salt is a safe
21 or as one beneficial soil microorganisms,
22 including the beneficial fungi.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Kaken has demonstrated that chronic
2 exposure of larvae and pupae to the polyoxin D
3 zinc salt as the maximum pesticide run rate has
4 no adverse effects on development and emergence
5 of adult lady bugs and honeybees.

6 We also demonstrated that polyoxin D
7 zinc salt is compatible with and sometimes
8 enhanced the performance of quality used organic
9 pesticides used, microbial activity ingredients,
10 including active norbait, doublelinkle and
11 regalia (phonetic). Kaken has
12 responded to NOSB request for demonstration of
13 US grower needs and support. Kaken has
14 demonstrated that polyoxin D zinc salt works.
15 Kaken has summarized in the petition, the
16 document, 96 efficacy tryouts in the US from
17 eight different crop groups over 42 different
18 crop disease combinations.

19 Kaken has submitted a detailed
20 organic growers needs analysis based upon the
21 comparison of pesticide statements and the field
22 of efficacy trial data at the US.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Kaken noted that 28 comments were
2 submitted to the docket in the support of
3 polyoxin D zinc salt ONOP list. Kaken has
4 provided additional details regarding that the
5 polyoxin D zinc salt unique and non-toxic
6 emotive action with ecological-friendly profile.

7 Kaken has expanded the US grower crop
8 export over 20 years. Crop treated with
9 polyoxin D zinc salt may be exported without
10 resident concerns to Canada, Mexico, New
11 Zealand, South Korea, and Taiwan. Alternatively,
12 crop export opportunities are pending, including
13 European countries.

14 Finally, Kaken believes that polyoxin
15 D zinc salt offers hidden benefits with growers.
16 Kaken respectfully request your vote in support
17 of the proposed listing of polyoxin D zinc salt
18 organic --

19 MR. CHAPMAN: Thank you.

20 MR. TAKEI: -- plant disease control.
21 Thank you.

22 MR. CHAPMAN: I had to stop you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 there. Thank you. Any questions? Jesse?

2 MR. BUIE: There have been two
3 presenters today who had concerns about polyoxin
4 D's effect on soil microorganisms. Can you
5 discuss some beneficial effects that polyoxin D
6 has on soil organisms?

7 MR. TAKEI: We demonstrated that
8 petition, the document detail. So no effect for
9 beneficial soil organism evidence we have.

10 MR. BUIE: Okay. Say that again.
11 There's ---

12 MR. TAKEI: Sorry, Chairman. So next
13 speaker is our US partner. So I would like to
14 reply after she presentation, she presents.

15 MR. CHAPMAN: Thank you. Thank you.
16 He can ask questions from the next presenter.
17 Next up is Cynthia Smith. Following Cynthia
18 we'll have Johanna Mirenda.

19 MS. SMITH: Thank you. My name is
20 Cynthia Smith. I'm with Conn & Smith. I'm a
21 consultant, and I've been retained by Kaken to
22 help them with their petition. I'm also their

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 U.S. agent for EPA and their agent for Canada.

2 I would like -- you've received my
3 prepared remarks. However, I'm going to deviate
4 significantly from those remarks.

5 Based upon the webinar, there was a
6 question from a member of the board about does
7 polyoxin work. I thought that was an
8 interesting question, because I've submitted
9 literally hundreds of pages of efficacy data
10 that shows that polyoxin D zinc salt works, and
11 then I began to think about it some more, like,
12 well, when you look at the technical report, the
13 authors of the technical report said basically
14 consult your certifiers, they should know, but
15 that's circular reasoning, because the
16 certifiers are not looking at products that
17 aren't yet approved for organic use.

18 So, I would direct your attention to
19 the public comments. There were 28 public
20 comments involving polyoxin D zinc salt that
21 recommended, came from growers, and they also
22 came from researchers.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Now, I would also just like to
2 comment briefly about how to look at efficacy
3 data, because the technical report did not go
4 into that detail. The real question may really
5 be, "I have the data, but I don't know how to
6 evaluate it."

7 Well, let me begin by saying that not
8 all efficacy trials are equal. In the ideal
9 case, not that you will have it, but in the
10 ideal case, you have enough disease that your
11 level of disease in the untreated control is
12 economically significant. Now, in one extreme,
13 you don't have enough disease to make
14 statistical comparisons, and your trial is
15 worthless. The other extreme, your disease
16 killed the plant, your untreated control, and so
17 there's nothing to compare it to, because your
18 plant died.

19 So, what you would like to see in the
20 perfect trial is enough disease that you have
21 economically significant damage to the crop.
22 Now, again, not all trials are equal. There are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 trials that we've conducted where the pathogen
2 was inoculated into the plant, and those -- that
3 occurs when the reliability of having disease is
4 in doubt, and so the researcher would actually
5 inoculate the plants. In other cases, the
6 disease is naturally occurring in the area, and
7 assuming they have a typical year, they'll have
8 enough disease to have a good trial.

9 Now, in the trials, you will see
10 letters.

11 Be happy to take any questions.

12 MR. CHAPMAN: Thank you.

13 Emily, then Jesse, then Dan.

14 MS. OAKLEY: Could you finish that
15 last sentence?

16 MS. SMITH: Yes. Yes. When you look
17 at the numbers, you will see a letter after the
18 number. And, for example, the untreated control
19 has an A after it, and in the treated case, you
20 have a letter D after it. That means that A and
21 D are different letters that they are in fact
22 statistically different, so you do want to see

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 statistical difference between the untreated
2 control and your treatment.

3 MR. CHAPMAN: Jesse.

4 MR. BUIE: Can you briefly discuss
5 the beneficial effects of polyoxin D on the, on
6 soil organisms?

7 MS. SMITH: Yes, I can. There was a
8 study that was conducted using some advanced
9 biological techniques -- these are microbiology
10 techniques where you're looking at the number of
11 microorganisms that survive, and the -- does the
12 colony survive, yes or no, and then if it does
13 survive, how many individuals are there that
14 survived?

15 And what we saw with polyoxin D zinc
16 salt -- and this is the 5SC formulation -- is
17 that there was no adverse effect on the
18 beneficial fungi, but in addition, there was a
19 slight beneficial effect on the beneficial
20 fungi, and one possible explanation for that is
21 that the formulation includes what could be
22 viewed as food for the microorganism.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Dan.

2 MR. SEITZ: So, my understanding from
3 the technical report on this substance is that
4 it's formulated with some inert ingredients that
5 have not been disclosed. And as a public member
6 on the board, it is concerning to me that any
7 company would come before the board asking for
8 permission to have its product listed, but not
9 be willing to be forthcoming about all of the
10 components of that.

11 This might not be a question for you,
12 because you're hired by the company, you're not
13 necessarily involved in managing the company,
14 but I'm wondering why all the ingredients
15 haven't been disclosed to us.

16 MS. SMITH: I'd be very happy to
17 answer that question. And I do know the details
18 of the manufacturing process and the
19 ingredients. We have two items here.

20 There's polyoxin D zinc salt
21 technical. That is the technical grade active
22 ingredient, and by definition, there are no

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 intentionally added ingredients. It is the
2 technical grade material, so you'll have the
3 pure substance, and then you will have the
4 impurities that come along with that.

5 And in a particular case here, we
6 have a fermentation process, and the impurities
7 that come along are what I would best describe
8 it in generic sense is digested food.

9 Now, secondarily, we have the
10 formulated product. The formulated product will
11 be evaluated by OMRI, and in that application,
12 the details of the inert ingredients will be
13 provided. However, this application is for the
14 technical, and for the formulated material, I
15 can tell you that the primary inert ingredient
16 is an OMRI-approved material.

17 MR. CHAPMAN: Harriet.

18 MS. BEHAR: So, I was going to ask
19 about the inerts as well, but it's not only OMRI
20 that reviews. There are -- well, I don't know.
21 Where we at? Eighty-something certifiers,
22 especially if it's used around the world, and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 so, I guess, I would ask if all of the inerts
2 are on the Safer Choice list of the EPA.

3 MS. SMITH: They are. I can confirm
4 that.

5 MR. CHAPMAN: Thank you.

6 MS. SMITH: Thank you.

7 MR. CHAPMAN: Up next is Johanna,
8 followed by Amalie Lipstreu.

9 I'm just going to take a quick moment
10 to note it's 3:45. We had tentatively scheduled
11 on one of our agendas a break at 3:45, but we
12 are tracking now about an hour behind, and so we
13 will not be taking this break.

14 If anyone needs to take a break --
15 well, it made it 10 minutes by cutting 15
16 minutes out of the agenda. If anyone needs to
17 take a break on the board, I just ask that you
18 get up at your convenience, and we will continue
19 on. Right now, we're tracking to finish up
20 around seven p.m.

21 So, Johanna, you're up. If you could
22 start with your name and affiliation?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. MIRENDA: Good afternoon. My
2 name is Johanna Mirenda. I am the technical
3 director at OMRI, the Organic Materials Review
4 Institute. I will comment on three materials,
5 liquid fish, magnesium chloride, and
6 carrageenan.

7 First, liquid fish. The crop
8 subcommittee has requested, has requested
9 information to evaluate whether the sourcing of
10 fish for fertilizers complies with OEFFA
11 requirements to not be harmful to the
12 environment.

13 The subcommittee is considering a
14 possible annotation for liquid fish fertilizers
15 that are approved as synthetic materials under
16 205.601(j). However, fish is also used to
17 manufacture fertilizers that are approved as
18 nonsynthetic materials, which are not otherwise
19 prohibited or restricted under 205.602, such as
20 fish meal.

21 As the board continues to work on
22 this issue, please recognize that an annotation

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to the listing on 601 would only impose
2 limitations on synthetic fish fertilizers
3 reviewed under that specific listing, and would
4 not affect the nonsynthetic inputs that are
5 approved without regard to that section of the
6 national list, so in order to limit the sources
7 of fish used in nonsynthetic fertilizers,
8 restrictions would also need to appear on
9 205.602 in order to be enforceable by material
10 reviewers.

11 Next, magnesium chloride. The
12 handling subcommittee is proposing to move the
13 current listing to 205.605(a). Under the
14 proposal, only nonsynthetic forms would be
15 permitted. Not all forms of magnesium chloride
16 are nonsynthetic; therefore, not all forms of
17 magnesium chloride would be allowed.

18 To ensure consistent implementation,
19 the board should identify the specific
20 manufacturing processes that are intended to be
21 classified as nonsynthetic and allowed or
22 synthetic and prohibited.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 As described in OMRI's written
2 comments, some of these classifications are not
3 very straightforward even with the assistance of
4 NOP guidance. Additional clarification would be
5 helpful either in the final NOSB recommendation
6 or through further guidance from the NOP prior
7 to rulemaking.

8 Lastly, carrageenan. NOP published
9 final notice to renew the listing of carrageenan
10 on the national list. Now that carrageenan will
11 be listed for another five-year cycle, the NOP
12 should consider reevaluating whether the
13 placement of carrageenan on 605(a) as a
14 nonsynthetic is appropriate.

15 The 2011 technical report explains
16 that manufacturing of carrageenan utilizes
17 alkali treatments that could be considered
18 synthetic. During the 2013 sunset review of
19 this material, the handling subcommittee
20 expressed intent to move the listing to 605(b)
21 as a synthetic.

22 Here's a quote from that May 2012

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 subcommittee proposal. "We also recommend that
2 this listing by revisited once the NOP has
3 finalized the draft guidance. Reevaluation of
4 materials classification should be considered to
5 ensure that the listed material has been
6 properly classified, and thus remove further
7 confusion from their status, thus helping during
8 future reviews."

9 Now that the NOP guidance on
10 classification of materials is finalized and is
11 actively being used by this board to reclassify
12 other materials, it would be appropriate for the
13 board to reevaluate the classification of
14 carrageenan.

15 Thank you.

16 MR. CHAPMAN: Asa.

17 MR. BRADMAN: I want to thank you for
18 your comments, and also the information you
19 submitted in the written comments about
20 manufacturers of liquid fish products.

21 Could you elaborate a little bit on
22 any feedback you've gotten on the use of the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 source material for the liquid fish? And, I
2 guess, I would extend that a little bit and say,
3 do you have any impressions about the awareness
4 or opinions on whether limitations to --
5 harvesting fish in a way that doesn't impact
6 wild stocks to produce material, would that be
7 acceptable to some of those manufacturers?

8 The information you provided was kind
9 of a straight down the line list, but I'd like
10 to get a little bit more of the, perhaps
11 discussion that might have gone behind that.
12 Thanks.

13 MS. MIRENDA: Sure. OMRI's comments
14 being a straight down the line list is
15 intentional. We just report the facts and the
16 technical information and will not make opinions
17 on the preferences of OMRI listed suppliers or
18 OMRI ourselves as to whether what should or
19 shouldn't be allowed.

20 MR. BRADMAN: Right. I wasn't asking
21 for an opinion, but I'm just wondering if this
22 prompted any discussion that could help inform

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 our understanding of the issue?

2 MS. MIRENDA: Not that I've heard
3 directly.

4 MR. BRADMAN: Okay.

5 MR. CHAPMAN: I didn't hear you
6 correctly. Can you clarify your comment on
7 carrageenan?

8 MS. MIRENDA: Carrageenan is
9 currently listed at 605(a), --

10 MR. CHAPMAN: Yes.

11 MS. MIRENDA: -- which is allowed
12 nonsynthetics.

13 MR. CHAPMAN: Yes.

14 MS. MIRENDA: During the 2013 sunset
15 review, there was a technical report commission
16 to look at the manufacturing process, and the
17 handling subcommittee looked at that technical
18 report and acknowledged that the commercially
19 available carrageenans were manufactured in a
20 manner that could be considered synthetic, and
21 commented in the proposal that in the future,
22 the committee should take a closer look at that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 classification once the guidance was finalized.

2 MR. CHAPMAN: 605(b), okay. Yes.

3 Thank you.

4 Sorry. Who else had questions?

5 Emily.

6 MS. OAKLEY: I just wanted to thank
7 you for the thorough listing that you provided
8 us, and I just wanted to reiterate that you have
9 30 OMRI products listed that, in the liquid fish
10 category, that source their materials strictly
11 from wild-caught fish for the exclusive use of
12 fertilizer, and some of those include, sardine,
13 salmon, finfish, tuna, skate, menhaden, pacific
14 anchoveta, redeye herring, pacific herring.

15 Are there others, or is that do you
16 think a pretty comprehensive list?

17 MS. MIRENDA: It is a comprehensive
18 list, except that the comprehensive list
19 includes other unknown species. And because
20 identifying the source of the fish isn't a
21 requirement for material review, we haven't been
22 intentionally asking for that information, so

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 having an unknown source isn't a barrier to OMRI
2 listing.

3 MR. CHAPMAN: Thank you.

4 Up next is Amalie, followed by Alesia
5 Bock.

6 And start with your name and
7 affiliation.

8 MS. LIPSTREU: Good afternoon. I'm
9 Amalie Lipstreu, the Policy Coordinator for the
10 Ohio Ecological Food and Farm Association.

11 OEFFA has been providing organic
12 education and certification for close to 40
13 years now. While you're all inundated with
14 comments and information, please know that we
15 really do value your service and the intention
16 and consideration that you give to all of the
17 issues before you. Know that this board, your
18 autonomy and leadership is critical to the
19 longevity and efficacy of the National Organic
20 Program, and that we, as organic stakeholders,
21 will be vigilant in ensuring the fulfillment of
22 that role.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Secondly, in the two days of webinars
2 held by the board, you had the opportunity to
3 hear from OEFFA staff and many of our OEFFA
4 farmer members, particularly on the issue of
5 import oversight, so I won't speak to that
6 specifically, because I think you've heard a lot
7 from them and can refer to our written comments,
8 but let me just reiterate how important it is
9 that the board has made this issue a priority.

10 You've heard how fraudulent imports
11 hurt organic integrity, but I think what you
12 also heard from our producers is how it also
13 hurts the profitability of our domestic organic
14 producers as well. This has the downstream
15 effect of limiting our efforts to increase
16 organic supply.

17 We appreciate the efforts announced
18 this morning by the NOP to proceed and move this
19 issue forward and take concerted action on
20 increasing oversight of imports.

21 While our organic grain growers feel
22 that they are not competing on a level playing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 field due to fraudulent imports, many domestic
2 dairy producers also feel that they are
3 competing with producers that may not be held to
4 consistent application of the standards as well.

5 We understand that organic
6 regulations are scale neutral, and as such,
7 producers using the economies of scale should be
8 subject to the same rigor as smaller scale
9 producers. We ask the board to act to reenforce
10 the need for NOP oversight of consistent
11 application of the Pasture Rule.

12 Certifiers across the country are
13 increasingly being confronted with situations
14 where energy and industry infrastructure is
15 impacting organic farms, but they're reticent to
16 address these situations without guidance. The
17 NOP needs to study this issue and offer guidance
18 to certifiers.

19 There's something incongruous about
20 the fact that we spent years discussing the
21 listing of a single questionable material, and
22 rightly so, but at the same time, we continue to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 ignore the real impacts of the unconventional
2 oil and gas drilling, the multitude of synthetic
3 and nonsynthetic substances toxic to humans,
4 animals, and plants, and the related
5 infrastructure that impacts organic farms in
6 proximity to this infrastructure.

7 MR. CHAPMAN: Thank you.

8 Questions?

9 Dan.

10 MR. SEITZ: On the question of
11 organic farms being impacted by fracking and --
12 well, other types of oil exploration and so
13 forth, is there any legal recourse for these
14 farms in Ohio, or is there -- has a law been
15 passed that sort of supersedes their rights as
16 farmers and landowners?

17 MS. LIPSTREU: Some of it depends on
18 the level of infrastructure. Interstate -- for
19 example, an interstate pipeline would be
20 different than an intrastate pipeline. What
21 we've seen, particularly with large pipeline
22 projects, is that, you know, these landowners

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 are often approached to sign easements for some
2 of this infrastructure on their property.

3 The point of opportunity that we have
4 is that if we provide information to these
5 producers in advance of signing those easements,
6 they can institute procedures that will protect
7 their farms. We had an organic inspector do a
8 training for our organic inspectors recently,
9 because he's been an overseer of pipeline
10 construction on four organic farms recently.

11 For example, he discovered the use of
12 foam breakers that our internal material review
13 specialists have found to be incompatible for
14 use with organic. This is something that's been
15 used on pipelines on organic farms for probably
16 decades, but we didn't know about it, so if we,
17 you know, provide both certifiers and producers
18 with the information they need to be proactive,
19 we can prevent a lot of these problems down the
20 road.

21 MR. CHAPMAN: Emily.

22 MS. OAKLEY: Thank you for bringing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 this to our attention over the course of many
2 meetings. And we've had discussions on the CACS
3 about this issue, and, specifically, how we can
4 craft this as a work agenda item request, and I
5 was wondering if you had any specific thoughts
6 that you could share with us now?

7 MS. LIPSTREU: Sure. Sure. I think,
8 just even beginning to discuss this issue
9 looking at, you know, bringing in, for example,
10 a panel of people, people like organic
11 inspectors, people who work on pipelines, for
12 example, and others just to hear about what's
13 happening across the landscape of the United
14 States, how this is impacting producers and
15 looking at some of the tools that are out there.

16 I know I've mentioned in previous
17 meetings that we've developed this -- actually,
18 adapted an organic agriculture impact litigation
19 plan that was developed by an attorney in
20 Minnesota that's been adopted by the Federal
21 Energy Regulatory Commission and many pipeline
22 operators, so there are tools such as this that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 can be used if the NOSB just studies the issue,
2 hears from people, and maybe puts forth some
3 proposed guidance to certifiers.

4 MR. CHAPMAN: Sue.

5 MS. BAIRD: I was wondering, have you
6 monitored water sources that, especially water
7 that might be used to irrigate horticulture
8 crops and things, and are you finding a lot of
9 the prohibited chemicals in those water sources
10 as a result of fracking?

11 MS. LIPSTREU: Sure. Sure. You
12 know, it really depends on the farm and the farm
13 operation. I know that one of our longest
14 certified operations is a vegetable producer
15 that has monitored the water on his land and
16 found contamination.

17 The difficulty in that is is that
18 some of these chemicals used in the process are
19 proprietary chemicals and have trade secret
20 protection, so you don't even know what you're
21 testing for, but I think even some of the things
22 that you can test for are some of the heavy

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 metals, the technically enhanced naturally
2 occurring radioactive material that comes up in
3 that water.

4 MS. BAIRD: Can I follow up on that?

5 MR. CHAPMAN: Briefly.

6 MS. BAIRD: Okay.

7 Well, I did do some inspections in
8 Ohio, and we did require water testing, and
9 there were really high levels of heavy metal.
10 What -- if you found that, what would your
11 action be for that farmer?

12 MS. LIPSTREU: Yes, I think that's a
13 really good question. Yes, I mean, without any
14 kind of guidance or standards, it's really
15 difficult for certifiers to know. I mean, you
16 know, I think that our agency's been doing a
17 really good job of dealing with things on a
18 case-by-case basis and just looking at the
19 evidence we have and trying to make those
20 individualized decisions.

21 Thank you.

22 MR. CHAPMAN: Thank you.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Up next is Alesia Bock, followed by
2 Kendra Klein.

3 Can you start with your name and
4 affiliation?

5 MS. BOCK: Hi. My name is Alesia
6 Bock with AgriSystems International, and I'm
7 here representing Ecolab, my clients, and
8 myself.

9 I've been in the food industry for 30
10 years, and the last ten have been solely focused
11 on supporting organic food systems, because I
12 believe in it. I hoped I could make a
13 difference, but lately this process seems a bit
14 frustrating.

15 In light of today's opening
16 statements regarding efficiency and innovation,
17 I'm going to give you a few examples of where I
18 think we need process improvement.

19 Acidified sodium chlorite for
20 livestock. We first helped Ecolab petition this
21 material in 2012 to be added to 205.603 for
22 organic dairy production as a teat dip to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 prevent mastitis and alleviate animal welfare
2 issues. It took three years before the NOSB
3 recommended that NOP add it to the list. We're
4 now in April of 2018, and it is still in
5 proposed rule phase.

6 Farmers across the country,
7 especially on the west coast, have been trying
8 to get approval from their certifiers to use
9 this product, but their hands are tied, because
10 it's not on the list.

11 Why does this process have to take
12 six years, and how long will it take to add it?

13 Second, SDBS is on today's agenda as
14 a petition material for food safety and organic
15 handling. The original petition was submitted
16 in 2015, but it took three years for additional
17 information to be submitted.

18 I understand and appreciate all the
19 diligence by all parties involved. For the
20 record, I'm in favor of adding this material to
21 the list, because I think we need more options
22 in the toolbox for safe produce handling, and so

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that not one particular sanitizer becomes, not
2 immune, but you know what I mean, so that you
3 don't have resistance.

4 And SDBS may be ahead of its time,
5 because no one has commented on the efficacy and
6 the essentiality of it, but I think we're going
7 to have to deal with this more.

8 My bigger question, it is already on
9 the EPA Safer Choice list, and if we can't
10 provide encouragement for companies to innovate
11 and develop materials that are safer for the
12 environment and human health, then what are we
13 doing?

14 I'm disappointed to hear that the
15 EPA/NOP collaboration to evaluate List 4 inerts
16 is off the agenda for this year. Industry needs
17 a clear and expected time frame on petition
18 process so that innovation can continue.
19 Consumer confidence in our food supply is
20 paramount.

21 Finally, just a comment regarding the
22 decision from USDA to withdraw the organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 livestock practices final rule. Organic
2 certification is a voluntary labeling program
3 for people who choose to have their food system
4 certified.

5 So many of us in this room have spent
6 years providing feedback to NOSB committees to
7 get this right. The majority of public comments
8 across all sectors of the industry were in favor
9 of implementation. Now it feels like our time
10 has been wasted, and we're back to where we were
11 ten years ago.

12 In closing, I very much appreciate
13 the work that NOSB and NOP do. Even though we
14 all as varied stakeholders have different
15 priorities for organic, the bigger picture
16 should be how to promote the continued growth of
17 this \$49 billion industry. Converting more
18 conventional farmland to organic is better for
19 soil health, animal health, and human health,
20 not to mention the U.S. rural economy, so let's
21 not stifle process.

22 MR. CHAPMAN: Thank you.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Questions?

2 (No audible response.)

3 MR. CHAPMAN: So, you mentioned it
4 briefly, and -- I mean, you talked about the
5 time it takes to list materials, and I hear that
6 critique that it can take a long time to list
7 materials. I was happy to see the January 2018
8 proposed rule that moved a lot of materials out
9 of a holding pattern into a proposed rule, and I
10 heard today that there's a couple more on its
11 way as well, but in relation to SDBS, I mean,
12 some of the delays have been, have been because
13 we've been trying to find if there is a demand
14 for this material to satisfy the essentiality
15 criteria.

16 And from the -- I mean, how would you
17 suggest that the NOSB addresses that mandated
18 criteria in the absence of demand from --

19 MS. BOCK: Actually, from SDBS
20 standpoint, I think you guys are doing
21 everything you can, and I think it's up to
22 industry to come forward with people who

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 actually need it, so I don't discount the fact
2 that you've asked us for more input, --

3 MR. CHAPMAN: Yes.

4 MS. BOCK: -- and I appreciate that.
5 My bigger concern was the acidified sodium
6 chlorite for livestock, because quite honestly,
7 because it is an animal welfare issue, because
8 of mastitis, that to me dragged its feet a
9 little bit too much, and I feel like we should
10 have had certifiers pushing to get the NOP to
11 push that through the final rule quicker.

12 MR. CHAPMAN: Yes. Thank you.

13 Up next is Kendra, followed by Alan
14 Lewis.

15 Is there no Kendra Klein? Kendra
16 Klein, going once, Kendra Klein going twice.

17 Alan Lewis, sorry to put you on the
18 spot, but you are up next.

19 Alan is next, and then after Alan is
20 Thomas Harding.

21 Alan, if you could start with your
22 name and affiliation for the record?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. LEWIS: Thank you, Tom.

2 Alan Lewis, Natural Grocers.

3 There's not much to talk about in the
4 organic world, so I want to talk about a
5 different issue for me near and dear to my
6 heart, which is the issue of integrity at
7 retail.

8 And as many of you know, we're 145
9 stores, 19 states west of the Mississippi. We
10 only sell organic produce, and we have all of
11 our stores certified as processors handlers, and
12 I'm going to tell you it's really hard for us
13 not to be, not to get a noncompliance from our
14 certifier.

15 I don't know how we're going to end
16 up in 2018, but it's possible that we'll be at
17 50 percent minor or major noncompliance. Now,
18 why is that? Well, we've got 18-year-old
19 receivers a little bit hungover at 5:30 in the
20 morning, but we only buy from certified
21 distributors, so what's coming off that truck
22 that makes it noncompliant? Well, these are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 mixed operations, and sometimes things get on
2 the truck or they're not properly labeled or
3 labeled on the invoice, and our certifier
4 draconian, as he is, and that's why we chose
5 him, will call us out on that.

6 Now, if that's the problem we have,
7 imagine -- and we're doing six million dollars
8 average per store, a million dollars retail in
9 produce, five hundred thousand at wholesale
10 through the farmer. And imagine our competitors
11 that are 120 billion with thousands of locations
12 and tens of thousands of employees and ten to
13 fifteen, twenty billion dollars of retail sales
14 and produce.

15 So, here's the things that I've seen,
16 because when I go on vacation, I go to farms and
17 grocery stores.

18 Sound familiar, anybody?

19 (No audible response.)

20 MR. LEWIS: Herbs repacked by the
21 retailers somewhere with organic on there with
22 no certification, bulk bins refilled with quinoa

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 or other products not knowing whether it's
2 organic or not even though the bulk bin is
3 labeled organic, stacking organic underneath
4 open conventional produce, commingling on
5 shelves, down the street in Tucson this is
6 happening, so I'd like to suggest some fixes
7 here.

8 We need to eliminate the generic
9 cases. If there's a case that says organic on
10 it, it needs to say what's in the case and who
11 certified it. Retail placards on any product
12 need to be backed up by recordkeeping. Bulk
13 bins need a complete label as well. If you're
14 saying it's organic, say who made it, where it
15 came from, who certified it. Invoice line items
16 need to say whether it's organic or not to
17 provide that traceability. And stickers applied
18 by anybody have to be applied by a certified
19 operator processor handler.

20 Now, that sticker over there, the
21 USDA Organic ought to be outlawed unless it
22 contains a certifier statement and who certified

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 it. That to us is the number one red flag that
2 there's fraud happening.

3 Thank you.

4 MR. CHAPMAN: Thank you, Alan.

5 Questions for Alan.

6 Harriet.

7 MS. BEHAR: So, you are certified I'm
8 imagining, because it gives you a leg up in the
9 marketplace and trust from the consumers that
10 shop in your stores. Is that correct?

11 MR. LEWIS: That's correct. Not so
12 much the leg up, but it's not necessarily
13 competitive advantage, because Target, Walmart,
14 anybody else looks the same as we are without
15 good practices and the accountability that we
16 pay for and undertake.

17 MS. BEHAR: Would you recommend that
18 all retailers get certified?

19 MR. LEWIS: I think that we are
20 producing fairly good organic food on the farm,
21 and I think by the time the consumers buy it at
22 retail, it's no longer organic, and it's a time

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 bomb waiting to explode.

2 MR. CHAPMAN: Asa.

3 MR. BRADMAN: Could you clarify a
4 little bit more about what you said about a
5 generic case? And were you implying that
6 display cases should be only organic versus only
7 conventional if you have mixed produce?

8 MR. LEWIS: This is -- no, not a
9 display case. This is the typical waxed
10 cardboard case that'll say organic on it. It
11 won't tell you where the case came from, what's
12 in it, who possibly certified what's in it, so
13 in addition, when we see those cases, there has
14 to be a label on each individual fruit that says
15 whose product is it, what product is it, and who
16 certified it, otherwise, another big red flag.

17 MR. BRADMAN: You were suggesting
18 that the bin should have a sticker, some sort of
19 certificate essentially.

20 MR. LEWIS: It's the idea of the
21 retail placard, which is a most general legal
22 term we have for that, but just putting that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 sticker on the front of a bulk bin or a bulk bin
2 of potatoes in a non-certified retail
3 environment of any kind, it's a recipe for
4 commingling, it's a recipe for just outright
5 selling conventional in a bin that happens to
6 have an organic label on it.

7 MR. CHAPMAN: Steve.

8 MR. ELA: Just based on that,
9 commingling various things, I mean, what we're
10 really trying to get at is transparency to the
11 consumer and integrity. I mean, this morning,
12 we heard about wraparound labels, you know,
13 we've heard about the gold standard.

14 What's your take on -- from -- I
15 mean, you, obviously, are very in touch with
16 your consumers. What's your take on those
17 wraparounds and the organic label at this point?

18 MR. LEWIS: Well, I like the term
19 wraparound label as opposed to add on. I think
20 that brown ring there signifies a wraparound.
21 It's the things that might be missing or our
22 consumers are looking for.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 For me, if I can take 30 seconds, you
2 know, the people in this room are part of the
3 current wave of American agrarian populists that
4 our American Revolution was founded on. 1990,
5 the OFPA was farmers saying, "We want a level
6 playing field, the system is rigged, give us a
7 label that allows us to compete fairly in the
8 marketplace with consumers."

9 And like clockwork, larger entities
10 have taken that over. And if you read your
11 history, you know -- you knew that was going to
12 happen.

13 The wraparounds are the next wave,
14 right? The next generation of farmers that are
15 on the dirt now need their own competitive fair
16 space to grow their food and sell it, and that's
17 the wave that we're feeling right now.

18 MR. CHAPMAN: Emily.

19 MS. OAKLEY: This is back to your
20 comment. I was trying to clarify. Do you not
21 think that all retailers should be certified
22 given the potential for mistakes or fraud or

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 whatever may occur, but misrepresentation of
2 organic product?

3 MR. LEWIS: So, there are two million
4 retail food outlets in the United States. When
5 it comes to the organic checkoff, for instance,
6 in order to do that math, it's four quadrillion
7 transactions that would have to be tracked.
8 We'd have to recreate an IRS to do the checkoff
9 at retail and to have two thousand more
10 certification inspections, so waving a wand,
11 yes, we have a big problem that may blow up, but
12 if we just move up the supply chain, as many
13 other speakers have said today, and make sure
14 that every product coming into my place and a
15 competitor's place or a cafeteria, is properly
16 labeled on the invoice, on the unit, on the
17 case, then we will -- by that measure as a proxy
18 start eliminating laziness and fraud and just
19 the lack of systems of the retailers putting
20 into place.

21 MR. CHAPMAN: Thank you.

22 MR. LEWIS: Thanks.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Next is Thomas Harding,
2 followed by Alexis Randolph. Thomas Harding.

3 MR. HARDING: Good job, Alan.

4 MR. CHAPMAN: Oh, sorry, there you
5 are.

6 MR. HARDING: Tom Harding. I'm
7 representing Green Ag Supply. And the first
8 part of my comments are about the last time when
9 we were at one of these important meetings here.

10 As many of you will recall, Green Ag
11 Supply petition the material fatty alcohols for
12 the use on organic crops and organic crop
13 production. This petition was defeated. We
14 immediately challenged, especially the process
15 in vote, requested an appeal to the NOP when we
16 were informed that there is no appeals process
17 for materials. Well, we took the recommendation
18 of the NOSB and the NOP, and we're preparing now
19 a new petition.

20 My concern here is, is I think it's
21 really important that materials, national
22 materials have an appeals process. Since there

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 are all kinds of other rules that governs us
2 here, the lack of appeals is a lack of
3 transparency.

4 I think it's really important we
5 develop a protocol, and that it put on your
6 agenda. I'm sure you have nothing else to do.
7 I'm joking about that.

8 On another issue, I think it's really
9 important -- this is a very important board.
10 You do an awful lot of work. The NOP is a very
11 important process. It's really important that
12 this gold standard we've accepted here and
13 established for well over 20 years now continue
14 to be the gold standard.

15 I'm very concerned about what I see
16 out in the marketplace. You name it. We've got
17 a certification of organic, but then we have a
18 product verification or another product scheme
19 and another seal and another seal and another
20 seal.

21 What does all that do? It dilutes
22 the term organic. Certified organic is the only

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 legal system we have. The non-GMO project is
2 not, the new ones coming down the stream, none
3 of those are legal schemes.

4 It's really important that we protect
5 this scheme. It's really important that we
6 protect the work that all of you are doing. In
7 the years that have gone -- I've been in this
8 business for 40 years, and I can tell you
9 there's a lot of work, a lot of regurgitation
10 sometimes for sure, but this work is so
11 critically important that we must do everything
12 we can that continue the gold standard and be
13 broad-minded when it comes to agriculture
14 innovation and what I call organic all the time
15 is stepping back into the future.

16 Use good technology, use good
17 innovation, but make sure it meets the
18 standards, make sure that the process and the
19 materials meet the standards, but also recognize
20 we need tools, and those tools must qualify. We
21 must give them a fair and equitable evaluation
22 all the way through the process.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I really encourage you all to
2 continue this work. Discipline yourself not to
3 be swayed by a lot of rhetoric, but value the
4 work that you're doing, because it's critically
5 important to the future of the organic industry,
6 about \$150 around the world. When I first
7 started in this business, I couldn't find a
8 count for that number.

9 I could make one more statement.
10 You're here in one of the most important
11 agriculture areas in the world. If you were to
12 go up to Casa Grande Ruins, you would find out
13 what the natives were doing in agriculture, in
14 canals, and irrigation systems. I encourage you
15 if you have some time to drive up an hour and 15
16 minutes. And if you haven't gone through the
17 Arizona Sonora Desert Museum, you're really
18 missing something.

19 MR. CHAPMAN: Thank you, Tom.

20 MR. HARDING: Thank you very much.

21 MR. CHAPMAN: Questions for Tom.

22 (No audible response.)

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Tom, I wanted to
2 clarify your statement about appeals. Are you
3 saying you think there should be a method to add
4 materials to the national list that does not
5 require the NOSB approval?

6 MR. HARDING: Not at all. Continue
7 the process that you're on. What I say is it's
8 important -- I didn't know, Tom, until you guys
9 told me that if a subcommittee vote took place,
10 it had to go to the full board.

11 Our request was simply to move it to
12 this board. That didn't happen, and we lost the
13 vote. Then, I learned through the challenge
14 process that we really don't have an appeals
15 process, so -- like we do in other parts of the
16 organic monopoly.

17 So, I'm only suggesting that you
18 think about this, and put it on the work plan,
19 and that maybe materials, which are defeated for
20 one reason or another, with good protocol can
21 meet the required protocol that there be an
22 appeals process considered.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Yes. While we don't
2 have an appeals process like you stated, we do
3 have -- you do have the ability to repetition
4 items and address the shortcomings that were
5 cited. And, you know, we have materials on our
6 agenda today that meet that exact criteria.

7 MR. HARDING: Well, of course, we
8 took your advice, so we're in that process too.
9 Thank you, Tom.

10 MR. CHAPMAN: Thank you.

11 MR. HARDING: Thank you all very
12 much. Keep up the good work.

13 MR. CHAPMAN: Up next is Alexis,
14 followed by Melody Meyer.

15 MS. RANDOLPH: Hi. Good afternoon.
16 My name is Alexis Randolph. I'm the senior
17 technical manager for QAI. We're an organic
18 certification agency in San Diego operating in
19 the U.S. and internationally.

20 We submitted written public comments
21 across multiple topics at the time. However, we
22 had not finished analyzing the sunset materials

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 up for review.

2 QAI historically provides the NOSB
3 with a number of operators using a material on
4 the national list, and as applicable, the
5 category of products those materials are used
6 in.

7 Today, I have provided this chart to
8 the NOSB as part of my comments. Hopefully, you
9 have or will receive this list from Michelle.

10 I'd like to ask the NOSB to recognize
11 that the number of operators using the material
12 does not reflect the necessity of the material.
13 Every five years, I have the opportunity to use
14 tragacanth gum as a perfect example. We have
15 one operator using this material. However, very
16 importantly, it is this material, and only this
17 material, that makes his product unique from his
18 competitors.

19 Having a variety of materials on the
20 national list has proven essential to promote
21 innovation and growth of the organic industry.

22 I would also like to draw your

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 attention to our comments about natural flavors.
2 QAI has over 300 operators currently using
3 organic flavors. However, it is necessary for
4 non-organic natural flavors to remain on the
5 list, because most certified organic flavors use
6 non-organic natural flavors as part of their
7 formulation process. Without non-organic
8 natural flavors, there would not be the
9 significant number of organic flavors currently
10 available.

11 Lastly, QAI submitted comments
12 addressing the questions of the CACS regarding
13 inspector qualifications. Specifically, we feel
14 that the widely accepted ISO 19011 guidelines
15 for auditing management systems are an excellent
16 foundation for conducting inspections and
17 determining qualifications.

18 There is no need for NOSB and NOP to
19 reinvent the wheel. However, we support the
20 NOSB focusing on specific qualifications
21 necessary for demonstrating competency to the
22 organic standards.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I would like to express our
2 appreciation and support for this committee's
3 work to ensure consistency in the industry.
4 Thank you.

5 MR. CHAPMAN: Questions.

6 (No audible response.)

7 MR. CHAPMAN: So, just to clarify.
8 When -- is it QAI's position that we're
9 evaluating the essentiality criteria even one
10 user of a substance meets that criteria?

11 MS. RANDOLPH: Yes, it's essential to
12 that one user.

13 MR. CHAPMAN: Thank you.

14 MS. RANDOLPH: Thanks.

15 MR. CHAPMAN: Up next is Melody,
16 followed by Anne Ross.

17 You can start with your name and
18 affiliation.

19 MS. MEYER: Hello. Melody Meyer, VP
20 of Policy Industry at UNFI. Thank you for all
21 your hard work. I'm happy to be here
22 commenting.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Regarding the import oversight
2 discussion document, I applaud you all for
3 asking for industry input to document and verify
4 product movement throughout the supply chain in
5 a manner that ensures organic integrity.
6 Everyone has a role in organic fraud production.

7 So, I served on the OTA's Organic
8 Supply Chain Integrity Task Force since May of
9 2017, and I would refer you back to that best
10 practice guide that the task force has completed
11 and submitted. It provides businesses with a
12 risk-based approach for developing and
13 implementing a written organic fraud prevention
14 plan to ensure the authenticity of organic
15 products.

16 The guide's recommended practices are
17 intended to establish an industry-wide standard
18 for businesses to create continuously improving
19 internal programs and processes for achieving
20 organic integrity throughout their associated
21 supply chain.

22 The task force is also developing

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 procedures on what to do when you suspect or
2 detect fraud, along with a detailed template
3 that can be used to effectively file an
4 actionable complaint to the NOP or ACA.

5 Regarding ethylene production,
6 production and handling. UNFI strongly supports
7 relisting of ethylene for post-harvest ripening
8 of tropical fruits and the degreening of citrus.
9 These material -- this material is essential for
10 those products.

11 The greatest need for ethylene by all
12 organic businesses is for ripening bananas.
13 Ethylene is important for bananas, and bananas
14 are important for organic.

15 Albert's Organics, a division of
16 UNFI, ripens almost 18 million pounds of bananas
17 every year. They're shipped from Latin America,
18 and need ethylene to ripen properly.

19 Removal of ethylene, as a post
20 harvest treatment, would create a major
21 disruption in the supply chain, and it would
22 have disastrous economic impacts to growers in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the global south.

2 Ethylene is critically important to
3 commercial pineapple production as well, and we
4 support the relisting of that for regulating
5 pineapple flowering, because it's impossible to
6 produce pineapples at a commercial scale without
7 this material.

8 Eliminating the incentives for native
9 ecosystems. We're in support of adding the
10 proposed language, and also recommend that a
11 guidance document be written in the future that
12 includes better OSP examples.

13 Finally, excluded methods in
14 synthetic biology. Please ensure that organic
15 certification truly addresses these emerging
16 biotechnologies and new techniques being applied
17 all too fast in agriculture.

18 We strongly urge the NOSB to finish
19 the work to exclude new gene editing and
20 synthetic biology techniques by updating the
21 list of excluded methods. The list of
22 techniques that are, that are excluded methods

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 is currently incomplete.

2 Thank you all for your hard work, and
3 thank you, NOP.

4 MR. CHAPMAN: Thank you.

5 Any questions for Melody?

6 (No audible response.)

7 MR. CHAPMAN: Thank you.

8 MS. MEYER: Thank you.

9 MR. CHAPMAN: Up next is Anne Ross,
10 followed by Hans Dramm.

11 And, Anne, you could start with your
12 name an affiliation.

13 MS. ROSS: Good afternoon. My name
14 is Anne Ross, and I'm a Foreign Policy Analyst
15 for the Cornucopia Institute. One of my main
16 duties at Cornucopia has been to address the
17 fraudulent imports' issue.

18 We recently reported that a shipment
19 of 25,000 metric tons of what is purportedly
20 organic corn was rejected by U.S. Customs. It
21 was determined that the corn originated in
22 Russia, Moldova, and Kazakhstan.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Importing whole organic corn seed
2 from these countries is not allowed. This
3 vessel is now moving off the coast of
4 California. I'm tracking this vessel. I hope
5 the USDA is tracking this vessel too.

6 It's clear that the board appreciates
7 the gravity of what has been a catastrophic
8 problem for our domestic producers, so I'd like
9 to offer some solutions for change that are
10 summed up in three categories.

11 Point one. Certification. Every
12 entity in the organic supply chain must be
13 certified. We've submitted language in a
14 citizen's petition that we submitted last July
15 that we believe would accomplish these goals.
16 Importers must be certified. Grain brokers must
17 be certified.

18 The regulations must be amended to
19 require certification of any entity that ships,
20 transports, manages, directs the movement, or
21 receives at any point in the supply chain
22 shipments of organic grain for importation into

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the United States.

2 Point two. Documentation. Certified
3 operations must be required to collect full
4 audit trace, trace back documentation back to
5 the origin of production. Importers must be
6 required to use organic harmonized codes for
7 incoming shipments of organic commodities.
8 Certifiers must collect organic acreage and
9 yield data from certified operations.

10 If you look at organic acreage data
11 and export/import data from high-risk regions,
12 the numbers just don't add up. How could the
13 U.S. import from a particular country more than
14 that country is capable of producing? The NOP
15 must report organic acreage data and yields from
16 exporting countries in the integrity database.

17 Finally, verification. We must
18 develop cross boarder documentation and alert
19 systems. If an organic shipment is coming in
20 from a high-risk region, the NOP ought to be
21 alerted and immediately coordinate increased
22 scrutiny with U.S. Customs and APHIS.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 There must be testing and other
2 verification by an independent party of incoming
3 shipments, both at the load port and in the U.S.
4 Importers should be required to verify shipments
5 or tested at these load ports and when they
6 arrive in the U.S.

7 As I mentioned, last July, we
8 submitted a citizen petition. I have copies
9 here again for your review. Please take a look
10 at those and ask me any questions that you may
11 have.

12 And thank you very much for your
13 service and dedication of this issue.

14 MR. CHAPMAN: Questions? Harriet.

15 MS. BEHAR: Do you know where that
16 ship is now?

17 MS. ROSS: That ship is headed to the
18 Panama Canal. This is publically available
19 information. We should be tracking the
20 shipment, and we need to make sure that the
21 shipment does not go to Canada, and then that
22 corn assuming -- I do not know if this corn is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 legitimately organic or not. I'm not suggesting
2 that it isn't, but I'm suggesting that we should
3 be looking at it, and if that corn is then
4 shipped across the U.S. border, we need to have
5 it checked for every shipment.

6 MR. CHAPMAN: Thank you.

7 Up next is Hans, followed by Jake
8 Lewin.

9 MR. DRAMM: Good afternoon. Thank
10 you for the opportunity to address the board.
11 Specifically, I'm addressing the questions posed
12 by the Crops Subcommittee regarding assessing
13 the proper amount of acid used by liquid fish
14 fertilizers.

15 I'm sorry. I'm the President of
16 Dramm Corporation based in Manitowoc, Wisconsin.
17 We produce the fish fertilizer.

18 Regarding the reactive nature of
19 hydrolysates. Hydrolysate liquid fish
20 fertilizers typically remove no components from
21 the fish scraps used in the production process.
22 That is no compounds, proteins, microbiology,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 etc., is removed for other food or industrial
2 processes.

3 This creates a more active or living
4 solution that requires the addition of allowed
5 acids for stability. Without acid, the product
6 is quickly rendered unstable and no longer an
7 efficacious fertilizer.

8 An upward drift in the pH level
9 occurs as part of the normal production process
10 of fish hydrolysates, which do not strip out
11 physical ingredients, such as bones or oils.

12 We have conducted trials which
13 indicate that the amount of total acid required
14 to maintain a pH level greater than or equal to
15 3.5 throughout the production process is 90
16 percent greater than what would be needed to
17 maintain stability and yield the final product
18 for the pH of greater than or equal to 3.5 if
19 that pH is allowed to drop below that threshold
20 at earlier stages in the production process.

21 Specifically, if a greater dose of
22 acid is added to a fish offal slurry at the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 initial stage of production, such as pH level
2 drops below 3.5, it'll eventually rise to a
3 level greater than or equal to 3.5 as the
4 solution ages and evolves throughout the
5 production process. It also maintains a more
6 stable character and consistency throughout that
7 process.

8 Regarding crop and food safety
9 considerations. Dramm has engaged a third party
10 laboratory to conduct inoculation analyses to
11 assess the viability of harmful bacteria
12 surviving introduction from outside sources
13 during and after the production process at
14 different pH levels.

15 These tests have included that at a
16 pH level of 3.5, the fertilizer blend was
17 effective in achieving a greater than six log
18 reduction of E. coli, salmonella, and other
19 harmful bacteria after 48 hours. It concluded
20 that a minimum of 72 hours hold time was
21 required to eliminate the survival of these
22 harmful bacteria.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 At the much higher pH level of 4.9,
2 it took much longer for the bacteria kill stage
3 to be affected concluding an eight-day hold time
4 was required to eliminate the survival of these
5 harmful bacteria. That's 8 days versus 72
6 hours.

7 MR. CHAPMAN: Thank you. Questions?
8 Harriet.

9 MS. BEHAR: Are you aware that FSMA,
10 the Food Safety Modernization Act, also requires
11 that growers have information, not just on E.
12 coli and salmonella, but also on listeria?

13 MR. DRAMM: Yes. That's included,
14 and we're happy to add those details. That was
15 knocked out much earlier in each process.

16 MR. CHAPMAN: Asa, and then Steve.

17 MR. BRADMAN: I just had some
18 questions related to your source material. In
19 your comments, you talked about most of the
20 material can come from wild caught or other
21 sources, but it's byproduct materials collected,
22 harvested for human consumption. I wonder if

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you could elaborate that a little bit more.

2 Another commenter further down said
3 that the manufacturers of liquid fertilizers
4 will guarantee sustainability of the source, and
5 I'm wondering if you do that, or if there's an
6 association among liquid fish product
7 manufacturers that have taken on these issues,
8 discussed them, and set any standards or any
9 guidelines?

10 MR. DRAMM: Right. There's no
11 collective effort as far as I'm aware. No one's
12 contacted us about that. We certainly do our
13 best. We have required our suppliers to certify
14 that they aren't getting any fish from farm
15 fish. We know for a fact that none of them are
16 catching fish purposely for the production of
17 fertilizers or any non-human or animal
18 consumption.

19 We are, at least a step away from
20 them. Unlike some other fish fertilizer
21 producers, we don't -- we are not actively in
22 the fishing business. We just collect scraps

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 from fisheries and the fish processors.

2 MR. CHAPMAN: Steve.

3 MR. ELA: I guess, kind of two
4 questions. One is -- I mean, it follows up on
5 Asa's in the sense that we had another public
6 comment that said that there were -- any -- I
7 know your comment and several other
8 manufacturers only use scraps, but then we had
9 another public comment that were a number of
10 manufacturers actually using fish primarily
11 caught for fertilizer or fish products for the
12 organic industry.

13 Do you feel like that puts you at a
14 disadvantage to have somebody out there maybe
15 using just wild-caught fish, you know, in their
16 entirety versus you having to collect scraps?

17 MR. DRAMM: I'm not sure if it would
18 put us at a disadvantage. I really couldn't
19 say. I'll say that, personally, I don't like
20 the idea. I don't like our fisheries being
21 depleted for that reason.

22 I will also comment that while this

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 is pure hearsay, I'm not aware of any producers
2 doing that specifically. I knew of one that
3 supposedly was doing that in the past. I think
4 they are still producing things like fish meal,
5 but not fish fertilizers. It's not to defend
6 the industry or anything. That's just what I've
7 heard.

8 MR. ELA: Okay. I'd like to ask the
9 NOP -- I know we've had this discussion about
10 the acid from the pH level whether it's pH 3.5
11 throughout production or at the final product.
12 You've -- with guidance, do you feel like you're
13 getting information through the public comment
14 period that will help with guidance or health?
15 What do we need to do to clarify that further?

16 MR. PATTILLO: I think that getting
17 the information is a great start for that, and I
18 think there's something we can do to address
19 through guidance or you could possibly address
20 in comments to your proposal, recommendation for
21 the sunset.

22 MR. CHAPMAN: Can I ask a followup

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 questions?

2 MR. DRAMM: Of course.

3 MR. CHAPMAN: And feel free not to
4 answer it, because it's somewhat probably
5 business confidential information, but why do
6 you source from byproducts? Is it more
7 economically advantageous for your company, or
8 as opposed to just wild-caught fish, or is it
9 another reason?

10 MR. DRAMM: When you say byproduct --

11 MR. CHAPMAN: Fish byproducts.

12 MR. DRAMM: As opposed to whole fish?

13 MR. CHAPMAN: Yes, or wild-caught
14 fish, whatever.

15 MR. DRAMM: To be honest, it's just
16 been our history throughout. That's how we --
17 the business was started before we got into it.
18 It was a way to deal with fish scraps or dead
19 fish that would float up on the shores of Lake
20 Michigan.

21 Back in the day, there was a lot of
22 alewife in Lake Michigan, and they would die

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 off, and they would die off on the beaches, and
2 it was unpleasant for the communities, so that's
3 how the precursor to our product got started.

4 And, today, it's probably just more
5 economical. We wouldn't want to go and buy
6 whole fish for that process when we can get all
7 the scraps, the good gut materials is really
8 what's helpful to our product, the enzymes that
9 help break down everything, so it's really what
10 we want to be honest.

11 MR. CHAPMAN: Thank you.

12 MR. DRAMM: If I may? Could I just
13 respectfully ask the board consider lowering the
14 pH level guidance to a value closer to 3 in
15 order to allow for a highly variable nature of
16 the premature fish hydrolysate solution? Just -
17 - it's something that's very difficult to work
18 with. It has nothing to do with wanting to add
19 acid, but rather keep a stable product.

20 Thank you for your work.

21 MR. CHAPMAN: Thank you for your
22 comments.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Up next is Jake Lewin, followed by
2 Julie Weisman. Jake, if you can start with your
3 name and affiliation?

4 MS. LEWIN: Hi, everybody. It's a
5 pleasure to be here. Thank you all for your
6 service, both the board and staff.

7 I want to talk to you about the,
8 protecting the genetic integrity of seed. CCOF
9 believes that we can collectively -- we can
10 provide measurable, actionable improvements
11 immediately by adopting a simple practice.

12 Currently, we all require buffers or
13 other standard documentation or contamination
14 avoidance strategies, things like harvest logs
15 or farmers market load sheets, various things
16 that are required in the system generally that
17 aren't spelled out in the standard specific
18 tools or documents.

19 Where growers do not or cannot get
20 documentation or labeling detailing the known
21 presence of GMOs in non-organic seed they use,
22 they should be expected to simply retain a

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 sample of each lot of planted seed. This would
2 be a recordkeeping practice.

3 These samples could then be
4 subsequently be tested by certifiers or under
5 our existing residue testing program or they
6 could be part of a research program to get the
7 data we've been talking about today.

8 Currently, when investigating GMO
9 contamination in feed or other supplies, the
10 trail invariably leads to a farm. Because it is
11 nearly always after the harvest, identifying the
12 starting or background level of GMO presence is
13 nearly impossible once we get to a farm.

14 This makes investigations a dead end
15 and understanding how to improve or where there
16 may be problems very hard to identify. If
17 samples were retained, certifiers could test
18 them under our existing mandate without added
19 cost to the growers.

20 Adoption of this basic practice as a
21 physical recordkeeping element would have
22 extremely low expense, not place new burdens on

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 growers while improving the quality of organic
2 certification and integrity, so I ask you to
3 integrate this into anything you move forward,
4 and to encourage the community to adopt the
5 practice. New things have to come from
6 someplace.

7 Next, I want to talk a little bit
8 about ecommerce, and encourage the CACC to
9 consider this area for your work plan. The NOP
10 regulations were undoubtedly written on a
11 computer, but before the iPhone, Wikipedia, or
12 ecommerce generally.

13 Ecommerce has grown. It's getting
14 more complicated. They're participating in
15 organic, but how you apply the standards and
16 labeling and marketing information to businesses
17 that only exist online, make custom products, or
18 somewhere between a processor and a retailer, it
19 would be very, very helpful for us to start
20 working on this, so that we can figure out how
21 they fit into the community well and can be a
22 part of bringing organic to more people, but at

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the same time, we're finding it's increasingly
2 complicated, and we'd strongly encourage you to
3 really look at fully ecommerce and brick and
4 mortar, because we're -- there are a variety of
5 reasons we're seeing it to be complicated.

6 They just don't have the physical
7 product. Their only label is sometimes a
8 website. They advertise via social media.

9 MR. CHAPMAN: Dave.

10 MR. MORTENSEN: Jake, could you give
11 us an idea of how many of the samples that
12 farmers have held back have actually been
13 analyzed, and could you share with us what you
14 found from those samples? This is seed out of
15 the bag, planted by the farmer. Has that been
16 analyzed, or is this a recommendation that
17 you're just implementing now?

18 MR. LEWIN: It's a recommendation I'm
19 asking you to implement.

20 MR. MORTENSEN: Didn't I hear you say
21 that you're implementing it in your system?

22 MR. LEWIN: We currently do GMO

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 testing within the supply chain. Most
2 typically, at a feed mill or a feed or some
3 other product somewhere past the farm. Really,
4 you have a pretty small window to get to a farm
5 to actually get seed.

6 So what I'm saying is the things we
7 test -- as a general rule, in the supply chain,
8 we have found some GMO from time to time, not in
9 high percentages. But whenever we either hand
10 those to other certifiers or track them to the
11 farms ourselves, you get to that farm and
12 there's nowhere else to go because it's all in
13 the past, and you can't figure out causation in
14 any way. If you could test the seed, you would
15 have some link between the result you're seeing,
16 the audit trail you did, and what the starting
17 point was.

18 MR. CHAPMAN: Harriet.

19 MS. BEHAR: I 100 percent agree with
20 you about the ecommerce. I recently purchased
21 some organic onion seeds online. It was a
22 variety I couldn't find from my usual suppliers.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I thought when I got the packages that it would
2 have a certifier or something. I couldn't. I
3 tried doing a lot of sleuthing.

4 It came to somebody who lived in some
5 little town in Idaho. Whatever. I don't know
6 who these people are, but they're saying it's
7 organic. There's a lot -- Jackie and I were at
8 the Denver airport together. There was somebody
9 there selling products that are organic.

10 There's no certifier. Love is the
11 main ingredient, and it's organic. We have a
12 lot of things out there, a lot of it in
13 ecommerce, too. If you look, that's where a lot
14 of people are buying everything, from food to
15 clothes to anything -- furniture. Not that we
16 sell organic furniture, but -- anyway, I don't
17 know where to go with that, but we need more
18 oversight.

19 MR. LEWIN: Throw it to Scott. Make
20 Scott do the work.

21 MR. CHAPMAN: I think Scott has a
22 question now.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. RICE: Do you see any importance
2 in making a distinction between possession and
3 ownership? When we start diving into ecommerce,
4 we see -- similar to Harriet saying she ordered
5 something. She ordered it from Iowa, but it
6 comes from South Florida. Clearly, not
7 everyone's taking possession, but is there an
8 important distinction there? Is that something
9 we need to address?

10 MR. LEWIN: Our experience has been
11 that there's a wide degree of -- as we all know,
12 the Internet's a widely varied place. There are
13 a lot of different businesses everywhere between
14 just resellers, marketplaces, all the way
15 through to people who make and sell things or
16 package them or package them for further
17 consumption. I think that there's room to
18 clarify things for all of them. We see a lot of
19 people who make a well-meaning mistake. In
20 Harriet's situation, I've seen that often be a
21 well-meaning mistake, and other times, ignorance
22 is bliss. On the other hand, the other kind of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 things we're starting to see is more
2 custom-formulated products.

3 You've got a situation where this is
4 a company that has organic ingredients and
5 non-organic ingredients, and they want to make
6 something where you order it custom on their
7 website. There is no label. There is no PDP.
8 There's no ingredient statement.

9 Or you're going to get one, but the
10 label's the thing you make the choice on, that's
11 on the Internet, really, but in a store, you
12 have a label. How to communicate with that and
13 how -- for all of us to do it fairly, we're kind
14 of seeing it as an emerging area. At the same
15 time, these people are driving -- they're
16 pulling organic into their businesses, which is
17 good.

18 MR. CHAPMAN: Thank you, Jake. The
19 Supreme Court is currently wrestling with the
20 matter of online sales and taxes. It seems like
21 a doozie, so thanks for tossing us an easy one.

22 MR. LEWIN: Always a pleasure.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: With that, we have
2 Julie Weisman next, followed by Michael Sligh.

3 MS. WEISMAN: Good afternoon. My
4 name is Julie Weisman. I thank you, the NOP and
5 the NOSB, for the opportunity to provide
6 comments today. I also sincerely thank all the
7 Board Members in this room, past and present,
8 but especially you before me here, for your
9 continuing service and hard work -- oh, I
10 know -- to organic agriculture and to the
11 organic industry.

12 I'm here to support two things, the
13 proposed rule change regarding the listing of
14 flavors on the national list, and the relisting
15 of those flavors to that listing, flavors
16 non-synthetic, in the 2020 sunset. A previous
17 commenter from QAI already described, very
18 aptly, why the relisting in 2020 is important,
19 so I won't spend my time on that.

20 I represent two companies, Elan
21 Vanilla and Flavorganics, that have been
22 instrumental in developing and bringing to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 market organic flavor ingredients, especially
2 vanilla, for use by organic food companies and
3 organic consumers, for the past 20 years. In
4 addition, I served on the NOSB from 2005 to
5 2010, during which time, I chaired the Handling
6 Committee, I served as both vice chair, and then
7 Secretary of the Board, during which time
8 commercial availability was my passion.

9 I stand here today to strongly
10 support the proposed rule for the addition of
11 language requiring the use of organic flavors to
12 the listing of flavors non-synthetic on
13 205605(a) of the national list in products
14 labeled and sold as organic -- that's one
15 thing -- and two, when such flavors are
16 commercially available.

17 I want to emphasize that Elan and
18 Flavorganics, and our customers who already use
19 organic flavor in their products, fully support
20 the change in annotation that was proposed in
21 the OTA's 2014 petition, which we signed on to,
22 as it applies to products labeled and sold as

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic.

2 But I also want to emphasize that it
3 was never the intention of the companies I
4 represent, or the original OTA petition, to
5 require the use of organic flavors in products
6 made with organic ingredients. I would like to
7 see the final rule make that clear. I also want
8 to let the program know that I anticipate that
9 many companies who have never sought to use
10 organic flavors in their organic products will
11 loudly object to this change. The flavor
12 companies in my industry who supply them -- and
13 I do supply non-organic vanilla -- but the
14 flavor companies who supply them their NOP
15 compliant non-synthetic flavors and each of
16 their respective trade organizations will also
17 likely object, perhaps strongly, to this change.

18 They will say that it is an onerous,
19 if not impossible bar to meet, but they don't do
20 organic. I know different, and so do dozens of
21 flavor companies who do supply and develop
22 organic flavors. I remind those objectors that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the requirements to use organic flavors is in
2 effect if, and only if, they're a certified
3 organic commercially available flavor in
4 sufficient form, quality, and quantity --

5 MR. CHAPMAN: Thank you, Julie.

6 MS. WEISMAN: -- to meet the need.

7 MR. CHAPMAN: Thank you.

8 MS. WEISMAN: There was a
9 recommendation in 2006 that you should also --

10 MR. CHAPMAN: I have to stop you
11 there.

12 MS. WEISMAN: -- make guidance.
13 Thank you.

14 MR. CHAPMAN: Any questions?
15 Harriet.

16 MS. BEHAR: The commercial
17 availability clause would address any issues of
18 shortages due to bad weather in
19 certain -- Madagascar, for instance, in vanilla
20 and things like that? Because sometimes, people
21 say that the organic, because it's such a small
22 part, it's very fragile, the supply.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. WEISMAN: But it becomes less and
2 less fragile the more people use it. Yes, it
3 would cover a crisis in Madagascar, which we're
4 in the middle of right now. But it also covers
5 people who have to have the strawberry -- you
6 have to taste the green in the strawberry. No
7 organic flavor right now gives me that. That's
8 a form issue.

9 Yes, I also think that people kind of
10 game the system that way, too, but in terms of
11 the objections of the non-organic flavor
12 suppliers who only supply compliant and are not
13 interested in doing organic, they will still
14 have -- they don't understand that they will
15 still have a market for their ingredients and
16 organic products. Meanwhile, 606 makes organic
17 availability grow. We know this. Thanks.

18 MR. CHAPMAN: In that example,
19 though -- and this product right here has
20 organic vanilla extract, so it helps me make
21 this example. These guys are using an organic
22 vanilla flavor. They have packaging printed.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 It states that the product's organic, but we
2 have this market issue and organic vanilla's no
3 longer available. They actually call it
4 Tahitian organic vanilla.

5 MS. WEISMAN: Who says organic
6 vanilla's not available right now.

7 MR. CHAPMAN: I'm just hypothetically
8 speaking.

9 MS. WEISMAN: Okay, I'll back down.

10 MR. CHAPMAN: That was a hypothetical
11 example of Harriet's. Now, while they have that
12 commercial availability, they also have all this
13 packaging that states that it's an organic
14 flavor. If they were to switch and use a
15 commercial availability, they now have a
16 packaging non-compliance. How do you deal with
17 that? How do you suggest we deal with that?

18 MS. WEISMAN: That's a good question.
19 That is actually exactly what happened in the
20 vanilla crisis 15 years ago. Lots of people did
21 have to change their packaging. Yes, that is
22 real.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Thank you, Julie.
2 Michael Sligh, followed by Marisol Oviedo.
3 Michael, start with your name and affiliation.

4 MR. SLIGH: Yes, I'm Michael Sligh,
5 with RAFI. We support the comments of NOC and
6 OFARM and OFA. I was recently asked why has
7 organic become so successful? I would say it's
8 because the law created checks and balances
9 between the NOP and the NOSB and because we
10 promised farmers a common set of high standards,
11 based on a level playing field, both
12 domestically and internationally.

13 The consumers can trust this as being
14 consistent, meaningful, and representing the
15 highest ideals of organic integrity, based on
16 transparent and process-based approach. I'm
17 very heartened by the bipartisan and USDA
18 attention on the organic import fraud. I
19 support this as a high priority. However, these
20 very keys to success are now in jeopardy. These
21 import frauds are systematic of a larger trend
22 of inconsistency across our whole system, from

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 top to bottom, without which our program will
2 continue to wander across many of our historical
3 lines in the sand and will have both defined us
4 and our collective success today. All unique
5 organic systems must be governed by a consistent
6 set of standards, and we must regain our checks
7 and balances, in order to have a program that
8 meets predictability.

9 Yes, we must respond decisively to
10 the current threat to organic integrity, but we
11 must regain our ability to be more proactive to
12 address potential future crises, without having
13 to deal with messes once they become too big.
14 New genetic techniques are a prime example of
15 one where we need continued USDA and NOP action.
16 These techniques are rolling out in the
17 marketplace without full benefit of guidance or
18 NOP oversight.

19 It is incumbent on all of us to rally
20 together to defend and regain our vision of
21 organic's true potential. The rise of add-on
22 labels is directly linked to where we have yet

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to be inclusive, clear, or consistent. Now is
2 your turn. What will be your legacy? Where
3 will you stand on the critical issues of our
4 day? During my time on the NOSB, we had to
5 choose among varying confrontational issues that
6 divided our community, but we must never forget
7 to protect both the spirit and the letter of the
8 law. It has never been easy, and never more
9 critical. The soul of organic has always been
10 at stake, from the very beginning, but what will
11 be our collective response now? Thank you.

12 MR. CHAPMAN: Thank you, Michael.
13 Harriet.

14 MS. BEHAR: Michael, I have two
15 questions for you. Do you believe that the
16 definition of bioengineering in the GMO labeling
17 law that was passed about two years ago has
18 relevancy for the national organic program?
19 Then I'll ask my second when you're done.

20 MR. SLIGH: I think in terms of
21 international point of reference in any kind of
22 trade dispute, or in terms of equivalency with

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 other countries, we would all turn to the Codex
2 Alimentarius, which U.S. is a member of; 120
3 countries are a member of that. They have
4 established long-standing definitions and
5 protocols related to foods from modern
6 biotechnology. That's where I would turn for
7 your reference.

8 MS. BEHAR: Then I understand that
9 you're part of the International Organic
10 Accreditation Service, and that they have been
11 working with European certifiers on import
12 fraud. Is there anything that's relevant for
13 the NOP that you could bring from that work?

14 MR. SLIGH: Yes, I'm the current
15 chair of the International Organic Accreditation
16 Service. We provide evaluation for both the EU
17 and the Canadian governments for their decisions
18 about accreditation of their certifiers.

19 We believe we were the first to bring
20 these issues to both of those governments
21 several years ago, and they were able to
22 immediately respond with high-risk protocols and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to begin to deal with this issue proactively.
2 We would welcome a relationship with the NOP and
3 other governments around the world, in order to
4 bring a more expedited and quick closure to
5 these things before they get so far out of hand.

6 MR. CHAPMAN: Thank you. Questions?
7 Thank you, Michael.

8 MR. SLIGH: Thank you. Keep up the
9 good work.

10 MR. CHAPMAN: Up next is Marisol,
11 followed by Linley Dixon. If you could start
12 with your name and affiliation.

13 MS. OVIEDO: Hi. I'm Marisol Oviedo
14 with the Northwest Horticultural Council, out of
15 Yakima, Washington. First of all, I would like
16 to thank the Board and the NOP staff for their
17 dedicated work in organics.

18 The Northwest Horticultural Council
19 represents growers, packers, and shippers of
20 apples, pears, and cherries in Idaho, Oregon,
21 and Washington, on federal and international
22 policy and regulatory issues. While the NHC

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 submitted written comments on a number of
2 materials of importance to tree fruit growers, I
3 will be focusing my oral comments on the need to
4 allow the continued use of elemental sulfur and
5 sulfurous acid in the National Organic Program.

6 In many ways, the Pacific Northwest
7 is the epicenter for organic comb fruit and
8 cherry production. Washington State is the
9 national leader in the production of organic
10 apples, pears, and cherries. Over 7 million
11 boxes of organic apples are now harvested from
12 over 14,000 acres, amounting to over 90 percent
13 of the entire organic apple crop in the United
14 States. If you grab an apple out of the hallway
15 there, those are organic apples from Washington.
16 Elemental sulfur is a critical tool for the tree
17 fruit industry in the orchard setting. It is a
18 vital insecticide that is used to control rust
19 mites in organic apples and pears and has been
20 used by our growers for over 100 years.

21 In particular, elemental sulfur is
22 one of the few options available to treat

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 powdery mildew. It is an essential material
2 that our growers depend on. There are no
3 alternatives to elemental sulfur that provide
4 the same level of control, or that are
5 compatible with other materials used during the
6 growing season. Elemental sulfur is also used
7 to adjust soil pH, which ensures better nutrient
8 uptake, improves water penetration, and enhances
9 overall plant health.

10 This, in turn, provides soil
11 environments for beneficial insects and
12 microbial activity. Sulfur is also one of the
13 six macronutrients, meaning that the plant needs
14 a relatively large amount to survive. It is a
15 necessary tool for organic production.
16 Sulfurous acid is used as a plant and soil
17 amendment. It is generated on site by burning
18 99 percent elemental sulfur in a sulfur burner,
19 which irrigation water passes through. This
20 allows the organic growers to take water with a
21 high pH and reduce it to a level of about 6.5.

22 This makes the water more conducive

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to plant and soil health and improves water
2 absorption. Irrigation water with a high pH, if
3 left untreated, causes calcium buildup on the
4 leaf and the fruit surface.

5 Lowering the pH, through the use of
6 sulfurous acid, reduces the calcium carbonate
7 buildup, resulting in better nutrient uptake,
8 improving crop yield and reducing soil
9 degradation, which improves soil health for
10 beneficial microbes and bacteria.

11 On behalf of the growers and packers
12 that we represent, the NHC strongly supports the
13 continued use of these vital tools for insect
14 control and plant and soil health. We ask that
15 the Members of the Board support the continued
16 listing of sulfurous acid and elemental sulfur.
17 These products are of critical importance to the
18 continued production of organic products, which
19 include tree fruit.

20 MR. CHAPMAN: Good timing. Any
21 questions? Asa.

22 MR. BRADMAN: I just want to get at

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the question we talked a little bit about
2 earlier, as you brought up in the sulfur sunset
3 review about the use of dust versus wettable
4 formulations. I wonder how your farmers apply
5 the material.

6 MS. OVIEDO: Our farmers have not
7 used the dust for about 15 years now. We're
8 using it in the wettable formulation.

9 MR. CHAPMAN: Steve.

10 MR. ELA: It's not part of your
11 comments today, but do you have any thoughts on
12 the polyoxin D salt for mildew control on tree
13 fruits?

14 MS. OVIEDO: I don't at this moment.

15 MR. CHAPMAN: Dave.

16 MR. MORTENSEN: I was just curious;
17 how do the conventional apple growers deal with
18 the pH problem in the water?

19 MS. OVIEDO: How do they deal with
20 it?

21 MR. MORTENSEN: Yes.

22 MS. OVIEDO: I can get that answer

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 for you. I couldn't answer it for you right
2 now.

3 MR. CHAPMAN: Thank you. Up next is
4 Linley Dixon, followed by Jackie DeMinter.
5 Linley, if you can start with your name and
6 affiliation.

7 MS. DIXON: Dave, I think they add
8 sulfuric acid. I'm Linley Dixon, senior
9 scientist with the Cornucopia Institute. I own
10 a five-acre farm in Durango, Colorado, with my
11 husband and brother, who both farm full time.
12 In Southwest Colorado, there is a young farmer
13 movement.

14 We have a local chapter of the
15 National Young Farmers Coalition and Rocky
16 Mountain Farmers Union. The farmers are
17 marketing and distributing together through a
18 farmer-owned cooperative. But organics has a
19 problem. Some of our farmers and ranchers don't
20 want to get certified, even though their
21 practices are in line with the standards.

22 They say organic has lost its

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 meaning. The standards don't represent the way
2 they farm. The organic label currently provides
3 little added value. The wholesale prices for
4 organic crops are so low that there is little
5 market incentive for farmers to become
6 certified. Industrial hydroponic operations
7 have flooded the organic market for our highest
8 value crops, tomatoes, cucumbers, peppers,
9 basil, greens. Real organic poultry producers
10 have already left organic for pasture-based
11 labels.

12 Real organic dairy farmers are
13 failing, as we speak, because of the lack of
14 enforcement of pasture requirements and the
15 origin of livestock. History has shown that
16 during farm crises, industrial operations
17 actually increase production, so they will
18 control the market after the crisis.

19 Aurora is currently building another
20 facility in Colorado and a processing facility
21 in Missouri, while Horizon is lowering prices
22 and dropping contracts with family-scale dairies

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 in several states. Fraudulent organic grain
2 imports are directly related to the quick rise
3 of domestic organic factory farms that are
4 thriving on large amounts of cheap organic
5 grain.

6 But for the first time, there is a
7 ray of hope. The Real Organic Project is a
8 fervent effort to keep soil and pasture-centric
9 farms part of the organic label before
10 industrial operations have squeezed them out.
11 The aim is to rebuild trust in organic, to
12 inspire new farmers and consumers into the
13 marketplace, to bring transparency back to the
14 organic label, to bring production practices
15 back into compliance with OFPA and fill gaps
16 where the organic standards have failed us.

17 This label wouldn't be necessary if
18 farmers felt the current NOSB process of
19 continuous improvement was working, if the NOP
20 assurance of a level playing field was enforced.
21 There is a deep feeling of frustration and
22 earnestness to save the family farm that the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic label brought back to life in the first
2 place.

3 I see the Real Organic Project as an
4 opportunity to tell our organic story again, to
5 remind consumers that organic was built by
6 family farms, that they are still overseeing the
7 success of the label to inspire the next
8 generation of farmers and eaters to be part of
9 organic.

10 After all, the people leading the
11 Real Organic Project are the same people who
12 built the organic movement the first time
13 around. These are farmers that welcome
14 unannounced visits to their farm and full
15 transparency in their practices. It's time to
16 insist on these real organic ideals again
17 together.

18 MR. CHAPMAN: Thank you. Questions?
19 Dave.

20 MR. MORTENSEN: Linley, in the Under
21 Secretary's words, a wrap-around label of the
22 kind that you're suggesting, how would that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 impact the number of farmers joining the organic
2 seal with the wrap-around? Would it remain
3 flat, increase, decrease?

4 MS. DIXON: We agree that there is
5 going to be confusion, and we don't see an
6 alternative to that. I think it's unfortunate,
7 but this is where we are. My own experience
8 with the farmers in my region is very
9 frustrating. They want nothing to do with
10 organics, so I see it as a way to bring growers
11 back into the label.

12 MR. CHAPMAN: Thank you, Linley. Up
13 next is Jackie DeMinter, followed by Nate Lewis.
14 Jackie, can you start with your name and
15 affiliation?

16 MS. DEMINTER: Good afternoon. My
17 name is Jackie DeMinter. I am the certification
18 policy manager at MOSA. We certify
19 approximately 2,000 operations throughout the
20 United States. I was going to comment on
21 parasiticides and ecosystems, but instead, I'm
22 going to use my time to talk about paper pots

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and bailing twine. I hope you've read and
2 considered all of our written comments.
3 Parasiticides included a minor revision that we
4 hope you take up.

5 The Japanese paper pot system is a
6 topic of interest for us. If you haven't heard
7 of it, just Google Japanese paper pots. At
8 MOSA, we'd approved the pots years ago, based on
9 what we thought was very solid rationale.

10 Paper is on the national list for use
11 as a mulching compost feed stock, so it's not a
12 stretch to consider paper pots acceptable, which
13 I think most certifiers in OMRI do. The added
14 resins are included in other allowed paper
15 products, as covered in the technical review on
16 paper.

17 Certifiers didn't agree on the
18 allowance of the added resin, so a dispute was
19 submitted to the NOP for their review and
20 ruling. We understood, from the NOP's response,
21 that the reason for prohibition was the added
22 resins, but now the NOP has clarified verbally

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that paper transplanting pots, in general, are
2 not an approved application of paper. That's
3 big and definitely needs written clarification.
4 We feel the organic vegetable industry, at least
5 in our area, will be disrupted to disallow the
6 use of all paper pots as soon as next season,
7 which is the timeline for the discontinuance the
8 NOP required.

9 We think paper pots, in general,
10 should continue to be allowed, and we also think
11 the widely discussed paper chain pot system
12 should be allowed, too, and we hope this topic
13 finds its way to your docket for the fall
14 meeting.

15 That said, even if it is on the
16 agenda, and assuming the NOSB would vote
17 affirmatively, the rulemaking process takes
18 time, as well, so we ask the NOP to consider a
19 longer phase-out period. I'll also mention
20 bailing twine, something you wouldn't likely
21 think of as an issue.

22 The problem is that most twine in use

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 is treated, which has triggered positive residue
2 test results on silage and hay for a material
3 that has no tolerance level, so its mere
4 presence requires the harvested crop to be
5 removed from certification. The plain folk
6 community harvest corn into shocks bound with
7 twine that are then fed into the silage chopper,
8 twine and all. While we expect the twine is
9 removed and disposed of, this isn't the case for
10 corn shocks, as we've learned due to this
11 residue testing.

12 We hear that removing it from shocks
13 creates a human safety issue. Baled hay has
14 also tested positive, so the issue isn't limited
15 to situations where the twine is being ground
16 into the feed. This is now an issue for us.

17 Untreated twine isn't widely
18 available in quantities, so we think treated
19 twine should be considered for the national
20 list. It seems incredibly unfair to suspend a
21 corn or hay crop based on a positive residue
22 when all the neighbors are doing the same thing.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 We prefer to spend our time on bigger issues,
2 like pasture compliance.

3 I'll end by stating our support for
4 NOSB process and the work you do. We find it
5 incredibly disheartening to see your hard work
6 dismissed and hope that the trend doesn't
7 continue. We do not want to see your work plan
8 restricted, so as to stifle the development of
9 the organic standards. Thank you.

10 MR. CHAPMAN: I have a question, then
11 we'll go to Harriet and Emily. We've heard from
12 a lot of people on the paper pots. The twine is
13 new, as well. There's a process to petition to
14 add materials. I hear the need. Why are people
15 not petitioning? Why are we not using --

16 MS. DEMINTER: I think that's coming.

17 MR. CHAPMAN: -- the established
18 process?

19 MS. DEMINTER: I do think that's
20 coming. This is all very new. We just got the
21 answer from the NOP. This just started brewing
22 over the last -- since September, actually, is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 when the dispute was submitted to the NOP. I
2 believe that was the date, so it's been brewing.

3 I think my purpose for bringing this
4 to you today is awareness, awareness that these
5 issues are coming. I hope they find their way
6 to your agendas. These are serious things that
7 are impacting our organic community.

8 MR. CHAPMAN: Twine, is someone
9 looking into petitioning that one?

10 MS. DEMINTER: I don't know if they
11 are petitioning that. We have just been dealing
12 with these residue test results as part of our
13 required 5 percent levels. As a certifier, we
14 wouldn't be knowledgeable enough to submit a
15 petition on the manufacturing process of twine,
16 but it's something that we definitely think
17 should happen and should be considered. Just as
18 awareness, we're experiencing these problems,
19 and we're required to do this residue testing.

20 If other certifiers back here are
21 doing that same residue testing, go test some
22 silage on an Amish farm and see what happens.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 You might find the same problems. I think this
2 is just becoming an issue, and we're going to
3 hear a lot more about it.

4 MR. CHAPMAN: Okay. Harriet, then
5 Emily.

6 MS. BEHAR: Have they looked at using
7 plastic?

8 MS. DEMINTER: That would be not
9 allowed, as well, because the twine is chopped
10 into the silage. It's chopped into the feed,
11 and you can't have plastic in the feed. Can't
12 really have the twine in the feed, either, but
13 there's got to be some kind of level of
14 practicality that we can apply to this issue.

15 MR. CHAPMAN: Emily.

16 MS. OAKLEY: I was wondering if the
17 Program could speak to the issue of a longer
18 phase out. I think we have a unique situation
19 here, in which we have growers who were told by
20 their certifiers that they could use a product,
21 and they are often smaller-scale growers.

22 They had made investments in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 technology or tools, in order to utilize these
2 systems. I think a quick turnout could lose
3 certification for some of these smaller-scale
4 growers, which I would really hate to see. Is
5 there a way that we could enact a longer phase
6 out while a petition put through the process?

7 MR. PATTILLO: Yes, I think we'll
8 have to discuss our options.

9 MR. CHAPMAN: Harriet.

10 MS. BEHAR: Maybe organic hemp for
11 the twine.

12 MS. DEMINTER: That would be great if
13 it was readily available in quantity.

14 MR. CHAPMAN: Asa.

15 MR. BRADMAN: Forgive my ignorance.
16 What is the chemical that's treated on the twine
17 that's getting into --

18 MS. DEMINTER: O-phenylphenol. It's
19 a fungicide that prevents it from rotting and
20 from mice eating it and stuff like that.

21 MR. BRADMAN: Is that
22 ortho-phenylphenol?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. DEMINTER: I think that's what it
2 is. I just know it as o-phenylphenol.

3 MR. BRADMAN: Okay, thanks.

4 MS. DEMINTER: They say it is.

5 MR. CHAPMAN: Thank you very much.

6 MS. DEMINTER: Thank you.

7 MR. CHAPMAN: Next is Nate Lewis,
8 followed by Patricia Mayer. Name and
9 affiliation.

10 MR. LEWIS: Good evening, I think we
11 can say now. Nate Lewis. I'm farm policy
12 director with the Organic Trade Association.
13 I'm a certified organic producer from Washington
14 State and serve on the Washington State
15 Department of Agriculture's Organic Advisory
16 Board.

17 I'm going to try to thread a farmer
18 metaphor throughout here, the metaphor of tools,
19 so bear with me a little bit. I believe that
20 you need to have the right tool on the farm.
21 That tool needs to be well honed. As my wife
22 reminds me on a nearly daily basis, you need to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 wash it and put it away when you're done with
2 it. In terms of native ecosystems, I think
3 we're all in alignment that we don't want
4 organic premiums to be fueling the destruction
5 of our rain forests and our native ecosystems.

6 What we're talking about is is this
7 the right tool to accomplish that goal? We
8 believe it is. We think you should pass the
9 recommendation, but we need to focus on honing
10 that tool to make sure that it doesn't bring
11 along with it too many unnecessary casualties,
12 particularly in livestock and poultry grazing.

13 I recommend focusing on encouraging
14 the National Ag Statistic Service to add a
15 question into the next organic producer survey
16 to see how much this is actually occurring
17 domestically, consider a research priority on
18 grazing native ecosystems and whether grazing
19 can have compatible goals with conservation,
20 which I believe it can, so really focus on
21 honing that tool.

22 One of the most important tools in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 integrity is our inspection process, our boots
2 on the ground. That tool needs to be well
3 honed. We strongly support a full licensing
4 program for inspectors. I don't think that
5 we're quite ready to do that. Just like
6 everyone wants the green and white -- I'm sorry,
7 the green and yellow shiny tractor, sometimes we
8 have to go with the beat up old Troy-Bilt
9 rototiller to get the job done this season.

10 Let's look at ways we can use our
11 organic integrity database to register
12 inspectors, to get a group -- to get some
13 background on what these inspectors have already
14 accomplished, what their qualifications are,
15 based on scope and scale, so that certifiers can
16 make good decisions.

17 When you're reading the comments on
18 the polyoxin D zinc salt, I'm reading a lot of
19 farmers talking about major fungal issues,
20 detritus, mummy berry, cottonball, things I've
21 never even heard about. It seems like they're
22 trying to dig a hole with a rake here because

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 they don't have the right tool for the job.

2 I encourage you to give them that
3 right tool, give them a shovel, and pass that
4 product. I don't believe you need to take
5 something off to add a less toxic, more
6 effective alternative. Then on paper pots,
7 again, our members are concerned about this, as
8 well, but I want to push back on the position
9 that we need to petition this. Micronutrients
10 were up for sunset review in 2015. A parallel
11 recommendation came along with it, based on
12 public comments, to modify the annotation. I
13 don't understand why that can't happen in this
14 case.

15 MR. CHAPMAN: Steve.

16 MR. ELA: Let's follow up on that.
17 What kind of modifications to the annotation
18 would you propose that would bring paper pots
19 under the current listing? I think it could be
20 sort of argued that they're mulched because
21 they're planted in place.

22 MR. LEWIS: Before I came to the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Trade Association, I managed the Washington
2 State Department of Agriculture's brand name
3 material list, so I'm not particularly
4 supportive of creative interpretations of the
5 national list. That's not a good place to start
6 from. I think strict, conservative
7 interpretations of the national list is the way
8 to go, and I completely understand why some
9 certifiers might have allowed it, but why NOP
10 came in with their decision. It's not listed
11 for paper pots. It's listed for compost and
12 mulch. In this case, the substance is paper.
13 That's on the national list. We have an
14 annotation, which I believe you're reviewing on
15 whether you still need to have the glossy paper
16 and no colors, that restriction.

17 That's a separate conversation, but I
18 think paper pots should be part of that. What
19 would need to come forward is a parallel
20 recommendation to increase its use pattern, so
21 that it would be out of the 205.601. You would
22 create a new section on transplant aids, and

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 then production aids.

2 We can spitball what the right thing
3 is, but that's your job. I'm saying that the
4 substance is there. You're just adding a new
5 use pattern. I don't understand why we need to
6 burden the industry with a petition for
7 something that has already been used. You know
8 it needs to be used.

9 It's undergoing a sunset review, and
10 we have a precedent for micronutrients, where
11 the public comments said this is an overly
12 restrictive and outdated annotation; we think
13 you should change that. The Board brought
14 forward a parallel recommendation, passed it,
15 and we just saw rulemaking go forward that
16 brought that into fruition.

17 MR. ELA: But that's not really an
18 annotation change. You're talking about listing
19 it in a different section. For example, today
20 we have -- at this meeting, we have sulfur as a
21 molluscicide.

22 Sulfur's widely listed across the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 list, but here's a specific use that has to be
2 petitioned. I guess if you're a strict lister,
3 so to speak, which I agree with, I can see
4 annotating the current listing, but when you add
5 it to a different section, then it becomes a
6 little different.

7 MR. LEWIS: I'm not a lawyer. I'm a
8 regulatory wonk. I look to the program on why
9 the statement has always been it needs a
10 petition, when micronutrients -- I recognize
11 there's a difference between changing an
12 annotation and a use pattern, but that is
13 unclear to me why we need to burden the industry
14 with a petition, when you know you will likely
15 get that and be reviewing it and making a
16 determination on it.

17 MR. CHAPMAN: Thank you.

18 MR. LEWIS: Thank you.

19 MR. CHAPMAN: Up next is Patricia.
20 Following Patricia is Jessica Walden. Start
21 with your name and affiliation.

22 MS. MAYER: Good day. Thank you for

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 this opportunity to speak to you today. My name
2 is Pat Mayer, and I'm an organic consumer. I
3 think I might be the only consumer you've heard
4 from today, but -- you'll probably hear a lot of
5 the same thing that you've already heard.

6 I believe when most people think of
7 farmers' market, they think of one where stalls
8 or trucks are lined up and sell produce straight
9 from the farm, maybe the farm right outside of
10 town. Maybe it also has some vendors of
11 homemade soaps and breads and knitwear and so
12 forth. This is the spirit of a farmers' market,
13 local seasonal produce from growers one can talk
14 with and get to know.

15 There's a grocery chain with stores
16 in several states, and here, in fact, called
17 Sprouts Farmers Market. I like Sprouts. I shop
18 there. But it is no more a farmers' market than
19 we have here in this room, and I've been to
20 so-called farmers' markets that if they even
21 have produce, it's obvious it wasn't grown by
22 the farmers selling it, since the stickers might

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 indicate Argentina or China. These, too, are
2 farmers' markets in name only.

3 I believe that most consumers
4 understand that organic production is about more
5 than just avoiding synthetic pesticides and
6 fertilizers; that it's about being good stewards
7 of the land, managing farms to produce better
8 soil, and thus better crops, about caring for
9 animals and allowing them to live with their
10 natural behaviors, and about working with
11 nature.

12 This is the spirit of organics. It
13 is captured in the law that created the National
14 Organic Program, this standards Board, and the
15 green-and-white label that means something to
16 those of us who believe organically raised food
17 is just better for the earth, for animals, for
18 growers, and for families.

19 People want organically raised food
20 more than ever, and they want to trust that
21 little sticker means what they believe it means.
22 But there are those producers who want to use

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic production in name only, who want to
2 cash in on the movement, while cutting corners,
3 who don't care about the spirit of organics and
4 what people fought for in getting the organic
5 law passed and in setting up standards. These
6 producers want to use the sticker, but have the
7 standards fit their methods, their agendas.

8 They bend and break rules and hope
9 that you, the NOSB, will see it their way and
10 allow degraded standards. I want to say that I
11 appreciate what you do for organics and think
12 you must be at least as, if not more so,
13 frustrated than we consumers when the agency
14 with authority over the NOP overrules your
15 recommendations.

16 In spite of that, I encourage you to
17 stick with the spirit of what organics means to
18 ordinary consumers and to those who helped
19 create the NOP and to vote for policy and
20 materials that reflect this spirit, to oppose
21 what works in name only, materials and practices
22 that do not follow the intent of the organic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 law, nor the spirit that drove creation of the
2 law. Thank you for your time.

3 MR. CHAPMAN: Harriet and Emily.

4 MS. BEHAR: Are you aware of other
5 labels -- if you see an organic label, and then
6 a grass fed on there, or an organic label and
7 non-GMO, do you find that useful or confusing?

8 MS. MAYER: I study the issues a lot,
9 so I understand the meaning behind some of those
10 labels, but I don't necessarily equate them with
11 organic. I think that most people probably get
12 confused about them more than I, myself, would.
13 People that I talk with get confused.

14 MR. CHAPMAN: Emily.

15 MS. OAKLEY: This is a comment. If I
16 had another life, I would take up the issue of
17 farmers' markets. I just want to thank you for
18 bringing that up because I think it is an
19 unregulated term that is, unfortunately, misused
20 many times. Thank you.

21 MS. MAYER: A lot of those, yes,
22 right.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: A-dae.

2 MS. ROMERO-BRIONES: You referred to
3 growers and producers cutting corners. Can you
4 be more specific about what you're referencing?

5 MS. MAYER: I think there have been
6 some references to some of the questionable,
7 extremely large dairy farms, people putting
8 organic labels when they may not necessarily be
9 following practices. I don't have specifics,
10 nor would I feel comfortable laying them out,
11 but certainly, we've heard of and I've talked
12 with -- because I do go to a farmers' market
13 every week. I talk with some of those
14 producers. They have stories, anecdotal,
15 probably.

16 MR. CHAPMAN: Thank you.

17 MS. MAYER: Thank you.

18 MR. CHAPMAN: Up next is Jessica
19 Walden, followed by Ruth Watts.

20 MS. WALDEN: Hello. My name is
21 Jessica Walden, and I'm a senior technical
22 reviewer with QAI. We are an organic certifier,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 and we certify over 1,700 operations around the
2 U.S. and beyond. Today, I'll be commenting on
3 the import oversight discussion document.
4 Thanks so much for taking on this issue and for
5 asking way too many, but extremely important
6 questions.

7 The complexity of the questions asked
8 in your discussion document highlights just how
9 complex of an issue this is and how important it
10 is that we all work together, as an industry, to
11 resolve these issues related to the maintenance
12 of organic integrity. From this morning's
13 discussion, as well, it sounds like there's a
14 lot of movement in this direction, which is
15 really heartening. QAI was a part of the OTA
16 task force for global organic supply chain
17 integrity, GOSI is the official acronym, and
18 contributed to the comments submitted by OTA.

19 In addition, we submitted our own
20 comments and provided examples of our audit
21 trail forms, which capture a trace back and mass
22 balance exercise conducted at inspections. We

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 require every inspector to carry out these
2 audits when they are inspecting every organic
3 operation.

4 We carry out thorough inspector
5 trainings on how to do these often complex
6 audits and match organic inspectors with
7 high-level audit skills with those operations
8 that are most complex. We also require that our
9 certified operators provide a full disclosure of
10 all their suppliers, including non-certified
11 brokers and warehouses, and documentation that
12 links organic goods back to the last certified
13 supplier.

14 The difficulty is that supply chains
15 can be extremely complex. Phytosanitary
16 paperwork is not uniform and not always
17 available. Transaction certificate processes
18 are inconsistent, and there's still an overall
19 ignorance out there about which handling
20 processes are required to be certified. There's
21 just way too many places where organic integrity
22 can be lost. While QAI is doing its part to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 prevent fraudulent activities and identify
2 risks, we feel that the best approach to
3 mitigating these issues is to require, through
4 rulemaking, that all handlers in the supply
5 chain be certified.

6 We know that's not even going to be
7 the thing that solves it. It'll certainly make
8 it more manageable. We ask, also, that the NOSB
9 focus their efforts on identifying who truly
10 does and does not need to be certified, so that
11 there remains little room for fraud to occur in
12 the supply chain.

13 We also support the industry
14 endorsement and adoption of the GOSI Best
15 Practices guide, consistency between the
16 labeling of organic, non-retail goods with the
17 accompanying paperwork, more practice of
18 cross-checking with other certifiers, and the
19 reporting of organic crop and acreage
20 information and clarification that any activity
21 where a product is exposed should be certified,
22 any part along the chain where a product is

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 exposed needs to be certified. Thank you.

2 MR. CHAPMAN: I've got a couple, and
3 then we'll go this way, and then back that way.
4 What type of operations, in your opinion, that
5 are not required to be certified right now,
6 should be certified, or vice versa, which ones
7 should be exempt?

8 MS. WALDEN: I'm not exactly sure who
9 should be exempt, to be honest. But I know that
10 there's distributors, warehouses, transloading
11 sites, the use of augers to move product from
12 shipping containers into vessels. There's quite
13 a lot of activity that happens, and we're
14 actually still learning, exactly, all of these
15 different places.

16 As we learned earlier, as well, where
17 you've got produces that is basically in open
18 containers that are in warehouses, all of these
19 places where there is exposed product or
20 impermeable packaging needs to be certified.
21 Even coffee in hessian sacks, really, in
22 warehouses, it's pretty widespread.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: What about the transit
2 of those open products?

3 MS. WALDEN: Transportation's a
4 little more tricky, but there needs to be some
5 oversight. Right now, the transportation is
6 exempt. However, there is control by
7 the -- generally, like a milk tanker, there's
8 control at the farm level, with clean truck
9 affidavits, and then there's also control at the
10 receiving, at the processor.

11 I guess it's a study of the whole
12 chain. There needs to be some level of control.
13 It may be that some of these activities can be
14 covered under the certification of operations,
15 but certainly not in every instance.

16 MR. CHAPMAN: Harriet.

17 MS. BEHAR: You said that you go
18 through your inspectors and choose them to fit
19 the type of operation. Do you have a system of
20 categorizing them, as far as lower skills,
21 medium skills, high skilled? In what
22 categories, then, do you put them, and if you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 do, can you share that with us?

2 MS. WALDEN: I would have to talk
3 with our inspections person, but we do
4 have -- we have these robust audit exercises.
5 All of our inspectors go through the training,
6 but they're also subjected to -- every single
7 inspection they do, they get feedback from the
8 reviewers. All of those scores are calculated.
9 We know who not to send to certain places.
10 We're constantly -- it's constantly process
11 improvement. We're constantly trying to fine
12 tune who we send to various operations.

13 MS. BEHAR: I just have a quick
14 follow up. Can we put you in Michelle's
15 suitcase and kidnap you and bring you back to
16 D.C. for us?

17 MS. WALDEN: I heard no back there.

18 MR. CHAPMAN: Emily.

19 MS. OAKLEY: I just wanted to thank
20 you for your comments in support of the native
21 ecosystem document. Thank you.

22 MS. WALDEN: You're welcome.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Thank you.

2 MS. WALDEN: Thanks very much.

3 MR. CHAPMAN: Next up is Ruth Watts,
4 followed by Bill Wolf. Ruth, you can start with
5 your name and affiliation.

6 MS. WATTS: Good afternoon. My name
7 is Ruth Watts, and I am the business development
8 manager for BASF Corporation's biopolymers
9 group. I wanted to thank you for your
10 willingness to serve on the Board, and also
11 recognize you for the sacrifice that you make
12 for ensuring the integrity of the organic
13 industry. I would like to comment on the sunset
14 review of polyethylene mulch film and the value
15 of the alternative, soil biodegradable mulch
16 films.

17 We have heard for years that the PE
18 mulch film provides for the organic farmer. We
19 also have heard many farmers address the
20 end-of-life issues that they have. PE mulch
21 film continues to plague them. Many questions
22 about what to do with the film and why are we

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 putting our waste in somebody else's backyard?

2 The organic industry professes not
3 only stewardship of the soil, but as we all
4 should, be stewards of the planet and its
5 valuable resources. Let's look at this in a
6 holistic approach and not create problems for
7 another group of stakeholders or our planet.

8 Landfills and recyclers do not want
9 polyethylene mulch film due to soil and plant
10 residue. Therefore, if a farmer cannot dispose
11 of it by these means, then the plastic mulch
12 film is either stockpiled on a farm or it's
13 burned. Please note that over time,
14 polyethylene mulch film will degrade, due to
15 heat and UV, which can leave fragments in the
16 ground, resulting in a potential harmful
17 product, such as aldehydes and ketones. Burning
18 of mulch film can also result in airborne
19 pollutants, along with other undesirable
20 environmental impacts.

21 There has been a very healthy
22 discussion on the value of soil biodegradable

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 mulch films and how the use of these products,
2 though which are commercially available today
3 and not 100 percent bio-based, can provide a
4 safe, sustainable solution to the disposal
5 challenges of polyethylene mulch film.

6 The topic of bio-based content has
7 taken us way off course here. The composition
8 of currently commercially available products was
9 disclosed in our petition, as was the origin of
10 the carbon. We discussed the origin in the
11 carbon does not impact the performance or the
12 safety of the film in any way.

13 We are simply advocating for the
14 materials that we originally petitioned. We
15 understand that there is a desire to have these
16 products made from bio-based sources, despite
17 the fact that it provides no additional value to
18 the farmer and only increases his or her costs.
19 Nature doesn't make molecules that can simply be
20 harvested to create new products. In the case
21 of polymers, monomers have to be created, and
22 the vehicle for this is genetically modified

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organisms used as a processing aid to yield
2 quality monomers of sufficient quality and
3 quantity.

4 These organisms do not survive the
5 production process, and are not in the final
6 product, so they are not a farm input. But this
7 is the only way to make bio-based monomers. As
8 we know, GMOs are not allowed. We simply want
9 to move this conversation forward and ask the
10 NOSB to recommend the NOP to remove the Memo
11 15-1 and allow farmers to assess and use the
12 currently available products today that meet the
13 performance and standards listed in the 7 CFR
14 205.601.

15 MR. CHAPMAN: Thank you. Harriet.

16 MS. BEHAR: Hi, Ruth.

17 MS. WATTS: Hey, Harriet.

18 MS. BEHAR: If we ever get this one
19 solved, you're going to miss going to all these
20 places around the United States. I understand
21 that the European Union has been developing a
22 new standard for biodegradable plastic mulch

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 films, and I'm wondering if the film that you
2 sell meets their new standard, which has to do
3 with the amount of -- the biodegradability,
4 which I believe probably it does, but a thorough
5 ecotoxicity requirement, as well. Are you aware
6 of this?

7 MS. WATTS: That's correct, yes.
8 There is a new standard. They haven't developed
9 one. There is a new standard, and our product
10 does meet that performance. In fact, I would
11 say all of the products that meet the
12 performance of the CFR currently on the books
13 meet that same standard.

14 The only additional requirement that
15 I believe Dr. Andreas Kunkel talked about was
16 the mechanical properties that is also added to
17 that particular standard. Everything listed in
18 the new EU standard is reflected in the CFR for
19 the biodegradable mulch films, so it is
20 available.

21 MR. CHAPMAN: Dave.

22 MR. MORTENSEN: Ruth, I wasn't sure

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 if I was going to ask this question or not, but
2 I'm going to go ahead and ask it. It's late in
3 the day. I was driving back from Washington,
4 D.C., last week when one of your colleagues
5 called in. I was coming back from the dicamba
6 drift discussion, closed-door discussion, where
7 I heard multiple organic farmers say that
8 they're on the verge of not being able to grow
9 their crops because of dicamba drift, which is
10 manufactured by BASF.

11 I guess I'm trying to reconcile a
12 corporate ethic that wants to sell a product for
13 organic production on the one hand, and is
14 selling a product that's being used on
15 about -- will be, this summer, 50 million acres
16 of crop land on the other hand. Could you just
17 help me see the corporate ethic where there's
18 consistency here?

19 MS. WATTS: First off, that's a
20 totally different division. We're the largest
21 chemical division in the world. I'm not even
22 familiar with that product, to be honest with

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you. We're a separate business unit, and our
2 focus and toxicity studies that are done, these
3 are requirements by the EPA and any European
4 Standard nation. The tests are usually done by
5 a third party. To address those issues and say
6 are we ethical in our testing methodology, I
7 would say because it's done by a third party,
8 that's out of our hands. We follow the law and
9 do what is asked of us to do for our products.

10 I don't even know what this product
11 is that you've been talking about, but I know
12 what we've done, as a very small business unit
13 within BASF. I know BASF's commitment to the
14 environment, again, not knowing the product that
15 you're talking about. But I know, from our
16 stewardship standpoint, we do whatever's
17 required of the law. Again, third-party testing
18 is usually validated and done. I hope that
19 answers, and I wish I knew more.

20 MR. MORTENSEN: Just to be clear,
21 dicamba is the herbicide. It will be used
22 because Monsanto and BASF are working together

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 to have 50 million acres treated this coming
2 summer. It would be worth discussing.

3 MR. CHAPMAN: Dave, can we keep the
4 questions germane to the subjects --

5 MR. MORTENSEN: Yes. I was just
6 answering her question. Thanks.

7 MS. WATTS: Sure. If I could
8 just -- one more thing. If you want to talk
9 about twine on the side, there is work being
10 developed on using the same material for mulch
11 film for twine. I just thought I'd share that
12 with you.

13 MR. CHAPMAN: Thank you.

14 MS. WATTS: Thank you.

15 MR. CHAPMAN: Up next is Michael
16 Menes -- sorry, up next is Bill Wolf, followed
17 by Michael Menes. Bill, if you can start with
18 your name and affiliation.

19 MR. WOLF: Hi. I'm Bill Wolf, with
20 Wolf, DiMatteo & Associates. First, I want to
21 thank all of you for volunteering your precious
22 time and hard work. I'd like to cover three

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 topics today, quickly: 1) a suggestion for
2 working smarter, focusing on organic issues and
3 getting more help from USDA; 2) unfinished
4 business that is holding organic back; and 3)
5 making the national list a better toolbox for
6 growing organic.

7 Organic is the most open standard in
8 the world, so folks bring their important issues
9 here because of our transparency, but you need
10 to be screening these issues vigilantly and
11 focusing on those that improve organic methods.
12 Organic can't take on every worthwhile cause.
13 Focus on what is most important to organic,
14 please. Second, delegate. NOSB members are not
15 appointed to craft regulatory language. Get
16 help drafting the recommendations to the USDA,
17 or they won't be able to implement them.

18 USDA staff should be taking your
19 concepts and building technically accurate
20 documents for final vote. Now, I'd like to
21 quickly go over a few issues that we've
22 submitted over the years, all unfinished

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 business, a few listed here, on this slide:
2 inerts, sodium nitrate, mulch film, and
3 requiring organic when available, applying
4 commercial availability to other sections of the
5 national list.

6 The national list is a toolbox. It's
7 a toolbox for growth, and we need choices.
8 Farmers in the U.S. are not embracing organic,
9 and that's why we're importing more and more
10 ingredients. These comments are rooted in a
11 philosophy of continuous improvement, that
12 organic is seeking the gentlest ways to produce
13 food and fiber and provide healthy products for
14 animals and humans. It's a tough choice you
15 face every day when you're facing all these
16 issues. I'm going to provide an old adage that
17 was presented 26 years ago to the NOSB at one of
18 its first meetings. That was think like an
19 earthworm. Imagine what promotes our biotic
20 living systems to help with materials decisions.
21 Ask yourself --

22 MR. CHAPMAN: Thank you, Bill.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Questions for Bill? A-dae.

2 MS. ROMERO-BRIONES: Hi. Can you
3 just finish that last sentence?

4 MR. WOLF: Sorry?

5 MS. ROMERO-BRIONES: Can you just
6 finish your last thought?

7 MR. WOLF: Sure. I'd be glad to. I
8 wanted to simply say don't shrink the national
9 list toolbox as a specific goal. We need
10 choices, not just one solution for a problem.
11 Be open to innovation and creativity that fits
12 the organic philosophy. The precautionary
13 principle cuts both ways, so ask yourselves will
14 your vote increase organic acreage and the
15 earthworm population. Thank you. Any
16 questions?

17 MR. CHAPMAN: Thank you, Bill. Up
18 next, we have Michael Menes, followed by Brian
19 Baker. Michael, if you can start with your name
20 and affiliation.

21 MR. MENES: Good afternoon, and thank
22 you for the time as we go down into the stretch.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 My name is Mike Menes. I'm VP of food safety
2 and technology over at True Organic Products.
3 I'd like to bring greetings from sunny
4 California and the employees at True Organic
5 Products.

6 I'd like to thank the NOSB and the
7 entire National Organic Program for their
8 commitment to the organic industry. We
9 appreciate your attention to detail as you wade
10 through all these comments, the sea of
11 paperwork, truly appreciate that. Tell you a
12 little bit about our company. True Organic
13 Products is the nation's largest organic
14 fertilizer manufacturer.

15 We are family owned since 2005. We
16 manufacture our liquid and pelleted fertilizers
17 out of two locations, in Helm, California, just
18 outside of Fresno, and also in eastern Oregon,
19 our newest place there in Boardman. I'm here
20 today to comment on the tools for organic
21 fertility. True Organic Products supports
22 liquid fish remaining on the NOP's list of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 approved materials for use in organic
2 production. Some of the organic farmers don't
3 need off-farm soil amendments; however, most
4 need a robust fertility program. The
5 availability of approved materials for growing
6 an organic crop is critical. One input that we
7 use is liquid fish to formulate our liquid
8 fertilizers, which is a large part of our
9 business.

10 It's a growing segment, for sure.
11 It's a unique tool that many of our customers
12 currently use as a liquid fertilizer. The
13 unique thing about this is that it can be used
14 in irrigation and fertigation. Sunsetting
15 liquid fish from the NOP list would reduce the
16 amount of organic produce available to the
17 public.

18 Liquid fish is a proven tool that
19 meets the criteria for the organic inputs, and
20 we ask the Board to retain the liquid fish for
21 use in organic farming. There's another
22 fertilizer input that the NOSB recommended to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 prohibit in 2011, but has not been acted on by
2 the NOP in AMS.

3 Sodium nitrate is a risk to the
4 integrity of the organic agriculture, and we
5 call on the NOP to implement this prohibition.
6 In 2012, the NOP issue NOP Memo 12-1, regarding
7 the status of the sodium nitrate, stating that
8 the rulemaking was forthcoming, but no action
9 has been taken on the NOSB's recommendation from
10 seven years ago. NOP Memo 12-1 issued instead
11 created some confusion with operators, where
12 people may be starting to go outside of that 20
13 percent rule.

14 Interestingly, sodium nitrate was not
15 discussed in the 2017 sunset review. Now,
16 independent testing shows that there may be some
17 harmful levels of the contaminant called
18 perchlorate. In the midst of all the talk of
19 organic fraud, it is important that we maintain
20 the construct of the National Organic Program,
21 and thus protect the integrity of the USDA
22 organic seal. Thank you.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Thank you. Emily.

2 MS. OAKLEY: I didn't see, in your
3 written comments, if the fish that you use in
4 your products comes from byproduct for other
5 purposes, or if it's fish that's harvested from
6 wild sources solely for the purpose of
7 fertilizer. Could you elaborate on that?

8 MR. MENES: Sure. Ours is all from
9 byproducts, is my understanding. I think the
10 driving force there is going to be fish meal, as
11 mentioned earlier, fish meal and fish oil, and
12 then the carcasses outside of the filet. So
13 yes, we're all motivated to using the stuff
14 that's going to be -- could be going into the
15 waste stream already anyway.

16 MR. CHAPMAN: Harriet.

17 MS. BEHAR: Have you shared the
18 information about the detection of perchlorate,
19 have you shared that information with the
20 National Organic Program? Because they do have
21 something about compost feed stocks cannot
22 contain prohibited materials, so I'm wondering

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 if --

2 MR. MENES: I haven't shared that
3 information at this time.

4 MS. BEHAR: -- you could share that
5 information with the NOP, and they can look that
6 over?

7 MR. MENES: Yes, I'd be happy to do
8 that. I can do that at a later time, but yes, I
9 would be happy to do that.

10 MR. CHAPMAN: Asa.

11 MR. BRADMAN: Could you clarify a
12 little bit. You said that -- was it perchlorate
13 that you were detecting in soy-based
14 fertilizers?

15 MR. MENES: Yes. It's perchlorate.
16 Perchlorate, as per the technical review that
17 was done several years ago, perchlorate's a
18 strong oxidizing agent. It was detected in
19 there, initially.

20 MR. BRADMAN: There's a long history,
21 of course, with Colorado River water being
22 contaminated with it in many areas.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. MENES: My understanding is that
2 it was commercially available in sodium nitrate,
3 send it in for perchlorate testing and found
4 significant levels in there.

5 MR. BRADMAN: There's a long history
6 with the sodium nitrate.

7 MR. MENES: Yes, be happy to share
8 the things that we've found recently.

9 MR. CHAPMAN: Thank you.

10 MR. MENES: Thank you.

11 MR. CHAPMAN: Up next is Brian Baker,
12 followed by Jerry Tyler. Brian, if you can
13 start with your name and affiliation.

14 MR. BAKER: Brian Baker, IFOAM North
15 America. Esteemed members of the National
16 Organic Standards Board, thank you for the
17 opportunity to comment. IFOAM Organics
18 International has led, united, and assisted the
19 organic world since the 1970s. It has been
20 influential in setting organic standards
21 throughout the world. IFOAM North America is a
22 newly formed organization that includes IFOAM

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 members in the U.S. and Canada.

2 Our purposes are to educate the
3 public, serve as a forum to exchange ideas, and
4 engage in activities that advance organic
5 agriculture and its four principles, health,
6 ecology, fairness, and care. I want to speak
7 today on three subjects, import oversight,
8 organic livestock and poultry practices, and
9 excluded methods.

10 USDA's expanded enforcement efforts
11 are welcome. IFOAM has helped to protect
12 international organic integrity since before
13 there were national standards and government
14 enforcement.

15 Fraud and efforts to subvert organic
16 markets has required vigilance from the
17 beginning and is a global problem.
18 International collaboration through a
19 public/private partnership is essential.
20 Transparency and data sharing are needed to help
21 the market to respond to those who are not
22 acting in good faith. We can't just wait for

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 criminal prosecution. Fair Trade goes beyond
2 simply following the letter of the law.
3 Investigators should pay attention to the
4 incentives and opportunities to create an
5 environment conducive to that fraud.

6 Second, the withdrawal of organic
7 livestock and poultry practice rule puts the
8 USDA program out of step with Canada, the
9 European Union, and the whole rest of the world.
10 It violates every principle of organic
11 agriculture, and IFOAM standards require that
12 livestock and crops be connected to the earth.

13 Finally, IFOAM supports the efforts
14 to protect the integrity of organic seed and
15 wants to see a seed purity task force. IFOAM
16 has published a position paper on excluded
17 methods. This was approved by the membership
18 last November.

19 We support a precautionary approach
20 to novel techniques of genetic engineering.
21 Plants, animals, micro-organisms genetically
22 modified by gene editing and CRISPR-Cas have no

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 place in organic farming and food systems and
2 are excluded methods. NOSB has a vital role to
3 represent the interests of the entire organic
4 community. We wish you well on your assigned
5 task. Thank you.

6 MR. CHAPMAN: Thank you, Brian. Dan.

7 DR. SEITZ: When you say that the
8 decision not to implement the OLPP rule puts us
9 out of sync with Europe and Canada and so forth,
10 on a practical level, does that have, then, an
11 adverse impact on the organic industry in this
12 country?

13 MR. BAKER: That remains to be seen.
14 What the repercussions will be, I cannot
15 predict. However, I will say the world is
16 watching. What we do hear does not go
17 unnoticed. Just remember, we're looking at a
18 much larger organic world than just what goes on
19 within U.S. borders. If we're seen as acting
20 not consistent with the principles of organic,
21 that reflects badly on America's organic
22 producers.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. CHAPMAN: Thank you. Thank you,
2 Brian.

3 MR. BAKER: Thank you.

4 MR. CHAPMAN: Up next is Jerry Tyler,
5 followed by Gerald Robertson. Jerry, if you can
6 start with your name and affiliation.

7 MR. TYLER: Good day. My name is
8 Jerry Tyler, and I'm the president of a company
9 called the Heart of Nature. I've also been
10 appointed, by the current and previous
11 secretaries of commerce, to the District Export
12 Council, which is a private industry panel that
13 works with the U.S. trade department in
14 promoting U.S. exports.

15 We export our natural sulfur around
16 the world. I'm here to share with the Board the
17 fact that there are many global sources of
18 natural sulfur in abundant amounts, such as
19 naturally mined sulfur, naturally extracted
20 sulfur from geothermal wells, and naturally
21 mined micronutrients that also contain sulfur in
22 sulfate forms beneficial to plants.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I'm specifically speaking on behalf
2 of natural sulfur companies that have spent
3 millions of dollars in order to properly secure
4 sulfur for the organic crop production markets,
5 so that the organic food consumer can have
6 confidence that their fruit or vegetable that
7 contains the organic label has been grown in a
8 fashion that meets all standards that are in the
9 spirit of natural inputs going into the soil
10 that was used to grow their food. It is my
11 position that by continuing to allow oil
12 refining companies to use and sell the refined
13 sulfur that is a waste byproduct from the oil
14 and diesel fuel refining operations, as an input
15 to the soil where their organic labeled food has
16 been grown, is a dramatic and blatant violation
17 of the organic consumer's trust.

18 This is also a poor reflection on the
19 National Organic Program to put diesel fuel
20 byproduct into organic soils. Let's no longer
21 by the elemental sulfur industry's argument
22 saying they must be approved because there are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 no other alternatives. There are other
2 alternatives.

3 Many companies just like ours have
4 spent millions of dollars per year to comply
5 with your organic laws, in the spirit of the
6 rules that should allow organic farmers to use
7 only naturally mined or extracted sulfur
8 products that can give confidence to the
9 consumer.

10 I'm also very happy to let you know
11 that naturally mined sulfur is now getting very
12 popular in the conventional farming industry, as
13 it's immediately plant available, versus refined
14 elemental sulfur, which is not plant available.
15 Elemental sulfur has also been found to sit in
16 soils for several seasons before it can begin to
17 work. As any of us natural sulfur conventional
18 crop production -- sulfur companies continue to
19 market our products, growers of both organic and
20 conventional production are seeing quicker and
21 better results with regards to yields, flavor,
22 sugaring and more, so we are a better

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 alternative, in any case, yet the organic
2 industry is certainly well served by having
3 naturally mined sulfur suppliers.

4 There is simply no need or
5 justification for the chemically refined sulfur
6 to be used in organic farming. There is no
7 advantage to it, and it risks consumer
8 confidence. Thank you.

9 MR. CHAPMAN: Thank you, Jerry.
10 Emily.

11 MS. OAKLEY: Could you provide us
12 with some figures demonstrating that the supply
13 is sufficient for the demand?

14 MR. TYLER: Yes, that's a tough one.
15 There's been some figures named earlier about
16 what percentage of crops are organic in the
17 United States. I'll look further into tonnages
18 that are needed, but I know that there's been
19 more and more natural sources that have come up.
20 The news about this has been kind of quashed by
21 the oil companies that produce the elemental
22 sulfur. We're working on that. I'll get you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 some data.

2 MR. CHAPMAN: A-dae.

3 MS. ROMERO-BRIONES: Forgive my
4 question. I'm not a scientist. Elemental
5 sulfur and natural mined sulfur, they're not the
6 same thing? Can you explain the differences?

7 MR. TYLER: Yes. Thank you. It's a
8 great question. Elemental sulfur is not plant
9 available. Elemental sulfur has to go through a
10 file sulfate process to become SO₄ from
11 elemental S. The elemental sulfur industry is
12 showing and ranking that their sulfur is 90 to
13 99 percent pure elemental sulfur.

14 All that's telling the agronomists
15 and the organic consumers is they're 90 to 99
16 percent guaranteed that it's not going to work
17 for a long time. SO₄ is the form of sulfur that
18 is plant available, that promotes amino acid
19 production, sugaring, gets you better flavor,
20 sweeter fruit, better flavored vegetables. Only
21 naturally mined sulfur contains that SO₄.
22 There's other elements to naturally mined sulfur

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that's from a volcanic source that helps the
2 bio-sulfate process along. Natural sulfur is
3 found to work better, and the fruits and
4 vegetables taste better. It also reduces pH
5 faster, natural sulfur does, versus elemental
6 sulfur.

7 MR. CHAPMAN: Steve.

8 MR. ELA: In terms of fungicidal and
9 insecticidal qualities, elemental sulfur is kind
10 of the -- that's the gold standard, in some
11 ways. Does sulfur sulfate act in the same way?

12 MR. TYLER: We're the fastest growing
13 antifungal insecticidal in Latin America and
14 East Asia. We do pretty well as an antifungal
15 and insecticidal here, but I can't say it on the
16 Internet or on my brochures or anything until
17 the EPA gives me that clearance. If anyone here
18 can help me with the EPA to expedite that, it
19 would be great.

20 We're flying our sulfur onto
21 sugarcane in Guatemala and the Dominican
22 Republic. We're using our sulfur all over the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 world. It's why we've been recognized as an
2 exporter. Because once we're proven to be
3 natural and accepted and we're EU approved,
4 Japanese approved, USDA, we're working on the
5 ability to be able to say and advertise that
6 we're an antifungal, but anyone that has used,
7 say, in onions and garlic, they've just used our
8 regular naturally mined sulfur, just magically
9 this fungal problem is gone and they get
10 beautiful onions and garlic.

11 It's because of the way the deposit
12 was made, the way Mother Nature made it, and
13 it's naturally mined, with nothing synthetic in
14 it. It's just done the way Mother Nature wanted
15 it.

16 MR. CHAPMAN: Thank you, Jerry.
17 Thank you.

18 MR. TYLER: Thank you.

19 MR. CHAPMAN: Up next is Gerald
20 Robertson, followed by Isaura Andaluz. If you
21 can start with your name and affiliation.

22 MR. ROBERTSON: Good afternoon. My

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 name is Gerry Robertson, and I'm the director of
2 supply at Reiter Affiliated Companies in Oxnard,
3 California. I have one more go-around on
4 elemental sulfur for you all, and then it'll be
5 time for an elemental beer, I think. I want to
6 amplify on the information that I gave in the
7 written comments, and then endeavor to answer
8 the Subcommittee's questions from a producer's
9 point of view a little more thoroughly. Our
10 operations include over 1,300 acres of organic
11 strawberries along coastal California and
12 northern Baha, from Watsonville to San Quintin.
13 The warm days and cool nights that are so
14 favorable to strawberry production are also
15 conducive to the development of powdery mildew.

16 As this pest pressure is largely a
17 function of the local environment and there are
18 no other mechanical or physical methods of
19 control, we are reliant on sulfur for control of
20 mildew, with elemental sulfur being the material
21 of clear preference.

22 There are two reasons for this

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 preference. As sulfur works solely through
2 direct contact with the mildew spores, maximum
3 and thorough coverage is essential.

4 The air-assisted dust applicators we
5 use ensure thorough penetration of the plant
6 canopy, especially on the undersides of the
7 leaves, where mildew is likely, given its shade,
8 and provide far superior coverage and,
9 therefore, control, as compared to wettable
10 sulfur formulations. The other disadvantage of
11 wettable sulfur is that it leaves a visible
12 residue on the berries, which can often be the
13 cause for rejection of the product by our QA
14 inspectors. Wettable sulfur is useful in the
15 early season in strawberries, when there is no
16 fruit yet and we're trying to build our
17 populations of beneficial predatory mites, which
18 are more susceptible to damage from elemental
19 sulfur.

20 Application rates and frequency vary
21 by region, time of year, and day-to-day
22 environmental conditions at any given location.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Rates of five to ten pounds per acre are
2 typical, with frequency from two to ten
3 applications per season. Farm managers are
4 judicious in their use of sulfur, as frequent
5 applications can cause stress on the plant.

6 Our own company pesticide application
7 policy stipulates that no pesticide applications
8 will be made while other employees, for example,
9 harvesters, are on the farm, and that we will
10 maintain at least 100-foot residential buffer.
11 Furthermore, the elemental sulfur label has
12 specific California drift restrictions, which
13 spell out wind speed and inversion factors that
14 would restrict applications, and new California
15 law prohibits any pesticide applications within
16 a quarter mile of a public K-12 school or
17 licensed daycare facility between the hours of
18 6:00 a.m. and 6:00 p.m. Finally, we have had no
19 internal incidents of exposure, illness, or
20 other adverse human impacts related to these
21 sulfur applications. Based on all that, we
22 encourage the Board to recommend the continued

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 allowable status of this important tool.

2 MR. CHAPMAN: Thank you. Emily.

3 MR. ROBERTSON: Got any questions?

4 MS. OAKLEY: I have one. Are you
5 familiar with our petition before us for
6 polyoxin D zinc salt, by any chance?

7 MR. ROBERTSON: I'm sorry, what?

8 MS. OAKLEY: Are you familiar with
9 our petition before us for polyoxin D zinc salt?

10 MR. ROBERTSON: No.

11 MS. OAKLEY: Okay, thanks.

12 MR. CHAPMAN: Thank you.

13 MR. ROBERTSON: Thank you.

14 MR. CHAPMAN: We've got to move on.
15 Sorry. Up next is Isaura --

16 PARTICIPANT: Do you want to take it
17 later?

18 MR. CHAPMAN: We've got to keep
19 moving. Sorry, Asa. We're done. Thank you,
20 Gerald.

21 MR. ROBERTSON: False alarm?

22 MR. CHAPMAN: False alarm. Is Isaura

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 here? Isaura, you're up. Following Isaura is
2 Jean Halloran. Isaura, if you could start with
3 your name and affiliation.

4 MS. ANDALUZ: Isaura Andaluz with
5 OSGATA and Cuatro Puertas. Good afternoon.
6 Thank you for all your work because I could not
7 do it. Thank you. So why are we here? I'm
8 talking about organic seed. Kathleen Merrigan
9 explained this at the North American
10 Biotechnology Council Meeting in 2015.

11 She said that the first proposed
12 organic rule in 1997 did not include a
13 prohibition on biotech, even though the majority
14 of existing private and state organic standards
15 in the country included such a prohibition.

16 Quote, it did not take brilliant
17 minds to look into the future and realize there
18 may be the same sorts of threshold issues that
19 consumers with demand for an organic product
20 around GM in the same way as it is for
21 pesticides. It was a really big decision, and
22 it actually went to President Clinton. We are

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 here facing the situation with contamination. I
2 sat on two rounds of AC-21, and I can tell you,
3 really, that nothing's changed except the
4 situation has become worse.

5 For example, the one thing that gets
6 me is that a lot of the crops, with all the
7 increased pesticides, like dicamba and 24D, is
8 to kill off the palmer amaranth. The palmer
9 amaranth has become resistant to all of these
10 herbicides. Why? Because it is a force of
11 life.

12 It is a plant that can reproduce
13 itself very quickly. It has a huge range of
14 temperatures that it can germinate at. It needs
15 very little water. It grows very rapidly. It's
16 also a food crop, a forage crop, and the seeds
17 are highly nutritious.

18 I think these are things -- a lot of
19 the seeds that are land-raised seeds or seeds
20 that are regional, they have characteristics
21 like this that need to be preserved. Any time
22 you have contamination -- first of all, that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 contamination is patented. Legally, you cannot
2 do research on your plants. Once it's in the
3 plant, you can't take it out. It's gone. For
4 example, we have a huge collection of native
5 drought tolerant seeds, and some that we only
6 have very small quantities of that we're working
7 to get them out there again. We had a
8 situation. We had this very rare corn. We
9 planted it.

10 I went out to check in the field a
11 few weeks later, bam, across the road, someone
12 had planted GE corn. We're sitting on this
13 corn. We don't have the money to test it, and
14 also, too, the quantity. We don't have
15 sufficient quantity to test this corn.

16 What happens is when you have a crop,
17 it takes seven years to ten years when you're
18 trying to grow a crop out. It keeps adapting as
19 you go along the way. What's happened, for
20 example, people like Percy Schmeiser, when he
21 had his canola crop, that he went to court and
22 everything else, what happened to him was his

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 crop was taken away.

2 That was 50 years of genetics that he
3 had developed over the process that he lost.
4 This is happening to some of the people, too,
5 that when you find this contamination in your
6 field, your seeds get taken away. For us, and
7 especially for smaller farmers, it's just too
8 expensive to do testing. No one's going to tell
9 you that they got contaminated because they
10 don't want to lost their markets. For seed
11 growers, a lot of the seed production has been
12 exported out of the country, since as far back
13 as 2006, when Pioneer moved all their corn
14 production to other countries because of
15 contamination.

16 MR. CHAPMAN: Thank you for your
17 comments.

18 MS. ANDALUZ: Thanks.

19 MR. CHAPMAN: Up next is Jean,
20 followed by Richard Conn. Jean, you can start
21 with your name and affiliation.

22 MS. HALLORAN: Hi. I'm Jean

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Halloran, and I'm director of food policy
2 initiatives with Consumers Union, the advocacy
3 arm of Consumer Reports. Thank you for your
4 time and your commitment at this very late hour.

5 Consumer Reports is an independent,
6 non-profit organization that has more than 7
7 million subscribers to its print and online
8 publications. We advocated publishing many
9 areas, including how to create a safe and
10 sustainable food system, and we believe the
11 organic label, to a major degree, embodies our
12 vision of a sustainable food system. But the
13 organic label must take care to make sure it
14 remains aligned with consumers' very high
15 expectations for it, the expectations that
16 underlie their willingness to pay a premium for
17 organic products.

18 In that regard, although it's not on
19 the agenda, I feel compelled to express our deep
20 dismay at USDA's decision to withdraw the animal
21 welfare rule. It's most unfortunate that a few
22 producers may now continue to sell eggs, milk,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 meat, and poultry as USDA organic, without
2 meeting the sound animal welfare standards that
3 consumers expect and most producers already
4 meet.

5 One livestock issue that still can
6 and should be addressed is the use of
7 antibiotics in chicks. Eliminating use of
8 routine use of antibiotics in healthy food
9 animals is a top priority for Consumer Reports,
10 given the connection between overuse of
11 antibiotics in animals and antibiotic
12 resistance.

13 While the organic standards prohibit
14 routine use of antibiotics, there is currently
15 an exception because the OFPA of 1990 exempts
16 day-old chicks from organic management. This is
17 creating a bizarre anomaly in the organic
18 standard. Organic poultry can now meet a lower
19 standard for antibiotics than conventional
20 poultry sold under a no antibiotics ever label.
21 This is not what consumers expect from organic.

22 In a 2015 poll that we conducted, 82

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 percent said they think that federal organic
2 standards should mean no antibiotics or other
3 drugs at all in poultry. We have repeatedly
4 requested that the NOSB recommend a consistent
5 prohibition on antibiotics in poultry in all
6 stages of life, and we urge you to take up this
7 issue now.

8 I also just have a couple of words to
9 say about GMO seeds. We agree there should be
10 an effort to quantify the extent of GMO
11 contamination, and that this could be
12 accomplished by testing seeds sold to organic
13 farmers.

14 There should also be a seed purity
15 threshold for organic seed, a 0.1 percent
16 threshold for detected GMO traits may be
17 appropriate. We support creating an approved
18 list of test laboratories and test methods.
19 Thank you very much.

20 MR. CHAPMAN: Thank you. Questions?

21 MS. OAKLEY: I just want to say thank
22 you for advocating over the years for us to take

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 up the issue of antibiotics in day-old chicks.
2 We've started some of that conversation on the
3 Subcommittee level.

4 MS. HALLORAN: Great, thank you.

5 MR. CHAPMAN: Thank you. Up next is
6 Richard Conn. After Richard is Daniel Martens.
7 Richard, if you can start with your name and
8 affiliation.

9 MR. CONN: Good afternoon. I'm
10 Richard Conn, of Conn & Smith, a consulting
11 firm. I'm here on behalf of Kaken, the
12 petitioner, to speak in support of the proposed
13 listing of polyoxin D zinc salt in 7 CFR,
14 Section 205.601(i), to permit the use for
15 organic plant disease control.

16 Specifically, I would like to provide
17 an overview of the written public comments that
18 were submitted to the docket regarding polyoxin
19 D zinc salt in advance of the April 4 deadline.
20 There were a total of 33 written comments that
21 included comments on polyoxin D zinc salt; 28 of
22 those were in support; 5 were opposed; so that's

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 85 percent in support and 15 percent in
2 opposition. Polyoxin D zinc salt enjoys wide
3 support. Written comments in support of it were
4 submitted by growers, grower groups, and a
5 grower cooperative, university researchers and
6 agricultural extension agents, a crop
7 consultant, an organic food producer, an organic
8 wholesaler, an organic trade association, a
9 former NOSB member, the USDA IR4 Project, and
10 the petitioner.

11 The crops discussed in those written
12 comments include apples, basil, blackberries,
13 blueberries, cherries, cranberries, cucurbits,
14 grapes, hops, leafy vegetables, pears,
15 raspberries, spinach, strawberries, and
16 tomatoes.

17 The diseases that were discussed in
18 the written comments include alternaria,
19 anthracnose, black rot, botrytis, cedar apple
20 rust, cottonball, cranberry fruit rot complex,
21 downy mildew, early blight, flyspeck, gummy stem
22 blight, late blight, phomopsis, powdery mildew,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 scab, sooty blotch, southern blight, and target
2 spot. I respectfully request your vote in
3 support of the proposed listing of polyoxin D
4 zinc salt for organic plant disease control.

5 MR. CHAPMAN: Thank you. Questions?
6 Jesse.

7 MR. BUIE: The TR talks about this
8 unique non-toxic mode of action for polyoxin D
9 that no other compound has. Can you briefly
10 discuss how that works?

11 MR. CONN: I'm not the expert on
12 that, but it does have a non-toxic mode of
13 action, meaning that it doesn't actually kill
14 the target pest. It just reduces its impact so
15 much that it's not affecting the crop. There is
16 a technical explanation, but I'm not the expert
17 to talk about that.

18 MR. CHAPMAN: Thank you. Up next is
19 Daniel Martens. After Daniel is Zen Honeycutt,
20 and after Zen is Nicole Dehne. Daniel, if you
21 can start with your name and affiliation.

22 MR. MARTENS: Thank you for the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 opportunity to present comments. I'm Dan
2 Martens with Novamont North America. Mulch
3 films are positive tools for farmers, but
4 positive end of life scenarios do not exist for
5 the millions of pounds that are pulled off
6 fields every season. Plastic mulch films cannot
7 be burned or recycled, and this year, China
8 banned the importation of our sullied refuse.
9 But plastic mulch can be landfilled to one day
10 be someone's problem, but not ours.
11 Environmentally conscious farmers are
12 conflicted, in this age of the circular
13 dialogue. How can we not worry about what comes
14 before, what becomes after, as long as it
15 satisfies our self-interest?

16 The EU has approved a standard for
17 the use of soil-degradable mulch films,
18 EN-17033. Years of multinational study is now
19 legislation, and these guidelines provide for
20 safe products and their use. These products
21 look like plastic, they feel like plastic, they
22 act like plastic, but are not.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 They do not melt or fragment into the
2 soil, out of sight, but still there. These are
3 simple, carbon-based material that is consumed
4 by soil microbes as food. This has been studied
5 and tested. After 15 years' use, no negative
6 soil or plant contamination is found.

7 Some compostable materials can be
8 made from plants, using plant-based components,
9 lower carbon footprints, directed at stemming
10 global warming. How much plant-based content is
11 helpful? Any is better than none, but what is
12 practical plant-based content available today?
13 From the OMRI study five years ago, it said 10
14 percent was the max, but today, 30 percent is
15 doable. The state of the art for compostable
16 material is 50 percent, although this would be
17 quite a stretch for mulch films.

18 France and Italy compostable bag
19 legislation has a step approach, starting with
20 30 percent plant based for the first year, 40
21 percent for the second, then moving towards 50.
22 Current requirements require 40 percent

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 plant-based content.

2 There is only one way to increase
3 plant content, and that's to remove the no GMO
4 process clause from certification. Sustainable
5 plant-based chemistry is not possible with the
6 old technology. This does not mean allow GMO
7 crops. It does not. But the process to turn
8 plants into chemicals that replace fossil
9 counterparts means flexibility.

10 New pieces of the puzzle are now in
11 place, and not allowing certified degradable
12 mulch film to those farmers as an alternative to
13 plastic is supporting the plastics problem that
14 literally will not go away. I ask this Board to
15 please remove 15-1, the memo, or amend with
16 achievable plant step goals and remove the
17 non-GMO process clause. Organic farming can
18 take leadership in sustainable mulching
19 practices, grow the non-GMO agriculture market,
20 and curb landfilling. Thank you.

21 MR. CHAPMAN: Thank you. Questions?

22 Asa.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. BRADMAN: Could you just clarify
2 very briefly the process of using GMO to produce
3 the -- I guess the monomers? Is it a bacteria?
4 Is it a yeast?

5 MR. MARTENS: Yes, it's a
6 fermentation. There's several different ways.
7 One of the chemicals that we now have does not
8 use a fermentation process. It comes right from
9 seeds. However, other more advanced chemicals
10 have to go through a fermentation process.
11 Basically, you can use non-GMO feed stocks with
12 sugars or seeds, like we do, but some of the
13 processes, you must use the microbes which have
14 been specifically grown to create the chemicals
15 that we need to use.

16 MR. BRADMAN: Is the microbes -- is
17 it a yeast or a bacteria?

18 MR. MARTENS: Yes, it's bacterias of
19 some kind.

20 MR. BRADMAN: Can you use cellulose
21 as the feed stock, or is it usually a sugar or
22 something like that?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. MARTENS: We use sugars for our
2 process. We use sugars that are locally grown
3 in the area where the plant is.

4 MR. BRADMAN: Are you making PLA?

5 MR. MARTENS: No. PLA is made in a
6 similar fermentation process. We do not make
7 PLA. We're a green chemistry company. We make
8 monomers. We're the first ever to make azelaic
9 acid from seeds, from thistle seeds. We were
10 the first ever to make 1,4-butanediol from
11 sugars.

12 We built plants to do this, the first
13 of its kind in the world. We're not trying to
14 propagate using GMO crops; it's just that
15 sometimes the processes in new technologies,
16 they didn't exist two years ago, but now we can
17 get these products to do a lot of really good
18 things by using plant-based materials.

19 MR. CHAPMAN: Thank you. Up next is
20 Zen Honeycutt, followed by Nicole Dehne. Zen,
21 if you can start with your name and affiliation.

22 MS. HONEYCUTT: Good evening. I'm

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Zen Honeycutt, from Moms Across America, and I
2 want to thank you very much for your service.
3 We are a national coalition of unstoppable moms,
4 committed to creating healthy communities, a
5 nonprofit.

6 I speak to you today on behalf of
7 moms who are exhausted and struggling with
8 children who are mentally imbalanced, learning
9 disabled, developmentally delayed, or
10 chronically ill. My son, for example, suffered
11 for years for exposure to carrageenan.

12 We do not know what it is like to sit
13 on a board and have to determine what chemical
14 to allow in organic or to be pressured by
15 various entities who want you to be lenient.
16 Our reality is that we do know what it is like
17 to watch our child's body burst out in a rash,
18 their eyes roll back in their heads, and see
19 them almost die from an allergic reaction.

20 Some of us have buried our children.
21 We do know what it is like to see our children
22 bang their heads against a refrigerator until

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 they bleed because their bodies crave the very
2 food that hurts them. We do know what it is
3 like to look into the eyes of our children, who
4 are in a fit of rage, saying that they will kill
5 us, and see in their eyes that they are begging
6 for help. In short, we know the effects of food
7 contaminated with synthetic chemicals.
8 Contaminated food makes our lives a living hell.

9 Organic food is the primary source of
10 recovery for our children. We see them suddenly
11 start to sleep better, to stop hitting, to
12 focus, to be calm, to be loving, and to smile.
13 We need uncontaminated organic food for our
14 children. We need it for them to have
15 productive futures, for our sanity and, frankly,
16 for our marriages to stay intact.

17 We need you to eliminate chemicals
18 like BPA, glyphosate, harmful inerts, and
19 synthetic flavors in organic. We need stricter
20 regulations and for you to lobby to revoke the
21 license of glyphosate. I am particularly here
22 today to discuss the decision making of the very

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 core of integrity of organic.

2 Let's be clear. The only explanation
3 of why you would allow synthetic chemicals and
4 any compromise of the integrity of organic is to
5 put the request of the food manufacturers and
6 farmers before the health of our children. You
7 are better than that, and I remind you that the
8 end goal of farming and producing organic food
9 is not higher salaries for CEOs. It is to
10 nourish and support the growth of our children
11 and our families.

12 Lives of fetuses, infants, children,
13 your children, depend on your decisions, so I
14 ask you not to dismiss the requests of many here
15 today, like Beyond Pesticides, OCA, and
16 Cornucopia. Don't just justify a decision to
17 allow synthetic flavors, GMO contamination, GMO
18 vaccines, nanomaterials, carrageenan, or
19 synthetical chemicals in organic or CRISPR.

20 Just don't allow them in the first
21 place. Rather than petition to allow residues
22 of toxins in organic, why not demand the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 manufacturers stop using these toxic chemicals?
2 I ask you today, I say today that today is the
3 day when organic can have heroes, a day that
4 millions of children and mothers and fathers
5 will have reason to thank you, but probably
6 never will because they will not know what rash
7 or illness their child did not get --

8 MR. CHAPMAN: Thank you, Zen.

9 MS. HONEYCUTT: -- because the food
10 they ate was safe, organic, and toxic and
11 synthetic chemical free because you said so.

12 MR. CHAPMAN: Thank you, Zen.

13 MS. HONEYCUTT: Thank you.

14 MR. CHAPMAN: Questions? Thank you,
15 Zen.

16 MS. HONEYCUTT: Can I just say one
17 thing about vegan? He asked a question about a
18 practical effect on meat and poultry. There is
19 an effect. When consumers cannot trust that
20 organic chicken is organic, they go vegan.

21 MR. CHAPMAN: We have to move on,
22 thank you.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. HONEYCUTT: There's a growing
2 rise in that.

3 MR. CHAPMAN: Thank you for your
4 comments. Up next is Nicole Dehne, followed by
5 Laura Batcha. Nicole, if you can start with
6 your name and affiliation.

7 MS. DEHNE: Good evening. I'm Nicole
8 Dehne. I'm the certification director for
9 Vermont Organic Farmers. We're the USDA
10 accredited certification program of NOFA
11 Vermont. We certify over 700 organic producers
12 in the State of Vermont. I'd like to thank the
13 NOSB members for all of your hard work and for
14 giving me the opportunity to comment today on a
15 number of agenda items. First, I'd like to talk
16 about the incentive to eliminate -- or to
17 eliminate the incentive to convert native
18 ecosystems. We support this proposal.

19 In Vermont, the organic maple syrup
20 industry is strong and growing. In fact,
21 organic maple producers now make up the majority
22 of the producers that we certify, which

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 translates to over 200 organic maple producers.

2 It's important to Vermont that this
3 proposal clarifies that woodlands, which would
4 be considered native ecosystems, could still be
5 converted to organic sugar bushes, as long as
6 the operation minimizes negative impact to the
7 environment, so mitigating erosion, preserving
8 biodiversity, etc.

9 We would like to see any new
10 regulation in this area accompanied with
11 guidance that helps certifiers both define
12 native ecosystems in their area and specifically
13 identifies the example of converting woodlands
14 to sugar bushes as an approved practice.
15 Second, as the NOSB considers whether to renew
16 plastic mulch as a material for use in organic
17 farms, it's relevant to discuss an alternative
18 to this plastic mulch that is biodegradable,
19 bio-based mulch. BOF's organic vegetable
20 farmers are very vocal to us in their desire to
21 use this biodegradable mulch as an alternative
22 to plastic mulch.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 It is our understanding that at this
2 time, the industry can produce, as Dan was
3 saying, a mulch film that is 50 percent
4 bio-based, or they're close to it, and we
5 strongly urge the NOSB to consider clarifying
6 that 50 percent bio-based content is sufficient
7 for biodegradable mulches used on organic farms.

8 This content could be required to be
9 increased over a number of years, until we reach
10 the 100 percent bio-based. But allowing it now
11 would encourage manufacturers to invest in the
12 market.

13 In addition, there's a long-term
14 study that ends in August of 2019, titled SCRI
15 Biodegradable Mulch Project. This project's
16 studying the long-term effects of biodegradable
17 mulch on soil ecosystems. We recommend that the
18 NOSB use this study to address those concerns
19 that have been raised. Thirdly, we support the
20 NOSB's recommendation to strengthen the NOP's
21 existing seed guidance, but we do not support
22 the additional recordkeeping requirements that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 ask producers to document the reason for use of
2 non-organic seed for each variety that they
3 grow.

4 It's not uncommon for organic veggie
5 producers in Vermont to grow hundreds of
6 varieties, and often at least half are organic.
7 We agree that producers should be able to
8 explain their reasonings for each non-organic
9 seed purchased, but documenting those reasons
10 why 50 to 75 varieties were purchases as
11 non-organic would be too prescriptive and
12 burdensome.

13 Then finally, as the NOSB considers
14 the use of vaccines as a tool for organic
15 livestock producers, it's important to ensure
16 non-GMO vaccines are used whenever possible. We
17 would, however, support the use of GMO vaccines
18 in the case where no non-GMO vaccines are
19 available.

20 MR. CHAPMAN: Thank you. Questions?
21 Dave, briefly.

22 MR. MORTENSEN: Very quickly, could

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 you briefly tell us what sugar bush planting is?

2 MS. DEHNE: If you have a
3 woodland -- a forest in Vermont, converting it
4 to sugar bush would just be thinning and
5 choosing for sugar maples, so that you're having
6 a primarily sugar maple stand. It's an
7 appropriate time to point out that there aren't
8 any national standards for organic maple
9 production.

10 It's a growing industry in our
11 region. Different certifiers have different
12 guidelines for what it means to be an organic
13 maple producer. Our guidelines do include a
14 certain diversity requirement.

15 MR. CHAPMAN: Ashley, briefly.

16 MS. SWAFFAR: In your comments, you
17 said that VOF only allows the use of non-GMO
18 vaccines on your certified farms, so a couple
19 questions on that. Do you have poultry farms
20 over flocks of 1,000 or 2,000 that you certify?
21 Do they want to use GMO vaccines? Have you been
22 successful with manufacturers, even wanting to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 fill out your paperwork?

2 MS. DEHNE: Yes, we have. We're not
3 in OMRI, so we're only interested in reviewing
4 the materials that our producers use. I was
5 going to mention that we mainly certify -- as
6 far as our livestock producers, we're mainly
7 certifying dairy producers, so we don't have a
8 long list of poultry vaccines. What we've found
9 is standard in the industry -- because it's our
10 understanding that GMO vaccines are not allowed
11 unless they're specifically listed on the
12 national list, and there are none.

13 So as is common in the industry, we
14 created an affidavit, based on the NOP
15 definition of excluded methods, as well as the
16 NOSB Task Force and their definitions of GMO
17 vaccines. We've been successful in getting
18 manufacturers to sign that. That has changed.
19 We've seen vaccines go off our approved list and
20 become genetically modified vaccines.

21 Back in 2014, I gave a report to the
22 NOSB on this issue. Because I heard that you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 were going to ask that question, actually, I did
2 print out my report. I have a list of
3 manufacturers that we've found to be -- have
4 vaccines that are non-GMO.

5 This one's from 2014 because it was
6 all that I had on my computer, but I could get
7 you a list of what we've already approved. It's
8 primarily dairy, but there are some poultry
9 ones. I'll give that to Michelle, and she can
10 pass it up.

11 MS. SWAFFAR: Give that to Michelle,
12 yes.

13 MR. CHAPMAN: Thank you. Up next is
14 Laura, followed by Emily Musgrave. Laura, if
15 you could start with your name and affiliation.

16 MS. BATCHA: Laura Batcha, with the
17 Organic Trade Association. You all have heard
18 from Gwendolyn and Nate already on a number of
19 topics, and you'll hear from Monique on the
20 panel tomorrow, so I'll try to keep my comments
21 short in the interest of the late time we're at
22 here.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 I just want to start by saying our
2 view, as a trade association, is that we do
3 strongly disagree with the current narrow, and
4 what we see as an unprecedented, view of the
5 authority of the NOP under the Organic Foods
6 Production Act.

7 We heard Under Secretary Ibach,
8 today, suggest that the organic industry should
9 look towards as a process verified program as an
10 alternative to advancing standards within the
11 National Organic Program. This would be the
12 place to utilize wraparound labels. I think
13 it's important for the Board to understand that
14 there has been one attempt to utilize PVP to do
15 this, and it's been met with refusal from USDA
16 to move forward with that proposal. It was
17 based on an NOSB recommendation from 2002, when
18 NOSB passed a recommendation on the principles
19 of transitional certification and labeling.

20 After years of engaging with USDA on
21 how to move this forward, after consultation
22 with lawyers at USDA, they identified that, in

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 fact, transitional certification was outside the
2 scope of the National Organic Program and,
3 therefore, couldn't be carried forward by them.

4 They suggested, at the time, that we
5 look to PVP as the appropriate place to advance
6 these types of standards that exist outside of
7 their current authority. 2016, the Trade
8 Association submitted an application for a
9 national certified transitional program.

10 In January of 2017, USDA released the
11 program and began accepting applications from
12 accredited certifiers to be recognized to
13 certify to the program. In March of the same
14 year, they stalled the rollout of the program,
15 and it has since been on suspended animation,
16 I'll say, at USDA. This comes with two written
17 assessments from USDA's lawyers saying the
18 program we submitted was compliant with the law,
19 governing PVP didn't conflict with NOP. I'm not
20 saying this to you all to recommend action on
21 this particular transitional certification,
22 although we thought that it did add value to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 compliance and encouraging transition of acres.

2 It's to say that I think we need to
3 be careful about being distracted by suggestions
4 that we might go other places to advance the
5 organic standards. You guys are doing important
6 work to build those recommendations. I think
7 regardless of what your views are on the merits
8 of add-on labels, this industry is striving for
9 continuous improvement, and we need to not walk
10 away from NOP as the place where we see that
11 needing to happen, fundamentally.

12 I wanted to share that history with
13 you all. On import oversight, you've heard a
14 lot from folks. I've been really impressed by
15 the quality of the conversation, but you are
16 hearing some comments from producers about the
17 unique challenges in fresh produce. I just
18 wanted to let you all know that we do have a
19 Mexico task force at the Trade Association, and
20 we've done a lot of work on this, so you can ask
21 me questions about it.

22 MR. CHAPMAN: What work have you

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 done, briefly?

2 MS. BATCHA: The task force has been
3 working in the context of trying to provide some
4 good proactive counsel to USDA in thinking about
5 compliance with Mexico across the border
6 transactions, as well as preparing what could
7 potentially be an equivalence arrangement with
8 Mexico in the future.

9 I think it's an interesting topic
10 because I think there are some good arguments
11 from government that equivalence arrangements
12 offer unique abilities for
13 government- to-government collaboration on
14 enforcement that I think provides the industry
15 with unique benefits.

16 In thinking about this with Mexico,
17 our task forces have identified a number of
18 things that we think are critical to compliance
19 within trade and what a successful arrangement
20 might look like with Mexico. I think, first and
21 foremost, paper won't work for documenting
22 transactions at the border with fresh produce

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 with Mexico. You've heard that from other
2 folks. I think there's been a lot of good work
3 done at the program. It was great to see the
4 report this morning and rolling out some demos
5 on the technology, but that's critical to have
6 that in place.

7 I think some of the other things that
8 our task force has recommended are the
9 establishment of joint compliance working groups
10 between governments because there are unique
11 compliance issues. You hear a lot about
12 positive residue samples, and there needs to be
13 clear, established pathways for what to do when
14 positives are found and how the two governments
15 could support each other across the borders.

16 One of the other things that I think
17 is important that our task force has identified
18 is unlike our arrangement with Canada, where
19 when we sign an equivalence arrangement with
20 Canada, the U.S. based NOP accredited certifiers
21 relinquish their right to certify to NOP within
22 the Canadian boundaries. We've identified that

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 model wouldn't work in an arrangement with
2 Mexico, that producers that work north/south
3 throughout the season strongly want to retain
4 their right to use their U.S. certifiers with
5 their compliance programs, no matter where
6 they're producing, things like that.

7 MR. CHAPMAN: Thank you. Harriet.

8 MS. BEHAR: Do you believe the
9 definition of bioengineering in the GMO labeling
10 law is relevant to the NOP?

11 MS. BATCHA: Thanks for that,
12 Harriet. Yes. I think you guys have done good
13 work on the recommendation on excluded methods,
14 have some work to do. We supported it being
15 passed, so I think that's excellent. The
16 disclosure law on bioengineering does include
17 some language that I think is relevant to be
18 thinking about.

19 In terms of their definition of GMO
20 and the disclosure law, there is a provision in
21 there that says the definition for
22 bioengineering, under this law, should not

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 affect the definition, program rule, or
2 regulation elsewhere in the federal government.
3 That law was written to however those disclosure
4 laws come out. It cabins that definition to
5 really be applicable to disclosure only, and it
6 doesn't force conformity across other federal
7 programs. Shortly after the law was passed, AMS
8 did issue a policy memo that said wherever they
9 go there, it doesn't require a change to how
10 USDA defines excluded methods. I think there's
11 agreement, general agreement that the current
12 definition of excluded methods is solid and
13 broad enough to accommodate some of the
14 discussions you guys have been having.

15 MR. CHAPMAN: Scott.

16 MR. RICE: Laura, you, I understand,
17 were part of the group that went over to eastern
18 Europe to better understand what was going on
19 with import fraud. Do you have any takeaways
20 for us to learn from that or highlights that you
21 learned that could be helpful in our
22 deliberations here?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. BATCHA: We were there for just
2 about a week. Again, there's only so much you
3 can learn. You spend a lot of time with the
4 folks on the bus and visiting operations. I
5 think the biggest thing that I learned up here
6 is that in talking to our counterparts in the EU
7 and in the Ukraine, we were coming trying to
8 solve the problem that we knew we were solving
9 for. How is the grain coming into the country?
10 What countries is it coming from? Is there
11 acreage there to substantiate it? The folks
12 there from Europe were focused on what was an
13 entirely different problem that they were
14 solving for around fraud.

15 It took us quite some time to
16 understand that the reason we were looking at
17 different things and asking different questions
18 is we were solving for different problems. I
19 say that to not assume when we talk about the
20 European Union is doing X, Y, and Z, don't
21 assume they're solving the same problems that we
22 are.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 It took us a week to realize their
2 big issue, like we had the Washington Post, was
3 an issue with sunflower seed that was used in
4 livestock feed that came through with a residue
5 level that exceeded safety standards for
6 feeding -- that came through even in the
7 livestock derivative products for human
8 consumption.

9 When they went back through, their
10 investigations led them to believe that it was
11 comingling and substitution with actual treated
12 planting stock seed into the organic stream that
13 had these incredibly high levels of pesticides.
14 Their whole approach that they've taken is dual
15 batch transaction testings on pesticides at
16 every border crossing, essentially, because
17 they're solving something different than we may
18 be. I share that with you. It was really
19 interesting learning for me.

20 It's driven them down the road of
21 heavy reliance on residue testing as their
22 primary tool. I will say that one of the things

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 that they are envious of us in regards to is the
2 integrity database. It's viewed as world class
3 and other areas wish that they had a data
4 repository like we do.

5 MR. CHAPMAN: Thank you. Thank you,
6 Laura. Up next is Emily, followed by Sarah
7 Leibowitz. Emily, if you can start with your
8 name and affiliation.

9 MS. MUSGRAVE: Good evening. My name
10 is Emily Musgrave. I am the organic program
11 manager at Driscoll's. I would like to thank
12 the NOSB for their commitment to protect the
13 integrity of the organic program and uphold the
14 vital regulatory processes of the NOP. My
15 comments focus on the continued allowance of the
16 following materials: elemental sulfur, lime
17 sulfur, liquid fish products, and sulfurous
18 acid. Driscoll's support the continued listed
19 of elemental sulfur for use in organic
20 production on the national list. Elemental
21 sulfur is a critical amendment for organic
22 strawberry growers to decrease pH in alkaline

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 soils and control powdery mildew.

2 Organic strawberry growers commonly
3 use both dusting sulfur and wettable sulfur in
4 rotation with each other. Notably, strawberry
5 growers have invested in specialized equipment
6 that is only used to apply dusting sulfur, which
7 ranges in cost from \$12,000 to \$16,000.

8 Our growers are aware they must
9 follow all label instructions, and dusting
10 sulfur also needs special attention to wind
11 patterns to prevent drift. Our organic
12 strawberry growers rely heavily on dusting
13 sulfur and do not believe that the sole use of
14 wettable sulfur could be a viable alternative
15 for control of powdery mildew in organic
16 production.

17 Growers have found the two
18 formulations to have different efficacies, and
19 rotating the products limits plant stress and
20 reduces the risk of phytotoxicity. Dusting
21 sulfur is preferred over wettable sulfur,
22 particularly when environmental pressure of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 powdery mildew is high because it gets more
2 thorough coverage during application.
3 Driscoll's supports the continued listing of
4 lime sulfur and liquid fish products for use in
5 organic production, as they are both important
6 tools across all four berry crops.

7 Driscoll's supports the continued
8 listed of sulfurous acid on the national list.
9 It is an important practice for controlling and
10 adjusting the pH in irrigation water across all
11 four berry types.

12 However, Driscoll's would like
13 further clarification from the NOP rule on
14 sulfurous acid. We respectfully ask for a
15 change in the wording of on farm in the rule.

16 An organic producer who has two
17 certified organic business entities cannot,
18 under the current interpretation of the
19 regulation, use the sulfurous acid produced from
20 that sulfur burner on their other organic
21 entity, even though they own both companies. We
22 understand that sulfurous acid may not be sold,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 but requiring an organic grower to purchase a
2 separate sulfur burner for each organic entity
3 is a burdensome cost, with no perceivable
4 benefit to organic integrity. We would like to
5 ask for a change in the interpretation of on
6 farm, as stated in the rule. If the intention
7 is to avoid manufacture and sale, is there other
8 wording that can be used? I thank the National
9 Organic Standards Board for your service and for
10 consideration of my comments.

11 MR. CHAPMAN: Steve, briefly.

12 MS. MUSGRAVE: Any questions?

13 MR. ELA: Yes, that last part in your
14 public comments confused me because my sense of
15 sulfur burners, you have it with your irrigation
16 system. You inject it directly into the water,
17 so how are you using -- do you have
18 interconnected water systems? Is that what
19 you're saying? How are you --

20 MS. MUSGRAVE: No, we have, for
21 example, an organic grower who owns two separate
22 certified organic entities. He has a sulfur

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 burner at one of his entities and produces
2 sulfurous acid at that entity. What he wants to
3 do is -- not through his irrigation lines, but
4 he would like to truck the sulfurous acid to his
5 other certified organic entity. We've been told
6 that no, he has to purchase a separate sulfur
7 burner for his other entity, even though he owns
8 both. We find that a little bit burdensome,
9 quite burdensome for the grower.

10 MR. ELA: But then you actually are
11 transporting sulfuric acid. It's a whole --

12 MS. MUSGRAVE: Sulfurous acid.

13 MR. ELA: Sulfurous, but it's kind of
14 a whole different process than directly
15 injecting it into the irrigation water.

16 MS. MUSGRAVE: It's just something to
17 consider because our growers have brought it up
18 that they find that burdensome, if they own both
19 entities, that they have to purchase a new
20 sulfur burner at the other entity, just for
21 consideration.

22 MR. CHAPMAN: Emily.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MS. OAKLEY: In terms of liquid fish,
2 do you have a position, or do the growers that
3 you work with have a position, on using liquid
4 fish derived from fish harvested exclusively for
5 use in fertilizer, or would you have a
6 preference for byproducts harvested for other
7 purposes?

8 MS. MUSGRAVE: That's a great
9 question. We work with a multitude of
10 contracted growers, but we would say that our
11 growers would be very receptive to ensuring that
12 the liquid fish products they buy are used from
13 bycatch or waste products. Actually, there's a
14 site that I was just looking up, I think took a
15 note on it here.

16 It's called -- the Department of
17 Ecology, State of Washington, has a website
18 where you can look up all -- it doesn't have all
19 liquid fish products, but it has the majority of
20 them. You can actually see whether it's waste
21 derived or bycatch. I'm happy to report that a
22 lot of our growers are using those products. As

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 long as the cost per unit of nitrogen doesn't go
2 up significantly, I would say that our growers
3 would support that overall.

4 MR. CHAPMAN: Thank you.

5 MS. MUSGRAVE: Thank you.

6 MR. CHAPMAN: Up next is Sarah
7 Leibowitz, followed by Mike Dill.

8 MS. LEIBOWITZ: Hi. I'm Sarah
9 Leibowitz with DeLaval. I'm a senior research
10 scientist, and I'm here to support the
11 certification for glycolic acid being organic in
12 livestock use. DeLaval put forward the
13 presentation. I also want to say thank you for
14 letting be the very last scheduled speaker.
15 With a quick caveat, my experience with glycolic
16 acid has been exclusively with DeLaval, so I
17 will be speaking from that perspective.

18 I ate glycolic acid for breakfast
19 this morning, and I bet all of you did, too.
20 It's in fruits, vegetables, meats, especially
21 bacon, coffee, tea, and my favorite, milk. But
22 it's not there at a level by orders of magnitude

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 where you could use it as a disinfectant or good
2 udder hygiene. Why do we need to dip teats?

3 For the animal welfare, especially,
4 good udder health, to ensure quality milk, and
5 to have healthy cows. The Subcommittee asked a
6 few questions, and I'd like to try to answer
7 those. The first question was is this product,
8 called OceanBlu, used in rotation with currently
9 allowed pre and post-milking teat dips?

10 The short answer is yes, if you want
11 to. DeLaval actually doesn't recommend rotating
12 products. That's because ours have been very
13 well tested to kill mastitis causing pathogens.
14 That's both in the lab and field studies that
15 are following National Mastitis Council
16 guidelines. Those are clinical efficacy trials
17 out there. Also, our organic producers are
18 asking for it. We've heard a little bit about
19 that today. The next two questions, are there
20 alternatives available for pre and post-milk
21 teat dips, and do the alternatives work?

22 I'd like to answer those questions

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 rather together. Yes, there are other actives
2 out there, and they all come with their
3 advantages and their challenges. The first one
4 is iodine. Iodine teat dips are used in about
5 70 percent of all dairies.

6 It's a great oxidizer. It kills
7 bacteria wonderfully. But, on the flip side,
8 whether true or not, there is a perception in
9 some areas that iodine residue is becoming a
10 problem in milk. Studies have shown no, but
11 there it is. Also, there are only two global
12 sources of iodine, in Chile and in Japan.

13 A few years back when there was a
14 tsunami in Japan, the world iodine supply
15 plummeted. Chlorhexidine. The only good thing
16 we can say about it is it's old and we know that
17 it's been used a long time. Chlorine dioxide,
18 very good, again, at killing bacteria, but it's
19 not stable, and it's not easy to use. Hydrogen
20 peroxide, wonderful environmental palette,
21 breaks down to water, but it's an inhalant
22 problem, and it's harsh on skin. Glycolic

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 doesn't have these things, gentle on skin, as
2 effective as iodine, great biodegradation.

3 It's very good for winter
4 application. Because the skin conditioning is
5 so good, cows' teats are able to better winter
6 with it. It's non-toxic to both humans and
7 mammals, and it's gentle.

8 MR. CHAPMAN: Thank you. Any
9 questions? Thank you for your testimony.

10 MS. LEIBOWITZ: Okay, thanks.

11 MR. CHAPMAN: Up next is Mike Dill.
12 We're probably going to run through the wait
13 list.

14 MR. DILL: I'm Mike Dill, and I'm
15 presenting comments on behalf of OPWC, the
16 Organic Produce Wholesalers Coalition. We're a
17 coalition comprised of seven certified handlers
18 that distribute fresh organic produce to
19 retailers, restaurants, institutions and
20 manufacturers. In 2017, our combined sales of
21 certified organic produce totaled over \$400
22 million. OPWC strongly supports the relisting

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of ethylene gas for regulation of pineapple
2 flowering and ethylene for post-harvest ripening
3 of tropical fruit and degreening of citrus.
4 Growing pineapple is a 15-month process from
5 planting to harvest.

6 Ethylene is applied just one time,
7 seven months into the growing cycle. It is
8 applied to provide uniformity in maturation at
9 harvest, which occurs eight months later, so
10 that a single harvest can occur and can be
11 predicted, and also so that sales and exports
12 can be planned.

13 Without ethylene, there is no way to
14 induce flowering and produce pineapple with any
15 measure of control. Ethylene for post-harvest
16 ripening is also very important to us. In 2017,
17 OPWC members distributed 39 million pounds of
18 organic bananas, every pound of which needed to
19 be ripened upon arrival.

20 Bananas must be harvested and shipped
21 before they begin ripening, before they actually
22 begin to release their own ethylene. If they

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 were shipped after ripening began, the fruit
2 would spoil, over-ripen, or become damaged
3 during its journey from Ecuador or Mexico. Upon
4 arrival, full palettes of bananas enter ripening
5 rooms, usually 21 palettes per room. The
6 temperature in the room is slowly raised, over
7 24 hours, until the pulp temperature of the
8 fruit reaches 61 degrees.

9 Then a small amount of ethylene is
10 diffused into the room and circulated with fans
11 to induce the fruit's own production of
12 ethylene. After 24 hours, the room is then
13 ventilated, and the temperature is slowly
14 dropped, so that the bananas do not over-ripen,
15 and so that they're not shocked when they're
16 loaded onto a refrigerated truck.

17 That would turn them gray. Synthetic
18 ethylene is an analog of the ethylene naturally
19 produced by plants. It's a necessary material,
20 as there are no alternative materials or
21 processes that result in anything other than
22 pale, mushy bananas or rock hard green bananas.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Then I was going to comment on
2 uncertified handlers, but there have been plenty
3 of comments on that today, and OPWC shares all
4 the concerns that we've heard today. But I will
5 answer any questions that you might have about
6 uncertified handlers because I have quite a bit
7 of experience in dealing with them. Instead of
8 talking on uncertified handlers, I thought that
9 I would share an excerpt from some news today
10 about the romaine lettuce outbreak, as I feel
11 it's relevant to the discussion of integrity in
12 the supply chain.

13 I saw this this morning. The title
14 of the article reads, outbreak investigation
15 hampered by lack of business records. The main
16 quote in there is, public warning continues as
17 government officials struggle with intertwined
18 distribution networks, incomplete or unavailable
19 shipping and receiving records, and virtually no
20 product labeling or coding to lead them back to
21 a specific source.

22 MR. CHAPMAN: Thank you.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. DILL: I ask if a team of FDA
2 officials cannot trace lettuce back to a
3 distributor, a grower, or anything other than a
4 city, how is a certified handler or an
5 uncertified handler supposed to verify the
6 products in their supply chain.

7 MR. CHAPMAN: Thank you, Mike.
8 Questions for Mike? Mike's on our panel, so if
9 it's related to import, you've got that time.

10 MR. ELA: No. Just quickly, it
11 sounds like you would support certification of
12 all handlers in the system?

13 MR. DILL: That's correct.

14 MR. CHAPMAN: Thank you, Mike. We're
15 going to briefly run through the wait list. We
16 have, I think, up to six people. I don't know
17 if they're all present, or if any of them are
18 present, but we will -- if you suffered through
19 this long, then you'll probably get a chance to
20 speak. Is John Bobbe still here?

21 Is John Schumacher here? Is Javier
22 Zamora here? Is Dale Woods here? All right,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 just to give other people a heads up, is Marty
2 Mesh still here? Is Luis Monge here? All
3 right, Luis, you'll be last. Dale, you're up
4 right now, if you can start with your name and
5 affiliation.

6 MR. WOODS: Sure. My name is Dale
7 Woods. I'm a program manager for the California
8 Department of Food and Agriculture, the
9 Fertilizer Program. Specifically, I manage the
10 Organic Input Material Program, and we're a NOP
11 recognized MRO. Right now, on our list, if you
12 were to check it, you would find anywhere
13 between 1,600 and 2,200 listed products that we
14 go through every two years and register and make
15 that list available for certifiers.
16 Specifically, I want to talk about liquid fish,
17 because there was some questions, and how we
18 actually do our reviews of liquid fish.

19 As noticed in the document that you
20 guys produced, liquid fish are often stabilized
21 with acids, and one of the most significant
22 acids that is used is phosphoric acid.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Manufacturers like phosphoric acid because it
2 fits within their mode of manufacturing.

3 They're comfortable with it. They
4 also like it because using it will actually
5 fortify your product with a significant amount
6 of phosphorus, which is a major nutrient for
7 plants. That's the real reason that there's an
8 NOP annotation about the 3.5 pH being a limit
9 for those products is to avoid any sort of
10 adulteration or fortification of these products.

11 Manufacturers do this use of
12 phosphoric acid in many different ways. You
13 can't really say that this manufacturer is
14 representative of all of them. Some of them put
15 a lot of phosphoric acid in quick. Some of them
16 do it gradually. Some of them go back and
17 forth. The ultimate issue is that there is this
18 standard of 3.5. And it's kind of unclear, in
19 the standards, how people are supposed to
20 interpret that. Does that mean 3.5 in the
21 marketplace or 3.5 in a production cycle?

22 What we did was we were taking the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 approach that it is -- it will go never below
2 3.5. This, then, becomes the reason that this
3 subject has come up right now. We were doing
4 that, and we were quarantining stuff that shows
5 up at 3.5.

6 We'd go out and watch the
7 manufacturing. If it goes below 3.5, we would
8 tell them it's non-compliant. We've talked to
9 OMRI and a couple of the other certifiers and
10 WSDA. Then eventually, by talking with Lisa, we
11 asked to have this put as a topic for the Board
12 to consider whether that -- which approach
13 should be taken, whether we should be watching
14 it during the process or only at the end of the
15 process. Some people feel like it during the
16 process, they want to let --- they feel they
17 have to let their product go down to very much
18 of an acidic thing and then it, drift back up to
19 3.5. Anyway, we're the reason that's been
20 particularly raised as a question for the
21 Committee.

22 MR. CHAPMAN: Thank you. Questions?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 Asa, and then Steve.

2 MR. BRADMAN: What is the source of
3 the phosphorous in the phosphoric acid?

4 MR. WOODS: It's a synthetic. It's a
5 synthetic allowed specifically within the NOP
6 standards.

7 MR. BRADMAN: And the 3.5, in some of
8 the literature I've seen, the 3.5 was almost
9 related to plant health, in terms of the impact
10 on -- it sounds like you know what I'm talking
11 about, so I'm curious about what your thoughts
12 are.

13 MR. WOODS: When I tried to find out
14 where the 3.5 came, some of these very old
15 people who were associated with producing fish
16 products at that time, they were asked so, how
17 low do you have to get it to go to stabilize it.
18 They said I don't know, about 3.5.

19 That became the standard. Since
20 then, there's a lot of people trying to find
21 reasons to justify the 3.5 one way or another,
22 but the reality is it is an effective pH most of

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 the time to keep a product stable once it's at
2 that pH. Some manufacturers believe that with
3 the particular type of fish they have, with
4 their processing, they have to go lower. We
5 told a lot of the people that were concerned
6 about it to come and present. We did at least
7 have one of the people come today, so you got to
8 hear from him.

9 MR. BRADMAN: So essentially, it's a
10 convention and may not have any specific value?

11 MR. WOODS: Well, I mean ultimately,
12 if you're going to go lower than 3.5, you're
13 really, seriously fortifying that fish. You're
14 taking this opportunity to throw a synthetic
15 into a natural product for the benefit of
16 producing phosphorous that's not from a very
17 synthetic process. The question is, does going
18 below 3.5 and back up to 3.5, is that okay or
19 not?

20 MR. CHAPMAN: Steve.

21 MR. ELA: At least reading some of
22 the public comments, it looked like the comment

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 was that they could use less phosphoric acid if
2 the goal was just the final product being 3.5,
3 and not having to fortify it all the way
4 through. It sounds to me you're just looking
5 for guidance of which way to go on it so --

6 MR. WOODS: We are because we've
7 asked those people to come here because we've
8 had those conversations with them. When we go
9 to look at their place and you find out what
10 they're doing and you realize the diversity of
11 approaches that are taken, we realized that the
12 guidance that's there, not being entirely clear,
13 has created a problem for people.

14 If it's going to be never below 3.5,
15 that's fine. If it's going to be the final
16 product only can't be below 3.5, that's fine,
17 too. It's just that it really should be
18 clarified for those of us who deal with it.

19 MR. ELA: And do you agree with the
20 sense that it will reduce the overall use of
21 phosphoric acid just to have the final product
22 be 3.5?

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 MR. WOODS: No.

2 MR. BRADMAN: Just a related question
3 to follow up. If the ultimate goal is 3.5,
4 whether it's never below 3.5 before the final
5 product is stabilized versus it goes below 3.5
6 at some point, given that the final product is
7 3.5, do we have the same level of synthetic
8 phosphorus fortification?

9 MR. WOODS: No, these guys have very,
10 very different manufacturing processes. You'll
11 have some people that will have a product that
12 will never go below 3.5, and they found a really
13 nice way to get a lot of phosphorous in there,
14 but it has to do with the type of fish they have
15 and some of their manufacturing details.

16 Other people feel like hey, my
17 concept is to get the stuff stable, so I'm going
18 to slam it down really, really low, let it drift
19 up to 3.5. Sometimes, their phosphorus level is
20 even lower, so there's no general rule. It's
21 just that the 3.5 works for fish for the final
22 product, and it also is a reasonable indicator

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 of unlikely excessive fortification.

2 MR. CHAPMAN: Emily.

3 MS. OAKLEY: I just want to say thank
4 you so much. This has been extremely helpful.

5 MR. CHAPMAN: Thank you, Dale. And
6 last is Luis, if you could start with your name
7 and affiliation.

8 MR. MONGE: Hi. My name is Luis
9 Monge. I work for Transastra. It's a trading
10 company. We trade organic bananas out of Peru.
11 I work with organic coffee, bananas, and
12 pineapples since 1996. The last four years, I
13 run my company with my business partner, Frans
14 Wielemaker. We both work for more than ten
15 years in the organic program of Dole Fresh Fruit
16 International in Latin America. I appreciate
17 the opportunity to speak in favor of the
18 continuation of ethylene in the National List.

19 I want to address some extra comments
20 on the previous comments regarding the ethylene.
21 All the organic pineapple growers in Latin
22 America, especially in Costa Rica, which I

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 believe represents the main source of organic
2 pineapples to the U.S. market, are currently
3 using ethylene application for pineapple
4 flowering.

5 All of them, despite the size of
6 their farm, are using the ethylene. It is not
7 rocket science. I don't know where the concerns
8 of the economic feasibility of the ethylene
9 application is coming from, but certainly not
10 from the pineapple growers in Latin America.

11 The reason why ethylene application
12 in pineapple, as well as for bananas ripening,
13 has been explained several times in the past,
14 and those reasons haven't changed. This is not
15 the first time that I step in front of the NOSB
16 explaining why it is so important to keep the
17 ethylene on the National List. Ethylene is a
18 natural occurring molecule and has no
19 substitute. It is the natural way the pineapple
20 blooms and the pineapple got ripe.

21 Finally, I want to thank the time and
22 dedication of all Board members to protect the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

1 organic rule. Please remember that when you
2 rule for America, you're also ruling for the
3 entire world.

4 In Latin America, as well as the
5 other organic farmers from around the world, we
6 have to comply with the same rules, even that we
7 have different weather, different soils,
8 different crops, and different cultures. Again,
9 thank you for your time and dedication in
10 serving in the NOSB. Muchas gracias.

11 MR. CHAPMAN: Thank you, Luis.
12 Questions? Thank you very much, Luis.

13 MR. MONGE: You're welcome.

14 MR. CHAPMAN: That ends our public
15 comment session, a lot of information shared,
16 questions asked, and I really appreciate the
17 focus and insight of the Board and the time and
18 comments from the public. We will now stand in
19 recess and convene tomorrow at 8:30 in the
20 morning.

21 (Whereupon, the above-entitled matter
22 went off the record at 7:07 p.m.)

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
WASHINGTON, D.C. 20005-3701

UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2018 MEETING

+ + + + +

THURSDAY,
APRIL 26, 2018

The Board met in the Sabino and Pima Rooms of the Tucson University Park Hotel, 880 East 2nd Street, Tucson, Arizona at 8:30 a.m., Tom Chapman, Chairman, presiding.

PRESENT:

TOM CHAPMAN, Chair
HARRIET BEHAR, Vice Chair
SCOTT RICE, Secretary
SUE BAIRD
ASA BRADMAN
JESSE BUIE
LISA DE LIMA
STEVE ELA

DAVE MORTENSEN

EMILY OAKLEY

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR

STAFF PRESENT:

**MICHELLE ARSENAULT, NOSB Advisory Board
Specialist, National Organic Program**
**DR. RUIHONG GUO, Acting Deputy Administrator,
National Organic Program, Agricultural
Marketing Service**
**DR. JENNIFER TUCKER, Associate Deputy
Administrator, National Organic Program;
Designated Federal Official**
**DR. PAUL LEWIS, Director, Standards
Division, National Organic Program**
**DEVON PATTILLO, Materials Specialist,
National Organic Program**

ALSO PRESENT:

ALBRECHT BENZING, CERES Certification
JOHN BOBBE, OEFFARM
PETER CARLSON, Terra Ingredients, LLC
MIKE DILL, Organically Grown Company
SILKE FUCHSHOFEN, Organic Insights, Inc.
ERIN HEITKAMP, Pipeline Foods
JAKE LEWIN, CCOF Certification Services, LLC
MONIQUE MAREZ, Organic Trade Association
SAM WELSCH, OneCert, Inc.

CONTENTS

Panel 1 - Certifiers and Importers 5

Panel 2 - Handlers70

Combined Panel Discussion. 136

Livestock Subcommittee

Topics

2020 Sunset substances review:

Alcohols: ethanol, isopropanol 204

Aspirin. 208

Biologics, vaccines. 210

Electrolytes 225

Glycerin 226

Phosphoric acid. 234

Lime, hydrated 237

Mineral oil. 238

Sucrose octanoate esters 241

Proposal: Glycolic acid - petitioned 247

Proposal: Clarifying "emergency" for use of
synthetic parasiticides in organic livestock
production 274

Compliance, Accreditation & Certification
Subcommittee 286

Discussion Document: Import Oversight

Proposal: Inspector Qualifications

Proposal: Eliminating the incentive to
Convert Native Ecosystems into Organic
Crop Production proposal

Adjourn.

1 P-R-O-C-E-E-D-I-N-G-S

2 8:32 a.m.

3 MR. CHAPMAN: All right. Good morning
4 everybody. We'll be coming to order now.

5 Looking around the room, we have all Board
6 members present, so we have a quorum. Starting
7 out this morning, we will be starting with our
8 import panel of experts. We have nine
9 individuals here, traveled all across the country
10 and one as far away as Germany.

11 We'll start with a panel on certifiers
12 and importers, break, move to a panel on
13 handlers, break and then a panel -- both panels
14 combined. And before I take all of Scott's
15 thunder in explaining what's going to happen, I
16 am now going to hand it over to Scott Rice, chair
17 of the CACS Committee.

18 MR. RICE: Thanks, Tom. Good morning,
19 everyone. We're fortunate to have with us, as
20 Tom mentioned, a number of individuals to move
21 this conversation forward on strengthening
22 organic integrity across the supply chain,

1 particularly when it comes to import of organic
2 products.

3 We heard from a number of public
4 commenters yesterday who shared their challenges
5 and ideas for improvement, and we look forward to
6 building on that with our two panels this
7 morning. You'll recall we initiated this
8 discussion with a panel of professionals from
9 federal agencies, who gave us some background on
10 their respective roles in oversight of products
11 entering the country.

12 This morning, we'll hear first from a
13 panel representing the certification and
14 inspection part of the community, followed by a
15 panel of industry and trade representatives.
16 Excuse me. To close, we're going to bring all of
17 our panelists together for a shared discussion,
18 and these issues that we've been working on span
19 across all their roles, and we see a lot of
20 opportunity to work together.

21 We appreciate our panelists making the
22 journey, as Tom said, some from quite far, and

1 with that I'll introduce our certifier and
2 inspector panel. We're going to offer each an
3 opportunity to share with us their thoughts on
4 greatest challenges, greatest opportunities for
5 strengthening the organic supply chain, and then
6 open it up for discussion and further questions
7 from the Board.

8 With us today we have Sam Welsch, who
9 is the president of OneCert Certification, Inc.
10 Sam has been proponent of organic agriculture for
11 over 40 years, and has been a leader in organic
12 certification since the NOP was implemented in
13 2001. He is the founder of OneCert, OneCert Asia
14 and OneCert International, and he serves as the
15 current chair of the accredited certifier's
16 association.

17 He values integrity and inconsistency
18 in organic certification. Also with us, with the
19 inspector hat on is Silke Fuchshofen of Organic
20 Insights, Inc. Silke holds a B.S. and Masters of
21 Science in International Agriculture from the
22 University of Cassel. She has been an

1 independent organic processing inspector in the
2 U.S. for almost ten years, and still has working
3 relationships with European certifiers.

4 Recently, Silke developed a risk-based
5 methodology to address uncertified vendor issues
6 in the framework of an organic handler
7 inspection, and now offers inspector and
8 certifier trainings through the independent, or
9 excuse me, International Organic Inspectors
10 Association.

11 Next we have Albrecht Benzing. He's
12 a managing partners with CERES Certification.
13 Albrecht is an agronomist by training who has
14 been involved in organic farming for 40 years.
15 He worked as a farm advisor in South America and
16 in 2004 started CERES as an international
17 certification body.

18 Today, CERES is a USDA-accredited
19 certifying agent that operates a number of
20 certification programs with clients in 70
21 countries.

22 Next we've got Jake Lewin. Jake is

1 the president of CCOF Certification Services,
2 LLC, the largest national organic program
3 accredited certifying agency founded in
4 California over 40 years ago. Lewin's experience
5 includes all aspects of organic certification,
6 from farm production to organic inspection and
7 certification, as well as teaching seminars and
8 training events on organic certification
9 worldwide.

10 Jake also has extensive experience
11 with international organic certification issues
12 and trade promotion, including serving as an
13 appointee by former U.S. Secretary of Ag Tom
14 Vilsack to the Agricultural Trade Advisory
15 Committee for Fruit and Vegetables, which advises
16 the Foreign Agricultural Service and the U.S.
17 Trade Representative.

18 So a very big welcome to each of you,
19 and a great appreciation for being here, and with
20 that we'll open it with some opening remarks and
21 we'll start with Sam Welsh.

22 MR. WELSCH: Good morning. Today I

1 wanted to focus my comments on the contrast
2 between the complexity of the supply chain and
3 the often simplistic verification methods that we
4 still have in use. I'll also include some
5 suggestions on how I think we can improve our
6 verification.

7 Complexity involves both trying to
8 track ownership and movement, which are not
9 always the same thing. The operations that
10 physically handle the product are not always the
11 same operations that are owning the product
12 that's being moved when it's being imported, and
13 even once it reaches the U.S. or even
14 domestically.

15 I think we all recognize the
16 difficulties in trying to obtain full
17 documentation of the supply chain when
18 uncertified handlers are involved, but requiring
19 all handlers to be certified will only solve part
20 of the problem. The certification of those
21 handlers needs to actually be meaningful to add
22 genuine verification to the supply chain.

1 We already have certified operations
2 in the supply chain that could be eligible for
3 the current exclusion from certification, because
4 they only handle packaged products and they don't
5 do any processing. Unfortunately, some
6 certifiers are not verifying packaged products
7 that are being handled by those operations.

8 They assume that the certifier, the
9 supplier has done that verification. Sometimes
10 the only verification that is done is to ask if
11 the operator has a copy of the supplier's
12 certificate. Now when it's an uncertified
13 handler and they give you a copy of a
14 certificate, many times what's recorded is, you
15 know, that that's the supplier.

16 But in fact they're not getting it
17 directly from the person identified on the
18 certificate. It's coming through an uncertified
19 supplier, and it may be coming from an
20 uncertified warehouse or other handlers, or
21 sometimes a series of those. So it's not
22 sufficient to match a certificate to a product.

1 We also have to verify that the product came from
2 the operation identified on that certificate.

3 And through the ACA and others, we've
4 developed some very robust verification of those
5 uncertified handlers, which I'll speak to a
6 little bit later. But it gets even more
7 complicated when private label companies are
8 involved, because then the certifier on the label
9 may not even, you know, may not be the certifier
10 that inspected or certified the facility where
11 that product's made.

12 I'll give one simple example. I'm
13 sure other panel members will give more. We have
14 a certified handling operating that's sourcing
15 imported product. It's being purchased from an
16 uncertified handler, but it was coming to them
17 through a certified warehouse.

18 We thought well that's good. However,
19 the warehouse certificate does not list that
20 product, so we asked the certifier of that
21 warehouse if they had verified the import
22 documentation for that product, you know. Was

1 there phytosanitary? You know, what -- did they
2 verify that?

3 They said no they didn't, because
4 their warehouse didn't own the product. It was
5 being purchased or, you know, handled by the
6 other company or by our buyer, so they thought it
7 was the responsibility of our client to verify
8 that.

9 I didn't necessarily agree with that,
10 but we conduct the traceability. Our operator
11 doesn't always, you know, we may not certify an
12 operator who receives the entire shipment that
13 was imported. So that means because the
14 warehouse wasn't verifying that, everybody who
15 purchases product out of that warehouse would
16 have to do the same type of verification of that
17 supply chain.

18 So we started asking the question of
19 ourselves, what does it mean for a warehouse to
20 be certified organic if they're not verifying the
21 product that's being handled by it? I think
22 that's a question that we need to bring up often

1 as we move toward requiring uncertified handlers
2 to be certified, you know.

3 Just getting certified isn't enough.
4 We need to make sure that that certification is
5 meaningful, and that actually -- so I'll try not
6 to digress too much from what I wrote down here.
7 So how do we make the current system more
8 responsive and effective at detecting and
9 preventing fraud?

10 Let's remember that organic
11 certification, certifiers and inspectors all
12 existed before the NOP was created. The NOP was
13 created because of -- in response to fraud and
14 inconsistency in the organic supply chain that
15 was occurring in the 1980's. Remember OFPA was
16 from 1990, and if we had a good, consistent no
17 fraud in the system then, we wouldn't have needed
18 the NOP.

19 But we needed the enforcement strength
20 that the government brings to this. So this is
21 not a new problem. However, it takes a long time
22 for this to be effective.

1 We have a good partnership with the
2 private certifiers and the NOP and the trade, but
3 it's going to take a long time, you know. We're
4 still making improvements, which is why we're
5 here today. In the case of --

6 MR. CHAPMAN: Sam, can you wrap --

7 MR. WELSCH: I'll wrap up.

8 MR. CHAPMAN: --up your intro, thanks.

9 MR. WELSCH: All right. I just want
10 to conclude by saying accredited certifiers is
11 striving to ensure consistent implementation of
12 USDA organic regulations through collaboration,
13 education of certifying agents, and we envision a
14 world in which the USDA organic label is always
15 trusted and valued.

16 One of our goals is consistent, you
17 know, is to have best practices documents. One
18 of the things I'd like to discuss more with NOP
19 is: will the NOP support if a client, if we're
20 using the best practices -- whether it's with
21 supply chain or other issues -- and an operator
22 appeals a decision we've made, will the NOP back

1 us up?

2 The NOP is vetting these and giving
3 comments on revisions to strengthen our best
4 practices documents. But to make it really
5 strong, we want to know that we'll be backed up
6 when we're following them.

7 MR. CHAPMAN: Thanks Sam. Next, we'd
8 like to hear from Silke.

9 MR. CHAPMAN: Just real quick. I'll
10 give you guys a one minute warning by going like
11 this, just so you can know. Thanks, Tom.

12 MS. FUCHSHOFEN: Thank you for --
13 thank you for inviting me, and thank you to the
14 IOIA for nominating me. I'm very glad that I can
15 be here to share the viewpoint of an independent
16 organic inspector. Oh, and I need to figure this
17 out now.

18 So I will be speaking about handler
19 operations. Sorry, this is -- okay. In the
20 discussion of the last couple of days, inspectors
21 were only mentioned in the context of problems.
22 Organic reviewers have hardly been mentioned at

1 all, and none of the discussions the role of
2 organic procedures came up, at least not at the
3 times I was around here.

4 During my inspections of the last five
5 years or so, I have developed risk assessment
6 methods that allow me to find problems with
7 documentation from NOP-excluded suppliers at at
8 least 75 percent of the handler operations that I
9 visit for the first time.

10 I developed those methods by looking
11 deeply into the operational and recordkeeping
12 procedures. With regards to inputs -- imports,
13 the problem I repeatedly encounter at the
14 processing facility is that personnel in charge
15 of the organic program at the certified operation
16 is not fully appraised of the purchasing
17 procedures.

18 They're given organic supplier
19 certificates, but do not know that the material
20 is purchased from an uncertified distributor.
21 And then receiving procedures are not designed
22 for verification of the last certified entity.

1 So often one certificate is on file, but product
2 from multiple sources is received into the
3 location and nobody notices.

4 To make a risk assessment, one needs
5 to understand the system in which one operates.
6 During an inspection, that would be the
7 operations procedures. But at this point, we are
8 more focused on records rather than the written
9 system plans, which usually are not specific
10 enough to determine if the operation is in
11 compliance.

12 However, if we spent the time to
13 understand the procedures well, we can accomplish
14 four things. We can determine high risk areas
15 and ingredients, suppliers, operation, et cetera.
16 During review of records, a well-chosen sample
17 will show us if the procedures are adhered to and
18 if they are effective.

19 Third, the staff at the certified
20 operation usually appreciates thorough vetting of
21 their procedures, because it helps them
22 understand strengths and weaknesses. The

1 operation can work on improvements and will be
2 better able to fulfill their -- sorry -- and the
3 operation can work on improvements and will be
4 better able to fulfill their responsibility of
5 maintaining organic integrity at their plant.

6 I am referring to a much more complex
7 issue when I talk about this, about receiving
8 procedures. But I want to give you a simple
9 example to showcase my point. During review of
10 organic supplier certificates, sometimes one or
11 more are outdated, and the staff obtains them
12 from the supplier during the inspection.

13 If we focus on the records, the
14 operation is then in compliance, because we can
15 see that all ingredients are certified organic.
16 If we focus on procedures, however, the operation
17 is not in compliance because they must have a
18 system in place by which they make sure organic
19 certificates are on file at all times.

20 So then if we understand the
21 operations procedures well, we can use records to
22 verify that the procedures work. That gives the

1 clients more responsibility in terms of the
2 oversight, versus saying "oh, we do that when an
3 inspector comes," you know.

4 So I have six suggestions. First,
5 that certified organic operations need to submit
6 comprehensive organic procedures, and that
7 reviewers and inspectors are trained to verify
8 them in detail. Second, oh yes. Oh okay. That
9 organic processing and handler inspectors should
10 be trained and authorized to take samples if they
11 encounter a high risk situation.

12 For example, if the auditor cannot be
13 linked back to a certified entity and the raw
14 material is still in storage, we should be
15 authorized or even required to take a sample.

16 Third, that certifiers are required by
17 the NOP to report uncertified vendors that appear
18 to be repacking or relabeling, and that the NOP
19 applies the same scrutiny to those as to
20 certified entities.

21 Four, research and development of a
22 system that is geared to identify and target high

1 risk operations. Right now, we're focusing on
2 the areas where fraud has been discovered. If we
3 want to be proactive, we do need to look for
4 fraud and how do we best employ resources. The
5 Pareto principle, also called 80.20 rule, could
6 provide a very useful tool, and I hope that I
7 will be able to speak about that later.

8 Five, to address the issue of
9 inspection qualifications. We need to also -- we
10 need to talk about trainings, but also about the
11 work environment. It is ingrained in the organic
12 industry that organic inspections should not cost
13 much. Therefore, most organic inspectors will
14 try to be fast.

15 But one cannot rush and be thorough at
16 the same time, and the industry does not want
17 quick inspections anymore. This needs to be
18 addressed by and with the certifiers. Higher
19 quality inspections come with a cost to the
20 certifiers. To make it possible, a risk-based
21 approach can be useful here, too.

22 Inspectors could be grouped into

1 different skill levels and areas, and they can be
2 dispatched according to type of operation and
3 risk level. High risk operations are matched
4 with highly skilled inspectors. Thank you very
5 much.

6 MR. RICE: Thank you, Silke. Excuse
7 me. Next we'll hear from Albrecht Benzing.

8 MR. BENZING: Okay. Thanks for
9 inviting me. I just arrived last night after a
10 24 hour trip. Somehow, I was asked to explain
11 the world in 30 seconds or something like that,
12 where things go wrong and what can be done.

13 (Pause.)

14 MR. BENZING: I started whether when
15 I could share hundreds of pictures of these.
16 Picture we see how some things go wrong. This is
17 supposed to be an organic farm and yeah, and it's
18 obvious from the people in which country it is.

19 What we see very clearly here, on the
20 right we have our inspector, that the people who
21 are working on the field, we are proud of showing
22 their device to the inspector, and what is inside

1 that device is urea.

2 So they're applying -- so they are
3 proud of being modern farmers and showing to the
4 inspectors they are modern farmers. They have no
5 clue they are part of an organic project or if
6 they have heard it, they didn't know what it
7 means.

8 Why is fraud in the organic industry
9 so widespread in some countries? So one thing is
10 very long and complex supply chains. Sam already
11 mentioned that. I'm now more referring to the
12 supply chain outside the United States. They
13 often have a group of farmers supplying through
14 one processor, another group of farmers supplying
15 through an intermediary to another processor, and
16 you have a long chain of intermediaries,
17 exporters, traders, importers, other
18 intermediaries, repackers, retailers until it
19 finally reaches the consumer.

20 In addition to of course that things
21 can go wrong at each of these points, this also
22 means that the people who are at the beginning of

1 these supply chains, the farmers and processors
2 and traders involved in different countries,
3 they're very, very far away from the consumers
4 and they don't really understand why there are
5 many people in the United States who are ready to
6 pay a lot of money for organic food.

7 So they're not really committed to the
8 whole thing, because they don't understand it and
9 they've just heard somewhere that this is
10 business, and you get a higher price and that's
11 why they do it. So this is one of the problems.
12 There are hot markets where demand exceeds
13 supply.

14 All these super foods, avocados,
15 quinoa, all that -- all of the sudden people
16 discover that this is healthy, it's great for you
17 and create a huge demand and the supply is not --
18 does not keep pace. So this is another reason
19 for why fraud happens.

20 The third reason I wanted to focus on
21 is that certifiers are businesses. So you
22 somehow have to keep a balance between integrity

1 and surviving, being successful as a business.
2 But what happens in real life in for a certifier
3 working let's say in China or in Africa or in
4 South America, consumers are distant not only for
5 the farmer but also for the local inspector.

6 That's quite far away. The loyalty of
7 the local inspector with his countrymen is often
8 stronger than with the consumer in California.
9 There are often counterproductive remuneration
10 schemes for the inspectors. You get some
11 certifiers have models where the inspectors get a
12 bonus when they find new clients. That is
13 counterproductive in terms of integrity.

14 There is simply corruption, and that
15 happens more frequently than most of us believe.
16 There's a so-called social hierarchy that often
17 involves that the manager of the company you're
18 dealing with has a higher position than the
19 inspector. That does not make it easy for the
20 inspector to address fraud and serious non-
21 compliances.

22 There is competition between

1 certifiers, and there's a lack of supervision by
2 the NOP in this case. On the other side, there
3 is -- of this balance there's personal integrity,
4 there's fear of losing reputation, fear of losing
5 accreditation. But in many cases, that is just
6 not enough to balance the other side, and
7 therefore the balance goes down on one side.

8 Some things, because I was asked to
9 talk about what happens on other markets -- of
10 course, the market I know best is the European
11 one. Some things that are being done in the EU
12 to deal with fraud --

13 MR. RICE: Albrecht.

14 MR. BENZING: Yes.

15 MR. RICE: If you could wrap up in a
16 minute, we can touch on some other larger issues
17 as well.

18 MR. BENZING: Compulsory certificates
19 of inspection, that what is called certificate of
20 inspection is a transaction certificate. What is
21 different from transaction certificates here is
22 that it's really compulsory, and it's the Customs

1 authority that require it for getting the organic
2 product into the EU.

3 So it's, it's a pretty strong tool
4 that allows to interfere in the market very
5 quickly, and stop fraudulent products from
6 getting onto the market. There is this office
7 system that's the Organic Farming Information
8 System.

9 So it's an official EU database where
10 all the, especially the cases where all the
11 pesticide residues are reported, and we are
12 required as certifiers to investigate and so
13 report what we have done to investigate it.

14 Once we've done that and entered our
15 results, then we receive an accepted. Similar
16 things do exist in the U.S., but for some reason
17 the ratio of requests for investigation is about
18 50 to 1 from Europe versus U.S. I don't know why
19 that is, if less testing is going on. But we
20 simply get such things very rarely from the U.S.
21 market while we get them on a daily basis from
22 the European market.

1 Finally, there is a stop sale in case
2 of suspicion in the EU regulation, and really
3 just one more slide. I think this is a huge
4 difference in the standard itself.

5 So if I have to read it, but it says
6 "Where a control body has a substantiated
7 suspicion that an operator intends to place on
8 the market a product not in compliance with the
9 organic rules, this control body can require that
10 the operator may provisionally not market the
11 product with this reference."

12 And yeah, I make a shortcut then. If
13 this suspicion is confirmed, then removed. This
14 is completely different from the NOP approach,
15 where you first have to undergo -- have to issue
16 a notice of non-compliance, then a notice of
17 proposed suspension. Then you have to wait 30
18 days. Then the suspension and then the operator
19 still can appeal. That can take another three
20 months, and during all this time the fraudulent
21 product continue ending up on the market.

22 Finally last point, what is not being

1 done either by the EU Commission or by the NOP is
2 this effective supervision of certifiers in third
3 countries. Most of the supervision by
4 accreditation focuses on procedures, on
5 formalities, but very little of that really helps
6 overcome the problems that we're discussing here.
7 Thank you.

8 MR. CHAPMAN: Thank you, Albrecht.
9 Albrecht, quick clarifying question. Control
10 bodies refers to governments or to certifiers?

11 MR. BENZING: (Inaudible response.)

12 MR. CHAPMAN: Thank you, certifiers.
13 People didn't hear that.

14 MR. RICE: Next we'll hear from Jake
15 Lewin.

16 MR. LEWIN: Thank you very much. It's
17 an honor to be here. I want to just take a
18 moment and thank my colleagues at CCOF and at
19 other certifiers who have all worked on this
20 really, really hard and the NOP.

21 I've also had the pleasure of working
22 on the ACA and Organic Trade Association task

1 forces, which have been very much invaluable to
2 me in this process and really helped shape the
3 thinking. So as a certifier, we work with about
4 3,600 operations in 44 states and three
5 countries.

6 Many of these are users of imports or
7 export directly, particularly the ones that
8 operate in Mexico, and we have a few importers.
9 Over the last year, we've worked closely with the
10 NOP and other certifiers to improve import
11 oversight. We've also visited grain handlers,
12 importers, transloaders and the actual ports
13 themselves.

14 And when I say "visited," not
15 inspections but our senior level staff and all
16 the staff working on this. We see three primary
17 issues. The majority of certifiers do not report
18 acreage; certifiers are not fully collaborating
19 with each other; certifiers are not always
20 tracking and reporting exports.

21 But fortunately we have feasible,
22 clear steps that we can take to shore up

1 certifier oversight of imports, and help address
2 allegations of fraud.

3 Solution 1. All certifiers should
4 report crop acreage to the Integrity Database.
5 Reporting acreage is critical, because it helps
6 certifiers and NOP look at aggregate volumes of
7 organic crops coming from different regions
8 throughout the world, and ensure that sufficient
9 acreage exists to support these volumes of crops.
10 This gives a baseline tool.

11 Here's the situation now. Globally
12 overall, of the operations in the crop and wild
13 crop scopes, these operations that have acreage,
14 only 21 percent of them have any acreage
15 reported. It goes up to 28 percent in the U.S.,
16 but in the rest of the world combined, after the
17 U.S. it's 7 percent. So there's a lot of room
18 for improvement here.

19 Basically, it's a critical tool for
20 integrity, but an operational requirement for
21 certifiers. From our perspective, certifiers
22 need to overcome their inertia and simply do

1 this. The blind spots created are simply too
2 large.

3 And as another step, the acreage and
4 operation reporting should be a critical element
5 of trade agreements moving forward. The NOP
6 Integrity Database is the global gold standard,
7 and this baseline information truly builds a
8 solid foundation.

9 Solution 2. NOP should direct
10 certifiers to collaborate on investigations, and
11 we should all collaborate more effectively with
12 the NOP on investigations. Certifiers have a
13 tendency to be very careful and to withhold
14 information from each other, and what we really
15 need to do is speak with each other in a very
16 open and collaborative environment so that we
17 don't create holes between our investigations.

18 If we all handle a slightly different
19 part and we're not talking to each other
20 effectively, truly sharing information, we can
21 basically miss opportunities to uncover what's
22 going on. Ultimately, this could really improve

1 full supply chain verification and traceability,
2 because we'd be talking to each other about what
3 we're actually seeing, not sending each other
4 kind of vague letters that cause us to not truly
5 see the forest.

6 And we strongly suggest that NOP meets
7 with certifiers regularly in an open kind of
8 roundtable environment, to work together on
9 problems and investigations.

10 Three, certifiers should track and
11 report export activity to NOP. We need to track
12 importer trade. Using the current per shipment
13 transaction system is a viable path towards this.
14 So transaction certificates that we issue now
15 could be the baseline tool.

16 Essentially they're issued now to
17 "verify a shipment." We could turn that system
18 towards every inbound imported product has a
19 transaction certificate. But that document is
20 used more for registration, such that certifiers
21 can then report periodically to NOP on overall
22 volumes.

1 Couple that with acreage, you can now
2 see what's trending, what's increasing, and you
3 can see whether at the basic fundamental level
4 the acreage is there to support it.

5 So we're in a good position for
6 oversight. The thing is fraud is rare. That's
7 the hardest thing about all this. I think that
8 we all -- we're all talking a lot about fraud as
9 if it's an everyday occurrence. It's
10 unbelievably serious and we have to take it
11 seriously.

12 The situation is that it's truly rare,
13 and that's what makes this all so hard. We have
14 an opportunity to work together, create effective
15 tools and solutions. We do have boots on the
16 ground. We have inspectors. We have a lot of
17 opportunities to address this.

18 So three solutions, acreage reporting,
19 trade tracking, collaborative investigations.
20 With these feasible, actionable items we could
21 probably move things forward. I just want to
22 show quickly an example of how this works in

1 action.

2 An alleged fraudulent activity of a
3 large shipment of grain imported from Turkey.
4 The action at that step would be the ability to
5 look at organic acreage from the region where the
6 grain is reportedly grown. What's the acreage
7 overall? Certifiers immediately share
8 information with each other about what they're
9 seeing, what the documents say on their side and
10 the other side.

11 Then NOP can look at overall export
12 activity in the region and see if this is a
13 spike, is this indicating a spike above last year
14 and things like that. So these three things
15 together work, kind of play out in this way, and
16 could be really helpful.

17 And thank you very much for your
18 attention. Really just it's truly an honor, and
19 really I can't thank you enough for taking your
20 valuable time to focus on this matter.

21 MR. RICE: Thanks Jake, and thanks to
22 the panelists. We'd like to open it up for

1 questions here. We've heard quite a bit of
2 information, not just from the four of you but,
3 as I said, from a lot of public commenters
4 yesterday and in the Federal Register. I would
5 turn it to Board members who have questions, to
6 kick off the conversation.

7 MS. BEHAR: Not surprised I have a
8 question. Jake, I'd like to -- since you were
9 the last person so something came to my mind
10 right away, and that is for acreages, do you
11 think it would be useful too to have some sort of
12 yield system where, you know, because yields
13 let's say of corn in one region may significantly
14 less than other regions to have at least some
15 kind of baseline to look at.

16 I know in the upper Midwest, many of
17 the certifiers do ask the inspectors to verify
18 acreages on site and also talk about yield
19 factors. So I think we do have some baseline on
20 that.

21 MR. LEWIN: As a matter of theory,
22 yield information would be great. The systems

1 exist now for reporting acreage, and I think the
2 challenge before us now is simply to make use of
3 those systems that we have now, so that we get
4 the baseline information we critically need. I
5 fear that integrating a yield expectation or
6 yield tracking will simply only increase the
7 inertia, such that nobody does even the first
8 basic piece.

9 Because yield would be highly, highly
10 complex to do. It has a lot of -- it would just
11 be very, very complex to do. It has a lot of --
12 it would just be very, very complicated.

13 Whereas we actually have the database. We have
14 the reporting tools.

15 We have every opportunity to do the
16 acreage and my experience is sometimes we try to
17 do too much and we don't do the basics. And so
18 acreage first. Let's talk yield if we get that
19 done.

20 MR. RICE: Jesse, Tom.

21 MR. BUIE: You know, and this can go
22 to anybody. As a small farmer, this traceability

1 process is so precise, and when I look at myself
2 and go from the road that it came off of to where
3 it's ultimately going, it is -- it's precise. So
4 what is so different about what's happening now?
5 I mean I'm maybe being over-simplistic, but it
6 seems like the process is in place, but what's
7 not being done?

8 MR. WELSCH: I can give a couple of
9 examples from products, for example, coming from
10 India, where we have a lot of certified
11 operations. The yield information that's
12 mentioned by Jake, that's great for those who are
13 certified directly by an NOP-accredited
14 certifier. But those in India are certified or
15 accredited through APEDA, which is a recognition
16 agreement, and none of those certified operations
17 show up on the Organic Integrity Database.

18 There's probably ways for that to
19 happen, but you know, that's a weakness. We've
20 had operations that have told us, and it's by the
21 same company who has those massive ships that
22 have been caught for fraud, the same companies

1 contacting exporters in India. They want product
2 shipped to Turkey.

3 Now we know the Association there.
4 But they also want it done without a transaction
5 certificate that's required from India, you know.
6 So the transaction certificates can also be a
7 tool for abuse, because they can indicate trade
8 or sales, maybe who bought it, who sold it, and
9 sometimes a little bit about what countries it's
10 traded between.

11 But it can fail to indicate where that
12 product's actually physically moving and what
13 other parties are involved. So it can conceal
14 things as much as it can reveal things. I don't
15 have examples to show you today, but it's
16 complicated when you try to connect invoices,
17 transaction certificates and the actual physical
18 movement of products.

19 You really have two parallel tracks
20 sometimes. The ownership changes, and then the
21 physical movement, and sometimes the people who
22 own the product don't actually know where it's

1 been moved to because they contracted with
2 companies who specialize in the movement of
3 product.

4 So they may not even have records to
5 know where their product is. When you ask them,
6 it takes them weeks to come up with the
7 documentation to show where their product has
8 traveled. So just one example.

9 MR. BUIE: And how did they get paid?

10 MR. WELSCH: Oh, we don't track how
11 they get paid. Yeah. There are -- yeah, it's
12 complicated, because we sometimes have one
13 company who has multiple legal entities, and
14 they're doing a lot of internal transactions with
15 themselves, which I think is a tool to avoid
16 taxes. But it's complicated, yeah.

17 MR. RICE: Albrecht briefly, did you
18 have something to add? We have quite a few
19 questions here.

20 MR. BENZING: Yeah. I wanted to give
21 the answer to Jesse, also related to what Jake
22 said with the acreage. I mean part of the fraud

1 that we experience with the imports of large
2 amounts of grains from -- through Turkey, because
3 actually they were not from Turkey. Most of it
4 came from Ukraine and Kazakhstan and other
5 countries.

6 Part of that was organized in quite a
7 clever way. There were traders in Ukraine. They
8 made contracts with a number of large farms,
9 1,000, 2,000, 3,000 hectares, and they instructed
10 those farms you will be my suppliers. Gave them
11 some instructions on -- to use low levels of
12 fertilizers, to use only pesticides that don't
13 leave residues in the final products.

14 Yeah, but finally they did not really
15 buy the produce from those farmers. They bought
16 it somewhere on the market, after doing residue
17 tests. So those farmers were just there to be
18 shown to the inspectors and to the certifiers.
19 Look, we have this area, 20,000 hectares, meaning
20 that we can produce this amount of soy beans,
21 this amount of grapeseed and a different word
22 granola in the U.S., et cetera.

1 But the product did not come from
2 those farms. So having the acreage is of course
3 one step, but it's far from being enough. Trying
4 to answer Jesse's question, I don't really think
5 that it's too difficult to find out these tricks.
6 You need competent inspectors and especially
7 inspectors that want to find out, and that's my
8 point, that there are too many people out there
9 that are not really interested in finding out.

10 MR. RICE: Thank you. Tom.

11 MR. CHAPMAN: I have three questions,
12 so I'll fire them off one after the other one.
13 So the first one I'll start with Jake, I guess.
14 CCOF, the California State Organic program used
15 to or now does again collect acreage data. CCOF
16 was part of an effort to reform that program.
17 Can you talk about briefly some of the
18 shortcomings or issues with the state organic
19 program, how it's functioning now, what was the
20 issues with that kind of state mandated
21 collection of acreage data?

22 MR. LEWIN: Yeah absolutely. Under

1 that program at that time, the state-mandated
2 collection of acreage data was dependent on each
3 individual grower reporting each individual crop
4 by parcel, size and gross sales for each crop,
5 and that the weight of that reporting by each and
6 every party was creating a barrier to their
7 ability to successfully register and just remain
8 in kind of compliance.

9 So what we've advocated for and what
10 the situation is now is that the reporting is far
11 simpler for the producers. It's frankly more in-
12 depth than what we report to Integrity currently,
13 but it's achievable for the producers. And what
14 we're moving towards is the ability for
15 certifiers to report back directly, which is in
16 general our preferred situation because we are
17 already sending a human to each and every
18 operation where people -- we can do that work.

19 And speaking about the state organic
20 program directly, to a huge degree over the
21 current last several years, we've seen tremendous
22 kind of improvement and integration and

1 collaboration with certifiers on some really
2 substantive investigative issues, including
3 residue testing, and I think at this point the
4 State of California is in a really strong
5 position as a matter of enforcement based on this
6 work.

7 MR. CHAPMAN: Thank you. So my second
8 question is towards you, Albrecht. You talked
9 through long supply chains, hot markets,
10 certifiers are businesses. You talked to some of
11 the differences that the EU has, including the
12 compulsory TCEs, the OFIS database, the amount
13 of investigation, stop sale.

14 Are those four solutions effective at
15 dealing with those three issues? How are the
16 European certifiers dealing with those three, you
17 know, complexities in the supply chain that lead
18 to fraud, and how is CERES dealing with some of
19 these issues?

20 MR. BENZING: A complex question.

21 MR. CHAPMAN: Yeah.

22 MR. BENZING: I mean I do think that

1 the three tools that I mentioned are helpful.
2 They do help to reduce fraud, but what I tried to
3 say at the end is that there is a key piece that
4 is missing both in the European and in the
5 American system, and that is more effective
6 supervision of what certifiers do in third
7 countries.

8 We didn't -- that we have, we audit by
9 -- the NOP, for example, they do weakness audits.
10 They do audits through our office. That said, a
11 good system it helps as to improve to detect
12 weaknesses in our system. But it does not really
13 help to prevent fraud, because it's too
14 predictable. It's announced many months before
15 and we can somehow help to select the operations
16 that will be visited and will not be visited.

17 So if we know we have a client where
18 they might be finding things that they shouldn't
19 see, it's very easy for us to ensure that they
20 are not going to see that operation. So I think
21 that is a key point, that more resources should
22 be allocated to doing more effective and more --

1 less predictable audits to operations in third
2 countries, and of course risk-based.

3 If we know that the biggest risks are
4 in countries A, B, C, then that those countries
5 should be in the focus of the audit. So that is
6 one thing. Then you asked what are we doing.
7 We're trying our best but struggling with many
8 internal problems to really reach what we would
9 like to reach, and sometimes I feel that the
10 authorities like the NOP are not as helpful as
11 they could be in such cases.

12 I mean just a few weeks ago we -- the
13 story started in 2015 when the Washington Post
14 published an article about this whole fraud
15 thing, and among others they also cited pesticide
16 residue testing that we had been doing in China.
17 We were -- had been contacted by this journalist,
18 asking us to provide all the -- all the pesticide
19 residue tests that we had done in China
20 specifically.

21 We did that, but only in an anonymized
22 way. The journalist came back and said please

1 provide us the name. We said we're not going to
2 give you the name, but then we received a message
3 from the NOP you have to hand out the names.
4 You're obliged to do that, so we did that.

5 Finally, the journalist was fair
6 enough to not publish the names, but he -- what
7 he wrote is CERES had 37 percent of positive
8 pesticide residue tests in China. At the same
9 time, another certifier international had less
10 than 1 percent of positive tests in China.

11 After that, our local office in China
12 was contacted by the Chinese authority. Be
13 careful, this -- we don't want these kind of
14 things to be published in the international
15 media. We do not really know what has been the
16 cause of what, that finally we were -- our local
17 office in China was closed down a few weeks ago.

18 Before that, I had asked the NOP could
19 you please help us in this situation. Could you
20 send a letter to CNCA, which is the accreditation
21 institute in China. A few emails went back and
22 forth, and finally we were told no. We don't

1 think that's our job. It's something between you
2 and the Chinese authorities.

3 So on the one side we're obliged to
4 hand out highly sensitive data, while we're
5 trying to do our job in the best way we can. But
6 then if that causes us serious problems in a
7 country, because we're trying to do the things
8 the right way, we're not being helped.

9 MR. CHAPMAN: Thank you. Quickly, my
10 last one. Silke, I really appreciate your
11 presentation as I work in a purchasing
12 department. I run a purchasing department, so
13 what you described is true, and it's true across
14 the board for a lot of processors.

15 And I liked your approach of using
16 recordkeeping as a tool to verify the procedures
17 or functioning. How do we go about implementing
18 that new thinking with certifiers, or that way of
19 inspections with certifiers and inspectors across
20 the world?

21 And if you're not ready to answer it,
22 we can come back to you a little bit later when

1 we have the full panel, if you want to think
2 about it for a little bit. Does that --

3 MS. FUCHSHOFEN: I'm not sitting on
4 panels very often. I'm just thinking for a
5 second.

6 (Simultaneous speaking.)

7 MR. CHAPMAN: No. So we'll have a
8 combined panel --

9 MR. BENZING: If you would do it
10 later, that would be great.

11 MR. CHAPMAN: Yeah, yeah, yeah. So
12 think about that. We'll come back to it, because
13 I know we're --

14 MR. RICE: Yeah. Time check. We've
15 got a stack of questions here and about five
16 minutes -- 15 says the chair. So I think next
17 was Dan.

18 DR. SEITZ: First, I just want to
19 thank you for an incredibly informative
20 presentation, and it's heartening to know that so
21 much thoughtful work is being done behind the
22 scenes. Jake, you mentioned that from your

1 experience, you thought that fraud was fairly
2 rare. But I'm also hearing from the panel that
3 there are many factors that could potentially
4 work into fraud, the long supply chain,
5 corruption and so forth.

6 And I would imagine that successful
7 fraud by its very nature would be undetectable.
8 So what I'm wondering is how is it that you all
9 can get a sense of how prevalent fraud is, and
10 I'm wondering whether the panelists have
11 different experience with the prevalence?

12 I could imagine that maybe there are
13 very few cases, but they're so big and prominent
14 and covered in a prominent way that may give the
15 public an impression that fraud is much more
16 rampant than it is in actuality. So I'm kind of
17 curious to know how you would gauge the amount
18 and what that would be based on.

19 MR. LEWIN: Yeah, I appreciate that.
20 That's an actually really interesting question.
21 I think the first thing is that in all cases of
22 fraud, there is an injured party, whether that be

1 an industry and there's always organic farmers
2 that are hurt. Whether they're in the source
3 country or in the receiving country, and anyway
4 there's always organic farmers hurt.

5 As a general rule of the trade itself,
6 from my perspective on this, as a general rule
7 the trade itself has a really good idea of what's
8 happening. They bring things to light because
9 they are the ones being cheated and hurt. So
10 when you couple that with testing, oversight,
11 observation, media, ultimately fraud items or
12 patterns can come to light and be addressed.

13 Given the -- speaking from a position
14 of testing, where we do pesticide residue testing
15 regularly, and there are some commodities where
16 various types of testing show fraudulent
17 activities more readily or what could be
18 fraudulent activities. The instances where we
19 find positives that ultimately lead to purposeful
20 applications are really quite low.

21 And I guess really -- I guess I would
22 say this: we're looking for fraud all the time.

1 There's a lot of effort being put in this, and
2 while there are great risks, simply the fact that
3 we're not finding it constantly is an indication
4 that it is rare. You know, I guess I would just
5 say if -- all the evidence leads to the
6 conclusion that it's rare.

7 MR. WELSCH: If I could comment on
8 that as well. If fraud occurs at a 1 percent
9 level and you want to detect that fraud, and
10 you're sampling, you know, shipments or whatever,
11 you need to sample a very high percentage, over
12 50 percent, sometimes closer to 90 percent in
13 order to detect a small amount of fraud, at least
14 in terms of transactions.

15 But if the number of transactions is
16 low, the volume of a single fraudulent
17 transaction may be so large that it actually
18 affects the price of organic products in the U.S.
19 That's not an insignificant -- it may only happen
20 1 percent of the time, but if it affects the
21 price of organic products in the U.S., that's
22 huge.

1 So it's not the percentage of
2 occurrence; it's the size that's important, and
3 it's also the fact that the lower the incidence
4 is in the number of transactions means we need to
5 vastly increase -- which is what Silke talked
6 about. We don't collect high enough fees to
7 spend enough time inspecting to find the fraud
8 that may be there.

9 DR. SEITZ: Great, and it also just
10 seems logical that domestic fraud would be a
11 fraction of fraud due to imports and exports. Is
12 that a fair statement? Just because you have a
13 shorter chain of --

14 MR. WELSCH: It could even be higher.

15 DR. SEITZ: Oh really, and why is
16 that?

17 MR. WELSCH: Because they've had more
18 time to practice it. They can -- you can be more
19 sophisticated. You know, some people keep
20 excellent records. They have records of things
21 they didn't do.

22 MS. FUCHSHOFEN: Right. I'm great

1 now.

2 MR. RICE: You have a quick follow-up,
3 Silke.

4 MS. FUCHSHOFEN: I'm ready to answer
5 Tom's question.

6 MR. RICE: We'll circle back. You
7 want to go for it.

8 MS. FUCHSHOFEN: Okay, sorry for that.
9 I think it's really the intersection of
10 operations and records. You know, records, they
11 have a life of their own. They live in the
12 office with, you know, organic compliance
13 personnel and they have their binders and they're
14 ready for inspection, and they show you all these
15 things. Then when you go on the floor, just what
16 Sam just said, there's records for things that
17 don't -- are not there.

18 So I want to give this example of
19 these receiving procedures that I just recently
20 saw. They were using the container number in
21 their receiving records as proof of what came in,
22 and the paper -- it was like on the paper

1 together with, you know, where they checked off
2 that it was clean and all of this.

3 And but there was somehow in the paper
4 that looked a little funny to me, because at the
5 bottom, you know, at the top it was all computer-
6 generated, and on the bottom things were hand-
7 generated. You know, written at receiving. So
8 the container number was in the upper part. So
9 I'm kind of like okay, when do you -- where does
10 this information come from?

11 That's at receiving they're generated
12 out of the computer, the PO information
13 basically. Then there is a place where at
14 receiving in the office, they look at the
15 documents and they look at the shipping
16 documents, and then they write down the container
17 number. I get that as receiving. They don't
18 receive containers. They don't get there. The
19 containers are unloaded earlier into trucks.

20 But that I didn't even know until I
21 saw this funny break in the records, you know
22 where it just didn't look right, you know. But

1 that's the investigation kind of part, where then
2 you have to look and wonder and ponder and ask.
3 And then also suddenly it's like okay, so you
4 don't even get containers, because there was no
5 lot number. There was nothing. It was that
6 container number that was the linkage. I don't
7 know. Does that answer your --

8 MR. CHAPMAN: I'm more interested in
9 how do we get certifiers and inspectors to change
10 their practices, and maybe Jake or Sam can delve
11 into this, and maybe speak to it already
12 happening. But if -- you spoke about, you know,
13 you see a deficient record. That record gets
14 fixed, the problem's solved.

15 But that should really be an indicator
16 that the process wasn't working to verify it, and
17 how do you fix that process then? Is that -- is
18 that happening in inspections and certifications,
19 or are we just fixing the record error?

20 MR. LEWIN: Just briefly, I think
21 sometimes -- I think we are all becoming more
22 professional and entitled in the process, in

1 terms of owning the outcomes. I find that
2 inspectors need to be encouraged to own the
3 process, own the room, own the time, and we're
4 doing a better and better job encouraging that.

5 We've moved to a situation where all
6 inspectors are not only required to have sampling
7 materials with them at all inspections, but they
8 are authorized to take a sample any time they see
9 fit. I think it's just a combination of we need
10 to have high expectations of each other. High
11 expectations should be had for certifiers;
12 certifiers should be expected and supported in
13 their evolution.

14 The trade needs to support the
15 process. Longer inspections attempting to find
16 fraud are unpleasant for the people who aren't
17 committing fraud. And so you know, what we find
18 is that inspectors are -- as an example
19 inspectors get pressured, because good actors end
20 up, you know, going through the cycle that is
21 meant to find bad actors.

22 It's just a matter of everybody's got

1 to talk to each other honestly, and you have to
2 have the entitlement to do the work in a
3 professional way, not in simply the lowest cost
4 or the fastest way.

5 MS. FUCHSHOFEN: Can I speak to that
6 again? This part of, you know when I said
7 earlier investigative, investigative. I don't
8 know how you say it. My experiences. Often when
9 I go, I tell the client, you know, I ask them --
10 for example, I ask them do you use uncertified
11 vendors? The answer is no.

12 Then I say are you sure, because many
13 companies do and it's allowed under the NOP, and
14 then they say oh really? Let me check. Then
15 they, you know, call. So and then -- and I say
16 it's allowed. The thing is only if you do, I
17 need to look at some additional procedures, you
18 know, because vendor is another and you still
19 have to show the certificate.

20 Then when we look at that, and I tell
21 them what I'm looking for. I said you know what?
22 I'm going to -- often we don't find the answer.

1 There is nothing. I say you know what? Let's do
2 the inspection. Let's keep look out for what you
3 do, because maybe somewhere we find where there's
4 actually a step that is done.

5 And then I engage them and then we
6 kind of work on this together, and usually they
7 really, really appreciate the work. You know,
8 even if it comes out as not there, they totally
9 appreciate. I mean it's processing and it's -- I
10 don't know if, you know, how that is with farms,
11 if they want to spend the time like, you know.
12 Okay, thanks.

13 MR. CHAPMAN: Yeah, thank you.

14 MR. WELSCH: Yeah. I think what Silke
15 said had more training and work at the inspection
16 level. On the other end, what the NOP level can
17 do, I think there's a great deal that could
18 happen. When we suspect fraud and we report it
19 to NOP compliance, there's not enough evidence
20 for them to open an investigation.

21 The fraud may be there, but we don't
22 have the power or the authority to get the

1 evidence. The NOP does have that authority, but
2 doesn't always choose to use it. I think with
3 the additional resources you have now been given
4 with a few million dollars to do more work on
5 this, having some people in the NOP who are
6 dedicated to looking for original evidence, to do
7 the kind of cross-checks that certifiers have a
8 hard time to do.

9 But the NOP, you can start at any
10 point in the supply chain, work your way forward
11 and backward and see if all the actors in that
12 supply chain are -- have the sufficient
13 documentation procedures. You have the authority
14 to do that. It's much harder for us as
15 individual certifiers who are only certifying one
16 small link in that supply chain.

17 We're trying to do it through trace
18 back through uncertified suppliers. But the NOP
19 has the authority to do this much more quickly
20 and effectively that we do, and I'd encourage you
21 to consider dedicating some staff to doing that.

22 MR. RICE: Thanks Sam. We have

1 Harriet, Emily, Sue and Dave, and we have seven
2 minutes. So we need to keep it --

3 (Simultaneous speaking.)

4 MR. CHAPMAN: But we'll also have
5 questions with the entire panel afterwards, so
6 keep that in mind.

7 MR. RICE: Yeah, and we will have all
8 of you here again. So keeping that in mind.

9 MS. BEHAR: Okay. So just like we
10 have, you know, we are driving down a small
11 little road and we go through a town. We know
12 that this is a speed trap place, and we just
13 always slow down because we know the cops are
14 watching. I think that in some of these high
15 risk situations, we need to possibly do some
16 strong enforcement now, so people start learning
17 that we mean business here.

18 I'm wondering, too, about electronic
19 trackers. You know, we're talking about not
20 knowing where the loads go. There are devices
21 that could go into loads that we can then keep
22 track, and if they don't have it, especially in

1 high risk, high volume, high dollar situations,
2 right? We're not going to ask somebody who's
3 selling six boxes of squash, you know, to a
4 retailer to put in a tracking device.

5 But if something is coming as many
6 container loads or whatever, I think there could
7 be requirements in those high risk situations for
8 some kind of electronic tracking. And also
9 during the inspection, if there is a piece of
10 paper missing, they just don't get certified.
11 This is the speed bump or the speed trap I'm
12 talking about.

13 The word needs to get out there that
14 in the United States, we mean business, and that
15 if it's not -- if it can't be proved to be
16 certified, we're not going to allow it. I think
17 then the trade will come into place, and we'll at
18 least make it harder for those. I mean I think
19 fraud happens when it's easy, and so we need to
20 make it harder.

21 And so I don't know if you have any
22 ideas about these tracking devices or

1 documentation or three strikes and you're out. I
2 don't know the way to implement it, but I really
3 think that we need to do something about this.

4 MR. WELSCH: The tracking sounds like
5 a very interesting idea. I can see that tracing
6 some of the large shipments and containers.

7 MS. FUCHSHOFEN: I don't see us
8 eradicate fraud. I think and from what you're
9 saying if a paper is missing they don't get
10 certified. There's a lot of honest mistakes out
11 there. Companies who do want to do the right
12 thing and then, you know, like with my thing when
13 I find things, next year they've fixed it up.
14 Very often it's very pleasant to see.

15 So if we say, you know, maybe there's
16 2 percent fraud, that means 98 percent of the
17 companies really want to work. I think whenever
18 you install, there's going to be somebody figure
19 out how to cheat the system, and it's just part
20 of -- you know, you cannot get your house germ
21 free, for example. You know, it's like it's
22 life.

1 The thing it's hard to be, you know,
2 on our tools and our methods, can be respond
3 quickly, you know, put all these things in place
4 and then it's like, you know, a dynamic or
5 something.

6 MR. RICE: Thank you. We've got Emily
7 next.

8 MS. OAKLEY: This is kind of two part.
9 One, I was wondering, in terms of the stop sale
10 in case of suspicion in the European Union, I
11 mean that's a bigger issue that we can't just
12 like snap our fingers and achieve. But I'm
13 wondering to what extent the panelists think
14 that's something that the NOSB and NOP should try
15 to look at.

16 That's one, and then Jake, in terms of
17 the California acreage reporting and yield and
18 gross sales, and sort of the malleability and
19 changes that took place, are you just seeing
20 acreage reported right now, and is that publicly
21 available information, and is there also yield
22 associated with the acreage, or what is -- what

1 was the sort of conclusion about what are they
2 reporting now?

3 MR. LEWIN: I can take the first one,
4 then the second or the other way around.
5 California acreage is currently reported by 26
6 commodities. I believe it's 20 or 26, closely
7 related to the NAS categories. It's reported by
8 county, and so that's the degree of information
9 that's available, and it's publicly available and
10 pretty strong. So if reported annually, I think
11 it's pretty great.

12 It doesn't include, I think you said
13 yield. No, it doesn't include yield. Weight is
14 a variable. I don't think any farmer could tell
15 you when I'm planting this what it's going to
16 yield really. And then similarly with the stop
17 sale, you know, stop sale is a big deal and it is
18 something we should be considering what the pros
19 and cons of that are.

20 And from my perspective and my
21 understanding, it's the kind of thing that would
22 need to be considered as a legislative matter,

1 because it's a matter of legal authority at
2 whatever level it would occur at.

3 MS. OAKLEY: But it is a tool that you
4 think we should be pursuing?

5 MR. LEWIN: Yes. I think that stop
6 sale in a regulated environment is an important
7 tool that's to be considered absolutely. It just
8 needs to be used and considered wisely and it
9 needs to be fair. Due process in America is an
10 important thing.

11 MS. OAKLEY: I agree with that, but I
12 also think without it, without that potential
13 tool and obviously it can be abused by those who
14 have the power to enforce it, but is to mean that
15 it isn't in most cases. I think it's almost
16 impossible to go forward without some sort of
17 authority at that level.

18 MR. RICE: Jenny.

19 DR. TUCKER: I just want to very
20 quickly jump in and confirm that stop sale would
21 be a legislative change. We can't do that
22 through regulation. I just want to confirm that

1 fact.

2 MR. RICE: Thank you, Jenny. Sue.

3 MS. BAIRD: I taught Organic
4 Certification in Africa and in Egypt, and it was
5 on behalf of U.S. Farm AID. But it was for a
6 large ketchup company that we would all
7 recognize their name, and I did not know until
8 that point that the majority of all tomatoes were
9 grown for this ketchup company in those
10 countries. Really interesting to me.

11 But as I was teaching those classes,
12 I identified with your little slide, your first
13 slide Albrecht. They probably revealed that, you
14 know, we have all these pesticides and we're
15 using them and, you know, our tomatoes are
16 beautiful. I said but that's not allowed in
17 organic. Oh yes, yes it is. It is allowed.
18 We've been told by our XYZ company that all we
19 have to do and wash them and it will wash all
20 those out.

21 XYZ company is a U.S. company that
22 everybody would recognize the name of the

1 ketchup. So I'm wondering if education needs to
2 be really, really, really taught. I taught that
3 little group. It was a grower group, but that
4 doesn't mean that it got passed down to the
5 individual farmers. Observation.

6 Secondly, if those products have been
7 routinely tested, they would have found residues
8 of those pesticides. My question then would be
9 when we have these types of companies, should we
10 not be doing more and more testing, because I
11 agree with Sam. I agree with Sam in that we're
12 not finding it because we're not trying to find
13 it. Question.

14 MR. CHAPMAN: Do any of the panelists
15 want to respond to that?

16 MR. WELSCH: I would second what her
17 findings are. The first time I went to India, I
18 was told that well we -- the solution to dealing
19 with -- the way they've got untreated seed is by
20 washing the treatment off of it.

21 MS. BAIRD: Right, yeah.

22 MR. WELSCH: And that was being

1 certified until we got there.

2 MR. LEWIN: I guess I would just
3 completely disagree with the supposition that the
4 reason we're not finding things, if they're
5 there, is that we're not trying. In fact, I
6 would say that there is a --

7 MS. BAIRD: I didn't say we're not
8 trying. I'm just saying that maybe we need to do
9 more testing.

10 MR. LEWIN: Well, also if I was to do
11 testing and many do lots more testing than
12 they're required to do. In our case, the testing
13 we do, 75 percent of it is not random. It's
14 aimed at finding things. It's the worst possible
15 case. On top of that, there's a tremendous
16 amount of testing that happens at the border.
17 There's a tremendous amount of testing that
18 happens within state at the Department of
19 Pesticide Regulation and the USDA Pesticide data
20 program that when positives are found in organic,
21 they get sent to certifiers.

22 We've received several, and I guess I

1 would just say that certifiers have to take
2 responsibility for operating in places of high
3 risk, and then elevate their practices and
4 testing accordingly, and then operations and
5 companies need to be educated. My guess is that
6 that's as much a communication error as an
7 attempt at defrauding the system.

8 I would just find it difficult to
9 believe that a major U.S. company would be
10 attempting to defraud the system with growing
11 practices. It is far more likely that what they
12 need is education and they'll get in line. They
13 have a lot more to loose from having that. They
14 don't -- yeah, they've got a lot more to lose.

15 MR. CHAPMAN: Thank you, Jake. Thank
16 you everybody. We're going to have to stop with
17 this panel, but if we missed you guys, they will
18 be back later and Scott is keeping you so you'll
19 be on the top of the list for the combined panel.
20 You can ask them the questions then. So thank
21 you guys.

22 Don't leave yet. We'll be moving to

1 the Industry Panel in about ten minutes, and then
2 once that's concluded we'll bring you all back
3 together for continued Q and A. Thank you very
4 much for your time. So it's 9:50 right now.
5 We're going to break for ten minutes while we set
6 up the other panel. We will be starting promptly
7 at ten. Recess.

8 (Whereupon, the above-entitled matter
9 went off the record at 9:49 a.m. and resumed at
10 10:03 a.m.)

11 MR. CHAPMAN: Okay. We have the
12 majority of members present. Dave, Harriet, if
13 you guys would take your seats we're getting
14 started. All right. So we're back. We're
15 starting up now with the industry panel. Again,
16 I will briefly introduce everybody, and then we
17 will allow each of the panelists about five
18 minutes to speak on the subject of their
19 choosing, and then we'll open it up to the board
20 for questions.

21 I'm going to start on, just to make
22 things confusing, on the other end of the table

1 and move to the center. So up first is John
2 Bobbe. John Bobbe is an organic farmer's agency
3 -- is the executive director of the Farmers
4 Agency for Relationship Marketing.

5 OEFFARM is a cooperative incorporated
6 in the state of Minnesota, with five cooperatives
7 as members, with organic producers in 19 states
8 from Montana to Texas and Louisiana to Kentucky,
9 and Ohio and all the states in between. He is
10 the author of Marketing Organic Grain: A Farmer's
11 Guide.

12 Up next will be Peter Carlson of Terra
13 Ingredients, formerly AgMotion. Peter Carlson
14 has led the Organic Division of AgMotion since
15 2008. Rebranded from AgMotion Specialty Grains
16 to Terra Ingredients in March 2017, Terra is an
17 organic supplier of the consumer and animal feeds
18 market. Principally organic flax, milled flax,
19 lentils, corns and meals.

20 While its core purchasers are directly
21 from producers within North America, Terra
22 Ingredients has an extensive history importing

1 goods from vetted suppliers throughout the world.

2 Up next is Mike Dill. Mike Dill, Food
3 Safety and Compliance Manager and Organic Trade
4 Policy Analyst for the Organically Grown Company.
5 Mike manages vendor, consumer and facility
6 compliance for the Organically Grown Company, a
7 distributor of organic produce certified by
8 Oregon Tilth since 1998.

9 He's the coordinator of organic --
10 he's their coordinator of Portland Organic
11 Producers Wholesaler Coalition, which provides
12 organic wholesaler and growers' voice to the
13 National Organic Program, and the National
14 Organic Standards Board. Mike has been working
15 in the organic trade for over ten years, five of
16 which were with Oregon Tilth, where he was an
17 organic inspector and certification officer.

18 Mike received a degree in Food Science
19 and Technology with minors in Chemistry and
20 Horticulture from Oregon State University.

21 Up next is Erin Heitkamp. She's the
22 Managing Director for Strategy, Sustainability

1 and Insurance at Pipeline Foods, and has worked
2 in the field of environmental management and
3 sustainability for more than 18 years.
4 Immediately prior to joining pipeline, Erin led
5 the sustainability consulting practice at
6 Wennick, sorry if I said that wrong, a Minnesota-
7 based environmental consulting ESOP.

8 In her most recent role at Delta
9 Airlines, Erin led the development and execution
10 of an environmental and sustainability policy and
11 strategy. Prior to Delta/NWA merger, she held
12 positions in areas of environmental and
13 regulatory oversight, fuel and fuel services
14 purchasing and corporate real estate at Northwest
15 Airlines.

16 Erin holds a B.S. from the University
17 of Wisconsin-Madison and a Masters of
18 Environmental Management from Yale University.

19 Up last is Monique Marez, Director of
20 International Trade at the Organic Trade
21 Association. In her nearly four years with the
22 OTA, Monique has executed trade-related

1 activities in 23 countries, leading to over 100
2 million in protected export opportunities, as
3 reported by activity participants.

4 Monique also wrote the last seven
5 organic HS codes, HS tariff codes, proposals to
6 the United States International Trade Commission.
7 Her undergrad is from Yale University and she has
8 a Masters in Nutrition, Public Health and Food
9 Systems from NYU.

10 So definitely a very, very qualified
11 panel. Thank you all for taking your time here
12 to share your expertise with us and to answer our
13 questions. Up first, we will start with John
14 with your subject of your choosing John.

15 MR. BOBBE: Thank you. Our farmers
16 market organic grain and livestock, commercial
17 size from a hundred to thousands of acres of
18 organic grain. This is a ship with 15,000 metric
19 tons that just was turned away yesterday and we
20 were notified within an hour after it left port.

21 It was destined for Stockton,
22 California. Customs and Border Patrol, APHIS

1 determined a couple of things. There's a lawsuit
2 pending against the USDA among others, and
3 Customs and Border Patrol on this ship, and it is
4 headed out of the country simply because the
5 cargo came from Kazakhstan, Russia and Moldova,
6 none of which are saleable in the United States.
7 It originated in Turkey.

8 This is the first ship that we found
9 two years ago, the Nakagawa, Burns Harbor,
10 Indiana. Not necessarily confirmed as
11 fraudulent. However her origin, Turkey. This is
12 the Ince Atlantic, September 13th, 2016. The
13 first ship in Olympia, a warehouse full of the
14 steamship. It originated in Istanbul, Turkey,
15 organic grain.

16 Again, not necessarily evidence of
17 fraud, but potential questions about it.
18 Everyone knows this picture of the port of
19 Stockton, California, which involved three ships
20 by the investigative reporter Peter Whoriskey.
21 This investigation started by introduction of a
22 mutual friend of ours to -- by me, to me by Peter

1 Whoriskey, and we cooperated with his
2 investigation on things that people were giving
3 us information about.

4 You see the result. 36 million pounds
5 of organic corn, 21 million got in the organic
6 food supply before it was stopped.

7 This is the Diana Bolton last
8 September in Bellingham, Washington. Our source,
9 the United Kingdom. Our source gave us the
10 words, heads up two weeks in advance. Did the
11 NOP know anything about this one? No, because
12 Miles McAvoy personally thanked us and told me
13 that they do not track ships at that time.

14 This resulted in the cargo of corn
15 being rejected, and it probably caused them to
16 look at Stockton, California because just the
17 week before that, there was another ship that was
18 rejected. This one is a legal ship. It was from
19 Argentina, scheduled to arrive in Stockton,
20 California.

21 It says soybeans and corn, probably
22 was organic wheat, which considered it to be

1 legitimate. So I mean we're not just picking out
2 everything. We did file a complaint because we
3 didn't know.

4 Now there's one other load that came
5 in, and that is undocumented, of sunflower cake
6 in 2016, rejected by the United Kingdom and our
7 source said guess where it's going? It came into
8 the United States, and I'm betting it got here.
9 This is where all of this stuff is coming from,
10 and you'll notice along Turkey.

11 Turkey, from our sources on the ground
12 in Turkey, does not produce a single kernel of
13 corn or soybeans organically. It is an importer
14 from the United States. So how come they're the
15 biggest exporter? The Ukraine. There are 440
16 total certified organic farms in the Ukraine.
17 Eighty percent ship their production to the EU.
18 That leaves about 60 farmers and two years ago
19 the Ukraine was the biggest shipper to the U.S.

20 The unknown, Russia. It's not legal
21 to ship corn into the United States from Russia,
22 I understand, and Kazakhstan has no organic

1 production and that was a part of where the cargo
2 of the ship turned around yesterday came from.

3 They have no organic production and
4 how do I know? Because I was asked to go to
5 Kazakhstan as a consultant on a U.N. project to
6 help them set up corn production. Azerbaijan,
7 Armenia, Georgia, don't grow any corn.

8 So let's talk about solutions.
9 Requiring any entity to be certified. Putting a
10 system in place for inspection at the U.S. ports.
11 Protocols for residue testing. Putting in place
12 a warning system similar to the U.S. We have a
13 little bit of that with guidelines that came out
14 here, but those are all definitely high risk
15 countries.

16 And to strengthen the accreditation of
17 certifiers, improve transparency on the part of
18 the NOP, because we don't rely on the National
19 Organic Program to get our information about
20 what's going on in the marketplace, and
21 examination of the ship captain's logs, their
22 cargo and what it's ensured for. Nobody's going

1 to ensure a conventional cargo at the organic
2 rate.

3 There is also required, which we found
4 out yesterday, that those ships are required to
5 file a travel plan similar to a FAA flight plan
6 by a -- like the pilots do. So the bottom line
7 here in wrapping up, that the USDA submits to an
8 outside audit beyond peer review as called for in
9 the Organic Food Production Act.

10 Instead of patting each other on the
11 back with a peer review, no skirting the issue.
12 The NOP to submit a full report on compliance and
13 the OIG recommendations, and we are going to be
14 demanding it, and I've got two state senators
15 from Wisconsin of both parties that are going to
16 be asking about that, because they're mad as all
17 get-out.

18 And finally, what is does cost
19 farmers? \$400 million of disaster from imported
20 fraud. Who should be held responsible? There
21 are certifiers that are involved in complicity in
22 this. There are buyers and there are others

1 along the supply chain and total negligence.

2 Thank you.

3 MR. CHAPMAN: Thank you, John. Peter.

4 MR. CARLSON: Again, I'm Peter

5 Carlson. Thank you, John. I too, it's been

6 known within the trade, I think I see fraud as

7 endemic. I do not see it as rare or for certain

8 grains. It's been an open secret within the

9 trade as early as 2014 that conventional grain

10 gets transshipped in Turkey. It's non-GMO.

11 I've had conventional traders in

12 Europe simply call me and tell me, and this is --

13 and it comes here as organic. Until this summer,

14 the Washington Post, it's nice to have some --

15 the increased interest, because I did not see

16 that previously.

17 A few things that I would add that I

18 haven't heard today. The system is based upon

19 document fraud. The entities who are committing

20 the fraud are -- they have a lot of money and

21 they're extraordinarily good at documents. I

22 don't see solving the problem of document fraud

1 with further and more complex documents. It's
2 the wrong trail and who that stops is it slows
3 down good parties. It increases the costs for
4 smaller and more traceable producers and partners
5 in the supply chain.

6 So yes, documents are important, but
7 I don't think we'll find our solution there if we
8 do have the world for a solution. I think I hear
9 a lot of residue testing. I think residue
10 testing is important, not least because the
11 consumer expects non-residues or their organic
12 products to not have residues.

13 That said, I think that residue
14 testing has also provided a lot of cover for the
15 fraud. If you're producing organic corn, organic
16 soybeans, you can spray pesticide pre-emergence.
17 You can spray it when they're small and it's not
18 going to show up on the residue testing.

19 So now when a bulk shipment comes in,
20 and we can clap ourselves on the back and say
21 good, there's no -- we don't test residues. That
22 doesn't mean a lot. It doesn't mean that it's

1 not or that it's organic. I still think it's
2 important to do that stuff, because it -- the
3 scientists could tell us better. But things are
4 caught through residues, of course, as well.

5 But I would like to see a system based
6 upon -- because the organic goods really develop
7 no matter how complex or simple the supply chain
8 is, the organic starts at the soil level and at
9 the initial producer level. I think that there
10 is where we'll find our solutions. That includes
11 soil testing. A lot of what I'm saying also
12 speaks for -- there's quite a bit of fraud in the
13 USA and lot of the solutions are the same,
14 including Canada.

15 We've seen it. It's been very
16 difficult to stop fairly openly fraudulent
17 parties, even within the -- even producing within
18 the USA. I think soil testing could be a big
19 part of that, that we're looking for residues
20 prior to planting. I also appreciate the
21 suggestions for acreage knowledge.

22 You know when Turkey, I don't know

1 John's figures, but even as early as like I say
2 '14 and Turkey's exporting, you know, 10 to 12
3 times more than they can possibly even produce.
4 There's an acreage issue that just doesn't add
5 up, even without specificity or clarity on exact
6 yield estimates.

7 One solution, reporting yields by the
8 producers at the time of harvest. Here's what we
9 produced and here's our close estimate, coupled
10 with a system where we can track where that
11 product is traced throughout the supply chain,
12 whether it's the geotagging a block chain, some
13 of the technologies that go with the trucks, I
14 think.

15 We really can in today's day and age,
16 every single company on this panel, every single
17 importer knows how many pounds and tons they
18 purchased and from where, and at what price. So
19 it's already built into our systems. Having that
20 part of the audit process would be very
21 important.

22 But keeping track of those quantities

1 is what's important throughout the supply chain
2 and if it's trading on again a block chain
3 system, where ourself as an importer we're buying
4 those essentially rights to organic goods,
5 instead of again creating more complex documents
6 that the document fraudsters are excellent at
7 manipulating. Let's see.

8 MR. CHAPMAN: We're just about out of
9 time.

10 MR. CARLSON: Yeah, I'll leave it
11 there.

12 (Simultaneous speaking.)

13 MR. CHAPMAN: Any final thoughts?

14 MR. CARLSON: Thanks again. No,
15 that's fine.

16 MR. CHAPMAN: That's good. Okay,
17 thank you Peter. Mike.

18 MR. DILL: Okay. Well I want to
19 switch the conversation a little bit to produce.
20 We've heard a lot about grain and I know there's
21 a lot of similarities but there's also a lot of
22 differences, and that's going to be seen on the

1 issues we face and also the solutions that we
2 need in produce.

3 There's a slide. There we go. So
4 produce is unique. It's always in boxes, at
5 least at the distribution level. We're not
6 receiving containers full of produce or a
7 shipment. They're full ship containers. In
8 produce, they can never be packed and sealed or
9 impermeable or tamper-evident packaging. It has
10 to be in packaging that provides airflow. So
11 it's always open to the environment.

12 Timing is really critical in produce.
13 Over half the commodities we sell have less than
14 two weeks of shelf life. So that means we have
15 to try to turn our inventory as quick as possible
16 and shoot for about three to six days to sell
17 through our inventory. So in many cases the
18 product goes from the field to the customer in
19 less than one week from harvest.

20 Also the volume that we handle is
21 immense, as are the number of transactions we
22 perform. On average, an Organically Grown

1 Company receives 15 to 30 truckloads per day, and
2 we issue about 50 to 100 purchase orders per day,
3 and that's between about six buyers.

4 Each purchase order could include 1,
5 5 or 10 items. So we're talking about a lot of
6 product, a lot of variability. I want to note
7 that in 2017, 77 percent of the product we
8 distributed or purchased was produced in the
9 United States; 23 percent was imported, and most
10 of that was purchased through brokers, other
11 handlers or uncertified operations.

12 The other I want to say is that our
13 supply chain is very complex. It sounds like in
14 grain that's also the case. In produce, it's a
15 complex web of producers, packers, consolidators,
16 importers and exporters.

17 So when we look at this, every way we
18 assess the situation, we come down to three root
19 causes, and they're probably not going to come as
20 a surprise. The first is uncertified operations,
21 and that includes brokers, marketers and
22 distributors. But the one that's often left out

1 of the conversation are the major retailers and
2 big box stores that have their own distribution
3 centers.

4 So it might vary slightly, but these
5 operations are almost all performing the same
6 activities that certified operations are required
7 to have documented in their organic system plans.
8 So I thought we could quickly run through to take
9 a look at what that actually looks like.

10 So the first one that's actually
11 really alarming to me is that these uncertified
12 handlers are purchasing and selling organic
13 product, with no verification of their purchases,
14 no one looking at their sources. They're also
15 purchasing from uncertified handlers as well.

16 So you have an uncertified handler
17 purchasing from an uncertified handler and so on
18 down the chain until -- or up the chain until it
19 gets to the retailer. This means that the
20 product could travel -- that domestic or foreign
21 product could travel from a grower to a retail
22 shelf with the only certified operation in the

1 supply chain being the grower, and I think that's
2 a problem.

3 So every operation that's receiving
4 product is going to perform quality inspections.
5 So that means taking product out of the boxes,
6 taking temperatures, assessing bricks, pressure.
7 To do that, you actually have to open the box.
8 Sorting and quality control are really important,
9 and if you think an operation is going to throw
10 away \$100 box of citrus instead of just pulling
11 out one or two moldy lemons, you're wrong.
12 They're going to pull those out, close the box
13 back up and ship it out.

14 There's also repacking, labeling,
15 stickering, all that that's not supposed to
16 happen that actually is. If a PLU is missing
17 from some fruit, it's going to get stickered. If
18 the box is damaged slightly it's going to be re-
19 boxed and it's going to be sold.

20 All this product has to be stored, so
21 it's in warehouses, and as you can see it is
22 obviously open to the environment, which

1 encourages or allows many opportunities for
2 commingling to occur. And then this is what the
3 floor of a shipping and receiving dock actually
4 looks like. On the top, you can see product
5 coming in, neatly stacked, all together by
6 grower, product. But on the bottom you see
7 product ready for distribution.

8 There's open product, there's product
9 that's boxed, there could be conventional product
10 that's all stacked on top of each other, not by
11 organic compliance if you're an uncertified
12 operation, but by what's dripping, what's
13 heaviest and what needs more airflow.

14 So the second issue that we see is
15 labeling and traceability.

16 MR. CHAPMAN: Mike, we're going to
17 need you to wrap it up.

18 MR. DILL: Okay, and we feel that the
19 link between the label and the certificate is the
20 most important thing that we have in order to
21 verify compliance. The third root is the -- root
22 cause is organic certificates. Listing a

1 commodity on a certificate is not just enough.
2 Last year we uncovered some fraudulent pineapples
3 that were widely distributed.

4 The only reason we were able to
5 discover that is because the certificate that we
6 were given said that it was frozen pineapple.
7 The label, everything matched, but it turns out
8 that someone had obtained the certificate,
9 created a label, affixed it to the conventional
10 pineapple and distributed it.

11 Got through several certified handlers
12 and luckily we were able to see that. And then I
13 guess later on I can talk about what we feel are
14 the solutions to these problems. Thank you.

15 MR. CHAPMAN: Thank you, Mike. Erin.
16 Can we turn those speaker mics up?

17 DR. TUCKER: Yeah. Can we make sure
18 that we do get to the solutions we get to the Q
19 and A time?

20 MR. CHAPMAN: Yeah.

21 DR. TUCKER: Okay.

22 MR. CHAPMAN: Is it working now?

1 Yeah, they're working.

2 (Off mic comments.)

3 MS. HEITKAMP: Okay, can you hear me?

4 So good morning. I want to thank the NOSB for
5 having me and Pipeline Foods participate in this
6 very important conversation.

7 DR. TUCKER: Can we turn her up?

8 MS. HEITKAMP: I get closer to it.

9 DR. TUCKER: There, thank you.

10 MS. HEITKAMP: Okay, very good. So
11 again I want to thank the NOSB for having
12 Pipeline Foods and me specifically participate in
13 this really important conversation. So just I
14 don't want this to come across as a commercial
15 for Pipeline Foods, but I do want to spend a
16 little bit of time talking about who we are and
17 what we do, because I think this is fundamentally
18 a conversation about a public-private partnership
19 between the NOP and industry, because there are
20 pieces of this issue that industry is going to
21 need to manage, and we have to play our part and
22 there are pieces of it that we simply can't.

1 We need NOP to harden the system on
2 their side as well. So I'm going to try to get
3 to a point where you see where there's an
4 intersection between all the responsibilities and
5 we identify how we can best work together, and
6 really focus on those recommended solutions.

7 So quickly Pipeline Foods is a global,
8 clean label supply chain company, and we are
9 developing primarily organic grain and ingredient
10 supply chains with transparency, traceability and
11 assurance.

12 Pipeline is a short or a new
13 organization. We were funded 14 months ago, and
14 when our leader was our founder and current CEO
15 was out in the marketplace looking for funders to
16 finance the creation of Pipeline, he justified
17 the existence of the business or the need for the
18 business around the whole list of issues that he
19 saw as being challenges in the organic industry,
20 and then proposed to create a company that would
21 address those challenges.

22 So those challenges include fragmented

1 supply chain, lack of price transparency, lack of
2 supply chain transparency, and on these last two
3 pieces are the two pieces that are most relevant
4 to the conversation today, fraudulent product
5 entering the supply chain and a lack of
6 enforcement of that regulated market.

7 So to Peter's comment, he was -- Eric
8 was aware of these fraudulent imports back in
9 2014 as well, and before he started Pipeline was
10 closely following to see how the whole industry
11 would evolve. So I would say we have created a
12 company that can address those first three
13 challenges and turn them into opportunities,
14 where we have a lot of control over that.

15 These last two pieces we don't.
16 Again, we need for this to be a partnership
17 between NOP and industry as a whole and Pipeline
18 specifically.

19 So \$25 million into this investment,
20 this business over the last 14 months puts a
21 really fine point on the risk associated with
22 this issue. There are different components to

1 it. For our food company customers, the risk of
2 supply chain disruption is huge.

3 There's counterparty financial risk,
4 recall risk, headline risk. There's lots of
5 different nuances to each of those pieces, but I
6 think in particular just focusing on the
7 headline risk piece, which translates directly
8 into a monstrous risk to this whole industry.

9 Whether, you know, to the extent that
10 this issue doesn't get addressed, whether it's
11 one organization or the entire industry, we could
12 suffer catastrophic losses as a result of a
13 failure to adequately address the issue.

14 So I'll really quickly, I'm going to
15 talk a little bit about how Pipeline functions.
16 We've got four components of our business. We
17 own and operate assets, as of today four assets,
18 two in Canada, two in the United States and a
19 fifth under construction; specifically dedicated
20 elevators and value-added processing facilities,
21 and we do that with the implementation of world
22 class operations around FSMA compliance,

1 environmental health and safety and really to
2 kind of create that dedication to the whole
3 supply chain, to build an efficiency both from a
4 cost perspective and otherwise.

5 Our merchant group buys grain direct
6 from farmers. I'm going to say that again,
7 direct from farmers, and ideally we manage that
8 whole supply chain to the point that we sell our
9 ingredients directly to food companies. So we're
10 creating, shortening that supply chain, reducing
11 the complexity associated with it and absolutely
12 are committed to investing in the transparency
13 and traceability along the way.

14 This whole issue of imports, I think
15 without question we often hear from farmers well
16 why do we need imports? Why can't we just
17 support farmers and growing acreage in the U.S.?
18 That's absolutely we're in agreement with that
19 and we're investing in doing that, bringing along
20 more acres.

21 But at the same time, we don't want to
22 squash demand. This is an incredibly exciting

1 industry, and it's growing at such a pace that we
2 need imports for whatever period of time we need
3 them until the U.S. production can catch up. So
4 we are also --

5 MR. CHAPMAN: Erin, I'm going to need
6 you to --

7 MS. HEITKAMP: Wrap up?

8 MR. CHAPMAN: --wrap up.

9 MS. HEITKAMP: Okay. So we're also
10 importing from, currently from the southern coast
11 of South America, but we're looking at other
12 regions of the world as well. So we do so with
13 the intent of ensuring to the absolute degree of
14 certainty, the organic integrity of those
15 products.

16 So there's a few slides here on how we
17 do that. I can come back and talk more about
18 some of those details later. I'm just going to
19 jump to the last slide, which is the recommended
20 agency action slide.

21 So we look to NOP to prosecute and
22 hold accountable bad actors. To the extent that

1 crooks are out there getting away with it, it's
2 just going to continue. So to the extent that
3 enforcement resources need to be bolstered and
4 capabilities, that is absolutely the top priority
5 in our minds. Secondly --

6 MR. CHAPMAN: We're going to need to
7 move on, but hopefully we can come back to this
8 in the questions. But thank you Erin. Up next
9 is Monique.

10 MS. MAREZ: Thanks, great. Clicker.
11 Okay. So good morning everybody. Thank you very
12 much for giving me this opportunity to speak with
13 you on a topic that I think about every day,
14 which is international organic trade.

15 This first slide is really just to
16 help you set the stage on what we're looking at
17 in terms of import trends over the last few years
18 in our key imported products into the United
19 States.

20 For the last four years for the
21 organic trade association, I've managed our
22 Foreign Agricultural Service grant funded

1 programs, and that includes work on equivalency
2 arrangements. So I look forward to speaking with
3 you on that specifically.

4 Also, I chair the trade association's
5 Task Force on Mexico and on sugar imports, and I
6 represented the U.S. organic industry, as
7 mentioned in my bio, in 23 countries around the
8 world in the last four years. So I've been out
9 there in the field and there's a lot of buzz
10 about U.S. organic. I also chair one of the
11 subgroups for the Organic Trade Association's
12 Global Organic Supply Chain Integrity Task Force.

13 That is a one-year old 30 plus member
14 effort to develop industry best practices and
15 tools to identify, assess and mitigate organic
16 supply chain vulnerabilities. The list up here
17 highlights some of the key risk factors that
18 we've identified through this process, and I look
19 forward to discussing the work of the task force
20 with you in our panel discussion a little bit
21 later.

22 We really believe that industry-wide

1 adoption of this vulnerability assessment and
2 risk mitigation tool will help prevent the
3 problem of fraud, starting from the buyer and
4 sending a clear message back upstream.

5 I'll go quickly through some of our
6 top priorities for the NOSB and NOP. You've
7 heard this from several folks by now, but we
8 really, really recommend that NOSB recommend to
9 the NOP the required certification of currently
10 excluded operations such as distributors,
11 importers, online auctions, warehouses and
12 brokers.

13 A first step there really could be
14 defining clear terms on operation types, and
15 whether or not those operations must be
16 certified. So for example, retailers doing their
17 own packing. That sounds like a function that
18 should be certified that currently may not be in
19 the definition of a retailer.

20 Second, we recommend that the NOSB and
21 NOP work together to improve the timing and the
22 communication around NOP's complaint procedures.

1 Right now, this is our number one industry tool
2 for logging potential fraud and the turnaround
3 for that particular system just isn't keeping up
4 with the pace of complaints coming in.

5 So an alert -- also along those lines,
6 in addition to improving that overall system in
7 response, an alert system that identifies
8 products or regions where heightened vigilance is
9 needed, and then alerts the industry of those
10 risks to provide better tools would really be
11 helpful.

12 Of course most importantly, imposing
13 penalties on cheaters. We need this action to be
14 done efficiently and effectively, and I'm excited
15 to hear customer service will be a key focus for
16 NOP moving forward and hopefully responding to
17 these complaints falls in line with that effort
18 towards improved customer service.

19 Third, you know, we recommend that
20 NOSB put forth a program recommendation that
21 requires ACAs to harmonize a method and develop
22 an industry-wide report for mass balance. Really

1 measuring aggregate production area by certified
2 crop or by location ideally on an annual basis
3 would be extremely helpful.

4 Right now, no such acreage or yield
5 estimates exist, even on a country by country
6 basis, and the estimates across certifiers are a
7 little bit hard to compare. So pulling that
8 together would be very helpful, and I think we
9 can rely on our equivalency partners a little bit
10 to assist in that effort.

11 Finally, I'd like to call to your
12 attention the importance and the value of
13 establishing more organic-specific HS codes. HS
14 codes are used by the USDA, Customs and Border
15 Protection, the U.S. International Trade
16 Commission and other agencies to assign tariffs,
17 but also to track trade flows of specific
18 products.

19 So the list you see before you is the
20 existing set of codes that we have. OTA was
21 pivotal in establishing that first set of codes
22 in 2011. We've been the only organization

1 successful in getting new organic codes added to
2 that schedule through our applications. I have a
3 package of those that we can send around so you
4 can kind of see what we're working with.

5 We have 38 for exports, 49 for
6 imports, and really that information does a lot
7 of things. It helps us create graphics and data
8 like this. So where products are coming from,
9 how much product is coming from that country, how
10 much it's being sold for when it's brought into
11 the United States, and again, it really just
12 helps track the flow.

13 It was also instrumental in
14 identifying the ship that's currently on the
15 water, as it was incorrectly coded based on what
16 was in the container. So they're a very
17 important tool. Lastly, I would request the
18 opportunity to talk a little bit about a 332
19 study, and a way for maybe NOSB and industry to
20 work together on that.

21 Neither requesting HS codes or 332
22 require additional financial resources. So I

1 think there are approaches that we can look at
2 together. This is just a quick summary of the
3 things I'd like to touch in our discussion.

4 MR. CHAPMAN: Thank you. Okay. Thank
5 you all for your introductions. We're going to
6 open it up to questions. I, to the prerogative
7 of the chair, am going to start with three
8 myself, and then we will move around. But we
9 always have -- we have, we're going to have more
10 time again if we don't get to it in this session
11 of everyone together.

12 I am also going to ask the Board that
13 please focus on asking a question. We have a lot
14 of time on our agenda to discuss these issues
15 together. So if you're wanting to make a
16 statement, we have an opportunity for you to do
17 that later. Let's really value this time in
18 using the Board, in using their time.

19 So in the focus of getting along with
20 this, I'm going to ask my first question, and
21 then we'll look around to take names as the
22 panelists start to answer my first question, if

1 that works. So my first question is kind of
2 focused on you Monique. First of all, I don't
3 really know what a 332 study is. Can you tell me
4 what that is?

5 MS. MAREZ: Sure.

6 MR. CHAPMAN: But really briefly, and
7 then moving into HS codes, what role does the
8 NOSB have in encouraging the adoption of more HS
9 codes? What role can we play, what role can the
10 NOP play?

11 MS. MAREZ: Sure. Okay so a 332 study
12 is basically a competitive analysis that's done
13 by the U.S. International Trade Commission. The
14 U.S. ITC is a non-partisan government agency and
15 essentially it looks at competition factors
16 against U.S. products.

17 So it's not agricultural-specific,
18 it's not organic-specific. For example, the last
19 successful 332 Commission was on aluminum. And
20 essentially you can request a 332 through
21 legislators, and the House Ways and Means
22 Committee would put forth a recommendation to the

1 U.S. ITC which says we require you to do this
2 study.

3 Now the kind of why would this be
4 helpful? Basically, if we couch this as a
5 competition concern, unfair competition because
6 of imports not necessarily meeting the
7 requirements of domestic producers, that is where
8 the ITC can perform this type of investigation.

9 The questions that we could ask our --
10 we could ask them to perform an overview of the
11 organic grain industry in the United States and
12 major global producers around the world, and what
13 their production is, what their processing
14 volumes are, what the capacity is, what the trade
15 is, what are the policies in place in those
16 countries that allow them to potentially have a
17 competitive edge.

18 We can ask how end users are using
19 that supply, and whether it's being directed in a
20 way that is consistent with NOSB/NOP requirements
21 for imported products and timing. We can also
22 identify a very clear time period from which we

1 want this study to kind of review products that
2 have been brought in or products that are
3 currently being produced.

4 We can identify key countries that we
5 want to have reviewed, and essentially if there
6 is political will and support and the House Ways
7 and Means Committee writes up that letter that
8 goes to the International Trade Commission, it's
9 a requirement. They have to do the study, and
10 usually they're about two or three years, and it
11 comes back to us to say these are why you are
12 currently competitive, not competitive, etcetera
13 and whatever is revealed through that process,
14 perhaps that they've been producing fraudulent
15 supply or there's a gap in the supply chain,
16 etcetera.

17 It is what it is, and we really can't
18 control those results. But it's an opportunity
19 to have the boots on the ground formal
20 investigation.

21 MR. CHAPMAN: HS codes.

22 MS. MAREZ: HS codes. So I'm sorry,

1 can you repeat your question on --

2 MR. CHAPMAN: What's the role for
3 NOP/NOSB?

4 MS. MAREZ: Oh yeah, of course. Yeah,
5 I know how to answer that right away. We would
6 love support in identifying the key areas or
7 products of concern. As you can see, we only
8 have 49 specific organic HS codes. Obviously,
9 there are thousands and thousands of organic
10 products being brought into our borders.

11 You saw imports have increased by 21
12 percent in the last year. So in order for us to
13 best track items of key concern, it would be
14 extremely helpful if the NOSB put forth
15 recommendations or called from industry what are
16 the items of concern so we can write that
17 application.

18 I'll circulate the application package
19 I have now just so you can see. It's really a
20 different language. We're talking tariff code
21 nomenclature, which you know, woo, it's
22 challenging. But with a good list, we can have a

1 more robust application, and it will be easier
2 for those codes to be approved.

3 MR. CHAPMAN: Thank you. Next
4 question is for Peter. Peter, and I know I asked
5 people not to make a statement. But I'm going to
6 walk through a really simple supply chain of a
7 product that we acquire.

8 MR. CARLSON: Yes.

9 MR. CHAPMAN: And I want you to help
10 me -- because I hear the question around
11 blockchain and geotagging and these kind of
12 technology solutions. But I don't understand how
13 they could be applied in some of these supply
14 chains.

15 So let's look at a product like sugar.
16 That was one that was on the top ten list. You
17 know, sugar starts as sugar cane grown a lot in
18 South America. So let's say the sugar cane is in
19 Paraguay. It's grown there in the fields. It's
20 harvested, it's brought to a mill. The
21 harvesting happens continuously over several
22 months, perhaps on a 24 hour cycle.

1 The cane comes in and yields sugar in
2 the five, anywhere from 1 to 5 to 1 to 12,
3 dependent on the moisture. So highly variable in
4 what yield to give the sugar out. At that point,
5 it gets handled through a series of warehouses
6 and transportation companies as they move from
7 Paraguay to ocean ports.

8 At that point, it gets exported into
9 the U.S. through a registered importer under the
10 sugar, a specialty sugar quota system. That
11 importer then will sell it off to distributors,
12 who then may take it to a third party and have
13 that sugar liquefied. So it's now back in a
14 liquid format, and then sell it to a bakery, who
15 then puts it in a granola bar with several other
16 ingredients and then sells that on.

17 How would -- how would a blockchain
18 work in that complex of -- and I mean that's not
19 even a complex supply chain. That's pretty
20 straightforward. How does it work through those
21 conversions and those handoffs?

22 MR. CARLSON: Sure. Specifically

1 during the processing period from the sugar from
2 the producers, that that producer or collective
3 of producers, depending on the countries, must
4 report that quantity to their certifier, of
5 what's brought in to the processor/handler. The
6 processor/handler is reporting their yields from
7 the processing, and that gets -- and that gets
8 known to their certifier.

9 They then have a known quantity that
10 they can sell. One of the things that I didn't
11 -- and so forth up the chain. One of the things
12 I didn't mention as a solution is I think part of
13 the problem with the auditing process, as I see
14 it on my level of a merchandiser/handler, is that
15 really basic financial auditing is probably
16 required in this.

17 Looking at books to be able to see
18 those quantities, to be able to see prices
19 instead of just a mass balance or a spot check on
20 some particular transactions, which is the way
21 we're audited. Being able to look at numbers in
22 total, because part of the problem is that

1 certified entities, as it's been told to me by
2 some of our European friends, a lot of times the
3 producer can sell their goods numerous times.

4 And so it traces back. If I'm buying
5 something, it's going to trace back correctly to
6 a particular farm in a particular country. But
7 what we don't know is how many times that's
8 ultimately been sold or been used.

9 MR. CHAPMAN: Okay, and then Mike, can
10 you get into your solutions?

11 MR. DILL: Well, it doesn't involve
12 blockchain, because I'm not sure how -- like you,
13 I'm not sure how that would work in produce,
14 especially when it changes hands so many times,
15 and I'd be interested in talking with you about
16 that, who has the visibility throughout the
17 supply chain.

18 But in terms of solutions for fresh
19 produce, there's really just three things that
20 we're looking for. One is -- I'm on the wrong
21 page here -- is of course certification of
22 handlers. We'd like to have all handlers of

1 products that are not in sealed, impermeable or
2 tamper-evident packaging be certified.

3 And we really feel that certification
4 isn't going to be that much of a challenge. I
5 know that's the argument that we hear over and
6 over again. But getting certified really isn't
7 that hard if you're already a food business,
8 because you're doing most of these things
9 already.

10 Second is labeling, and what's
11 interesting is in the produce industry, boxes of
12 produce are considered bulk. So the labeling
13 standard that applies or that most certifiers
14 apply to labels and packaging is to 205.307,
15 which just requires a lot number.

16 The lot number really doesn't do a lot
17 of good in our industry, unless you have a
18 transaction certificate of something to go along
19 with it.

20 So just having a lot number is not
21 enough. We feel that it should be clarified that
22 205.303 labeling is required for all packaged

1 products, whether they're opened or closed,
2 sealed or not. And then third is about
3 certificates. So we feel that certificates
4 should have products, brands, services,
5 everything that's necessary for us to make a full
6 determination of the product.

7 Just listing the commodity is not good
8 enough. I don't know how many times we deal with
9 a broker or a marketer and we're buying like
10 blueberries or potatoes and they send us a
11 certificate. Well, the packages are labeled with
12 their name on it. It says, distributed by Broker
13 A, and they send us a certificate that just says
14 blueberries or potatoes.

15 We have no way to link that. But if
16 that brand was listed, if that operation or
17 broker was certified, if there was information on
18 that certificate linking directly to the label
19 and directly to the product, we would have a lot
20 better chance of verifying the product. In
21 produce, this has to happen quickly. We don't
22 have weeks and months to verify this product. We

1 have hours and days.

2 MR. CHAPMAN: Thank you, Mike. So I
3 have Steve, Asa and Dan. Steve.

4 MR. ELA: I'm a little curious, I mean
5 especially in fresh produce now in things, but I
6 mean the Food Safety Modernization Act, which
7 requires traceability on environmental
8 operations, and it's getting a bit strained to
9 meet those requirements.

10 But it seems like a logical
11 collaboration. I mean growers are happy for FSMA
12 do all this traceability. I mean it's very
13 similar to what we have to do in organic. So I'm
14 curious how we could -- if that, if that provides
15 any potential to help us do more of exactly what
16 you're saying Mike and/or Peter, I mean just to
17 trace some of these products through.

18 MR. DILL: Well, I think FSMA didn't
19 go far enough in terms of traceability and
20 labeling, and there's not a lot in there about
21 traceability. The common kind of understanding
22 is that you can trace product one step forward

1 and one step back. That's not enough.

2 If we have just done that, we would
3 have never uncovered the pineapple issue, where
4 we have fraudulent pineapple, because we bought
5 that from a certified handler that had a
6 certificate listing pineapples. It's really a
7 combination of the labeling, that the information
8 on the label is required to disclose the
9 operation, the last operation that handled or
10 distributed that product, the last certified
11 operation I should clarify, because that is not
12 happening.

13 So if we're looking at organic-
14 specific and leaving FSMA out of this, you have
15 to have reference to the certified operation on
16 that label. Without that, it makes it really
17 difficult. If you don't have the information on
18 the certificate to go with that, it just
19 compounds the problem. So to us, labeling is
20 just as important as certifying the whole supply
21 chain.

22 MR. CHAPMAN: Dan. Sorry, Asa. Asa,

1 you're next and then Dan.

2 MR. BRADMAN: I have a question for
3 Peter and also maybe perhaps a more general
4 comment. I mentioned the whole issue of testing,
5 and I should say I had a side conversation with
6 Jake during the break. I realize I need to
7 educate myself on the current guidelines for
8 testing under the NOP.

9 But I'm wondering if there could be
10 more enhancement testing, and then I think you
11 raised some limitations. Those also should be
12 acknowledged, and I'm almost wondering, in my
13 world often we'll like have an external peer
14 review or some sort of white paper, and maybe
15 this is an opportunity where there could be kind
16 of a task force or some sort of external peer
17 review to evaluate the efficacy of current
18 testing guidelines and how well they work, what
19 are the limitations, are there any modifications
20 warranted, and how well that can answer some of
21 the questions we need to answer.

22 MR. CARLSON: So to speaking a little

1 more in general about testing, and again my
2 experience is generally limited to whole grain
3 commodities prior to a processing environment. I
4 can say some of the -- there's a few examples
5 where I'm coming from. We have been purchasing
6 organic flax from a Canadian producer for years.
7 We had tested it ourselves.

8 On several occasions, because we were
9 shipping to Europe and the additional European
10 sensitivity to trace levels of residues, always
11 clean. This producer was -- lost certification
12 because they finally started testing the soil.
13 That showed that they were spraying, and it was a
14 complex and really professional operation of
15 fraud.

16 I'm a little bit leery of the system
17 in Europe that has really slowed down trade,
18 where it's testing in the parts per billion or
19 the parts per ten billion. What is the
20 denominator that we care about? At some point
21 there needs to be a denominator that matters,
22 that is zero. I think some of the zero tolerance

1 wishes are not really helpful.

2 So testing our way out of the
3 solution, I think it's probably good from a --
4 helpful on a verification, but I'm not certain
5 that that's where we're going to find our
6 ultimate solutions to reduce fraud. So a useful
7 tool, but maybe not where a solution will lie.

8 MR. CHAPMAN: Dan.

9 DR. SEITZ: My question was also about
10 testing. Is testing mandatory or is it
11 discretionary? Is it mandatory at a certain
12 level, and Peter you mentioned that some types of
13 tests really don't yield useful results because
14 you can hide the application of pesticides or
15 whatever so as to not -- so as to sort of fool
16 the testing regimen.

17 Are there any tests that you feel
18 might be routine or should be mandated at a
19 certain level that could be reliably used? I
20 appreciate what you just said, that by itself
21 it's not the magic bullet that's going to solve a
22 problem.

1 MR. CARLSON: So I will defer a little
2 bit to our certifiers on the requirements of
3 testing. I can say for the -- it's not a
4 requirement, although when we're purchasing from
5 organic producers in the USA, testing is not part
6 of our normal protocols. It's really expensive
7 and it doesn't yield much. So generally
8 speaking, testing is not required.

9 We as a company, Terra Ingredients,
10 AgMotion and a lot of other importers, for years
11 we've been testing and doing self-reporting. We
12 self-reported recently as last summer on some
13 shipments that had some pesticides in them,
14 because we decided to do testing.

15 But we didn't have to do that. Since
16 last summer, there was additional on the areas of
17 risk, additional testing was required out of
18 certain -- the Black Sea regions, and I think
19 that was a good -- it was a good response. I
20 would just go back to soil testing as being -- as
21 a good part of the solution here. It could help.
22 Does that answer it for you?

1 MR. CHAPMAN: Dave.

2 MR. DILL: Could I add something about
3 testing in produce?

4 MR. CHAPMAN: Yes, yes.

5 MR. DILL: I just wanted to say that
6 in produce, it's not something that's really
7 going to help a lot or is really going to slow
8 down the produce trade. So you don't see it that
9 much unless produce is going on for further
10 packaging or processing, sorry.

11 The turnaround time is way too slow,
12 and if you are going to test, then it's really
13 wise to hold that product before you -- until you
14 get the test results, and then you're already
15 losing two, three, four, five days maybe a week,
16 and then you have to distribute the product, get
17 it on the road, and you're probably going to see
18 twice as many rejections over quality from you,
19 you know, from the distributors and the
20 purchasers of the product.

21 So when you're talking about residue
22 testing, please consider produce too.

1 MS. MAREZ: Depending on the lab, it's
2 on average eight business days to turn around
3 produce tests, depending on how many pesticide
4 residues they're testing for, and it's around
5 \$300 per test. So for something like a precious
6 where it's, you know, not going to work.

7 MR. CHAPMAN: Dave.

8 MR. MORTENSEN: Yeah. I think we've
9 gotten a consistent message about a number of
10 things, and it's been enormously helpful from
11 this panel and the previous panel. One thing
12 that I've been also struck by is the human
13 relations dimension of this on the ground, and
14 personally I would love us to move away from
15 boots on the ground to thinking about engaging
16 people where they are, meet them where they are.

17 And so the question is with six-fold
18 increases in imports in a matter of four or five
19 years, Monique I was intrigued with your data set
20 there and I've been reading ERS data a lot, just
21 trying to understand this. Do we have the human
22 capacity on the ground engaged with local

1 growers, understanding the cultural nuances and
2 the sort of things like, you know, how fields
3 that have no wheats in them, that's really hard
4 to achieve with a cultivator.

5 That's probably a place where
6 herbicides were used. But doing that in a very
7 thoughtful way that we're engaged and not off-
8 putting Americans coming into enforce the
9 regulations. I was intrigued with Albrecht's
10 distance to the eater idea. So do we have the
11 boots on the ground?

12 MR. CHAPMAN: Anyone want to take
13 that? John, and we can toss is to the
14 certifiers. John.

15 MR. BOBBE: Well, in the case of
16 what's going on in the Black Sea region, it's not
17 a matter of necessary. We have contacts to find
18 out what goes on to impact our markets here. But
19 what you have organized crime. You're dealing
20 with organized syndicates, the Turkish, the
21 Ukrainian and the Russian.

22 They're the ones that are going in and

1 making the contact with the producers, and
2 basically as it was told to me in the Ukraine, is
3 that -- by some of the organizers of the
4 conference, they're going into producers and
5 saying you sell us your grain or we'll make sure
6 that you never sell another kernel of corn.

7 So it's not necessarily the face of
8 the U.S. on this thing, but that's what you've
9 got operating, and I can only speak for the grain
10 aspect of it.

11 MR. CHAPMAN: Harriet.

12 (Off mic comments.)

13 MR. CHAPMAN: Sorry. Did someone have
14 something quick?

15 MS. HEITKAMP: Yeah. I just wanted to
16 react a little bit to your question. One of the
17 key elements of the GOSCI guide book is a
18 supplier questionnaire, and really establishing
19 that relationship.

20 You'll hear from some of the more
21 seasoned importers that developing those in-
22 person relationships are the best way of

1 mitigating fraud, where tools like blockchain can
2 step in and it should be stated here you cannot
3 change a blockchain ledger.

4 So everyone on the chain is connected.
5 It's as though you've established that in-person
6 relationship because it continues with you
7 through every section of the supply chain who's
8 integrated into the chain. So in the absence of
9 having someone in the field shaking hands with
10 the farmer, knowing that that trail is
11 unchangeable at the point it is entered into the
12 chain, has kind of given some folks some
13 assurance in that way.

14 But you're absolutely right. Creating
15 those in-person relationships and long-standing
16 suppliers is the best way to mitigate that
17 problem.

18 MS. BEHAR: So three quick questions,
19 the first one for Monique. Is the use of the HS
20 codes mandatory and who verifies that if
21 something is labeled under an organic code that
22 it truly is?

1 MS. MAREZ: Yeah. So it is -- there
2 is no official penalty for not using the correct
3 HS code. However, it does flag an extra peak
4 like in this case with cracked corn versus dent
5 corn. The recommendation and the expected
6 requirement is that you use the most specific
7 code for the thing that you're importing or
8 exporting, because it's assigned to tax.

9 But because these are ten digits and
10 doesn't change the tariff at all and we don't
11 want it to change the tariff, we don't want
12 organic to be taxed higher, it's easy to kind of
13 read between the lines there and pick whichever
14 code sort of suits you. However, that's not what
15 is supposed to be happening. With more organic
16 HS codes, it would be more common to use that.

17 MS. BEHAR: And then for Peter, do you
18 think in the fraud that you've seen, that there
19 is -- sorry to the certifiers -- some negligence
20 or something that you think that the NOP could in
21 their connection with the certifiers to increase
22 the oversight there, or do you think that the

1 certifiers are victims as well?

2 MR. CARLSON: I can't speak very well
3 to the -- to the certifiers and in different
4 areas. I certainly think that's possible.

5 I can say in all of our dealings with
6 the inspectors that I've dealt with personally,
7 they've been extremely professional and they've
8 asked the right questions and they know their
9 business and they're well incentivized to find
10 the right answers.

11 I do think the inspectors are --
12 probably have some impossible tasks with limited
13 time and money like during the inspections. So
14 even with the assuming the best of intentions,
15 it's still a very difficult task with their
16 mandates.

17 MS. BEHAR: And then lastly for Mike,
18 do you think that the definition for retailer
19 needs to be changed and the rule or somehow some
20 guidance to make sure that we cover those retail
21 warehouses, and also I think it was 16 years ago
22 OTA put out a book called GORP, "Good Organic

1 Retailing Practices," which myself and Joyce Ford
2 were co-authors, to try to help retailers
3 understand handling and perhaps kind of
4 reinvigorating that might help them understand
5 better to their part in the chain, and be asking
6 questions that they should be at the loading dock
7 as well.

8 MR. DILL: Well, I'm not familiar with
9 that, with that publication. But one thing I
10 will say, and I saw this in an article a couple
11 of days ago which I thought was really fitting
12 for this discussion, is Amazon has been -- they
13 have warehouses all over and they have produce in
14 those warehouses.

15 They have been asked by the FDA to
16 register under the Bioterrorism Act for eight
17 years now, and they have not done so, and they're
18 not intending to. The FDA asked routinely for
19 them to register, and their response is we are a
20 retailer. We do not need to register under that
21 Act.

22 So their mind set is that they are a

1 retail operation. They're not a distributor,
2 they're not a wholesaler. They are a retailer.
3 So under NOP, they actually have two loopholes.
4 They can be exempt as a retailer and they can be
5 excluded as an uncertified handler.

6 Then your other question, I feel that
7 changing the definition of retailer isn't going
8 to do it. I mean we can add to that definition.
9 But I think the main focus would be to change the
10 exclusion and add something in there about the
11 nature of the product. So how it's packaged and
12 let that be the determining factor of whether
13 there is potential for commingling,
14 contamination, fraud, based on the nature of the
15 packaging.

16 If it's not sealed, that there's no
17 way to determine if it's been tampered with, if
18 the product has been replaced or product added to
19 it, I think that should be determining factor.

20 MS. BEHAR: Thank you, good idea.

21 MR. CHAPMAN: Emily.

22 MS. OAKLEY: This is for John. You

1 mentioned that each vessel has a voyage path, and
2 that that might be a tool. Could you elaborate a
3 little bit more on that?

4 MR. BOBBE: I have not, because I just
5 learned about it yesterday when we asked about
6 it. We're very concerned about the ship that was
7 rejected yesterday.

8 We know it's heading for the Panama
9 Canal, and our concern is is it going to try and
10 dock at another U.S. port or go to Canada and
11 bring it in as Canadian product. So we did make
12 that -- we asked only yesterday and they said
13 yes, there is a -- our source said yes, there is
14 something like that. But I have -- we haven't
15 investigated it yet.

16 MR. CHAPMAN: Okay. John, I want to
17 ask one last question, and then we're beyond our
18 time. So then we'll take a break and then we'll
19 reconvene with everybody in about ten minutes.

20 But so you talked about reporting
21 ships to the NOP and about, you know, I've heard
22 from your comments that you expected them to be

1 able to track these, or figure out these ships
2 have fraudulent product on them on their own
3 accord.

4 So how are you identifying these ships
5 that you're reporting, and what's your
6 expectation for the NOP related to those?

7 MR. BOBBE: Well, that comes from a
8 conversation with Miles McAvoy, where he said we
9 don't track ships, and we had a discussion. Just
10 because I have said we don't get our information
11 from the NOP doesn't mean that we don't -- or
12 don't welcome cooperation, and that is we've had
13 some very respectful conversations with Betsy
14 Rakola about this issue as well as Miles McAvoy.

15 But there's -- Betsy mentioned at our
16 meeting in LaCrosse that she came, generously
17 came to, that the USDA tried tracking ships by
18 one of the services and it didn't work out, and
19 they found out that they were from the
20 government, that they had disappeared.

21 Well, we have various people now that
22 do. You can pull up something called

1 Vesseltracker, and it will give you every ship,
2 whether it's military, whether it is a yacht,
3 whether it is a cargo ship, the kind of cargo
4 ship and where it's at and which port, and it
5 will tell you --

6 MR. CHAPMAN: But there's thousands,
7 literally probably hundreds of thousands of those
8 ships. So how do you identify? Like what's your
9 expectation around identifying organic ships?

10 MR. BOBBE: The Vesseltracker actually
11 identifies with a yellow triangle which might be
12 the ships are either container or cargo ships.
13 That's one way. There's a number of other
14 services out there. But you can actually go and
15 we have been able to watch simply with Google.
16 We can watch the position of the ship when we
17 know it's the Bellingham shipment in the harbor.

18 MR. CHAPMAN: So my question is that's
19 once you've identified the Bellingham ship. So
20 how do you identify the ship to track?

21 MR. BOBBE: How do we identify the
22 ship?

1 MR. CHAPMAN: Yeah.

2 MR. BOBBE: I mean in this case, we've
3 been able to go to the port, some of the port
4 websites that will tell you. That's how we
5 uncovered the ship that left yesterday that was
6 rejected. We knew on the 21st of February from
7 our source there was a ship coming in and you go
8 to the website and it's listed. Now some of the
9 port websites are not that forthcoming.

10 MR. CHAPMAN: So you said "from my
11 source." What's this source like?

12 MR. BOBBE: We have people that are
13 interested in cleaning this up. Our marketers
14 are in the grain markets across this broad area
15 day in and day out. We have people that talk to
16 us. They know that we're fighting fraud, and
17 they're willing to supply us with information,
18 sometimes by a third party introduction that
19 we've got some very, very sensitive sources that
20 are in a position to give us that information.

21 MR. CHAPMAN: So you have a
22 whistleblower of sorts that's providing

1 information to you?

2 MR. BOBBE: Well, if they were -- sort
3 of. But if they were a whistleblower, they'd
4 probably blow their business.

5 MR. CHAPMAN: Yeah.

6 MR. BOBBE: There are any number of
7 companies out here that are willing to -- they're
8 not willing to stick their head up, but they're
9 willing to talk to us. I mean our farmers have
10 got nothing to lose at this point for us blowing
11 the whistle.

12 MR. CHAPMAN: So I guess the
13 connection I'm failing to make is they're talking
14 to you, but they're not talking to the NOP, and
15 it's this source that we're relying on to figure
16 out these fraudulent ships are in motion. How do
17 we make that connection between your sources or
18 these sources and the enforcement authorities?

19 MR. BOBBE: Well, I think it's going
20 to have to be a level of trust, and right now in
21 the farming community it's not very high after
22 the disaster that they've been through. Now how

1 you get people -- I mean and I've been in
2 industry most of my life.

3 It's extremely, extremely difficult.
4 I mean for us to -- we have gotten a reputation
5 and therefore people feel comfortable because
6 we're going to treat it so that they're not --
7 they're going to be protected.

8 And why they don't feel that with the
9 NOP at this point, but part of it is that some of
10 these people are seeing a lot of grain go by
11 their doors that they know is fraudulent, that
12 they could be making money on but they're not
13 going to get their hands dirty.

14 MR. CHAPMAN: Okay. So we will -- oh
15 yeah, sorry. Erin, have you got something there?

16 MS. HEITKAMP: Yeah. Just one, I
17 think, point of -- kind of a simple answer to the
18 question, is to the extent that a ship is
19 registered as bound for the United States,
20 containing corn or soy, it's organic product,
21 even if it doesn't have an organic HS code
22 associated with it, because the U.S. doesn't

1 import corn or soy as a general rule.

2 So that right there is your flag. As
3 to the specific system or source for that
4 information, I'd be happy to share some specifics
5 with the NOSB. There's multiple sources for that
6 information.

7 MR. CHAPMAN: Okay, yes. That would
8 be nice. That would be great.

9 MS. HEITKAMP: And the European
10 Union's very direct and specific approach is
11 requiring that all imported organic product into
12 the European Union, that trade is now registered
13 through the traces system.

14 MR. CHAPMAN: As organic?

15 MS. HEITKAMP: As organic. Every
16 transaction that is coming into the European
17 Union that is expected to be sold as organic
18 within that territory is registered.

19 MR. CHAPMAN: Thank you. So we will
20 now move to a break, reconvene at -- let's just
21 make it at 11:30, promptly at 11:30 with the full
22 panel. If the other panelists could come up now,

1 we would like to take a photo.

2 (Whereupon, the above-entitled matter
3 went off the record at 11:15 a.m. and resumed at
4 11:37 a.m.)

5 MR. CHAPMAN: Could the Board members
6 take their seat? All right. We're coming back
7 into session now. We have the full panel
8 assembled for questions, and at this time I will
9 hand it back over to Scott.

10 MR. RICE: Thanks, Tom. All right.
11 We've got everybody back posing for a photo.

12 (Off mic comments.)

13 MR. RICE: Okay. Thanks Jenny.

14 MALE PARTICIPANT: Do we get coffee?

15 MR. CHAPMAN: Sorry, and just -- so
16 we'll run this for about an hour. That will put
17 us at what like 12:45. We'll break for lunch
18 then until about one, and then reconvene. If any
19 panelists need to leave for prearranged flights,
20 please let us know and do so. But if you guys
21 can stay, that would be great and we'll just
22 continue to run through these questions.

1 MR. RICE: Thanks, Tom. Welcome back
2 and thank you again. We did have a couple of
3 lingering questions from our first panel that we
4 wanted to loop back to. I have a question
5 myself, but let's get to -- we had Dave and Asa
6 and Tom.

7 MR. MORTENSEN: I guess to Albrecht
8 and Silke. I was really struck, and I kind of
9 asked the question of the other panel, about the
10 human relations dimension of this issue.

11 What are your thoughts about the kind
12 of staffing that we need, of folks that are
13 shaking the hands, in Monique's words, in this
14 blockchain system with the growers on the ground
15 and the communities that are doing the local
16 handling?

17 I don't have a good sense
18 internationally what that needs to look like. Do
19 we have the right number of folks on the ground
20 to manage the flow of goods? As a person who's
21 naive about this, a six-fold increase in the flow
22 of goods in a matter of a handful of years leads

1 me to think that we are understaffed.

2 MS. FUCHSHOFEN: Wow. That's a big
3 question, and honestly I don't think I can answer
4 it.

5 MR. BENZING: I fully agree that there
6 is understaffing. I mean of course the private
7 certifiers, since they are market-driven, they
8 have reacted to the increase of the market. I
9 mean we have increased our staff in the
10 respective countries where we get demand for
11 certification.

12 But as I tried to explain before, if
13 private certifiers are not strongly controlled by
14 governments, then the risk of business interests
15 getting more important than integrity is very,
16 very high, and at that level of government people
17 I see this yeah, situation of not enough
18 resources being dedicated for that. Again, it's
19 yeah, just the -- I mean of course I'm not
20 longing for more audits, because they cost us a
21 lot of money.

22 But I see they are necessary to have

1 more audits in the countries where -- by the NOP
2 in the countries where these products come from,
3 and more audits that really focus on the real
4 issues. I mean if the last office audit that we
5 had from the NOP, I think we had like 20 non-
6 conformities. There was not a single one that I
7 would consider substantial.

8 It was all the kind of thing the
9 wording on the certificate is wrong, procedure
10 number so and so is lacking, this and that. But
11 there was not a single non-conformity that has
12 anything to do with the things we're discussing
13 here. So the whole system is based on the
14 assumption that if you have the right procedures
15 and if you follow these procedures, then you will
16 be doing the right thing.

17 But then the whole auditing is focused
18 only on the procedures, but not -- nobody really
19 checks if those procedures lead to what they're
20 expected to lead to.

21 So I would say more resources for
22 monitoring what certifiers do, and using those

1 resources in a more efficient way. For example,
2 doing it unannounced with five man-days of
3 unannounced audits, I think you reach far more
4 than with 50 man-days with five months of notice.

5 MR. BENZING: I do have -- sorry. Can
6 I? I seem to take a moment to figure out what to
7 say. I think it's less a number, and a question
8 of number of people than of determination. If
9 there is real determination to deal with the
10 issue and find the fraud, that is I think the
11 first question.

12 And then the second is do we have the
13 system to break it down, you know, where you can
14 -- if there is a big question, you have to have
15 steps, you know, intermediate steps to kind of
16 look at each part. What do we -- you know, and
17 action items. What do we need to accomplish
18 this, and then you can come up with a number.

19 And we are talking about risk-based
20 approaches here, and what I am observing though
21 it's pretty -- we know there's a risk when there
22 was a fraud, and that's kind of -- we're a little

1 in a reactive mode with that. Say we figured out
2 the grain and the, you know, the imports and
3 there seems to be issues with dairies also when
4 the NOP is talking.

5 And so say that's off the table and
6 there is no other finding, you know. Like how do
7 we do this practically, basically? I do have a
8 short, you know, I've prepared something that I
9 would love to show, but I don't know if there's
10 the time. It's up to you. But like a system
11 that would allow kind of that, you know, to break
12 it down and see what's needed.

13 MR. WELSCH: We're doing some things
14 to try to prevent that, not always by going out
15 and doing more audits with inspectors, but to do
16 more with our reviewers to test the system. You
17 know, are they able to trace things back the way
18 we want, ask them for copies, and finding that
19 that's enough to identify that there are some
20 gaps in what some of our operators are doing.

21 We haven't discovered non-compliances
22 necessarily or fraud. You know, it's organic

1 product we've been verifying. But there have
2 been gaps in some of their documentation in the
3 past.

4 So by doing this, you know, from our
5 office with reviewers, we don't have a lot of
6 expense. There's a lot of back and forth, a lot
7 of information to be gathering. I would
8 encourage the USDA and the NOP to do more of that
9 type of auditing.

10 When there's somebody suspects a
11 problem or identifies something high risk, then
12 ask all the people involved in that entire supply
13 chain or the part of it that's highest risk, you
14 know. Ask people for information and it's the
15 kind of records that should be readily available.
16 So we have -- we expect a really quick
17 turnaround, you know.

18 We're not saying oh give us 30 days
19 and we want this. No. We want this within the
20 next day or two days, you know, depending on the
21 what day of the week it is. So we can address
22 that fairly quickly, even when we're dealing with

1 people on the other side of the world where you
2 have to wait at least a day to get the reply.

3 But there's a lot that can be done if
4 there is that willingness or intent to want to
5 accomplish it.

6 MR. DILL: Can I add something real
7 quick?

8 MR. RICE: Sure. I just wanted to
9 offer Silke we might, if we can't get to your
10 idea you mentioned, you can always share that
11 with Michelle. You can share it with the Board
12 members, so but I also want to get to all of our
13 questions. Mike.

14 MR. DILL: Just quickly what Silke
15 said is really accurate in terms of being
16 proactive and when determining risk, and there's
17 no one better to do that than the members of the
18 trade and different sectors of the trade. And so
19 I encourage certifiers to engage with their trade
20 members at different times of the year to ask
21 what time, you know, what seasons there might be
22 more say pineapple fraud or when there's

1 shortages of supplies, those things that the
2 trade experts know that could help in this
3 process.

4 We've invited our certifier to spend
5 a day with us. It hasn't happened yet, but the
6 offer's still on the table.

7 MR. RICE: Thanks. We've got Asa.

8 MR. BRADMAN: Yeah, I think actually
9 my questions were already asked before. I was
10 just interested in the discussion around testing
11 that was raised, and I think that maybe there's
12 more discussion warranted about what existing
13 programs there are, and is there any review or
14 modification that might be helpful. But as we
15 kind of said in an offline discussion, it's kind
16 of a blunt tool and not necessarily effective in
17 many cases.

18 But I think if there's any additional
19 comments, that would be great. But if -- oh
20 okay, good. So --

21 MR. RICE: That tied into my question
22 as well, so I'll let you start with Erin.

1 MS. HEITKAMP: Yes, if I can start,
2 and I would look to the certifiers on the panel
3 to speak to the numbers of the data. But I think
4 big picture, if you compare the European system
5 to our system, we test just a tiny fraction of
6 the organically certified products that are sold
7 in the United States, and that's largely because
8 of the fact that the system is really built
9 around practice and process, so the point that
10 was just made.

11 Ultimately though, I think there is a
12 need for testing to play a larger role. It
13 doesn't need to be the blunt tool, the
14 ineffective tool and the expensive tool that
15 disrupts our operations. But to the extent that
16 it can be used as a backstop and an extra tool,
17 in particular at the high risk points in the
18 supply chains, it's a tool that I think we need
19 to use more rigorously.

20 MR. RICE: Jake.

21 MR. LEWIN: Testing is -- we've been
22 a proponent of testing, you know. You can't

1 define or prove organic through testing, but it
2 really is an important tool. I think that
3 there's a bias sometimes towards testing finished
4 goods. That's natural, but we also test soil,
5 plants and what we need is the support of --
6 collectively I think what we need to work
7 together on is to help identify what we should be
8 testing in given situations.

9 And so effective complaints that
10 detail the nature of the complaint, the way the
11 production could be illegitimate, can help direct
12 appropriate testing. Because sometimes the best
13 test is in the field, but not the crop, it's the
14 leaves or the soil. We've had great experiences
15 with that in terms of we currently do a proactive
16 test on all new applicants in Mexico.

17 As a result of that, we've had about
18 a maybe ten percent rate where we have denied
19 certification, often not because of bad kind of
20 fraudulent practices but as much not yet ready
21 with controls in the system or not being able to
22 come up with why the results are there.

1 That kind of thing, and that's
2 principally testing plants, not crops, not the
3 finished good and that really has a real role.
4 We just all have to embrace it and do it, and we
5 probably all need to do more. What our testing
6 is not valuable for really, honestly I've been
7 thinking about this, data.

8 Our testing is built to find things
9 principally, and so it's not kind of a survey of
10 what's out there. It's a survey of what if
11 you're looking you might find, if you're really
12 looking for problems, if you're testing in the
13 worst possible place.

14 If you're testing the buffer that's
15 meant to catch the pesticides, well the fact that
16 you find the results, maybe that's appropriate.

17 MS. MAREZ: One of our key trading
18 partners, Taiwan, tests in-market and it's a
19 government program. So it's not the expectation
20 of the certifier or the trade, but in fact in
21 this case it would be NOP going out to grocery
22 stores, buying product and then testing it

1 themselves.

2 MR. WELSCH: One of the tensions, I
3 guess, about doing testing, we are required to
4 test at least five percent of the operations that
5 we certify. But that's only five percent of the
6 operations. It's, you know, it's a much tinier
7 percent of the products that are there.

8 But it's at our expense. So there's
9 not an incentive to test more than that because
10 of the cost is borne by us, not by the people
11 being tested. Even if we think there's a high
12 risk or even if we detect things, you know, we're
13 not able to pass those costs back to the people
14 where we're finding it.

15 Where we test in the supply chain is
16 also a problem. We often get reports from Europe
17 at the end of the supply chain, and then trying
18 to figure out well, where did it get
19 contaminated, you know? Was it at the grower or
20 all those intermediate handlers?

21 That's very difficult. We've
22 discovered some in the U.S. It was imported,

1 tested positive but okay, now we've got a long
2 chain to investigate. Where did that come from?

3 MR. RICE: Sure, Albrecht.

4 MR. BENZING: I was really surprised
5 when Mike said that you didn't do much testing
6 for produce because I mean apart probably from
7 cotton, there are no other crops where so many
8 pesticides are used as in fruit and vegetables.
9 It's also where we find this residue.

10 I mean of course, if you have only a
11 few days from farm date to consumer, you may not
12 get the results before the apples are eaten or
13 the lettuce is eaten. But I mean the test is not
14 primarily for finding out about that particular
15 batch, if it is compliant or not. It's for
16 finding out about fraud that goes on in the
17 supply chain, be it at the farm level or
18 somewhere else, that if somebody mixes up things.

19 So I would strongly recommend that
20 responsible trade companies also for this kind of
21 product do more testing, because -- and report to
22 the certifiers, because it's necessary. I see --

1 MR. WELSCH: This is an area where the
2 NOP could help could help a lot, by going into
3 some of these distributors who are receiving
4 produce from many different sources. You could
5 take samples and it could be at the NOP expense,
6 to really do a comprehensive survey of how much
7 contaminated product is there, and that would
8 remove some of the difficulties we have as
9 certifiers or companies in the trade that conduct
10 that kind of testing on produce.

11 So if you've got some extra money,
12 there's another idea of where to spend it.

13 (Laughter.)

14 MR. RICE: And just a clarification.
15 I wanted to be clear that it may not be that Mike
16 or the trade is doing any testing, or not as much
17 on fresh produce per se, but -- and my certifier
18 colleagues are welcome to jump in. As a
19 certifier, we indeed do testing on fresh produce,
20 and that is something that we do a fair amount
21 of.

22 I agree with Albrecht's points, that

1 it shows if the system is working or it shows,
2 you know, it can show fraudulent activity. But I
3 just wanted to make that clarification, and I
4 think Tom had a clarifying point.

5 MR. CHAPMAN: And Jake, can you talk
6 a little bit about what the state of California
7 program does related to testing?

8 MR. LEWIN: Yeah. There's been two
9 developments in the last year that I find have
10 been very helpful with regards to principally
11 finished product and mostly produce testing. The
12 California State Organic Program does testing.
13 They have a big budget for tests, a little
14 closer, okay.

15 They do -- they currently do testing
16 both for pesticide residue and GMO in California.
17 So that would be at point of market sale. So
18 that's at farmer's markets and in supermarkets,
19 and they're doing a GMO sampling program in
20 livestock, feed and other GMO potential products.

21 In addition, I have found that the
22 Department of Pesticide Regulation in California

1 also does pesticide compliance testing, random
2 sampling.

3 Both the Department of Pesticide
4 Regulation and the USDA's pesticide data project,
5 which also does food sampling testing, in both
6 cases when those programs test an organic product
7 and find it to be positive, in any way, at any
8 level, often quite low, they then remand that
9 test down to the state organic program, or in the
10 case of the USDA, to the National Organic
11 Program, and they send those to us and we
12 investigate them.

13 That's been a very positive
14 development in the last year, because what it
15 does is if there's a potential problem, it could
16 be -- it could be unavoidable residual
17 environmental contamination that maybe we can't
18 find causation. But what's happening now is that
19 those are all getting investigated, and that's a
20 huge positive development.

21 I would just say the principal value
22 of testing produce is to look for problems in the

1 system, mistakes, problems, fraud and these kind
2 of actions are really improving.

3 MR. RICE: I have a follow-up, but
4 I'll defer to Tom. We've got Tom, Harriet and
5 Emily.

6 MR. CHAPMAN: I wanted to move to the
7 subject of uncertified handlers. It seems to be
8 -- it seems the advice overall from everyone from
9 all corners is that we should eliminate as many
10 uncertified handlers as we can. So I kind of
11 have a question for everyone on the panel that
12 can answer it.

13 I want to start maybe with Albrecht,
14 but then expand it to everyone else, and answer
15 it in the simplest way possible. Either
16 operations who should be certified who aren't
17 currently, or who should be excluded from
18 certification.

19 But Albrecht I want to start with you
20 particularly. How is it operating in the
21 European system? Who is excluded from
22 certification in the supply chain in the European

1 system?

2 MR. BENZING: It's basically only
3 retailers and only small retailers that do not
4 have their own stores. Anybody who's -- because
5 the scope of the regulation says that anybody who
6 stores, produces, trades, imports organic product
7 is subject to -- must be subject to
8 certification. So even supermarket chains that
9 have their own stores, where they -- from where
10 they distribute products, are subject to
11 certification.

12 MR. CHAPMAN: What about transit?

13 MR. BENZING: How's that?

14 MR. CHAPMAN: Transit, freight trucks.

15 MR. BENZING: No, no. Transport, no,
16 no.

17 MR. CHAPMAN: But the handling? If
18 the products are in a bulk format, the handling
19 of that, the loading of those trucks, the
20 operation would be certified?

21 MR. BENZING: Yes. I mean if it is --
22 it is the owner of the product that must be

1 certified. If he outsources that to a forwarding
2 company, than either that forwarding company can
3 be certified as a subcontractor, but it must be
4 inspected or it can be certified on its own.

5 MR. CHAPMAN: Okay. Then generally
6 for everyone, who should be certified that isn't?
7 I mean I think we know a lot of those. We don't
8 need to go over traders, importers. But there's,
9 you know, there's been some conversations about
10 warehouses, at what level a warehouse should be
11 certified. Who should be excluded might be the
12 easier question to answer. Help us start
13 crafting some definitions.

14 MR. WELSCH: I think how you have it
15 defined in the rule is that handlers must be
16 certified except for retailers that do not
17 process, and the handlers that were discussed
18 earlier that were retail distribution centers,
19 those are handlers. They're not excluded.

20 So those retailers who are claiming
21 they are part of the exemption that was mentioned
22 earlier, are not exempt. They are handlers by

1 definition because they are doing processing.
2 They're relabeling, repackaging, you know. So
3 those -- but I think everybody except retailers
4 ought to be certified. I can't think of anyone
5 that would be low enough risk not to include.

6 MR. CHAPMAN: So if a retailer takes
7 a bulk sack of oats, a 50 pound sack of oats and
8 puts it into a ten pound, you know, dispenser
9 thing that, you know, a client come out and get a
10 little bag of oats, is that -- if they put a
11 label on that saying it's organic oats, is that
12 processing?

13 MR. WELSCH: It is processing.
14 Whether that's an activity that's excluded or
15 exempt, we have to refer back to the regulations
16 on that.

17 MR. CHAPMAN: Yeah. I mean I guess in
18 your expert opinion, is that something that
19 should be exempt in the future?

20 MR. WELSCH: It does seem to represent
21 risk because of the people in the stores. Do
22 they, how do you know which bag they're pouring

1 into that? You know, if they're going to be
2 labeling as organic, who's going to check that it
3 was an organic bag that was dumped into that
4 container?

5 MR. CHAPMAN: Yeah. Everyone go for
6 it. Jake first, and then John, yeah.

7 MR. LEWIN: Right now, the biggest --
8 the broker-trader and those parties, the parties
9 in the middle of the supply chain, those are by
10 far the place to focus on, given that those are
11 the parties who have been correlated with major
12 incidences of fraud in the U.S. and in Europe
13 when they have occurred.

14 So if we were to create an exclusion,
15 probably a sensible place to make it or to
16 consider would be people who simply handle or
17 move finished, packaged, retail goods, because
18 that's when you start getting into distribution
19 and you've got pallets, cans of soup in master
20 cases moving through warehouses while they're --
21 you can't eliminate necessarily like all risk in
22 the system.

1 By far our biggest problem is the
2 areas that are in the middle of our food supply
3 that are outside of certification. So focusing
4 there would be the way to go, and then
5 potentially we could give retailers directives
6 about what they must do, what they -- how they
7 must label without requiring them to be certified
8 might be a pathway that we could be successful in
9 this.

10 MR. CHAPMAN: Real quick follow-up to
11 that. Albrecht, in the European system, are
12 distributors of packed, finished goods like
13 labeled cans of soup, are they exempt from
14 certification?

15 MR. BENZING: No, they are not, but I
16 agree with Jake that it's not really a major
17 point of risk where many things would go wrong.

18 MR. RICE: Thank you. John.

19 MR. BOBBE: I think we had this
20 discussion a little bit about certification with
21 regard to transportation, and that is that on
22 grain at least, the trucker is required to

1 present a washed truck affidavit at the farm.
2 It's the farmer's requirement to inspect it, and
3 if you were going to go that far, and I mean
4 you're going to get into in some cases they're
5 trucking grain from these ships.

6 They're not just necessarily trucking
7 it or loading it on trains. They're not
8 necessarily just putting into a certified
9 elevator. That would be really a potential
10 problem, simply because of the logs, the ten hour
11 log limit, electronic logs at this point, and
12 we're running into some really significant
13 potential problems at this point for organic
14 cattle that have to move beyond that ten hours.

15 So in our case, there are ways of
16 sealing the truck once it leaves that part of the
17 -- aspect of the transportation. We would be in
18 favor of excluding, because we just had that
19 discussion and replied to comments about two
20 years ago.

21 MR. DILL: And for us in produce, it's
22 a little different. But I think that we would be

1 okay excluding pretty much all of the transit
2 operations, just because trucks are almost always
3 loaded by the operation that's holding the
4 product.

5 So if there's an agreement or they
6 have procedures in place, it's going to be, and
7 if we certify everyone in the supply chain, all
8 the handlers, those trucks will be loaded and
9 then unloaded by a certified operation.

10 So we feel that anyone handling any
11 product that's not finished, labeled, because
12 even with the can examples, I've done plenty of
13 inspections where people are moving sealed cans
14 in boxes that are going somewhere else to be
15 labeled. So it should be labeled, sealed in
16 tamper-evident packaging need to be certified.
17 If you're storing it, handling it, selling,
18 buying.

19 MS. MAREZ: One recommendation might
20 be to require that all documents created by
21 direct parties to an organic transaction include
22 organic ID, so that even if they are passing

1 through someone who is simply moving from one
2 container to the next or whatever the case may
3 be, it's explicitly recorded on those transfer
4 documents that this is an organic product.
5 Without that organic ID, there is a flag raised.
6 There's no reason it shouldn't be identified
7 through that process.

8 On the point of retailers and the
9 example that you gave of someone taking a 50
10 pound bag and putting it into a ten, it sounds
11 like handling to me. At this stage in the game,
12 retailers are reaping as much benefit from the
13 organic label and the organic industry as some of
14 our farmers, and there's no reason why they
15 shouldn't have a shared responsibility in
16 ensuring organic integrity all the way to the
17 consumer.

18 MR. RICE: Sam.

19 MS. FUCHSHOFEN: Yeah, I agree there
20 and what comes out of stores is not usually
21 tested, you know. They get licensed boxes of
22 apples in and put their own sticker on, and you

1 don't actually know, right, if that's an issue or
2 not, or do we. I don't know who goes to retail
3 stores and tests.

4 So I would draw the line with just
5 tamper-proof packaging. You know like, there's
6 like these finished retail products that you just
7 don't change, you know, that there's nothing you
8 do. Everything else, you know, anything that
9 comes in these boxes, you know, where product can
10 breathe and where you can open them to take
11 something out that's rotting, that should be
12 certified in my mind.

13 And even cans. You know cans, they're
14 produced and stored as brights. I've done some,
15 you know, canning inspections and so what they
16 do, they have -- there's no label on there, and
17 the label comes later. So anybody -- and it's
18 almost like a box of apples, you know, because
19 they take them and then they put the labels on.
20 I think they should also have to be certified.

21 MR. CHAPMAN: They are.

22 MS. FUCHSHOFEN: They are, but okay,

1 yeah.

2 MR. CHAPMAN: Are and should be.

3 MS. FUCHSHOFEN: They should be,
4 right.

5 MR. CHAPMAN: Yeah. The application
6 of the label to the processed product requires
7 certification. I think we clarified that
8 yesterday in the public comment.

9 MR. WELSCH: It has been recommended
10 by the ACA through our best practices that the
11 NOP adopt, you know, the idea that it's only the
12 -- it's any package that is not tamper-evident
13 like the produce. Any produce that can be open
14 or closed should not be allowed to be excluded
15 from certification.

16 So anybody who's handling those should
17 be certified, and that would not require a rule
18 change. That would just require the NOP
19 adjusting the definition of what it means to be
20 enclosed in a container to be excluded from
21 certification. So if you look at that again, you
22 know, that could be something that could be done

1 immediately.

2 Extending certification requirements
3 to others may take a rule change, but at least
4 that's something that just takes guidance from
5 the NOP to implement it immediately. There are
6 -- when I look, think more about things that go
7 on in retail stores, they often receive boxes of
8 fruit with additional stickers to be put on that
9 fruit and there's extras.

10 So a store that handles both organic
11 and non-organic has these extra organic stickers
12 they can put on. You can also go to Amazon or
13 any printer and order those stickers. So you
14 know, if you want another suggestions where to
15 spend this money, do some of your own inspections
16 of retail stores, you know, to see what is being
17 sold as organic. Can they really verify that?

18 It's in the rule that they're required
19 to keep those records, but I don't know if
20 anybody is doing any verification of that, and
21 it's only the USDA that has the authority to do
22 that.

1 MR. RICE: Okay. We've got Harriet
2 and then Emily, A-Dae, Tom.

3 MS. BEHAR: Okay. So I have a few
4 things. One is there's companies that are
5 nationwide that work with many co-packers, and
6 the co-packer processor is certified. But the
7 brand name, I mean you know, I'm just going to
8 call it ABC, but you all can think of who it
9 would be. They're not certified, but they send
10 out the packaging to their co-packers, and really
11 it's the --

12 To me, I always felt like I want to be
13 counting the labels, you know, about how much of
14 labels did they put out there and how many
15 products did they actually then sell as organic
16 and not too much. So that's one, and I'm not
17 sure exactly how to do that except again these
18 larger companies that are working with numerous
19 co-packers that are all making, you know,
20 whatever, baking bread in 16 different bakeries
21 around the country going to their stores or
22 whatever.

1 But the two questions I have, unless
2 you have something on that, one is do you think
3 it would be useful for the NOP or some other
4 entity to set up a tip line for people who feel
5 that there's been fraud committed? It could be
6 anyone in the supply chain. It could even be an
7 inspector or a certifier who feels too exposed,
8 and it could be anonymous or not.

9 I don't know how you feel about that,
10 and then also should higher volume businesses be
11 mandated to have more audits, because that's
12 where of course you have more risk. So the
13 dollar volume or physical volume, should there
14 be, you know, two scheduled audits a year and two
15 unannounced or something like that.

16 MS. HEITKAMP: I'll address your
17 second question about the tip line. So there is
18 an email address that you can send concerns to
19 the NOP about.

20 But in my experience, that essentially
21 tip line is a little bit of a black hole. You
22 send your information in and you don't hear

1 anything back. Having said that, I think that
2 the Compliance Division at NOP is making some
3 significant strides in this regard, and has been
4 very open and inviting to the industry to provide
5 information when they have -- when they suspect
6 there's fraudulent activity. So I think that
7 tide has turned.

8 The other part of this, to your point
9 about a tip line is I think we as an industry in
10 collaboration with NOP need some avenue for
11 communicating concerns in real time. I think
12 what we have been -- Pipeline has been doing is
13 essentially using the OTA GOSCI Committee as an
14 avenue to do that on weekly calls, because that's
15 the best way to get the information out.

16 We've also been very proactively
17 notifying certifiers that are associated with
18 organizations, where we suspect that they're
19 involved with fraudulent activity. So at the end
20 of the day, the point is that everybody has a
21 responsibility to communicate, so that we can all
22 respond in real time to hold accountable those

1 bad actors, and to avoid being put in a situation
2 where we're complicit.

3 So it's a good question. I don't know
4 what the exact solution is, but I think there
5 needs to be a solution and it needs to be a
6 coordinated one across industry and NOP.

7 MR. RICE: I see we've got Jake and
8 Albrecht --

9 MR. DILL: Can I address the co-packer
10 scenario?

11 MR. RICE: Sure, briefly.

12 MR. DILL: Your example is our worst
13 nightmare, and something we experience all the
14 time. Which is why we're asking for brands and
15 brand information and private labels to be on
16 certificates. You wouldn't even believe how many
17 times we get a private label brand of berries and
18 clamshells or any kind of product that's
19 packaged, produce items, and the only reference
20 on the label is that of the uncertified private
21 label owner or brand owner or marketer, and
22 there's no certificate that they have to show us.

1 So they send us a certificate that
2 says "blueberries from Grower A," and then their
3 product. I don't know how anyone is able to
4 verify that product. There is no way. So we end
5 up -- and they do have to put the certifier
6 statement on that label. And so they -- most of
7 the times put that of the grower or the packer.
8 A lot of times they don't and they just throw a
9 random one on there.

10 So we contact those certifiers and
11 when products come in from Chile or Argentina, it
12 takes days and weeks and language barriers to try
13 to figure this out. At the end, we get a
14 response back that says we have -- this label
15 does not appear in our database, and we end up
16 rejecting the product and that marketer sells it
17 to our competitors around the road who doesn't do
18 the same due diligence as us.

19 So that is why we would love to see
20 brand information on a certificate. It doesn't
21 even have to be a publicly available certificate,
22 but one that is issued to that co-packer or that

1 manufacturer, so it is available to go with the
2 product.

3 MR. RICE: Albrecht.

4 MR. BENZING: Yeah. I would say that
5 I think we have a tip line. We have processes
6 for taking in complaints. I think what would be
7 a helpful next step would be for an NOSB
8 statement recommending stakeholders file
9 complaints when they're aware of concerns, with
10 an outline for what an actionable complaint looks
11 like.

12 All too often, the problem with
13 complaints is either that they are not filed,
14 they're filed -- or they are filed very vaguely
15 or without sufficient information to allow
16 follow-up. So if you send me, you know, people
17 call and say I have a concern, but I don't really
18 want to go on record.

19 We need the industry. We need to
20 encourage each other that if you're not going on
21 record and providing what you know, you start to
22 become a party to the problem. So this body

1 recommending to the trade ways to deal with
2 complaints effectively and to own them and bring
3 them forward is the next step, because we have
4 the agency there. They have ways to get them the
5 complaints.

6 That's not -- the phone number's not
7 the problem. It's the quality of what does and
8 does not come in.

9 MR. RICE: Albrecht.

10 MR. BENZING: I strongly support what
11 Mike said about the co-packers. When we started
12 certifying to NOP, we were really surprised when
13 we saw -- we were requested to approve labels
14 with our certifier name on it, for a company who
15 we have no clue about who they are and what they
16 do.

17 But you know, we asked the NOP are we
18 supposed to do that, and they told us yes, you're
19 supposed to approve that label because it's a
20 distributor, and a distributor is not required to
21 be certified.

22 So we yeah, we're doing it but we feel

1 very bad about it, because it's -- yeah, there
2 are many companies out there using our name, and
3 we have no clue what they do with that.

4 MR. WELSCH: We started to put the --

5 MR. RICE: Sam, one sec. We had one,
6 we had Monique and then Silke and then you, and
7 still make room for questions.

8 MS. MAREZ: Just to reiterate what's
9 already been said, the complaint system exists.
10 It's about helping industry submit better quality
11 complaints, which through GOSCI we've tried to
12 develop a template to do that.

13 But when NOP receives a very qualified
14 good complaint, the fact that it takes a nine
15 month response time is not appropriate, and it
16 disincentivizes trade to utilize that procedure.

17 So it would be very helpful if there
18 was a commitment on the NOP side to improve that
19 process dramatically from where we're sitting
20 now, especially when the complaints are complete.
21 I think that would make a big difference and help
22 people use that tool more.

1 MR. RICE: Silke.

2 MS. FUCHSHOFEN: Oh, inspections have
3 come to the -- oh, this is the second question I
4 guess. Inspections have come to be quite a big,
5 I mean there's a lot to cover. So I would say, I
6 would not do more inspections. I would do longer
7 inspections.

8 If it's a big, complex company, then
9 maybe there is, you know, some red flag attached
10 to it. I would say, you know, go for two day
11 audits and maybe even, you know, if there is big
12 red flags then two inspectors, because it's very
13 tiresome if you're trying to get behind
14 something, you know.

15 And then unannounced inspections, they
16 can be very useful, but they are useful if
17 they're kind of targeted, if you have like a
18 question and you want to get at something. I'm
19 not easy because sometimes you go, and the people
20 who can actually work with you are not there, you
21 know. You get somebody else and they don't know
22 where things are and then what do you do?

1 So again, they are a good tool, but
2 not just as an unannounced inspection, and
3 especially sometimes, you know. If there is not
4 a different angle to the inspection also, you
5 know, if you basically cover the same things, you
6 know. What kind of pest control do you use or
7 something, these are all things that I think that
8 doesn't help. That's enough to look at once a
9 year.

10 So that there needs to be -- the
11 unannounced inspection is an opportunity to do
12 something outside of what you normally do. Thank
13 you.

14 MR. RICE: Sam, and then I think we'll
15 move to --

16 MR. WELSCH: Sure. On the private
17 label question, we do issue label addendums for
18 each private label company that our co-packers
19 pack for, so there is a way of documenting every
20 label that's approved, and even the labels that a
21 company does not have co-packers, we have label
22 addendums that we clearly record and have, issue

1 a certificate or an addendum to the certificate
2 that lists every label we've approved.

3 So it's easier to track when we get
4 questions that says certified by one cert, you
5 know. We can answer those questions. I've been
6 frustrated too by asking colleagues or, you know,
7 other certification agencies about that and
8 waiting months to get a reply. Actually, I've
9 waited months and never gotten a copy of a label.
10 They say yes, it's somebody they certify, but
11 they've never approved a label for them.

12 MS. BEHAR: But when the company has
13 labels and we're not counting oh where all those
14 labels went, they could send it off to an
15 uncertified co-packer, and make the product and
16 put the organic labels on, because nobody's
17 counting labels at that brand name person.

18 MR. WELSCH: We've raised that for
19 over ten years in front of this Board, that there
20 are private label companies who are not
21 certified, or sometimes they are certified, but
22 they send labels out to be packed that don't

1 match the ingredients that are going in them.

2 And then when we make issues, they force the co-
3 packer to find a different certifier.

4 MS. FUCHSHOFEN: Could I quick for one
5 thing for this particular.

6 MR. RICE: Very quickly.

7 MS. FUCHSHOFEN: Sam I think earlier
8 requested that who owns product should be
9 inspected and certified, and I think that would
10 go under that one. You know, if somebody owns a
11 private label brand and they own it, they should
12 be inspected, certified.

13 MR. RICE: I had a quick clarification
14 for the program on -- you know, there was some
15 questions around anonymity of complaints and what
16 is the status or stance rather of the program?

17 DR. TUCKER: I appreciate the
18 question. We do right now accept anonymous
19 complaints. So as I mentioned Joan yesterday, in
20 our front office, actually takes in a lot of
21 complaints. We have revised -- Betsy's done
22 really good things over in the Compliance and

1 Enforcement Division.

2 One of the things she has done is
3 really, really looked at the intake process,
4 because the reality is we do get an awful lot of
5 complaints that really don't even have enough
6 data to begin an investigation. There's, you
7 know, evidence. It's not even at the evidence
8 level. We don't even have a way of following up
9 because it is so vague.

10 One of the things that Betsy has
11 introduced that I think is working is when a
12 complaint comes in and there isn't enough there
13 that we can investigate, they're immediately
14 writing back to the complainant saying we don't
15 have -- here's the information that we would need
16 in order to carry this forward.

17 What we have found, Betsy's been
18 tracking this just to learn about it, 90 percent
19 of them we never hear from again, right? So that
20 is -- so we ask them. We tell them specifically
21 here's the stuff. Help us help you. Here's what
22 we need. 90 percent of them don't follow up.

1 So I think that by doing, having the
2 filter, having the funnel better will help us
3 with the responsiveness, because we are aware,
4 the complaints are open a long time. We have to
5 find ways to shorten that time, which means we do
6 have to funnel better in terms of what we are
7 able to accept as a complaint.

8 Are we going to miss some stuff in
9 that approach? Perhaps. But when we think about
10 the risk-based approach, educating folks on what
11 we need for a complaint is incredibly important.
12 We have started that process, because we do -- we
13 understand the challenge of the really long time,
14 but that doesn't help.

15 MR. RICE: Thanks, Jenny. I think
16 we're on A-Dae.

17 MS. ROMERO-BRIONES: I appreciate the
18 conversation around long term solutions to
19 address this issue. I do feel like there is a
20 sense of urgency from some of our panelists and
21 our commenters, and understand I'm coming from a
22 food and legal perspective. Are there inklings

1 -- and fraud is defined in the U.S. criminal code
2 and we do have codes on trafficking, counterfeit
3 goods and services.

4 Are there inklings or discussions in
5 the industry about possible suits around this
6 issue?

7 MR. LEWIN: I am aware of instances
8 where people sue each other when goods are found
9 not to be what they have initially claimed. I am
10 aware of some and that, you know, is -- can be an
11 effective methodology, private party suits.
12 They're ugly, they're protracted. My perspective
13 on this is that there is also an under-
14 utilization of law enforcement. Private party
15 suits are kind of a threat, but they're really a
16 remedy to being cheated.

17 But there is potentially a role for us
18 to bring our major concerns to law enforcement,
19 where they can investigate and potentially
20 prosecute fraud. We've seen that in a variety of
21 places in organic, and it's possible that that's
22 under-utilized and we could be moving our

1 concerns in a coherent way, with enough evidence
2 that they can do investigations.

3 There's no reason that law enforcement
4 wouldn't be interested in investigating organic
5 fraud, and I believe that they've demonstrated
6 that in several different areas, including in
7 Idaho with regards to a gentleman selling non-
8 organic seed as organic, with regards to liquid
9 fertilizer, where people went to jail.

10 And so, you know, let's bring the FBI
11 in when we need to. That would be great.

12 MR. RICE: I realized I passed over
13 Emily, Jenny sorry.

14 DR. TUCKER: Very, very briefly. I
15 think OIG, USDA's OIG can be a useful entree.
16 OIG investigations take time, and so that is --
17 but they are willing and do take on these cases
18 when they are -- they have evidence. And so
19 let's not -- we don't want to underestimate the
20 role of the USDA OIG in that, and that is another
21 sort of line that one can call.

22 They are going to have a high

1 threshold for evidence, because when they take on
2 a case, it's a big deal.

3 MR. RICE: Emily.

4 MS. OAKLEY: You know it was actually
5 an appropriate skipover, because it kind of
6 dovetailed exactly into what I wanted to talk
7 about. Because over the break I was speaking
8 with Laura from OTA about this exact thing, and
9 she suggested the criminal investigation route.
10 We were talking about the stop sale measure and
11 the legislative challenges around that.

12 One suggestion she had might be a stop
13 import option. So I wanted to just ask you guys
14 about that and get your feedback.

15 MR. RICE: Anyone? Jake.

16 MR. LEWIN: I'm always a proponent of
17 anywhere where we can identify a risk and apply
18 heightened scrutiny to that risk, and we should
19 use all legal recourse that we have and all
20 measures that we have as either agencies or
21 certifiers.

22 So if we can say that a given region

1 or product is higher risk and therefore subject
2 to be it additional audits, if the authority is
3 there and the evidence is appropriate and a stop
4 import can be executed, that's assuming that
5 that's the right thing given the evidence, sure.

6 And if legislative action is
7 necessary, then that's just a matter of probably
8 we need to come together and agree and work
9 together to push that through Congress, because
10 getting things through Congress I gather is
11 challenging, right? But right, let's work
12 together on that kind of thing and do everything
13 we can.

14 MS. HEITKAMP: Just to clarify what
15 you're asking Emily, are you asking about a stop
16 import provision when that evidence, to your
17 point, has already been demonstrated? Or stop
18 import from certain countries or what exactly are
19 you thinking?

20 MS. OAKLEY: Yeah. I mean that's a
21 good question, and one I would have for myself as
22 well. I don't think that -- and who would have

1 that authority as well is also another important
2 question. I think some of that would have to be
3 worked out within the community as to where that
4 would be most appropriate and when. It's just
5 the general concept I think right now.

6 MS. HEITKAMP: So I like the idea. I
7 think it could be a highly effective idea,
8 especially with coupled with some testing
9 protocol. So to the extent that there would be a
10 requirement to test product immediately prior to
11 sealing before a product is exported, and then
12 the remedy to the extent that there would be
13 prohibited substances found could be a stop
14 import upon, you know, entry into the United
15 States, and then it does become a question of
16 agency collaboration and authority.

17 MS. MAREZ: I do think that there --
18 oops, sorry. Am I jumping ahead?

19 MR. RICE: Go ahead, then we'll have
20 Sam.

21 MS. MAREZ: I'm going for it. I do
22 think there's an opportunity for NOSB to perhaps

1 recommend to the National Organic Program that
2 they better utilize organic equivalency
3 relationships to prevent fraud. There are of
4 course our countries will have different
5 requirements on what triggers a stop sale, what
6 might trigger a stop import.

7 But coordinating on those efforts a
8 little bit better enforcement authorities of
9 trading partners and what their actions are when
10 they have a domestic problem, and then maybe
11 translating that over to an import case is
12 definitely an option, and of course those
13 equivalency arrangements are reviewed at least
14 every few years.

15 There's an opportunity, especially
16 with changing regulations in Japan and changing
17 regulations in the EU, Canada, for us to address
18 these questions now, where perhaps at the initial
19 time those arrangements were forged, it wasn't as
20 big of a concern. So utilizing our key partners
21 to help with enforcement, I think, is a very
22 important development in those relationships.

1 MR. WELSCH: I just want to remind you
2 that we do have one exclusion from organic sale
3 provision regulations. So if there is a product
4 that testing results in contamination above five
5 percent of the EPA tolerance level, we can
6 immediately inform the operator that they must
7 exclude that product from organic sales, and that
8 would include imports or domestic products.

9 If there is no level set for that
10 particular substance in that particular crop,
11 then any detected amount would prohibit it from
12 being sold, and we've utilized that a number of
13 occasions.

14 MR. RICE: Thanks. Dan.

15 DR. SEITZ: One impression I've gotten
16 from the conversation is that the range of rigor,
17 so to speak, among certifiers, and that may be
18 due to resources or understanding, and that for
19 marginal operators within the system, to some
20 degree they may be shopping around for a
21 certifier that might be more lenient.

22 I don't know if that's a correct

1 understanding of how things work. But if that's
2 the case, is there any way that you can limit the
3 ability of someone, a certified operation to shop
4 around, so to speak, for a certifier, especially
5 if they've been identified as potentially
6 marginal in terms of their adherence to the
7 rules?

8 MR. RICE: Sam.

9 MR. WELSCH: The Organic Integrity
10 Database has one element that helps with that,
11 because if somebody withdraws from certification
12 with non-compliances that's -- we're able to
13 submit that information and the next certifier
14 they apply to has access to know that.

15 And if they -- if somebody's leaving,
16 obviously if the certifier they're applying to is
17 less rigorous than it's, I guess there's a
18 weakness in that. It is a problem, but I'm not
19 sure there's a solution other than NOP's audits
20 uncovering those kind of changes. But they could
21 monitor -- that's something they could monitor
22 since they have the data.

1 You know, where are certifiers going?
2 Who are they moving from and who are they moving
3 to?

4 MR. RICE: Albrecht.

5 MR. BENZING: Two very small
6 administrative improvements that could, yeah,
7 improve something very quickly without spending
8 much money. If you go into the Organic Integrity
9 Database, the default setting is for certified
10 operations. So normally that's what people do.
11 So you will not find the suspended and revoked
12 certificates unless you are really after them.

13 So that's one of the reasons why
14 sometimes operations that had been suspended by
15 somebody else are then certified by another
16 certifier because they are just not shown if you
17 search under the default setting. So that's a
18 very small technical thing that could be fixed
19 very easily.

20 Another thing in the same context,
21 sometimes under specialty in some countries, it's
22 not so easy to identify if the company or farm

1 that had been certified by somebody else is the
2 same that is now applying to us.

3 So if there would be something, some
4 ID linked to each operation that cannot be
5 changed, that would be helpful to prevent
6 certifier shopping. Could be, for example, GPS
7 tracking for farms or even for -- GPS coordinates
8 for office locations, something like that.

9 MR. RICE: Erin and then Silke. No,
10 okay. Silke.

11 MS. FUCHSHOFEN: Oh. I'm wondering,
12 I don't know. I'm wondering if when there are
13 certifier audits through the NOP, if there could
14 also be like a risk analysis on that end, where
15 these audits look into how the certifiers work.
16 You know, not just going down the list through
17 our requirements, but also kind of to get a
18 picture of how, how many tests do they do and how
19 do the tests come back.

20 You know, for example there's ways to
21 do tests where you try to not find something, and
22 then there's ways to do tests where you try to

1 find something. So if they're always testing no,
2 where there's like kind of a system. But I do
3 not know if that's practical. That's just
4 something that comes to mind.

5 MR. RICE: Yeah. You might be about
6 to submit my point. Jake, go ahead.

7 MR. LEWIN: There's a couple of
8 things. I think we all need to look closely, and
9 certifiers need to be careful about only
10 operating where they have the resources to do so,
11 where they can provide the appropriate personnel,
12 where they can afford to do unannounced
13 inspections, they can afford to return.

14 I think there's a tendency
15 unfortunately to want to help a region develop
16 its organic program, but at the same time
17 potentially get over-extended. I don't have a
18 ready solution for that, but I do think it's
19 something we should be cautious about, and
20 potentially there needs to be investment made if
21 we're going to operate in an area.

22 The next thing that I think we could

1 do that would be practical would be to integrate
2 the use of the international GGN number. This is
3 an international repository of business names.
4 The Global Gap food safety system requires each
5 entity to register a GGN number. If that was
6 integrated -- if that -- if every certified
7 entity was required to register for one of those,
8 it would add perhaps \$50 into the certification
9 system for each and every entity one time.

10 They could -- that number would then
11 be tied to that business, and we have a better
12 ability to be able to correlate that with that
13 kind of movement if it's in fact happening.
14 People change certifiers for a lot of reasons,
15 you know, theoretically good and theoretically
16 bad.

17 We just need to bring visibility to
18 that, and then I think that the accreditation
19 system can work with that and frankly certifiers
20 need to look to see who's leaving and why, and
21 kind of be honest with themselves about whether
22 that's their failure or the operation's kind of

1 seeking an easier path, and then go from there.

2 MR. RICE: We had Tom, some questions.

3 MR. CHAPMAN: I wanted to circle back
4 on something Peter brought up about the role of
5 financial auditing of operations, and kind of get
6 some of the certifiers' perspectives on is
7 financial auditing occurring and what role is
8 that playing in detecting fraud.

9 MR. RICE: Jake, Sam.

10 MR. LEWIN: Financial auditing?

11 MR. CHAPMAN: Uh-huh.

12 MR. LEWIN: We have one auditor who is
13 brilliant at this kind of thing at this time.
14 We're not doing -- we're not doing this, but I
15 think that a mandate, a directive or a
16 recommendation that we focus on this if the Board
17 believes it's important and then you put forward
18 a recommendation or statement to that effect.

19 That's something that we would pay
20 attention to and consider ways to make sure we
21 have the resources. I would think that the -- a
22 financial -- it's actually a service that's

1 available. It might not be an organic inspector,
2 but rather a financial auditor. Those are
3 available services that can be hired out.

4 So I think that the mandate, I think
5 part of the problem is is that we have real
6 challenges where the expectation in the system is
7 that every organic inspection covers every single
8 point of compliance soup to nuts, and that the
9 ability and the -- the ability on a risk-based
10 basis to focus inspections on single areas of the
11 operation would give us the autonomy and ability
12 to do these kind of audits.

13 So that I don't have to send a person
14 that knows everything about receiving and the
15 organic standards, and maybe the organic
16 inspection this year is a financial audit, and
17 that suffices for the organic inspection. The
18 alternative is we send another person at another
19 time, or do this in response to complaints. So
20 those are pathways to get at this.

21 MR. RICE: Silke.

22 MS. FUCHSHOFEN: I really like what

1 Jake said, and I want to add that I think
2 sometimes it would be great to do even annual
3 inspections with certain focus, you know, where
4 one year you look deeply into this, another year
5 you look deeply into that.

6 And that sometimes I wish I could make
7 a recommendation for next year's inspection, you
8 know. Towards the end of the inspection, there
9 is something where I think gosh, if I started
10 now, I would look at this, you know. But so to
11 not just repeat the annual audit every year the
12 same thing, but to, you know, yeah.

13 MR. RICE: Yeah.

14 MR. CHAPMAN: And I had another quick
15 one and I'll stop. So I keep hearing about Mike,
16 you've said it; John, I mean this is in some of
17 your comments, that we find bad materials, some
18 bad actors are identified. You guys reject them.
19 So you know they get identified, they get
20 rejected at the port. You don't buy them, and
21 then they go on to the next guy.

22 And so it's not really -- I mean you

1 guys are doing a good job. You're blocking the
2 fraud from your product stream, but you're not
3 blocking the fraud out of the marketplace. How
4 do we go about resolving that issue of after
5 fraudulent activity has been identified, making
6 sure it doesn't enter the market at a later
7 point?

8 MR. DILL: Well, I should maybe
9 clarify a little bit that if we don't have the
10 information we need to feel comfortable about the
11 product, we'll reject it. So it's not that it's
12 always fraud. If we know it's fraud and we have
13 evidence and we have enough to support it, we
14 file a complaint.

15 I'm sure NOP has very many organically
16 grown company complaints in their file. I'm sure
17 that Jake has heard from us several times,
18 because we follow up with certifiers. We verify
19 labels. We do everything we can. But if we
20 can't feel comfortable at it, about it at the end
21 of the day at a reasonable time, then we'll just
22 take the safe road and reject it.

1 But to your point, it does then end up
2 somewhere else. It's not just it's going back on
3 a truck and they're going to -- just like someone
4 that's trying to find a certifier that's going to
5 approve their process, they're going to try to
6 find someone that's going to buy that product.

7 Hopefully, it will be someone that's
8 going to keep the organic claim on it, but maybe
9 it will be diverted to conventional. We're not
10 able to do that. We don't sell conventional
11 produce. But it's true that it does happen, and
12 I wish I had a solution to that or I knew the
13 problem. I don't know if it's a training
14 problem, if it's integrity behind the company.

15 But everyone has a different level of
16 knowledge of certification, and luckily
17 organically grown has quite a few people that
18 have bene in the trade for a long time and have
19 been involved with organics. So we understand
20 it, but other companies aren't that fortunate.

21 I really wish I had a solution or a
22 better example, but it's a frustration that we

1 have and that's -- I mean I put it in there on
2 purpose. I didn't hold that out, because it's
3 something that is known and should be known that
4 that's happening.

5 MR. WELSCH: Just to give you an idea
6 of the time frame, you know, last March in 2017
7 we submitted a complaint on a product we knew to
8 be using a fraudulent certificate to sell product
9 in the U.S.

10 It was resolved in December. So it
11 took nine months, and that was something I
12 specifically requested can it be expedited,
13 because this product is being sold right now.
14 It's a fresh product, you know.

15 So it's still -- and I understand. I
16 mean there's a lot of steps that go into that,
17 and I think they started looking early, but there
18 were some issues that kept it from being resolved
19 that long.

20 MR. RICE: John.

21 MR. BOBBE: When it comes to grain, we
22 have an immediate reaction. When word of that

1 ship got out yesterday that it wasn't going to be
2 docking in Stockton, California, the prices of
3 grain went up. But what has happened is it has
4 interfered with the open operation of the markets
5 and market transparency.

6 When you have a grain marketer that is
7 marketing a farmer's grain, and in some cases for
8 monetary purposes, tax purposes, planting season,
9 there's a new crop coming in, whatever, and that
10 buyer says you can bring it in oh maybe next
11 week, a couple of weeks.

12 You can fire sale it to us, because
13 the U.S., they're using the U.S. as a residual
14 supplier, when in fact the market should be
15 signaling we need more acreage of grain because
16 we're importing about 40 percent of our grain, 70
17 percent of our soybeans. There should be a
18 market signal there to farmers to produce more.

19 If they're going to take that risk of
20 transition and get to the end of that transition
21 period and they're going to get beat over the
22 head because of a false market because of it,

1 that's' what we're asking for. We're not against
2 the imports. What we are against is what this
3 has done to the fair and open transparency of
4 market operations on an extremely significant
5 scale.

6 MS. MAREZ: The Organic Trade
7 Association's Global Organic Supply Chain
8 Integrity Task Force has discussed an industry-
9 driven alert system. Of course, there are many
10 risks associated with developing an industry-
11 driven alert system because such systems can be
12 manipulated.

13 A similar system was developed by BO
14 -- oh heck. The guys in the Netherlands, the
15 equivalent of the Organic Trade Association; I'm
16 going to forget their name. But they had that
17 system in place and then pulled it because it was
18 being abused.

19 So one idea that we've thrown around
20 is perhaps you're allowed to have an industry-
21 driven alert system after you've submitted a
22 complete complaint to NOP.

1 If you're willing to do that, why
2 wouldn't you be willing to share it with your
3 actors. I think the important thing here for us
4 to remember, we need to develop an industry
5 culture and commitment to prioritize organic
6 integrity over supply chain consistency. That is
7 extremely important.

8 So if there are going to be buyers
9 constantly looking for that supply and are
10 willing to take that good deal, you know, that's
11 a problem and that's an industry culture problem
12 that we can probably work on together through
13 things like enforcement, if people understand
14 that it's getting harder to bring in that
15 product.

16 But the idea of an industry-driven
17 alert system is one that we're talking about, but
18 we recognize the inherent risks in such an
19 approach.

20 MR. WELSCH: If I could just step in
21 and say I think -- yeah.

22 MR. RICE: Sam, and then we're going

1 to have to wrap it up here and get to lunch.

2 MR. WELSCH: Just quickly. I just
3 wanted to correct an impression I might have
4 given. The USDA did start the investigation
5 within a week of when I requested an expedited
6 investigation.

7 It's just that the due process that
8 they have to go through takes a long time for
9 those to get concluded and become public. So I
10 do appreciate the fact that they are starting the
11 investigations early. It's frustrating, but I
12 understand the due process. It takes a while to
13 complete sometimes.

14 MR. CARLSON: I would just say that
15 we're talking about reactive systems, which is
16 important, and part of that, the reactive systems
17 will only mean anything if there's penalties.
18 Right now, there's not a lot of penalties, and
19 there will be -- of course I don't know the legal
20 environment for changing those penalties may be a
21 large hurdle.

22 So I would just encourage that if

1 we're focusing on the preventative, the
2 preventative will most likely come through
3 systems of traceability. We have a lot of
4 technology and ability that's not in place to
5 encourage the traceability side, including that
6 some of the financial traceability, especially
7 for those intermediaries that are set up
8 specifically to propagate fraud. Thanks.

9 MS. MAREZ: Well, and back to Dave's
10 point. In addition to that, we also need to
11 prioritize as a preventative measure better
12 quality inspectors, better harmonization of
13 inspection standards across certifiers. The
14 ability to send out a high quality inspector no
15 matter who the accredited certifying body is
16 that's sending them out.

17 I think that is one key area for
18 improvement, and of course the NOSB can work with
19 the NOP to make sure that that happens.

20 MR. RICE: I think that brings us to
21 the close here. I want to express our gratitude
22 again from the panel and just incredible

1 discussion. At both the breaks, we heard some
2 really great feedback from Board members and from
3 members of the audience how useful this was. So
4 thank you again.

5 MR. CHAPMAN: As we continue to work
6 on this issue before we -- but yes, that's good.
7 As we continue to work on this issue, you guys
8 now have, you know, my contact. You have Scott's
9 contact. Please reach out to us if there's items
10 we didn't get to, if there's other thoughts that
11 you have in how we continue to address this.

12 This goes to everyone in the room, but
13 particularly to our panel who's here. Thank you
14 very much for all your travel here and providing
15 this testimony. A round of applause, and thank
16 you.

17 (Applause.)

18 MR. CHAPMAN: Okay. So we will go
19 into recess. It's 12:53 right now. We'll start
20 back up at two o'clock. So that's like an hour
21 and seven minutes.

22 (Whereupon, the above-entitled matter

1 went off the record at 1:53 p.m. and resumed at
2 2:06 p.m.)

3 MR. CHAPMAN: If Board members can get
4 seated, we're about to get started. Okay. We
5 have all Board members present, so we will come
6 back into order. If folks can take their
7 conversations outside, that would be appreciated.
8 So the agenda has us moving on to CACS right now,
9 but we are planning to reorder the agenda and
10 move to Livestock.

11 So we'll do this by consensus, unless
12 there's an objection to reorder the agenda and
13 take up the Livestock Subcommittee at this time.
14 Is there any objection?

15 (No audible response.)

16 Seeing none, the agenda is reordered
17 and Livestock will be up first, and before we get
18 into that, I just want to note for folks keeping
19 score is when we do get to the votes, that there
20 are only 13 members, and so a two-thirds vote of
21 13 members is nine votes. So it takes nine votes
22 for a decisive motion. Just so everyone's aware

1 that's a little bit different than how it is when
2 we have 15 members seated.

3 So with that, I will hand it over to
4 Ashley Swaffar, the Livestock chair.

5 MS. SWAFFAR: Hi everyone. Welcome to
6 Livestock. We're going to start with our sunset
7 items, then move to our proposal and then our
8 document on Defining Emergency Treatment. So
9 just to get started, we'll start with our co-host
10 Devon.

11 MR. PATTILLO: Yes. We'll start with
12 sunset review of materials for livestock
13 production, starting with 205.603(a) as
14 disinfectant sanitizer and medical treatments as
15 applicable. One, alcohols, ethanol, disinfectant
16 and sanitizer only prohibited as feed additive
17 methanol. Thanks.

18 MS. SWAFFAR: Great, and I do want to
19 mention that I should have done this before that.
20 So some of these are being reviewed early. We'll
21 be voting on these in the fall, but they will not
22 -- if something doesn't get relisted, it would

1 not be removed until its current sunset date. So
2 all right, Jesse.

3 MR. BUIE: Okay.

4 MS. SWAFFAR: Speak into the mic.

5 MR. BUIE: Yes, ethanol. During our
6 recent webinar, April 17-19 and during the
7 public comment, 25th, April 25th, there were no
8 additional comments on ethanol.

9 According to the re-registration
10 eligibility decision of aliphatic alcohols,
11 ethanol and isopropyl alcohol were registered in
12 the U.S. as early as 1948, as active ingredients
13 in indoor disinfectants. This is according to
14 the EPA 1995.

15 Aside from accidental spills, the risk
16 of environmental contamination from release of
17 ethanol is minimum. It is therefore and likely
18 that large-scale spills and associated
19 environmental contamination will occur under the
20 allowed use of ethanol as a sanitizer and
21 disinfectant in organic livestock production.

22 We had proposed two additional

1 questions, but because we didn't have any
2 additional comments we will -- we can discuss
3 those two questions that were posed if you have
4 any additional questions.

5 The question, the first one was is a
6 substance still considered to be essential for
7 organic livestock production, and since the
8 material was last reviewed, have additional
9 commercially available alternatives emerged?

10 And the answer to number two is no, it
11 has not, and we might want to discuss one a
12 little bit more.

13 MS. SWAFFAR: Okay, thanks Jesse. So
14 now we'll just open it up to conversations of the
15 Board. Just a reminder we are not voting on
16 these this meeting. We'll vote in the fall. So
17 anybody have any discussion? Yes Harriet.

18 MS. BEHAR: Coming from a state where
19 there's a lot of livestock production, I know
20 that I see this used on many operations, and I
21 will be voting to -- next time to keep it on the
22 list. But sometimes it's nice to hear from the

1 public and hear them say that they would like it.

2 MS. SWAFFAR: I will note that there
3 was a comment, a couple of different comments
4 that did say these are important materials for
5 use. Okay, all right. Moving on to isopropyl
6 alcohol, Devon.

7 MR. PATTILLO: Under the same section,
8 205.603(a) as disinfectant, sanitizer and medical
9 treatments as applicable. Paragraph one
10 alcohol's ii, isopropanol disinfectant only.
11 Thanks.

12 MS. SWAFFAR: Thank you, Jesse.

13 MR. BUIE: Okay. Again, during the
14 webinar 17th and 19th, and during our comment
15 period, there were no additional comments on
16 isopropyl alcohol. The agricultural uses of
17 isopropanol include disinfection of production
18 tools and surfaces and topical antiseptics during
19 medical treatment.

20 Although isopropanol is a volatile
21 organic compound and potentially contributes to
22 the formation of ozone and photochemical smog,

1 large scale releases of isopropyl -- propanal
2 under the prescribed use pattern in organic crop
3 production is unlikely.

4 The questions. Again, we posed two
5 questions here and we may want to discuss that.
6 Is a substance still considered to be essential
7 for organic livestock production and number two,
8 since the material was last reviewed, have
9 additional commercially available alternatives
10 emerged? Again, the answer to number two is no,
11 but we may want to look at number one.

12 MS. SWAFFAR: So we'll open up for
13 discussion. Anybody have any discussion?

14 (No audible response.)

15 Thank you, Jesse. Moving on to Devon
16 for aspirin.

17 MR. PATTILLO: The next listing is for
18 aspirin, 205.603(a)(2), aspirin approved for
19 health care use to reduce inflammation. The most
20 recent TR on this substance was completed in
21 2017.

22 MS. SWAFFAR: Thank you, Devon.

1 Aspirin is nine, so aspirin is a non-steroidal
2 anti-inflammatory drug used for temporary relief
3 of minor aches and pain. It is also used for
4 reducing fever.

5 We did receive several comments in
6 support of relisting aspirin, and stating that it
7 is important to the humane treatment of organic
8 animals, and it was commonly used to reduce
9 inflammation and pain management.

10 We also received one that said it is
11 the only real time responsive form for
12 inflammation and fever management available, and
13 there are other products that are available but
14 do not offer the same type of timely response to
15 ensure animal health and well-being. This is
16 also a proven remedy and is critical in organic
17 livestock production.

18 We also had several certifiers write
19 in their comments, that many of their livestock
20 operations list aspirin on their organic system
21 plan. Any questions about aspirin?

22 (No audible response.)

1 MS. SWAFFAR: All right. Seeing none,
2 moving on. Devon.

3 MR. PATTILLO: The next listing is
4 205.603(a), as disinfectant, sanitizer and
5 medical treatments as applicable. Paragraph
6 four, biologics-vaccines. There are technical
7 reports available from 2011 and 2014.

8 MS. SWAFFAR: Harriet.

9 (Off mic comments.)

10 MS. BEHAR: So of course I have
11 somewhat of a little controversial. Maybe that's
12 why the mic didn't want to work. So vaccines are
13 used against bacterial or viral infections, and
14 are a cost-effective and efficient method of
15 lessening animal suffering and disease.

16 A vaccine contains or produces in the
17 vaccinated individual an antigen that stimulates
18 an immune response and enables protection from
19 the disease and/or future infection. Vaccines
20 are produced through a variety of methods to use
21 natural pathogens grown in a culture, yeast,
22 bacteria or cell cultures.

1 A separation and purification of the
2 vaccine and then done, and addition of other
3 materials that may enhance the efficacy of the
4 vaccine, and these methods will result in either
5 a live, modified or killed vaccine.

6 So the Subcommittee is not -- in the
7 questions that we brought forward, we talked also
8 about not in the National List listing but in
9 another place in the regulation talks about the
10 use of excluded methods and a place where
11 vaccines could be approved by the National
12 Organics Standards Board and put on the National
13 List on a case-by-case basis.

14 And so the Subcommittee is not
15 suggesting that the current listing is -- would
16 not be relisted or viewed differently, but we
17 wanted to revisit the excluded methods vaccines
18 because the previous National Organic Standards
19 Board that reviewed this put it on hold until
20 there were -- was a better definition for
21 excluded methods, and we have now done that.

22 So we did put out some questions to

1 the public about how they felt about excluded
2 methods vaccines. One of the reasons that we put
3 that out was because in our Subcommittee
4 discussions, we found there was inconsistency in
5 how certifiers were allowing or not allowing
6 these GMO vaccines.

7 Some allow, some don't even ask, some
8 don't allow unless proven to not be GMO, and we
9 felt that this was problematic for the organic
10 livestock community, that depending on your
11 certifier you could have a burden of proof of
12 non-GMO or you couldn't even use a GMO vaccine,
13 or it wouldn't matter.

14 So we asked the questions, and through
15 public comment there was agreement by most of the
16 commenters, by certifiers, advocacy groups and
17 producers, that this issue should be put on the
18 NOSB work agenda to look at possible solutions
19 for this inconsistency between the implementation
20 of the rule.

21 It was in agreement that the National
22 Organic Standard Board should either develop some

1 kind of guidance that the NOP could put in place,
2 or perhaps regulatory wording to give clear
3 direction to producers and certifiers. It seems
4 that of course we could come up with other
5 solutions too, but it seems like we basically
6 have three options to change the regulatory
7 language and allow GMO vaccines by removing any
8 -- the part in the regulation where it says that
9 it has to be put on the National List an on
10 individual basis.

11 We could change it and say that if
12 there's a commercially available non-GMO vaccine,
13 that then that would be the preferred version or
14 completely ban GMO vaccines. The Subcommittee
15 has not discussed in any detail those three
16 options, but it seems like that's what would be
17 looked at.

18 The NOSB has worked on this issue in
19 the past. We have quite a bit of -- we have a
20 technical review on this subject and quite a bit
21 of information, and in the public comment we did
22 hear verbally and in writing that yes, this is

1 inconsistently implemented across the United
2 States and among the various certifiers. I guess
3 that's it.

4 MS. SWAFFAR: Okay. I just want to
5 remind the Board there's kind of two different
6 things with those statements. This is the sunset
7 review process. That was just gathering some
8 more information on some work that we may or may
9 not do in the future. So this will kind of be
10 around the sunset review process. We need
11 comments though. Open the floor up. Anybody.
12 Seriously? Asa?

13 MR. BRADMAN: I just have a question
14 perhaps of those who were reviewing this. Is
15 there any difference in efficacy for a GMO-
16 produced vaccine or a non-GMO vaccine for the
17 same target disease end point?

18 MS. SWAFFAR: So typically they're not
19 the same vaccines. I would just say in like the
20 poultry industry, for example, many producers are
21 federally mandated to use certain types of
22 vaccines on salmonella, for instance, by the FDA.

1 They require killed vaccines. Those are GMO
2 vaccines, so there's not alternatives to those.

3 MR. BRADMAN: So I guess what I'm
4 getting at is there seemed to be one proposal
5 that if there's a non-GMO vaccine available, my
6 understanding was that a non-GMO vaccine for the
7 same end point as another, you know, perhaps
8 another vaccine produced by a different company,
9 there would be a preference for the non-GMO
10 vaccine if it was the same disease end point.
11 Does that situation ever exist?

12 MS. SWAFFAR: No, no.

13 MR. BRADMAN: Okay.

14 MS. SWAFFAR: It just -- because
15 maybe.

16 MS. BEHAR: We don't have this on the
17 work agenda yet, so we're just going -- you know,
18 this is part of the sunset review and the 601
19 listing. And so that's what we're mostly looking
20 at. But since we're talking about vaccines, I
21 brought up the inconsistency in how that National
22 Listing is applied, due to another part of the

1 regulation.

2 So this was to kind of gather
3 information from the public, to see if there was
4 an issue out there, if the inconsistency that we
5 thought we saw was actually happening, and if the
6 community wanted us to look at this issue so we
7 had some idea of whether or not we would go
8 forward with this later.

9 MS. SWAFFAR: Okay. Any other
10 discussion? I just want to say that I think
11 vaccines are critically essential for health care
12 in all species of livestock. So they are -- I
13 don't want the public to get the wrong sense with
14 the way that some of those questions were asked.

15 The Subcommittee all said that we feel
16 that vaccines are critically essential. So
17 please don't take those questions the wrong way.
18 So Dave, did you have something?

19 MR. MORTENSEN: Ashley, also like Asa,
20 this is not my field. But when I was at the
21 University of Nebraska, I was struck by findings
22 that were coming out about the influence of

1 animal density, birds or beef cattle in that
2 case, in incidents of disease, that there's a
3 pretty clear relationship when crowding begins to
4 occur, and then vaccines become more and more
5 necessary as a therapeutic treatment.

6 So I just am curious. How do we
7 factor that into our thinking about what is
8 essential and what's not essential with respect
9 to vaccines? I'm not arguing against vaccines
10 here. I am concerned about the GMO vaccines,
11 because it appears to me to be a slippery slope
12 when we're looking at excluded methods.

13 But just generally, how that does
14 cultural practice enter into the thinking about
15 what we decide we put on a list or not?

16 MS. SWAFFAR: So as far as the
17 question of stocking density to relation to the
18 need for vaccines and prevention -- because
19 vaccines are a prevention. They're given as
20 prevention tools. Like in poultry, for instance,
21 we had a very standard list of vaccinations that
22 are given to birds at various stages of life.

1 For the companies that I've worked
2 for, for the different styles of production
3 relating from to an organic barn all the way to a
4 pastured barn, those vaccination schedules were
5 varied, just because where we are in Arkansas and
6 Missouri is a very high density of poultry and a
7 lot of these things are airborne.

8 Diseases are airborne, and so that's
9 what those producers are vaccinating for, is
10 basically production from their neighbor and
11 their fans blowing and things like that. But I
12 do think that is a huge thing. Density does
13 relate to healthy animals. That was some of the
14 great parts of OLPP was going to help with. But
15 since we do not have that, we don't -- we have no
16 standards.

17 MR. MORTENSEN: So I guess, I guess --
18 and I'm not trying to be difficult here. I'm
19 just trying to understand how it is that this
20 cultural practice of animal density is considered
21 when we think, when we consider whether or not
22 vaccines are allowed, or whether or not we need

1 three vaccines versus one as a resistance
2 management strategy, one perhaps a cultural
3 practice of reducing animal density and one
4 active ingredient is enough, that kind of thing.

5 MS. SWAFFAR: Tom.

6 MR. CHAPMAN: If I understood what
7 Ashley was saying though, is let's just OLPP as
8 the example. In an OLPP situation and a non-OLPP
9 situation, your vaccinations for your chickens,
10 that schedule would be the same.

11 MS. SWAFFAR: Yes.

12 MR. CHAPMAN: That's related to not
13 just what the practices are on the farm, which is
14 in the farmer's control, but really what's going
15 on in an environment completely around them.
16 That's completely out of the farmer's control.

17 MS. SWAFFAR: Yes. That is correct,
18 yes.

19 MR. CHAPMAN: So I hear your
20 questions, but I don't know how they relate to
21 vaccines.

22 MR. MORTENSEN: Well, I would also say

1 that it's my sense, and I'm not an expert, but I
2 do have friends that raise chickens in
3 Pennsylvania, that there are some that rely more
4 heavily on vaccines and others that rely less
5 heavily on vaccines. My sense is it's tied to
6 animal density and isolate, yeah.

7 If everyone's doing chickens and
8 they're at some modest density, then the
9 landscape effect of aerial borne disease, the
10 pressure will be high. But if the animal density
11 is lower and the density of poultry houses or
12 poultry rearing facilities, small farms whatever,
13 the inoculation density is low.

14 I guess I would -- to me as we go
15 forward, I would like to think that we're
16 thinking about these kind of cultural. To me,
17 that's a landscape scale cultural practice. I
18 don't think it's hard-wired that a particular
19 regime is followed by every farmer. That's not
20 my understanding.

21 MS. SWAFFAR: To some degree when you
22 get to commercial-size scale of say poultry,

1 we'll take that example, the majority of
2 everybody uses somewhat the same vaccination
3 program. And density, there's two different
4 types of density. There's farm density,
5 individual farmer density, and then there's
6 community density.

7 And producers don't have any control
8 over the community density, just you know. If
9 you have a farm and you're doing great and you
10 have no disease challenges or anything like that
11 and you decide to maybe take away a vaccination,
12 but then your neighbor has LT, that's an airborne
13 or an airborne virus, you have no control of
14 stocking that.

15 If your birds aren't vaccinated for
16 that, you could get it. So there's -- it's a
17 preventative tool on the neighbors. In the
18 poultry industry there's pockets of it, you know.
19 It's not like you got one farm and the next,
20 yeah. Wild birds, that's another one. Harriet.

21 MS. BEHAR: So disease is not just one
22 -- have one cause. I mean there could be breeds

1 that could help, you know, have some resistance
2 to certain, maybe not in poultry. There are, you
3 know, environmental, you know, the housing, the
4 feed, the supplements in the feed.

5 I mean there's lots of different
6 things that you can do for disease management.
7 I'm trying, you know, I have to barely turn to
8 get to the microphone. And also just because
9 it's on the National List doesn't mean it's
10 required. So those who don't want to use
11 vaccines don't have to.

12 MS. SWAFFAR: It's a great point.

13 Sue.

14 MS. BAIRD: In dairy industry, a lot
15 of -- the livestock industry, in beef, dairy,
16 cattle, some of those diseases are in their soil,
17 and even -- when they are outdoors, they're going
18 to pick up I'm thinking blackfoot, some of those
19 kinds of diseases.

20 They've been in the soil for years,
21 and if you don't vaccinate then you're going to
22 lose your cattle, you're going to lose your milk

1 production. So some of those things are not
2 linked to stocking density.

3 MR. MORTENSEN: Yeah, I think well
4 enough. I accept your points of view, but I also
5 know that the cultural practice by disease
6 incidents interaction is profoundly strong, and
7 I'll just leave it there.

8 MS. SWAFFAR: Dan.

9 DR. SEITZ: I just want to say I
10 actually think it's a very good point and a more
11 general point, because we're often in a situation
12 where we're talking about substances where there
13 is a linked cultural practice that may make those
14 substances less necessary in terms of intensity.

15 So I think it's good for us just as a
16 board not to always think about here's, so to
17 speak, the quick fix or the technological
18 solution, but are we also being mindful that
19 we're losing sight of a cultural intervention
20 that may balance the need for that substance or
21 intervention.

22 MS. SWAFFAR: I just want to follow up

1 and just to reiterate that there are some
2 industries where the government does mandate
3 certain vaccinations occur. So you can't get
4 away -- you can't get away from vaccines 100
5 percent. So Harriet.

6 MS. BEHAR: I would just say that
7 vaccines do not necessarily enable high
8 confinement. There's other aspects to
9 confinement operations, and vaccines are a useful
10 tool even for pasture-based animals and actually
11 for many types of pasture-based animals they're
12 essential.

13 So I'm not speaking against vaccines,
14 even though I brought up the dreaded excluded
15 methods.

16 MS. SWAFFAR: Any other discussion?
17 Great. Looking forward to an even better
18 discussion in the fall. Devon, next.

19 MR. PATTILLO: We're moving on to
20 paragraph eight of the same section, 205.603(a),
21 disinfectant, sanitizer and medical treatments as
22 applicable. The listing is for eight

1 electrolytes without antibiotics.

2 MS. SWAFFAR: Thank you. Harriet.

3 MS. BEHAR: So electrolyte balance is
4 essential to maintain normal physiology and
5 health of livestock, when there's an imbalance of
6 cations such as sodium, potassium, calcium or
7 magnesium, either too low or too high.

8 The health and life of the animal is
9 at risk. Stages of life, environmental stresses,
10 stages of production such as birthing an animal
11 are all conditions that can throw the electrolyte
12 balance off and would necessitate the use of the
13 material to restore health and well-being to the
14 animal.

15 The public comment was universal, in
16 agreeing to relist this product. That included
17 manufacturers of the dairy products. There are
18 quite a few certifiers, advocacy groups, who
19 else? Both mod, MODKA, excuse me, NODPA and
20 WODPA, and I'll throw in MODPA, because they're
21 kind of under NODPA. Everybody know what the
22 NODPAs are, and so everyone agreed and I think in

1 Subcommittee we all were very positive towards
2 this material as well, with no change to the
3 annotation.

4 MS. SWAFFAR: Great. Thank you,
5 Harriet. Any further discussion?

6 (No audible response.)

7 MS. SWAFFAR: Great, Devon next item.

8 MR. PATTILLO: Next substance is under
9 paragraph 11 of the same section, 205.603(a) as
10 disinfectant, sanitizer and medical treatments as
11 applicable, and the listing is for glycerin,
12 allowed as a livestock teat dip. Must be
13 produced through the hydrolysis of fats or oils.
14 The last technical report on the substance was
15 prepared in 2013 for handling uses.

16 MS. SWAFFAR: Thank you, Devon. Sue.

17 MS. BAIRD: Yes. Glycerin is a
18 byproduct of the manufacturing process. It could
19 be manufactured either by a hydrolysis of natural
20 fats and oils, or by heat, steam, pressure split
21 the glycerin from the oil. But it also can be
22 formed by chemical reaction of sodium hydroxide,

1 producing a chemically catalyzed hydrolysis
2 reaction and therefore considered to be
3 synthesis.

4 In reaction to that, the Committee has
5 added the annotation that it must be produced
6 through the hydrolysis of fats and oils. There
7 were 12 public comments for the addition or the
8 retention of glycerin on the sunset, but those 12
9 public comments were received -- they represented
10 all the different organic dairy commodity groups,
11 certifiers.

12 So even though they were only 12
13 listed, we don't know the numbers. But they
14 represented the whole gamut of the dairy
15 industry, and all of them stated that glycerin
16 was essential for organic dairy production.
17 There was during the review, the last
18 subcommittee asked a question as this.

19 In April 2015, the NOSB Handling
20 Subcommittee recommended listing glycerin at
21 205.606, and removing it from 205.605(b) after
22 review of the practices. So we asked are there

1 any non-food grade agricultural sources of
2 glycerin produced by microbial fermentation of
3 carbohydrate substances, or are there any other
4 sources of glycerin produced by hydrolysis fat,
5 use of physical methods that are readily
6 available for teat dip.

7 I read with interest the comment by
8 Beyond Pesticides, and they commented directly to
9 that question. So I wanted to read that to you,
10 because I found it very pertinent to our
11 question.

12 They said the petition approved in
13 spring to delist synthetic glycerins on 605(b),
14 which is the handling, was based on production of
15 organic glycerin through fermentation of organic
16 corn starch. Therefore, it was considered to be
17 organic.

18 And they made a comment that
19 fermentation varies widely from pickling, wine
20 making, cheese making and different types of
21 fermentation products. In this case, they said
22 the processes vary in nutrients, the process and

1 the physical method of extraction. The fact that
2 all these processes are evolve growth of
3 microorganisms, they did not seem to make that
4 sufficient and treat them all as one.

5 So their comment was yes, let's go
6 ahead and list glycerin at 205.603, but they
7 requested that the NOSB add to its work plan in
8 general to the development of a criteria for
9 evaluating products of fermentation processes.
10 That doesn't directly impact our consideration,
11 but something I wanted to bring out that was
12 brought up.

13 The other thing that I did find
14 interesting is that some supporters of listing
15 glycerin said that it's needed, that they're
16 using or it's needed as an oil in the mouth
17 supplement to follow up dextrose and glucose IV
18 for ketosis, and that is not allowed by our
19 annotation.

20 And so that point needs to be made,
21 that if they really feel like supporting, it
22 needs to be petitioned separately as inclusion to

1 the National List. So comments.

2 MS. SWAFFAR: Thank you, Sue. Any
3 comments, questions? Tom, yeah.

4 MR. CHAPMAN: You touched on it a
5 little bit in that petition, but on the handling
6 side we have recommended organic usage of
7 glycerin, and I'm curious to know why that's not
8 being considered here. I think that's how it's
9 listed in the Canadian regulations as well. If
10 it's good for the handler, why isn't it good for
11 livestock operations that try to source organic
12 glycerin first?

13 MS. BAIRD: Right, and that was a
14 point that Beyond Pesticides was stating, that
15 the organic --

16 MR. CHAPMAN: They went into the
17 fermentation stuff. You can leave that
18 fermentation stuff aside. I'm curious about,
19 because there's multiple ways to make organic
20 glycerin. You can also make organic glycerin via
21 saponification if you use organic feedstock
22 materials.

1 MS. BAIRD: Right. That is a great
2 question. I think that we do need to explore the
3 question. Is there enough organic glycerin
4 available that it would be used as a teat dip, in
5 a teat dip formulation? I like that question.

6 MS. SWAFFAR: Harriet.

7 MS. BEHAR: I think the other question
8 is if the -- if the organic dairy industry
9 purchases enough of glycerin-based teat dip --

10 MS. BAIRD: Teat dips, right.

11 MS. BEHAR: --to encourage a
12 manufacturer to make an organic or one using
13 organic glycerin, and I guess I would be somewhat
14 skeptical to that. However, with the however,
15 there are companies that do cater to organic
16 dairy operations.

17 MS. BAIRD: Sure.

18 MS. BEHAR: There's a pretty good-
19 sized one in Wisconsin. There's a good-sized one
20 in Pennsylvania. I'm sure there must be some out
21 on the west coast as well that -- I mean if we
22 put it out there. I would hate to make an

1 annotation that it had to be organic, and so the
2 producers would lose access to this very good
3 teat dip.

4 But I'm not sure how you get the word
5 out, but see if they could possibly start looking
6 at the development of an organic glycerin teat
7 dip for their producers and see where that all
8 goes.

9 MS. BAIRD: Yeah, I would agree. I
10 think that's something that we do need to
11 explore.

12 MR. CHAPMAN: Yeah, and if I can
13 clarify, our recommendation on the handling side
14 was to list it in 606, because there's also just
15 agricultural ways of producing this with
16 pressure and steam. That is another format in
17 which glycerin is potentially available.

18 MS. SWAFFAR: So I just want to say
19 Harriet that was a great, a very, very great
20 point to make, that there's probably not that
21 many folks buying these products to get someone
22 to formulate with an organic glycerin. It would

1 be very difficult. It would be great to find out
2 from those sitting on the front row if that's
3 even a possibility.

4 So maybe in the fall you could maybe
5 be prepared, maybe Sue could ask that question,
6 you know, is that a possibility? Is there enough
7 out there for them to formulate these teat dips
8 with an organic glycerin. Yes Harriet.

9 MS. BEHAR: But there are small
10 companies that might be willing to make the jump
11 to organic, and they're already organic-minded.

12 MS. SWAFFAR: Right, and I was just
13 making a point. If those dairy organizations
14 could maybe do a little leg work on that, that
15 would be very, very helpful. Okay. Any other --
16 thank you, Sue. Moving on, Devon.

17 MR. PATTILLO: It's come to my
18 attention we have a couple of typos in the
19 slides, but I'll be reading off the correct --
20 have been reading off and will continue to read
21 off the correct listings under the correct
22 electronic federal regulations.

1 So the next is paragraph 19,
2 phosphoric acid under the same section,
3 205.603(a), as disinfectants, sanitizer and
4 medical treatments, as applicable. The listing
5 is for phosphoric acid allowed as an equipment
6 cleaner, provided no direct contact with
7 organically managed livestock or land occurs.

8 MS. SWAFFAR: Thank you, Devon. Dan.

9 DR. SEITZ: So phosphoric acid is used
10 by the dairy, by dairy operations to clean and
11 flush build up in milking systems in dairy
12 pipelines.

13 Phosphoric acid, the chemical
14 composition of which is H_2PO_4 -- no, excuse me,
15 H_3PO_4 , has many uses. As a cleaner, it is
16 generally used to remove rust and mineral
17 deposits found on metal equipment such as boilers
18 and steam-producing equipment.

19 In dairy operations, it is used to
20 remove calcium and phosphate salt deposits from
21 processing equipment, in addition to cleaning the
22 milking buildup. Phosphoric acid is a hazardous

1 substance. The exact dangers of it depend on the
2 concentration and strength of the solution, with
3 higher concentrations presenting greater hazards.

4 Phosphoric acid at 85 weight percent
5 is considered a corrosive chemical solution that
6 can cause through skin exposure and inhalation
7 severe skin burns, permanent eye damage, sore
8 throat, shortness of breath and even death among
9 other things.

10 Also there are some hazards,
11 environmental hazards associated with the mining
12 of phosphate, which is the main source for the
13 materials needed to make phosphoric acid. There
14 are only four written comments, and they were all
15 in support of continued listing of this
16 substance.

17 A couple of the comments were from
18 farmer and dairy associations. One was from a
19 dairy farmer and one was from Beyond Pesticides.
20 One of the associations mentioned that there is
21 some variance in terms of certifier requirements,
22 with some requiring a water rinse after use and

1 others not requiring a water rinse.

2 And so it was suggested that an
3 annotation may be useful for this substance, and
4 it was also suggested that given the
5 environmental and health hazards that can be
6 associated with this substance, that while it
7 does need to be relisted, the NOSB should
8 continue to keep an eye out for safer options
9 should there -- should anything come to our
10 attention, and that's it.

11 MS. SWAFFAR: Thank you, Dan. Any
12 comments? Yeah, Harriet.

13 MS. BEHAR: This is a consistently
14 used material in organic dairy production.

15 MS. SWAFFAR: Great. Emily.

16 MS. OAKLEY: Yeah. I had a question
17 about some comments regarding the possible need
18 for annotation that clarifies when a rinse or
19 purge is not required. Do you guys have any
20 thoughts on that? I'm on the wrong thing.
21 Ignore me, ignore me. I'm on the wrong topic.

22 MS. SWAFFAR: Okay. Anybody else?

1 (No audible response.)

2 MS. SWAFFAR: Okay, thank you. Devon.

3 MR. PATTILLO: Okay. Now we're moving
4 to Section 205.603(b) as topical treatment,
5 external parasiticide or local anesthetic as
6 applicable. Paragraph five, lime hydrated as an
7 external pest control not permitted to cauterize
8 physical alterations or deodorize animal wastes.

9 MS. SWAFFAR: Thank you, Devon. A-
10 Dae.

11 MS. ROMERO-BRIONES: Okay. We've had
12 several comments about lime hydrated. There was
13 unanimous support to relist it. We had one
14 qualified comment by Beyond Pesticides that
15 supported the use of hydrated lime when it can
16 replace more toxic inputs.

17 They also mentioned the use of
18 hydrated lime as a walk-through to reduce the use
19 of copper sulphate, and that should be
20 encouraged. But in general, we had overwhelming
21 support to relist it.

22 MS. SWAFFAR: Thank you, A-Dae. Any

1 comments?

2 (No audible response.)

3 MS. SWAFFAR: Great, moving on.

4 Devon.

5 MR. PATTILLO: Moving on to paragraph
6 six of the same section, 205.603(b) as topical
7 treatment, external parasiticide or local
8 anesthetic as applicable. The listing is for
9 mineral oil for topical use and as a lubricant.
10 The last technical report was completed in 2015.

11 MS. SWAFFAR: Thank you, Devon. A-
12 Dae.

13 MS. ROMERO-BRIONES: Okay. So the
14 organic regulations currently permit the use of
15 mineral oil in organic livestock production for
16 direct topical application, and as a lubricant
17 under 603(b). Regarding the former use pattern,
18 mineral oil acts as an external parasiticide when
19 applied topically to animals infested with mites,
20 lice and other parasites.

21 We had several comments, written
22 comments about mineral oil. We had one -- in

1 general, we had one comment against relisting
2 from Beyond Pesticides, and their concern was
3 that there are alternatives to both use as an
4 external parasiticide and as a lubricant, and
5 these alternatives are more compatible with
6 organic production.

7 They suggested if we relist mineral
8 oil, that we should use an annotation like, for
9 instance, use as an orally administered treatment
10 of constipation in cattle and other ruminants is
11 not allowed, or by noting that exception.

12 MS. SWAFFAR: Emily, do you want to
13 ask your question? Is that a no?

14 MS. OAKLEY: No.

15 MS. SWAFFAR: Okay. Any other
16 discussion?

17 MS. BAIRD: I have a question. Can we
18 change annotation during sunset? I didn't think
19 so, okay. That was my question.

20 MS. SWAFFAR: Harriet.

21 MS. BEHAR: I just want to have more
22 clarity. There was discussion that it's used as

1 a way to prevent constipation or deal with
2 constipation, and also that it's used as a
3 lubricant during application of artificial
4 insemination. If you've never done that, it's
5 really fun. To get your arm all the way in the
6 cow.

7 And also it is used to help boluses be
8 given orally, and I am just not sure if the
9 constipation part will be considered a lubricant
10 as well as the helping you get your arm in the
11 cow and the boluses. So I'm just trying to
12 understand. I think it's not applied really
13 universally.

14 Seeing that that word lubricant has
15 kind of an internal use application, but it's not
16 really approved as an oral treatment. So that's
17 where I'm trying to get the --

18 MS. SWAFFAR: Devon, did you want to
19 comment?

20 MR. PATTILLO: Yeah, just to clarify.
21 We have a proposed rule that's still open for
22 comment, which would change the annotation to --

1 or add a use. The annotation for mineral oil
2 would be changed to "for treatment of intestinal
3 compaction. Prohibited for use as a dust
4 suppressant."

5 MS. BEHAR: So that proposed -- if
6 that proposed rule moves forward, then that would
7 be the use. It would be allowed for that use.

8 MS. SWAFFAR: So basically what that
9 commenter was asking was for us to reverse that
10 decision. Any further discussion?

11 (No audible response.)

12 MS. SWAFFAR: Okay, thank you. Moving
13 on, Devon.

14 MR. PATTILLO: The last substance for
15 consideration is under paragraph eight of the
16 same section, 205.603(b) as topical treatment,
17 external parasiticide or local anesthetic as
18 applicable. The listing is for sucrose,
19 octanoate esters in accordance with approved
20 labeling.

21 MS. SWAFFAR: Thank you, Devon. Sue.

22 MS. BAIRD: Yes. Sucrose, octanoate

1 esters forever in my mind SOEs belong to organic
2 chemical family of sucrose fatty acid esters.
3 They are manufactured from sucrose and octanoate
4 acid ester, commonly found in plants and animals.
5 They're an effective adult boticide as well as
6 controlling other pest types.

7 It can be used at all plant growth
8 stages. It is in this particular section listed
9 basically for beekeepers to control Varroa mites
10 on honey bees.

11 A suggestion was made, and again it's
12 not within this context, but it was suggested
13 that we actually change the annotation, which
14 says in accordance with approved labeling, which
15 all products have to be used in accordance with
16 approved labeling.

17 To just accurately describe the use,
18 which says for control of Varroa mites and
19 honeybees. Again, because we're in sunset
20 review, we can't make that annotation, but it did
21 make sense to me. Otherwise, there were 16 total
22 public comments on SOEs, but all but three of

1 them said we received no comments. So we had
2 three comments, and all of those asked that it
3 would be -- continue to be listed because it is a
4 common tool for honeybees, for control of Varroa
5 mites.

6 MS. SWAFFAR: Thank you, Harriet. Did
7 the commenters state if they were using it or
8 they just wanted it in their toolbox?

9 MS. BEHAR: I heard -- none of the
10 comments that I could see where from beekeepers
11 unfortunately, and so we really don't know. The
12 three commenters who made that comment were
13 actually dairy people who said oh, but leave that
14 on. We don't use it, but leave it on because
15 beekeepers use it. So we don't really know.

16 MS. SWAFFAR: It goes to the whole
17 soapbox about bees and livestock and not a real
18 standard. So I just -- yeah Harriet.

19 MS. BEHAR: So I don't see it as a
20 difficult item, but I don't also see anybody
21 clamoring who was actually using it.

22 MS. SWAFFAR: Not at all.

1 MS. BEHAR: And having used it once
2 myself because I'm a beekeeper, it's a miserable
3 product and there is another beekeeper in the
4 audience who's agreeing with me. There are
5 others. We have formic acid on our list as well,
6 and there are cultural methods for trying to
7 control Varroa mite.

8 But I'm not necessarily advocating for
9 it to come off, but because you never know when
10 maybe the formic would have resistance and people
11 might need it and it does take a while to get
12 things back on the list.

13 But this is somewhat of an example of
14 kind of like the appendix on the National List,
15 you know. It's an organ that we don't need, but
16 we just kind of have it there and why go through
17 the surgery to get rid of it.

18 MS. SWAFFAR: Tom.

19 MR. CHAPMAN: One thing to keep in
20 mind. At least as I understand it from import
21 data that I've looked at, I believe the vast
22 majority of organic honey at a commercial scale

1 comes out of Brazil in very rural areas of
2 Brazil. So I question how much that early sunset
3 material got to users of this material
4 potentially.

5 MS. SWAFFAR: Yep. I would kind of --
6 just because we don't hear from farmers that it's
7 not critically essentially doesn't meant that it
8 isn't critically essential to some farmers. They
9 may not be a part of an active certifier
10 organization. They may not be a part of an
11 active industry organization. So I'd just
12 caution us when we just don't receive support.
13 It could be critically essentially. Yes, Dave.

14 MR. MORTENSEN: Yeah, and this would
15 be a place where folks in the audience that
16 represent certifying organizations, if you could
17 just see what the need is, because I do know at
18 the Pollinator Center at our university, Varroa
19 mite is probably the main pest of hive
20 beekeepers, and it's definitely a problem for
21 organic honey producers in the northeast at
22 least, and I also know in the Plain States where

1 the hives that are moved to California, the
2 Varroa mite is a big problem.

3 So we should hopefully hear from some
4 folks that we don't need it or it's helpful, that
5 would be helpful.

6 MS. SWAFFAR: Thank you, Dave. Any
7 other discussion? Yeah Steve.

8 MR. ELA: Just out of ignorance, I was
9 just trying to look up the label. Is the
10 honeybee use the only label acceptability on it?
11 I mean we say "in accordance with approved
12 labeling," but we're talking exclusively about
13 honeybees. So I'm curious.

14 MS. BAIRD: No, because it is actually
15 labeled as for other types of insects. It's used
16 -- well, it's in my other notes, which I don't
17 have, because I've got synopsis. But it is
18 labeled as a pesticide for other types of insects
19 on plants. So this particular -- and we will
20 address that in crop section. This is
21 specifically for livestock.

22 MS. SWAFFAR: Yeah. Most of the

1 comments that I was just looking at said that
2 it's not used primarily in organic livestock
3 production, but mainly in beekeeping. But there
4 is the, as you know, the crop listing.

5 Okay. Anything else? All right.
6 that concludes our sunset items. We'll be voting
7 on those in the fall, and I just want to say a
8 thank you so much to several of the certifiers
9 and organizations that actually answered the
10 questions that we posed.

11 Those are really critical in us making
12 our decisions as a Subcommittee. So thank you
13 very much for answering those questions. We
14 really appreciate that. All right. Moving on to
15 our petition item, glycolic acid. Devon, would
16 you like to introduce it?

17 MR. PATTILLO: Up for consideration is
18 a petition for glycolic acid. It's petitioned
19 for use as a pre- and post-milking sanitized teat
20 dip. It was submitted by the Chemours Company in
21 May 2016 in support of NOSB's review of the
22 petition. A technical report was obtained and

1 published on the NOP website in October 2017.

2 Thanks.

3 MS. SWAFFAR: Thank you, Devon, and
4 this is my material also. Glycolic acid has been
5 petitioned as a component of pre- and post-
6 milking teat dips to control mastitis at
7 205.603(a).

8 Glycolic acid is shown to be an
9 effective post-milking teat disinfectant for
10 dairy cattle, and specifically to aid in the
11 prevention of mastitis.

12 Glycolic acid is different from other
13 teat dips because it conditions the skins by
14 exfoliating cracked skin layers, which removes
15 potentially hiding places for mastitis causing
16 bacteria. So we received several comments on the
17 potential listing of glycolic acid.

18 Some of those comments were -- we had
19 a trade organization stating that they did not
20 hear a clear message from its dairy members, that
21 glycolic acid-based teat dips were absolutely
22 necessary, nor did they hear that the current

1 teat dips were not effective at controlling
2 mastitis.

3 But they did hear that having access
4 to multiple types of teat dips used in rotation
5 could help avoid resistance to one material, and
6 provide more flexibility when applying teat dips
7 in varying weather conditions, especially during
8 cold weather spells where cow's teats can freeze
9 when using the iodine.

10 We had WODPA supporting adding
11 glycolic acid to the National List, and they
12 stated that their organic producers needed
13 options that are more effective in controlling
14 mastitis. We did hear from some commenters that
15 they opposed the listing of glycolic acid because
16 they said it posed environmental and health
17 hazards. It wasn't essential and incompatible
18 with organic production.

19 And some commenters stating that we
20 should not list glycolic acid because several
21 alternatives were available. I would like to say
22 we did hear from several of the dairy groups that

1 alternatives they're currently using did not
2 control their mastitis problem. So that's kind
3 of a brief overview on this. I'll open it to
4 questions. Yes, Emily.

5 MS. OAKLEY: So I see you guys had a
6 split vote in your Subcommittee, and I was
7 wondering if some of you could just elaborate on
8 some of the discussion that took place.

9 MS. SWAFFAR: So a lot of that was
10 just around the essentiality of it. We
11 questioned whether it was needed, and that was
12 one of our questions that we posed. Because we
13 knew there were teat dips that are out there and
14 dairy folks used.

15 We just didn't know if we needed
16 another one. I felt like we got back some pretty
17 good information that what they're currently
18 using doesn't work to control the mastitis. So
19 yeah Emily.

20 MS. OAKLEY: So not to put anybody on
21 the spot, but for someone who voted against it,
22 I'm curious if they felt the same as Ashley.

1 MS. SWAFFAR: I voted against it?

2 MS. OAKLEY: Sorry for that

3 assumption.

4 MS. SWAFFAR: I don't remember who

5 else did. Sue, did you or Harriet? You or

6 Harriet. Yeah, Sue.

7 MS. BAIRD: Yeah. My and not

8 objection, but my concern was exactly what Ashley

9 said. Are there -- are the teat dips we're using

10 now effective. And the answer I think is if you

11 do dairy inspections, and I do a lot of them,

12 you'll see the high numbers of mastitis out

13 there. So the -- you would surmise that perhaps

14 it's not really effective.

15 I know that there is a link made

16 between mastitis and Crohn's disease. I'm not

17 definitive. There are other reasons for Crohn's,

18 but I know that I grew up on a dairy farm and

19 drank raw milk and I have Crohn's disease and

20 it's not fun.

21 So the control of mastitis is really

22 important, and we heard I think as Ashley said,

1 and so I was one who abstained and now I've
2 changed mine to a yes.

3 MS. SWAFFAR: Harriet, did you have
4 something?

5 MS. BEHAR: I believe that acidified
6 sodium chloride is kind of in the pipeline, where
7 we approve that. So that's another teat dip that
8 is probably coming down the pike. I haven't
9 heard anything from the program that they're
10 going to not follow through on our
11 recommendation.

12 So it's just a matter of that's yet
13 another one, and I believe Ecolab gave public
14 comment that they were very supportive of the
15 other one being put on the list, which we already
16 voted and approved that. So that was part of my
17 reason also.

18 I think, you know, the argument for
19 having products in rotation, we have quite a few
20 and even though it leaves that really nice blue
21 color, like Dr. Suess-looking cows, but you know
22 udders, you know, you saw the pictures, I just

1 did not think that it was necessary to put yet
2 another teat dip because there's even more of
3 them out there.

4 It's not like we would have -- I mean
5 we could probably have a list of 35 items on our
6 list with better teat dips. So with the
7 acidified sodium chloride coming down the pike, I
8 just feel like we didn't really need that now.

9 MS. SWAFFAR: Yeah Dan.

10 DR. SEITZ: Yeah. I think I voted
11 against it at the time, again based on the
12 essentiality question. Looking at the testimony
13 that we did get, the comments that we did
14 receive, there doesn't seem to be a strong push
15 from the farmer community for this.

16 I mean there's always that general
17 comment it would be nice to have another tool in
18 the tool kit, but that's very different from
19 saying we have, we have a strong experience of
20 this. It fills a hole that nothing else can
21 really fill.

22 So in that sense, I don't feel we've

1 gotten from the folks that would be directly
2 impacted by this really a strong endorsement.
3 Given what Harriet just said about having just
4 added another substance, let's see how that does
5 and why rush to put another one on?

6 MS. SWAFFAR: So Dan, just to
7 reference back, I would like to point out that
8 the Western Organic Dairy Producers, they did say
9 that they supported adding this, and they
10 represent quite a few farmers.

11 DR. SEITZ: Right, but if I read their
12 -- that's correct. But if I read their comments
13 correctly, it wasn't -- it was more of that
14 general comment of it's good to have another tool
15 in the tool box. I didn't have the sense of it
16 coming from yes, our farmers are using this.
17 They're directly asking for this.

18 I may have not read, you know, we may
19 have read it a little differently in terms of
20 that, and that's a more nuanced point that I'm
21 making about it.

22 MS. SWAFFAR: Okay. So obviously

1 their farmers couldn't be using this because it's
2 not allowed, but that's when I ask him -- in his
3 public comment, I ask him in controlling
4 mastitis, do your alternatives work that you're
5 currently using, and he said they do not control
6 the problem, the current items that they have
7 available. Yeah, Emily.

8 MS. OAKLEY: Yeah. I would echo Dan's
9 comments, and I definitely understand that
10 concern that was expressed by that stakeholder.
11 But also have this concern that we might just
12 continue to be adding teat dips to the National
13 List, and when it one going to work, and we just
14 going to keep adding items because --

15 I mean mastitis can be caused in a
16 number of ways, and this might not be the answer
17 to it. So I'm conflicted and probably will not
18 vote for this, because I didn't see a sufficient
19 amount of need expressed by growers to add this
20 to the list.

21 MS. SWAFFAR: Harriet, did you have a
22 comment?

1 MS. BEHAR: And I agree with Emily.
2 I'm not sure that this is the cure for mastitis.
3 There are many causes of mastitis and many routes
4 to mitigating the effects of mastitis, as well as
5 ridding the animal of this problem. A lot of
6 times stage of production will contribute to that
7 as they go through their lactation cycle.

8 So really what we're looking for is
9 something that keeps the teats clean and healthy,
10 you know, not cracked or rot, and a lot of that
11 can be done culturally too. I mean we just were
12 talking about glycerin.

13 So and for the acidifieds, if we
14 didn't have the acidified sodium chloride in the,
15 you know, kind of waiting in the wings, that you
16 know then it would be like well, maybe we could
17 use it in other. But we have something already
18 coming.

19 MS. SWAFFAR: Tom.

20 MR. CHAPMAN: So Dan, I have a hard
21 time taking your interpretation from the Western
22 Organic Dairy Producers' Alliance letter. I have

1 it open right here and it says, if I can read
2 from it, "Western Organic Dairy Producers
3 Alliance supports adding glycolic acid to the
4 National List. Organic producers need options
5 that are effective and economical to be
6 competitive in this market.

7 "Denying options or removing options
8 because there are alternatives available is not
9 an adequate justification for placing
10 restrictions on our producers. Denying or
11 removing tools from the organic tool box because
12 options exist places our producers at a
13 competitive disadvantage."

14 With everything that's going on in the
15 dairy market now, I don't understand why we would
16 add more barriers when they're making a clear
17 statement to us that they're in need of this.
18 This is an animal health issue and animal health
19 and animal welfare are very linked subjects.

20 I just -- I don't understand that
21 rationale that's being put forward, and I don't
22 think the comments given to us support with how

1 they were being interpreted there.

2 MS. SWAFFAR: Dan.

3 DR. SEITZ: So I do read that
4 differently as a general comment about tools in
5 general. We're not taking this away from the
6 farmers. This is a question about adding, so
7 those are two different things. As Harriet
8 pointed out, there are -- there may be cultural
9 questions here. There may be other practices and
10 so forth.

11 So I mean I think we are often -- the
12 argument is often made to the Board here's a
13 tool. We should add tools to the tool box, and I
14 think if we're constantly adding tools to the
15 tool box, eventually we would start to replicate
16 conventional agriculture.

17 So we constantly have to be very
18 critical. Is this particular tool absolutely
19 necessary, and because we don't want to rush to
20 adding tools if there are other factors here that
21 need to be taken into consideration.

22 I say this generally. I'm not a dairy

1 farmer, okay. So I'm looking at this from a more
2 general standpoint.

3 MR. CHAPMAN: Yeah. Just as a point
4 of clarification, the comment says "denying
5 options or removing options." So this would be
6 denying options.

7 DR. SEITZ: Well, okay. I mean you
8 can call it denying an option. I mean it's
9 really up to our Board to decide to whether to
10 add something. Someone can characterize that as
11 we've denied the community something, but that's
12 our job, to decide whether this particular
13 substance or not is reasonable to add.

14 MS. SWAFFAR: So Dan, I just want to,
15 you know, go back to that. You know, they said
16 they have a problem. So they're not just wanting
17 this just to have another tool in the tool box.
18 They want it because they have an issue and they
19 need help solving it. When you get mastitis in a
20 herd or, you know, or in a cow, it's detrimental
21 to a dairy farm.

22 We've heard, you know, yesterday in

1 you know these guys are struggling critically,
2 and you know, giving them an option to help
3 control their issue I think is something that our
4 Board can do. I just want to talk about the
5 alternatives that you guys talked about a little
6 bit, you know.

7 We had the commenter said that iodine,
8 you know, there's concerns there with residues in
9 milk. Chlorine dioxide's not stable. Hydrogen
10 peroxide is an inhalant problem and harsh on
11 skin, and ASC, it's in the pipeline. We don't
12 know when it's going to be approved per se, you
13 know. Has the program issued a date on that? Is
14 it in final or --

15 MR. PATTILLO: The acidifieds and
16 chloride's included in the proposed rule. It's
17 still open for comments, to add it as a teat dip
18 at 603.

19 MS. SWAFFAR: So it's still open, not
20 guaranteed in that area.

21 MS. BEHAR: But it would come sooner
22 than the glycolic acid anyway. But I wanted to

1 also bring up, just started looking through these
2 again. I mean I did make copious notes on this
3 like I do on my own products, so I know I read
4 these. There is some concern about the inert
5 ingredients that are in the formulation, and
6 there were other -- I mean I'm looking at the
7 OEFFA comment that they -- does not support due
8 to those inerts.

9 I'm not sure, you know, who else. But
10 I know there was quite a few comments similar to
11 that. So as a consumer and, you know, I don't
12 think that glycolic acid is going to solve all
13 the mastitis in organic dairy production. So
14 we're just looking for yes, another tool in the
15 tool box is what we're talking about. It's not
16 going to be the, you know, the savior for the
17 organic dairy farms.

18 MS. SWAFFAR: Yeah, and Harriet, I
19 just want to point out that inerts relate to crop
20 materials, not livestock substances that would be
21 excipients.

22 Those comments, I think they got their

1 inerts and excipients mixed up, and so I checked
2 with the program and, you know, excipients are
3 allowed for use, as long as they are recognized,
4 if they're GRAS by FDA. So there are no concerns
5 to that comment that I found. Yes Tom.

6 MR. CHAPMAN: I also question whether
7 or not sodium acidified chlorate would come
8 before this one. It was part of a massive number
9 of issues that received so much comment that
10 required the program to reopen the comment. We
11 should also note that our November 2017 items
12 that we petitioned are coming out in a week.

13 So clearly the program is working to
14 expedite petitions that are happening now, and so
15 I really question whether or not ASC would happen
16 prior to this one if it was voted on at this
17 meeting.

18 MR. BRADMAN: I'm sorry.

19 MS. SWAFFAR: Yes Asa.

20 MR. BRADMAN: Ashley, can you explain
21 that again, the issue with inerts, because I'm --
22 like right now here I'm reading the comments from

1 Beyond Pesticides, and that actually definitely
2 raised some flags for me.

3 MS. SWAFFAR: Yeah.

4 MR. BRADMAN: And so can you explain
5 that again?

6 MS. SWAFFAR: I'm actually going to
7 turn to Devon, because Devon and I have done a
8 little bit of back and forth via email on this.
9 So Devon, do you want to talk about that?

10 MR. PATTILLO: Yeah. I think it comes
11 under distinction of a pesticide versus a drug.
12 FDA considers teat dips to be drugs. So the
13 allowance at 205.603(e) for inert ingredients
14 pertains to inerts used in pesticide, and
15 pesticides that are used on livestock. So that
16 would be for external pest control.

17 MR. BRADMAN: Even if like say the
18 glycolic acid is registered as a microbial
19 pesticide with EPA, you're saying in this case
20 it's being used as a drug or --

21 MR. PATTILLO: Yeah. In this case, as
22 a teat dip, it's my understanding that the FDA

1 considers teat dips drugs, and so any additional
2 ingredients in the product that aren't considered
3 active ingredients would have to comply with the
4 excipient requirement at 603(f). A different set
5 of substances, which includes FDA GRAS materials,
6 FDA food additives and other ingredients that
7 have been approved by FDA as part of new animal
8 drug applications or new drug applications. So
9 is that clear?

10 MR. BRADMAN: Another point they make
11 is about compliance with food tolerances, and I
12 guess I'm not sure about how it would apply to
13 something considered a drug versus EPA pesticide.

14 MR. PATTILLO: Right. I think food
15 tolerances refer to EPA regulations, whereas this
16 would be under FDA.

17 (Pause.)

18 MS. SWAFFAR: Any further discussion?
19 Yes, Emily.

20 MS. OAKLEY: This is just point of
21 humor, but this is where I miss Francis as a
22 dairy producer on the Board, and having that

1 perspective. So it would be great if we could
2 get some more livestock producers in the future
3 on the Board.

4 MS. SWAFFAR: You better believe it.
5 I thought about asking him on the call-in
6 webinar. Like I know you're not here; talk about
7 livestock. But yeah, phone a friend. I wanted
8 to phone a friend, and this was Francis'
9 material. I took it over and I really do -- I
10 echo your point. I miss his perspective.

11 MR. CHAPMAN: How did he vote on this
12 item?

13 MS. SWAFFAR: How did I vote?

14 MR. CHAPMAN: Francis.

15 MS. SWAFFAR: Oh, Francis was not here
16 when we voted. He was assigned and the TR took
17 quite a while. He was assigned the lead so then
18 I took over, you know. A-Dae.

19 MS. ROMERO-BRIONES: I hesitated
20 making this comment, but I just wanted to give a
21 perspective, my perspective. So mastitis, I work
22 with -- as a breast feeding mother, I work with

1 women who suffer from the same issue. In
2 general, it's a very painful, very painful --
3 it's just very painful.

4 And so the way we deal with it with
5 breast feeding mothers is that we try to give
6 them as many options as possible, just because
7 one option is not suited for everybody, and some
8 women react differently to others. That just
9 kind of informs my decision about this, so I'm
10 voting for it.

11 MS. SWAFFAR: Yes, Emily.

12 MS. OAKLEY: A-Dae, I appreciate those
13 comments, and I actually -- I think about that
14 and the humane aspects of all materials,
15 especially for livestock.

16 But I tend to also think that the
17 ASPCA and the Humane Society and others do tend
18 to weigh in when they want us to vote on the
19 material for humane reasons. But I also
20 appreciate making that comment, and agree that
21 that is a consideration we should always be
22 looking at.

1 MS. SWAFFAR: Deep sighs. Any other
2 discussion? I just want to throw my pitch out
3 there one more time. I feel like this was a
4 great item to add, just because we did hear from
5 producers what they have available right now is
6 not controlling the mastitis. That's my last
7 statement. All right. Back to Tom to vote.

8 MR. CHAPMAN: Okay. So up first is
9 the classification motion. This is the motion --
10 we'll deal with the amendment in a second. The
11 classification motion is to classify glycolic
12 acid as synthetic. The motion was made by Ashley
13 and seconded by Harriet, five yes and zero no.
14 The voting on this will start with Emily. A yes
15 vote is to classify as synthetic; a no vote is to
16 not classify it.

17 MS. OAKLEY: Yes.

18 MS. BAIRD: Yes.

19 MR. BUIE: Yes.

20 MS. SWAFFAR: Yes.

21 MR. RICE: Yes.

22 MS. BEHAR: Yes.

1 DR. SEITZ: Yes.

2 MR. MORTENSEN: No.

3 MS. SWAFFAR: This is classification.

4 MR. MORTENSEN: I'm sorry, yes, yes.

5 Sorry.

6 MR. ELA: Yes.

7 MR. BRADMAN: Yes.

8 MS. SWAFFAR: So eight, but we didn't
9 hear your vote.

10 MS. DE LIMA: Yes. That's a yes.

11 MS. ROMERO-BRIONES: Yes.

12 MR. CHAPMAN: The chair votes yes. 15
13 yeses, or 13 yeses. The motion passes. I think
14 I heard 15 yeses and a no in there. So I'm not
15 sure if my count was fully off. Okay, the motion
16 to amend.

17 MS. SWAFFAR: Yes. So we did
18 determine that I made a mistake in this document
19 on the National List motions. So I need to amend
20 it where it goes in the right place. So I would
21 like to make a motion to 205.601 to reflect
22 205.603(a). Second?

1 MS. OAKLEY: I'll second.

2 MR. CHAPMAN: I have a motion and a
3 second. Any discussion?

4 (No response.)

5 MR. CHAPMAN: Seeing none, we'll
6 proceed to a vote. So this is a motion to just
7 amend the National Listing motion, to list it in
8 the appropriate livestock section, 205.603(a).
9 So this is a simple majority vote and the voting
10 will start with Sue.

11 MS. BAIRD: Yes.

12 MR. BUIE: Yes.

13 MS. SWAFFAR: Yes.

14 MR. RICE: Yes.

15 MS. BEHAR: Yes.

16 DR. SEITZ: Yes.

17 MR. MORTENSEN: Yes.

18 MR. ELA: Yes.

19 MR. BRADMAN: Yes.

20 MS. DE LIMA: Yes.

21 MS. ROMERO-BRIONES: Yes.

22 MS. OAKLEY: Yes.

1 MR. CHAPMAN: Chair votes yes. 13
2 yes, the motion passes, the amendment passes.
3 We'll proceed to the National Listing motion, the
4 motion to add glycolic acid as petitioned at
5 205.603(a). Motion by Ashley, seconded by Jesse.
6 If there's no further debate, voting will start
7 with Jesse.

8 MR. BUIE: Yes.

9 MS. SWAFFAR: Yes.

10 MR. RICE: Yes.

11 MS. BEHAR: No.

12 DR. SEITZ: No.

13 MR. MORTENSEN: No.

14 MR. ELA: No.

15 MR. BRADMAN: No.

16 MS. DE LIMA: Yes.

17 MS. ROMERO-BRIONES: Yes.

18 MS. OAKLEY: No.

19 MS. BAIRD: Yes.

20 MR. CHAPMAN: The chair votes yes. I
21 have seven yes, six no's, the motion fails.

22 MS. SWAFFAR: Thank you, Tom. Now

1 back on our items, there being two. Clarifying
2 emergency for use of synthetic parasiticides in
3 organic livestock production, Harriet.

4 MS. BEHAR: Okay. Oops, wrong thing
5 open. Okay. So emergency, defining of emergency
6 treatment for parasiticides. So the proposal has
7 a fairly long background on why we're discussing
8 this. In October 2015, the NOSB recommended
9 continual listing of three parasiticides,
10 ivermectin, moxidectin and fenbendazole as part
11 of its sunset review.

12 Then in April 2016, the NOSB
13 unanimously approved annotations amending the use
14 of fenbendazole and moxidectin, lessening the
15 withdrawal time between use of the parasiticide
16 and sale of milk products.

17 (Off mic comments.)

18 MS. BEHAR: And then in November 2016,
19 the National Organic Standards Board unanimously
20 with one absence approved removal of ivermectin
21 from the National List. In January 2018, a
22 proposed rule to implement the NOSB

1 recommendation for the removal of ivermectin was
2 printed in the Federal Register. It closed in
3 May and it's open again, am I right?

4 MR. PATTILLO: It closed in March and
5 reopened.

6 MS. BEHAR: March, and now it's open
7 again.

8 MR. PATTILLO: Yeah.

9 MS. BEHAR: So but there is -- so I
10 don't know if ivermectin's going away or not, but
11 in the discussion of why we needed to define
12 emergency, we've had two meetings where the
13 public gave comment, and many mostly certifiers
14 but producer groups as well discussed the need
15 for defining what would constitute an emergency.

16 I would like to thank the public for
17 giving us the language, much of the language that
18 we're using, and also to make the comment that
19 while it may seem like we deliberate forever,
20 this is an example of us getting somewhere as a
21 community and finding something that everyone can
22 mostly agree on. Now on that, light it up.

1 (Off mic comments.)

2 MS. BEHAR: Just tell me where I -- is
3 that good? Just stay right here.

4 MR. CHAPMAN: That's great.

5 MS. BEHAR: Okay. So I want to read
6 the comment of CCOF on this proposal, because it
7 is like my favorite comment. "The proposal
8 provides clear and strong language that is not
9 overly prescriptive to livestock producers. CCOF
10 supported the fall 2017 proposal to clarify
11 emergency because it recommended adding necessary
12 language to the Organic Livestock Health Care
13 Practice Standards that limit the use of
14 synthetic parasiticides.

15 "The routine use of synthetic
16 parasiticides should not be allowed in organic
17 livestock production. The current proposal sets
18 forth clear preventative practices and
19 accomplishes the same goal with less prescriptive
20 language and a logical definition."

21 That is really what we were trying to
22 go for, so I appreciate that it was noticed by

1 the public that we were striving for that, so
2 thank you.

3 This sentiment was echoed by
4 producers, producer groups, certifiers and
5 others. Many stated that the proposal should be
6 approved without any changes, and thanks again to
7 the public for aiding us in crafting the language
8 that provides this clarity to both the operators
9 and certifiers to bring consistency to the
10 implementation of this area of the organic
11 regulation.

12 There were, however, some tweaks to
13 the language proposed by a couple of certifiers,
14 and the NOSB will provide this language to the
15 National Organic Program, so during rulemaking
16 they can consider if these proposed tweaks would
17 aid in further clarification. None of them
18 significantly change or actually change at all
19 the meaning behind it, but if we decided to make
20 those changes here, we would have to send it back
21 to committee and come to another meeting.

22 So we will pass those on to the

1 National Organic Program, and I specifically both
2 MOSA and Pennsylvania Certified Organic, PCO,
3 made good comments. I'm not necessarily sure I
4 agree that they have to be added or subtracted,
5 but I leave that up to the rulemakers at the
6 National Organic Program.

7 So I'm not sure if you want me to read
8 the proposal in. It's quite a bit of language.
9 Ashley, would like me to actually read what we
10 are going to add, because it is in the docket and
11 --

12 MS. SWAFFAR: Not now. We'll read it
13 as we vote at that point.

14 MS. BEHAR: Okay, okay. So yeah.
15 Anybody else have any comments? Just like I said
16 again, this was I think an example of good public
17 process, good engagement, a lot of excellent
18 comments and I hope the public sees that we
19 listen to you and took a lot of your language.

20 MS. SWAFFAR: Thank you, Harriet.
21 Open it up for discussion. Yes Emily.

22 MS. OAKLEY: This has been on the

1 agenda for a while, and I just wanted to thank
2 you guys for your persistent work in this, and
3 I'm glad to see where it's come and thank you for
4 working on it.

5 MS. SWAFFAR: Anybody else?
6 Everybody's just so tired of talking about it.
7 Steve.

8 MR. ELA: I'm generally in favor of
9 it. I'm just curious at some of the comments
10 that said this really isn't necessary. I guess
11 I'd like some input from the Committee. I just
12 want to justify it. I don't want to add
13 regulations for regulation's sake. I mean I tend
14 to think it's necessary, but I'd like to hear a
15 little more on that, just to have that out in the
16 open.

17 MS. SWAFFAR: Harriet, do you want to
18 take that?

19 MS. BEHAR: Yeah, there was -- that's
20 true. I'm sorry, I didn't make a note of that,
21 that some people felt that it was already present
22 in the rule. But since there was a significant

1 change and a heavy reliance on that term
2 "emergency treatment," and having been an organic
3 inspector and worked with producers for many
4 years, I think having transparency and clarity in
5 some of the cultural methods and what would lead
6 to an emergency and also adding that definition
7 of an emergency, that would lead to the need for
8 the use of a parasiticide.

9 I think it is useful. We have seen
10 many times just recently, you know, how easy it
11 is for the rule to be inconsistently implemented
12 and interpreted differently by different
13 certifiers in different regions on different
14 animal species.

15 And so I guess I personally disagree
16 that it's not needed. I think this will be a
17 useful tool for both certifiers and operators to
18 clearly understand when the parasiticide is
19 acceptable and what they can actually do to
20 remove that emergency situation from their farms.

21 MS. SWAFFAR: And I just want to
22 follow up a little bit. You know, we did have

1 several comments over all of the meetings we've
2 had on this, that this should be guidance versus
3 rulemaking, and my view as chair of Livestock is
4 I don't like to see guidance documents really
5 come out of Livestock, because I do think they
6 are inconsistently enforced across different
7 areas of the country.

8 That's why we decided to go with a
9 rulemaking suggestion to the Program. Yes
10 Harriet.

11 MS. BEHAR: I want to thank Devon for
12 helping me through the regulatory language and
13 being patient with the back and forth and getting
14 it right in the end. So thank you, Devon.

15 MS. SWAFFAR: All right. Thanks to
16 Harriet. You know, this document started with
17 Tracy and Jean and now got passed to Harriet.
18 Harriet's championed this document, getting it
19 finalized and out the door, and you know, I do
20 think every time we brought this back to
21 committee, this document got better.

22 You know, we took into account a lot

1 of public comment. And so you know, this is one
2 where taking it back to committee really helped
3 us do a little bit more refining on it. So
4 hearing no further discussion, Tom -- oh, I'm
5 sorry, Harriet.

6 MS. BEHAR: At one point there was
7 discussion that we wouldn't need this if the
8 organic livestock and poultry practices was put
9 in place. So I'm glad we moved forward with
10 this, to have it ready to go.

11 MS. SWAFFAR: That brought up one
12 question. So I've got to find this one comment.
13 There was a comment that thought that since OLPP
14 didn't go forward, that we needed to move it
15 around. Did you read that? Let me --

16 MS. BEHAR: I did read that, but I
17 guess I was trusting that Devon was helping me
18 with all the correct, because that's his job, all
19 the correct citations in the rule.

20 MS. SWAFFAR: So no concern with that
21 comment?

22 MS. BEHAR: Well again, I think that

1 at rulemaking inside the NOP. They can put it --
2 if there is an issue, which I don't think there
3 is. But the National Organic Program will get it
4 right. They won't put it in the wrong place.

5 MS. SWAFFAR: Okay. I just wanted to
6 flush that out, because that was a comment. I
7 was looking for the exact comment. Emily.

8 MS. OAKLEY: Is documentation
9 required?

10 MS. SWAFFAR: Is documentation required
11 for using a parasiticide or -- ?

12 MS. OAKLEY: For determining an
13 emergency.

14 MS. BEHAR: I'm going back to the
15 rule. There is some documentation required as
16 far as that there has been some review of the
17 animal for either through fecal samples or the
18 FAMACHA review, that there is something in -- but
19 we didn't put it in here.

20 We kind of took it out, but part of
21 the fecal sampling is also understanding what
22 parasiticides are present, so that you can modify

1 your management practices based upon your
2 problem, because certain parasites will go
3 through a life cycle in a certain amount of days.

4 If you're rotationally grazing, you
5 don't want to bring them back while your
6 parasites are still viable. But if you don't
7 know what your parasites are, then you can't
8 modify your management practices. So those would
9 be probably part of the organic system plan,
10 because it is in there that you should be looking
11 to modify the organic system plan to avoid the
12 problem in the future.

13 MS. OAKLEY: And as an inspector, I'm
14 going to come on your farm and look at your
15 materials input list, and I'm going to say when
16 did you use this, how did you use it, why did you
17 use it? I'm going to ask you 800 questions
18 around that. So yes, everything we all do is
19 documented, yeah.

20 MS. BAIRD: The same comment. Health
21 inputs have to be documented, use of health
22 inputs and the reason for the use of health

1 inputs has to be documented. It's part of the
2 system plan.

3 MR. CHAPMAN: It's in there. It says
4 "monitoring with documentation of parasites,"
5 blah blah blah blah blah.

6 MS. SWAFFAR: Yeah, Harriet.

7 MS. BEHAR: Just because this is what
8 I always say, documentation is not meant to be a
9 burden. It's meant to help with management. And
10 so the better organic farmers are those with the
11 good records that refer to them for historical
12 reference, to then actually lessen the need for
13 use, for inputs because they're addressing issues
14 with systems.

15 MS. SWAFFAR: Okay guys. I see no
16 further discussion. We'll proceed to vote,
17 turning it back to Tom.

18 MR. CHAPMAN: So the motion is to
19 adopt the proposal, to approve the proposal. The
20 proposal recommend two additions to the standards
21 definition for emergency treatment of parasite
22 control and breeding dairy fiber-bearing animals.

1 And then in addition of the paragraph to Section
2 205.238(b)(4), organic breeding dairy fiber-
3 bearing animals when meeting the following
4 conditions, and then it's spelled out in section
5 (i) and -- paragraph (i) and paragraph double i,
6 I guess (ii).

7 I'm not going to read it but it's on
8 display in front of you and has been previously
9 distributed to the Board. The motion came from
10 Harriet and seconded by Jesse. A yes vote is to
11 adopt this proposal; a no vote is to reject this
12 proposal, and the voting will start with Ashley.

13 MS. SWAFFAR: Yes.

14 MR. RICE: Yes.

15 MS. BEHAR: Yes.

16 DR. SEITZ: Yes.

17 MR. MORTENSEN: Yes.

18 MR. ELA: Yes.

19 MR. BRADMAN: Yes.

20 MS. DE LIMA: Yes.

21 MS. ROMERO-BRIONES: Yes.

22 MS. OAKLEY: Yes.

1 MS. BAIRD: Yes.

2 MR. BUIE: Yes.

3 MR. CHAPMAN: The chair votes yes. 13
4 yes. The motion passes and the proposal is
5 adopted.

6 MS. SWAFFAR: And that concludes the
7 Livestock Subcommittee.

8 MR. CHAPMAN: All right. Thank you,
9 Ashley. So looking at the time, it's 3:42 right
10 now. We will move to recess until four o'clock,
11 and then we'll reconvene with the CACS
12 Subcommittee.

13 (Whereupon, the above-entitled matter
14 went off the record at 3:42 p.m. and resumed at
15 4:05 p.m.)

16 MR. CHAPMAN: All right. I see all
17 members present and we are back in session, and
18 up next is the CACS Subcommittee. Scott.

19 MR. RICE: Thank you, Tom. We are
20 looking at one discussion document and two
21 proposals this afternoon, and we start with the
22 continuing discussion on imports and import

1 oversight, and we'll turn that back to Tom, since
2 he was the lead on that discussion document, and
3 had many questions.

4 MR. CHAPMAN: Okay. First of all, I'd
5 like to thank the public, panel and folks for
6 providing just a massive amount of input to our
7 discussion document. It's very helpful and it's
8 so much information that I think we are all still
9 trying to organize and digest it.

10 I realize once you ask 75 questions,
11 you're going to have to deal with 75 answers,
12 which is a lot of answers. So as we go through
13 this document, we have it really pared down to
14 the title sections of the questions we asked.
15 What I figured we'd do is just kind of go through
16 the 11 areas.

17 I'll do a really high level summary of
18 some of the themes that we got from the questions
19 in those subject areas, and then discuss them
20 through those kind of 11 areas, realizing that 11
21 areas is kind of a catch-all for pretty much all
22 subjects related to import oversight,

1 opportunities and threats. Sound good? People
2 okay with that?

3 All right, and then like an apology.
4 This is a really high level. There's so much
5 information there. Like I said, we're still
6 working to organize it appropriately. So I want
7 to call this a thorough review of all the public
8 comments or a thorough review of the details of
9 the public comments.

10 We are going to be working on that as
11 we continue to move this issue forward into next
12 steps. So the first subject was the role of
13 documents in the organic supply chain, with a
14 focus on imports. Generally, we received a lot
15 of comments in this subject area, with a lot of
16 support for making it a requirement to include
17 organic designations on documents everywhere.

18 There's a lot of focus on the
19 importance of that for verification. There was
20 also a lot of conversation around the validity
21 and the veracity of various documents. Some of
22 the themes which we also heard on the panel were

1 around the difficulty of connecting products,
2 suppliers and documentation, that kind of
3 triangle altogether.

4 We asked some questions around what
5 type of documents. Were some documents -- did
6 some documents have greater veracity than others,
7 and should organic be required on every single
8 document everywhere? Generally, there was
9 consensus around definitely title documents, that
10 documented title change required organic
11 labeling, shipping and sales documents.

12 But there was some concern around
13 government-created documents, particular
14 phytosanitary documents that just by action of
15 the government it's not common to list organic on
16 those products, and we may not be successful in
17 requiring foreign governments to list organic on
18 their phytosanitary certificates. So that was a
19 callout noted by a lot of commenters.

20 Some other folks noted that the
21 California State Organic Program already requires
22 organic documentation on title change documents,

1 so documents of sale and receipt and things like
2 that. A lot of folks commented that clear
3 documentation would aid in audit and trace facts,
4 and make the overall process simpler.

5 There were some requests for guidance
6 and/or instructions on what exact documents would
7 be needed to verify a product in the supply
8 chain. We had some good dialogue especially
9 during the panel about the documents themselves
10 only -- there's the documents. There's also the
11 process around maintaining the documents, and
12 that that process is just as important as the
13 documents, if not more in verifying that the
14 organic system is functioning.

15 Documents can serve somewhat as a one
16 pinpoint check, and this is really kind of from
17 an audit perspective. But recordkeeping from an
18 auditor's perspective is really a one-time view
19 into an operation, and it's really to -- you're
20 checking to make sure that the process is
21 operating appropriately.

22 And so a lot of times, this was a

1 little bit off the scope of what we were asking
2 for, but a lot of times it seems that just fixing
3 the missing document is what's sought, as opposed
4 to fixing the underlying the problem that the
5 process broke down and allowed someone to accept
6 a product without sufficient documentation,
7 whether or not there is actually an issue with
8 organic compliance or with that ingredient.

9 There was a lot of comments around
10 transaction certificates, whether or not they
11 were useful. Some folks did agree strongly that
12 they were useful. Other folks raised some
13 concerns with them.

14 There was also a lot of discussion
15 around HS tariff codes in this section, and
16 around generally their utility in identifying
17 organic products for folks as they transact
18 goods.

19 I'd really have -- although I'm going
20 to stop it there, but that was a lot of the
21 conversation around documents, and I'd like to
22 open it up for discussion with the rest of the

1 Board now.

2 MR. MORTENSEN: So I love, I like the
3 document a lot and thank you for the summary. I
4 think that was very helpful. There are a couple
5 of things that I was struck by, you know, at the
6 10,000 foot level, that I'm wondering, you know,
7 the extent to which they need to be reflected in
8 the document.

9 But the very sort of significant
10 difference between perishable things and
11 commodity crop non-perishable things, it really
12 struck me the time frame, the capacity to hold
13 something up and not have it perish. While
14 holding something else up it perishes, but many
15 other things. The idea that a ship could carry
16 millions of bushels of something, all of one
17 thing, raises an interesting question.

18 So I was struck by that, and the other
19 thing I was struck by, I keep thinking back to
20 that fulcrum in Albrecht's presentation, and then
21 we saw case studies, I think of this, by several
22 of the other panelists. That is the human

1 dimension. So when I look at the document, I'm
2 trying to imagine if the human dimension is
3 captured well enough there.

4 So that's what on my mind about it.
5 I like the document, but I think -- and I also
6 really valued the, a lot of the written comments
7 and this global globe-side thing that was
8 submitted had a lot of details that's in there as
9 well. So it seems to me we have a lot of
10 material to work off of.

11 MR. CHAPMAN: Yeah, and you brought up
12 also -- you jogged my memory on another area that
13 was brought up, which was around private label
14 and branding of products, and how that can create
15 confusion. I definitely see that in our own
16 supply chain.

17 We work with companies that operate
18 under multiple DBAs for no real apparent reason.
19 There's no fraudulent activity for them, but they
20 have a company name, they have a DBA name. There
21 might have been a merger at some point in the
22 history.

1 So they operate under multiple names.
2 I just get used to using those two names
3 interchangeably, and so does our receiving
4 department. But then if you're coming from the
5 outside and you're not familiar with it, it can,
6 you know, I can see how that creates confusion.
7 Anywhere that you create confusion, even if there
8 is no fraud, that becomes an opportunity for
9 fraud.

10 So that's, you know, that's an
11 interesting point of how to deal with multiply
12 named operations and just connecting documents.
13 I'm curious to hear Scott's perspective on
14 organic status on documents, you know, how you
15 connect documents and products, you know, the
16 comments you read on it.

17 MR. RICE: Yeah. I think you captured
18 it pretty well, but definitely what we heard
19 pretty consistently was that challenge of linking
20 those documents across by the labels, across, you
21 know, in the fresh produce trade of just here's
22 your certificate with an unlabeled flat of

1 berries or tomatoes or what have you, and the
2 need for not just clear labeling but labeling
3 that provides information that has enough to
4 conduct a pretty solid traceback.

5 MR. CHAPMAN: Steve.

6 MR. ELA: Yeah. I thought it was --
7 I guess the take-home message for me is more
8 documentation and definitely linking them, but
9 also still the documentation is somewhat easy to
10 replicate, especially if you have a great
11 computer.

12 So I think that making sure the links
13 are put together is critical. Making sure, as
14 you said, the company names. I know we even in
15 our handling side have a terrible time trying to
16 get certification documents from certain big
17 companies, because I'm sure they're just
18 overwhelmed with things.

19 But I think that all still needs to be
20 matched with the traceability all the way back to
21 where it came from, and I think that's the real
22 key. I still get a little worried about, and I

1 don't know actually how to handle it. But I'm
2 going to call it inventory.

3 Yeah, you know, let's just say Country
4 B can produce 80,000 pounds of whatever. You
5 know yeah, I'm buying ten pounds. It's possible
6 they can produce it. But you know, is that ten
7 pounds 80,000 times? I don't think we have any
8 good way to do that, and I don't think yields are
9 a good way to do it.

10 But I still think being able to have
11 at the end thing the traceability go back and
12 actually contact that farmer or that certifier
13 where it started from and say does this make
14 sense is really important.

15 MR. CHAPMAN: Yeah. Kind of common
16 theme I noticed throughout the comments and the
17 panel was that one, that there's no one fix
18 that's going to solve this for us unfortunately.
19 But beyond that is that there's -- there's a lot
20 of opportunity for confusion around the status of
21 an organic, whether a product that they have in
22 their possession, based on the documentations

1 they have, whether it's organic or not.

2 A lot of that has just been accepted
3 as common industry practice, because the
4 standards don't require organic to be displayed
5 everywhere. It doesn't even require organic to
6 be labeled on the product specifically. So we've
7 created opportunities. It doesn't mean they're
8 going to be exploited, and it doesn't mean
9 they're not going to be exploited.

10 But we've created a bunch of
11 opportunities for this fraud, and so one of the
12 reasons why I was interested in asking these
13 questions about documentation is our Subcommittee
14 had brought in Betsy Rakola and asked her about,
15 you know, some of the -- and she's not here, so I
16 hope I don't misrepresent what she said to us.

17 But some of the difficulty they've had
18 and kind of the speed it takes to resolve some of
19 these issues is that organic status is generally
20 a separate document that goes alongside the other
21 stream of documents that are there, and the
22 product itself. So that like makes it harder or

1 creates again more opportunities for fraud, and
2 then just makes it harder to conduct those
3 traceback audits expediently and efficiently.

4 So as much as we can get that out
5 there, it seemed to be a benefit. The downside,
6 I think, is the more you force everyone to label
7 something as organic, once that product becomes
8 unorganic like through fumigation, you know,
9 you're going to have to equally be secure in
10 making sure that that organic designation ends at
11 that point, and we haven't had much discussion
12 about that.

13 But that would be my area of concern.
14 Up next is Harriet and then Emily.

15 MS. BEHAR: I've got a couple of
16 takeaways, and one is something with the
17 traceability, really is part also of just a
18 standard recall procedure, that if you had an
19 issue with the product as an input, and I'm
20 looking at Tom with Clif Bar. If you've got 16
21 different ingredients and you have a problem with
22 a finished product, you have to figure out -- you

1 have to be able to go back and trace all of those
2 ingredients and try to find out what the problem
3 was, and then look and see which of those -- lots
4 of those ingredients would have ended up in
5 others of your product, so then you could pull
6 recalls on that.

7 So a lot of this traceability, I'm
8 always looking at how to market more
9 documentation and tracking to people. This is
10 just part of a good recall project and could
11 actually be useful in helping them just run a
12 better business.

13 Because if you had to do a recall on
14 every single product that you had out in the
15 marketplace rather than being able to narrow it
16 down, you know, having a good traceability system
17 is important.

18 I think we also saw too that we have
19 issues not just in grain. There's a lot of
20 loopholes across our organic supply chain. But I
21 think not just on that traceability, but also
22 continue in a tracking of the organic status. So

1 did it get fumigated? Was it handled by someone
2 maybe could have commingled or contaminated it in
3 the process? How do we know through all those
4 hands that the integrity of that organic status
5 was maintained, because those that are handling
6 it are trusted to maintain that integrity?

7 So I think that's another challenge.
8 So it's not just tracing it, but also feeling the
9 trust that it's being handled correctly. That's
10 it.

11 MS. OAKLEY: So this was a question
12 maybe for the program, speaking in terms of
13 document forgery. Do you see any opportunities
14 of minimizing that through more standardized use
15 of the USDA certificate?

16 DR. TUCKER: I think that Organic
17 Integrity Database, the federal certificate, we
18 put some things on it to make it slightly harder
19 to forge. But we've also heard from other
20 vendors that yeah, again somebody just said if
21 you have a really snazzy computer program, a good
22 printer. The certificates have QR codes and they

1 do have direct links back to the integrity
2 database.

3 I think that's frankly where the
4 traceability value is, because yeah documents,
5 anyone with a really cool printer and a nice
6 piece of software, and it is a true challenge.
7 So there are small things that you can do. I'm
8 interested in more of these what could a
9 blockchain implementation do, where these are
10 immutable ledger transactions that happen, and
11 once they're committed you can't change them, and
12 that I think there are some sort of risks
13 associated with that.

14 You always have to be able to attach
15 the data to the actual product. You can't
16 disaggregate the product from the data. However,
17 those electronic systems, particularly with these
18 perishables, when you're trying to track down
19 documents is there, you know, we hear these
20 stories about just consolidations of trucks and
21 trucks and crossing the border at three o'clock
22 in the morning and needing to cross the border,

1 right.

2 Paper's just not going to cut it in
3 the long term. So I think electronic data is
4 easier to prevent fraud than paper data.

5 MR. ELA: I think just one last thing
6 on the produce side, and you know, listening to
7 the morass of undocumented -- I mean sort of
8 documented private label things. I mean I think
9 it just comes back to having the certifier listed
10 on the box.

11 So you can just cut right to the --
12 you jump over all the people that were in between
13 and go right back to the start and say is this
14 your product? And you know, and produce works
15 quickly. So hearing unlabeled boxes, unlabeled,
16 you know. I think the comment that those boxes
17 are actual, even though they're not retail level
18 per se, they probably need to be treated as
19 retail level, at least with who certifies it and
20 the name of the certifier who's going to have the
21 Organic Board on it.

22 MR. CHAPMAN: Scott, then Harriet.

1 MR. RICE: One thing that struck me
2 through all of this, whether it was documentation
3 or any of the other areas in our discussions, is
4 a huge opportunity and need for education and
5 outreach. Whether that is to the certifier,
6 whether that is to the certified operation or
7 it's the handler or at least for now uncertified
8 handler.

9 Because clearly there are certain
10 messages and requirements that are not getting
11 out there, and sometimes those that do get out
12 there are not understood in the manner in which
13 they should be. So I think that there is great
14 opportunity, even to something simple, so that
15 what we started doing at our agency is just
16 having one on ones with our certified handlers,
17 to help their staff understand what they should
18 be looking for.

19 That box with just sort of a random
20 lock code is not sufficient, and here's the
21 reason why you should be looking further and the
22 why, and how that covers their liability or

1 strengthens their systems.

2 So yeah, just wanted to put that out
3 there. Through all of these areas, there's a
4 need and an opening and I think further
5 discussion will help, you know, identify who can
6 best fill that.

7 Whether it's -- whether it's the NOP,
8 NOP in partnership with the certifiers, certainly
9 the inspectors have a role. But just lots of
10 opportunity.

11 MS. BEHAR: Another takeaway that I
12 had was that we might be looking at the labeling
13 requirement for bulk materials, as you just
14 mentioned. The only requirement now is for a lot
15 number, and we might be looking at that it should
16 be, let's say, on the tote or pallet tag. It
17 would need to be on the invoice, on the bill of
18 lading, whatever. Just the word "organic."

19 And then one of my favorite pet
20 peeves, which goes back many almost decades, is
21 that in bulk, in the rule there's an anomaly that
22 the USDA organic seal can be used on a made with

1 organic bulk product, while it's not allowed to
2 be used on a retail product. I have seen that
3 cause confusion in manufacturing plants, where
4 they get a partially processed product and it's
5 got the seal.

6 So they're assuming it's an organic
7 product, but it's really only a made with because
8 there is that allowance. So maybe this would
9 give us an opportunity to kind of do that fix,
10 and get that seal off of the made with organic
11 bulk products.

12 MR. CHAPMAN: Sue.

13 MS. BAIRD: I think one of the take-
14 homes I heard was, and I've seen it as an
15 inspector for 20 plus years, is the role of the
16 uncertified operation in the chain.

17 MR. CHAPMAN: We're going to get to
18 that. That's when we get through our list.

19 MS. BAIRD: Oh, I'm so sorry.

20 MR. CHAPMAN: Yeah.

21 MS. BAIRD: I'm sorry.

22 MR. CHAPMAN: Sticking mostly to

1 documentation now.

2 MS. BAIRD: Okay.

3 MR. CHAPMAN: Yeah. Any other
4 comments in this regard? Yeah, Harriet.

5 MS. BEHAR: I thought it was really an
6 interesting idea to bring in financial auditors
7 in addition to the organic inspector for the
8 review of financial records, because as Silke
9 said, you can't expect an inspector, an organic
10 inspector to under the complexities of organic
11 and also have a Ph.D. in Accounting.

12 MR. CHAPMAN: Do you have a question
13 Asa, or are you just looking at me?

14 MR. BRADMAN: I just have a comment.

15 MR. CHAPMAN: You're thinking about
16 saying something. Go for it.

17 MR. BRADMAN: I'm just trying to
18 formulate it. I'm not quite sure how to frame
19 it. I'll just repeat one of the suggestions we
20 had earlier. I thought the idea of a trade
21 commission review of the market would provide
22 really valuable information, and that's something

1 that we might want to consider.

2 I could also help with thinking and
3 evaluation of programmatic and acreage and
4 production and that sort of thing.

5 MR. CHAPMAN: So it looks like our
6 conversation is evolving beyond documents?

7 MR. BRADMAN: It might.

8 MR. CHAPMAN: So perhaps I'll close
9 this one out and we'll move on down the list to
10 keep this conversation moving forward. The one
11 thing I do want to say, we talked a lot about
12 documents. We heard some people also on our
13 panel speak about the -- how documents can easily
14 be forged, and they may not be the answer.

15 The one thing I do want to say is I
16 think most of our conversation actually is around
17 improving the documents, not creating new
18 documents. So it's getting the right information
19 on the right documents, not really like now you
20 have to do ten new ones. It's making sure the
21 status, the name of the operation, the name of
22 the certifier, the connecting dots are all

1 present.

2 So that's just something also to keep
3 in mind. So we'll move on to the next one. The
4 next two are actually very interrelated, so I'm
5 going to kind of just merge them. But it was the
6 role of importers in the organic supply chain,
7 who may be uncertified or certified, and then the
8 role of uncertified operations in the supply
9 chain.

10 Really briefly on the importers,
11 generally there was an overall alignment from the
12 comments that importers who may or may not be
13 certified definitely do need to be certified.
14 They play a unique role in the supply chain, and
15 the lack of their certification is a detriment to
16 traceability and enforcement activities.

17 We got comments that practice
18 standards related to the importer's role should
19 be clearly defined and may be different than that
20 of a classic handler. I ask some rules around
21 whether the rules for importers should be
22 stricter, given their unique status in the supply

1 chain.

2 We got some mixed comments back on
3 that, some thinking they should be more strict
4 and others thinking that, you know, the rules
5 should set out as they are in a similar fashion
6 to traceability requirements in all operations.

7 Then there was again a lot of comments
8 around the use of the Organic Integrity Database
9 to verify organic status. I'm going to move
10 right into the whole uncertified operations,
11 because they are highly related to importers and
12 most people looked at it in the context of
13 uncertified importers. So if there is one area
14 that rose to the top from what I read, this is
15 the area, which is the role of uncertified
16 operations and supply chains.

17 Clearly, it seems like everyone voted
18 for this loophole to be closed. I don't think I
19 saw a single comment that did not say that. It
20 really seems to be top area that the CACS should
21 pursue, including starting to kind of get into
22 the ugly details of where are we going to draw

1 the lines and if we're going to close this
2 exclusion.

3 Some of those questionable areas seem
4 to be around warehouses, transports and
5 retailers. So for other areas where it seemed
6 somewhat more clear, and when I say warehouses I
7 think I mean warehouses of packed product,
8 although we're going to have to get through this
9 issue.

10 Because there's warehouses of packed
11 product, there's warehouses of packed and
12 unlabeled product, there's warehouses of bulk
13 product, there's contract warehouses, there's
14 warehouses that serve the distribution chain of
15 retailers, there's warehouses that are, you know,
16 just part of a normal operation. There's
17 warehouses of produce.

18 So there's -- that definitely needs to
19 be dug into. You know, other areas that were
20 brought up were ports, brokers, traders and
21 distributors, anyone who's applying a label
22 anywhere.

1 There was various types of vehicles.
2 There's grain brokers. The other area I think of
3 alignment that did come up is I asked questions
4 around Customs brokers, which they play a role in
5 importing items, but they themselves are not the
6 importer.

7 They're not the one who owns the
8 products. They facilitate the interaction with
9 the government officials, they're licensed
10 through the government, and it seemed quite clear
11 that they also were not an entity that needed to
12 be certified.

13 There was a lot of discussion around
14 if you take possession or title of a product.
15 Those are kind of two areas that we should look
16 at, and that exemptions or exclusions should be,
17 you know, limited based on how the product was
18 packaged and how impermeable that packaging was.
19 I'll stop there and open it up for discussion.
20 I'll start with Sue, because I cut you off with
21 an area. So on the certified operations.

22 MS. BAIRD: That's okay. No, I

1 appreciate all this discussion, and I also agree
2 that this is probably the most critical point,
3 uncertified operations in the supply chain. I've
4 been on a lot of inspections and I actually came,
5 in one of my lives, from feed and seed program
6 and state programs, and all the brokers and all
7 the transports had to be certified.

8 So when I came into the organic
9 program, at that time it was Bob Pooler, so you
10 know how long that was, and I said -- they did
11 the first training I went to and I said are you
12 kidding? Brokers don't have to be certified? He
13 said oh no, it's exempt. I said well, you've got
14 a problem, and indeed we've got a problem.

15 We have brokers who collect organic
16 producer certificates and use it then to move
17 other products, and I've seen this and I've heard
18 of this firsthand, as in my inspection years.
19 Without any kind of oversight, that's going to
20 continue to happen. On warehouses that don't
21 have a clue, that may be on a warehouse
22 affidavit.

1 Sometimes not. You get to an
2 inspection and you say well man, you don't have
3 much room here for your finished product. Oh no,
4 no. We store it in cold storage, out 50 miles
5 away. Why isn't this on the OSP? Well, I don't
6 know. Didn't know I had to. So, and when you
7 get there and you call the certifier and you say
8 hey, there's you know -- 50 miles away there's a
9 warehouse.

10 Well, you'd better go to it too. You
11 get there and the warehouse doesn't have any idea
12 about maintaining organic integrity because
13 they're not educated. So I would agree. This is
14 probably one of the easiest loopholes to fix,
15 although that's not true because you have to do a
16 rulemaking change. So anyway, my comments.

17 MS. BEHAR: So when the rule was put
18 in place, and even when the organic law was put
19 in place in 1990 and then the rule in 2002, we
20 didn't have the same maturity of the organic
21 industry or the supply chain as we have now.
22 While there was some discussion even when the

1 rule came out about why aren't brokers being
2 certified and actually the state of Texas was
3 actually certifying retailers at the time, and
4 requiring that of retailers.

5 They had to change their law to meet
6 the federal law, so that has been done. Of
7 course again back in 2002, there were a lot less
8 retailers who were selling product. We didn't
9 see the necessity as desperately as we do now,
10 but this is an example of the continuous
11 improvement of our regulation to respond to our
12 marketplace and the needs of our stakeholders.

13 Obviously, our stakeholders need to
14 see integrity maintained throughout the supply
15 chain. So I understand why the brokers were not
16 included, but at this point I think we need to
17 recognize that we're at a maturity level that we
18 need that.

19 And I hope -- and also too, part of it
20 was that they were not handling nearly as much
21 organic, and so they were not then gaining the
22 financial benefits of handling organic and that's

1 not the case anymore either.

2 MS. BAIRD: Yes. I'm sorry, you're
3 right, absolutely. Feed and seed law has been
4 law since 1919 and I always say that, and this
5 law was in 2002. So a whole lot more years of
6 maturity in the two different laws.

7 MR. CHAPMAN: I've got Ashley, myself,
8 Steve, Scott, Dave. Ashley.

9 MS. SWAFFAR: So I know we're talking
10 just about imports here, but I just want to bring
11 up the broker point on the domestic side, I think
12 that's a real win when you talk about this, or if
13 we propose anything. Please don't leave those
14 folks out, because I think that's a really
15 critical part.

16 You know back on my days when, you
17 know, I was doing a mill and sourcing, you know,
18 we sourced everything through a broker, a
19 domestic and there's some challenges sometimes
20 doing audits, organic inspections with those
21 brokers, and I think that's a real issue there on
22 the domestic side.

1 I want to echo Sue's point on a lot of
2 offsite storages. So it's more than just grain,
3 you know. There's eggs, there's all kinds of
4 stuff I see everywhere.

5 MR. MORTENSEN: Could I just ask
6 Ashley to expand on something? I myself am
7 wondering during the course of the day how does
8 livestock? So we looked at fresh produce and
9 commodity grains, the kind of issues that we're
10 exploring here in this document. Are we missing
11 things when we think about livestock, or should
12 we not be thinking about livestock when we think
13 about this?

14 MS. SWAFFAR: From an import issue,
15 you know, we're not really importing any eggs or
16 -- I don't know about other things. I'm an egg
17 person, you know. I do buy some beef at the
18 store when our beef isn't around and it does say
19 other countries. So I do know, you know, we are
20 importing other stuff.

21 But I mean there's fraud. I think
22 there could be fraud in any category, you know,

1 domestic or imported. So it's just getting the
2 better certification program that encompasses
3 everything. Scott from your --

4 MR. RICE: Yeah. In terms of
5 uncertified handlers or operators in that
6 livestock supply chain, you know, we did have in
7 the last -- the years bleed together. But not
8 too long ago, auction yards came up as an issue,
9 and a number of auction yards came to light, that
10 they were not just, you know, a quick pass-
11 through but animals were there for a period of
12 time. A little difficult to see if they were
13 getting organic feed and how they were being
14 held, etcetera, etcetera. So that came from the
15 program, a clarification that those indeed need
16 to be certified.

17 I think it just points to the, you
18 know, the work that we have ahead of us of
19 defining what it is we're talking about and what
20 it is that needs to be certified.

21 MR. CHAPMAN: I guess I have myself
22 next. Oh, what do I want to say? Oh, you know,

1 we're talking about the need and the benefit to
2 all these. I do want to point out and I, you
3 know, an organically grown company, the whole
4 Organic Producers Wholesalers Coalition. I think
5 I butchered their acronym, but I think you know
6 who I'm talking about, who Michael's
7 representing.

8 You know, they have provided comments
9 over the years detailing the issue in the produce
10 industry. So I'm not -- what I'm about to say is
11 not -- I do think it's an issue that needs to be
12 addressed directly. But also I think you have to
13 keep in mind that there's a lot of small
14 operators that you, you know, especially on the
15 fruit and vegetable side that may use cold
16 storage warehouses that, you know, if they're the
17 only organic operator around, they may be the
18 only person that we require certification of that
19 warehouse that may make their operation more
20 difficult or more expensive to be able to manage.

21 So it's a tradeoff. I'm not saying we
22 shouldn't still go forward with it given the

1 integrity issues, but that's something that
2 should be considered is these, you know, third
3 party kind of cold storage warehouses and small
4 operators and the impact that requiring organic
5 certification of warehouses may have on these
6 various types of operations. Steve, Scott, Dave,
7 Emily.

8 MR. ELA: Can I change names to see if
9 I can mess you up? I totally agree with what you
10 just said. I mean it's an issue for ourselves.
11 I think at a minimum, then, it still needs to be
12 documented in the OSP and it still needs to be
13 -- somehow the producer still needs to show how
14 their product isn't going to be compromised.

15 I mean whether it's a certificate of
16 integrity or something from that warehouse, I
17 think there may be ways to play that if there's
18 an exception but still not ignore it. The other
19 thing just quickly is I think, you know, it came
20 out and I know Allen and Lisa as retailers.

21 I get their heartburn over this, but
22 I certainly get if it's not at the store level

1 and the store is running distribution, which is
2 very common, I think that loophole of saying
3 that's part of the retailer is dicey.

4 You know, at the exact store, when
5 it's being delivered to the store, you know, then
6 I get the complexity of trying to, you know,
7 certify a whole store. But I think we need to
8 -- distributors saying they're retailers or one
9 in the same, I think we need to tighten that up.

10 MR. CHAPMAN: Sorry, I want to provide
11 clarity to one of Ashley's points to while it's
12 directed right now at import oversight generally,
13 we did talk at the last meeting, and correct me
14 if I'm wrong Jenny, but we talked about
15 potentially expanding this to a supply chain
16 integrity kind of viewpoint.

17 At that time, it seemed like the
18 program was very supportive of that, kind of all
19 actions related to supply chain integrity,
20 domestic or abroad. Is that still the case?

21 DR. TUCKER: Yeah. I would generally
22 agree with that supply chain dynamic, the supply

1 chain dynamics. I think that there is a general
2 sense, and it came out in the panel, that when
3 we're talking about import certificates, we're
4 talking about really bringing product in.

5 I have not seen discussion about, for
6 example, transaction certificates needed for
7 every single domestic exchange. The expense of
8 that, which we have to think about during
9 rulemaking, I mean that is a reality.

10 So when we think about risks, I think
11 when we think about import certificates,
12 understanding that behind the import certificates
13 there might be a big transaction history leading
14 to that. But supply chain in general should be
15 universal.

16 MR. CHAPMAN: Yeah, okay.

17 DR. TUCKER: Sorry, that was probably
18 longer than you wanted.

19 MR. CHAPMAN: Yeah. Not longer, but
20 yeah, yeah. You got -- you hit what I wanted.
21 So I got Scott, then Dave.

22 MR. RICE: I think I got what I was

1 putting across before. Something else will come
2 up.

3 MR. CHAPMAN: Dave.

4 MR. MORTENSEN: Yeah. The other thing
5 on supply chains that I was struck by is we heard
6 about a number of models, and I love modeling.
7 Let's not reinvent the wheel. So we hear a lot,
8 Tom, from you today and other times about Clif
9 Barr's model. I was struck by Erin Heitkamp's
10 model, Pipeline.

11 The EU is a model, and it seems to me
12 that we were hearing about things that are
13 working in these models, and Silke's point that
14 there are -- there's more reward in some of the
15 hot spots of problem in the process of these
16 chains, that perhaps by studying the models we
17 would inform our thinking about how best to
18 proceed and improving.

19 That might be just something to keep
20 in mind as we continue to enhance the document.

21 MR. CHAPMAN: Harriet.

22 MS. BEHAR: So in the past, for

1 individual producers, they could, under their own
2 farm inspection, have a processor who's only
3 doing their own processing. So I in the past,
4 it's kind of gone away, but maybe we need to
5 bring it back to deal with that issue with
6 smaller scale producers, where they had a cold
7 storage. They were storing their apples
8 somewhere that's only for them, that they could
9 get the certification under their farm.

10 So they paid a little bit more, but it
11 wasn't the same as having a full certification.
12 The cost was not there, and then that farmer
13 owned the certificate for that outside. I've
14 seen it done for slaughterhouses. I've seen it
15 done for feed mills. But once that mill or
16 slaughterhouse or warehouse was managing more
17 than one producer, then they needed to get their
18 own certificate.

19 So that might be a model we can look
20 at to address the small scale producers' need for
21 an individual storage area or whatever.

22 MR. CHAPMAN: I think Scott had

1 something about that.

2 MR. RICE: Yeah, real quick. We kind
3 of dealt with -- we reevaluated that in the
4 recent past, and because of issues that
5 assumptions, that somebody else was maybe
6 managing the integrity the -- it was just there
7 was -- it was a little too loose, and I think we
8 got some instruction from the program that that
9 was not -- not as satisfactory as it maybe once
10 was.

11 MR. CHAPMAN: Yeah, that -- there is
12 an instruction across the board for the program
13 to end that activity, right?

14 MR. RICE: Yeah, yeah.

15 MS. BEHAR: But did that include on-
16 site inspections?

17 MR. CHAPMAN: Yeah. I mean an example
18 that we used to use years ago I think, and I
19 probably shouldn't disclose this, but you know we
20 had -- I mean I used to certify -- when I was a
21 QAI. So you know they -- we went into bakeries
22 when organic was new that didn't do any organics.

1 So we knew more about it than they did.

2 So we managed -- we did it in the
3 appropriate manner, managing all that
4 certification on behalf of them. We, you know,
5 instructed them on what the programs they needed
6 to run and set in place, and we owned that
7 certification. The Bakery A would be owned by
8 Clif Barr.

9 So that was that kind of model, and
10 you know several years ago the program came out
11 because that's certificate's now out there. It's
12 the same issue that Sam brought up with like
13 warehouses, is that certificate's now out there
14 and it can be misused by that bakery to say hey,
15 I'm organic. I can do organic for someone else,
16 even though we're not managing that program on
17 behalf of that person, that second party that
18 they brought in.

19 So it just created a lot of
20 opportunities and a lot of unaccountability.

21 DR. TUCKER: I only wanted to comment
22 that we're struggling with some really important

1 issues here, and I was looking back at 4009, you
2 know, the who needs to be certified instruction.
3 That came out a few years ago. We're still
4 finding non-compliances with certifiers just on
5 who needs to be certified.

6 That is such a foundational thing. So
7 I do want to encourage everyone to remember 4009
8 is out there. It is very much in effect, and we
9 do still find some certifiers who aren't all that
10 familiar with it. It's a real challenge. I
11 think closing some of these loopholes will help.

12 MR. CHAPMAN: Emily.

13 MS. OAKLEY: I wanted to echo what you
14 said, and I think that Steve addressed it to a
15 large extent for smaller scale producers. Just
16 we need to take somewhat of a risk-based approach
17 as we address this issue and, you know, how much
18 risk do we have with smaller scale producers as
19 compared with some of the much larger operations.

20 Not that there isn't any but, you
21 know, just take a smart approach in terms of the
22 risk as well.

1 MR. CHAPMAN: All right. Looks like
2 we've covered this subject for now. Moving on
3 down is, I'm sorry. I scrolled away from my
4 summaries, my everything. Up next was the global
5 national, global and national organic crop
6 acreage information.

7 In general, and this was true of most
8 things that were commented, most comments we
9 received back said something along the lines of
10 yes, this is a good idea. So this was in that
11 same realm. Some folks put it quite high up on
12 their list, including CCOF and I believe OTA,
13 that good acreage data and yield data was
14 important.

15 There was definitely a divide between
16 acreage and yield data, and whether or not
17 getting yield data was possible in the short run,
18 or even possible in the long run, and then also
19 just how, how accurate or useful that would be by
20 crop types.

21 There were some examples of crops with
22 multiple harvests, crops that may have a lot of

1 quality coals that go on. So how useful that
2 data would be if lots of the crop gets pulled out
3 because of quality or other reasons.

4 There were some concerns raised around
5 the acreage data and generally around if it could
6 be assembled and what quality it would be. Some
7 of it's that, you know, generally the ERS data
8 right now is, you know, at least a year back
9 looking generally, or maybe that's true for the
10 ERS. It gets accumulated as it goes on. But
11 it's true for some of the organic surveys that
12 happen by NASS in other areas.

13 So the data is old. There's errors in
14 it. How do you deal with old crop? How do you
15 deal with crop that's never sold off the farm,
16 and what happens when there's discrepancies
17 between data points like if someone brought up a
18 case of acreage reported on the certificate
19 versus acreage reported to the state of
20 California.

21 There was some privacy concerns raised
22 about reporting acreage by individual operator,

1 and I had definitely heard that from grain
2 operators in the Midwest as an area of concern
3 when it's connected back to an individual
4 operation.

5 But a lot of certifiers did say this
6 was implementable at some points, that they had
7 the information somewhere but it may not just be
8 readily available to be reported into a database.

9 I do want to note that we mostly heard
10 from domestic certifiers. We did not really hear
11 from foreign certifiers on that matter. Some
12 people commented that maybe acreage data could be
13 part of a risk assessment system that a certifier
14 is hired and reporting it, they would be less
15 risky.

16 If they were not reporting it, then
17 they would be considered more risky and then that
18 would, you know, be used in an accreditation
19 system to kind of designate how often they get
20 audited or how intensely they get audited.

21 Some people commented on focusing on
22 just risk crops in regions or maybe raw products

1 or just crops with one harvest. Again, this was
2 somewhat difficult with diversified operations,
3 people that had different varieties and multiple
4 harvests. I just want to point out that the
5 state of California, which is not a small
6 producer of products, used to run a program and
7 it did cause a lot of pain points.

8 So they've done some refinements to
9 them, but I think that's an opportunity, a model
10 for us to look at to kind of learn from, what
11 went well and what didn't, and what they're doing
12 today. There was concerns around cost.

13 There was concerns around are we
14 talking about parcel or cropland reporting.
15 Someone also pointed to the reporting mechanism
16 related to acreage and crop production that's
17 used in Italy. So that's another model that we
18 could look at.

19 And then, you know, some folks raised
20 concerns around not getting this data from
21 equivalencies and recognition of countries. So
22 I'll stop there, and open this one up for

1 discussion. Harriet, then Sue.

2 MS. BEHAR: So a couple of things.

3 The data from the certifiers is much better than
4 the NASS data, because that is voluntary and does
5 not capture everything.

6 As a matter of fact, the last organic
7 survey had I think only about two-thirds of the
8 operations listed compared to the Organic
9 Integrity Database, and you know, it took me less
10 than a minute to look at that and see well wait a
11 minute, they say we only have 650 operations in
12 Wisconsin and I look at the Organic Integrity
13 Database and it's 1,300.

14 So, but I understand the proprietary.
15 So I'm just wondering too if perhaps there could
16 be some kind of password-protected part of the
17 Organic Integrity Database that would be
18 available to certifiers at least to verify, so if
19 they have a client that wants to verify
20 something, they could be looked at that way.

21 And lastly, I know I asked about
22 yields too. But there is some publicly available

1 information by county on commodities of yields
2 for crop insurance. So if you wanted to know how
3 many strawberries somebody's producing, it's not
4 necessarily going to be there. But most of the
5 commodity crops, cotton, corn, soybeans, wheat,
6 oats and there is typically also an organic,
7 which is usually a little less than it truly is.

8 But that's all publicly available and
9 at anybody's fingertips who's on a computer. So
10 there are some at least based on yield factors.

11 MR. CHAPMAN: Do they have it by
12 county in the Ukraine?

13 MS. BEHAR: No. But they do have it
14 here in the United States, but this is for crop
15 insurance. I'm just saying it's a start.

16 MR. MORTENSEN: There are, you know,
17 it's interesting, we've been modeling and
18 projecting, not me but the U.S. government has
19 been keeping Eastern Bloc grain yields at a
20 pretty granular level since the late 1950s. So
21 we have pretty good estimates of annual yield,
22 even toward the end of the growing season of that

1 season for Azerbaijan, Kazakhstan, Russia, et
2 cetera.

3 MR. CHAPMAN: I'd assume those are for
4 conventional production?

5 MR. MORTENSEN: That would be
6 conventional, but you could adjust it by some
7 factor and just have at least a guesstimate for
8 the country level production.

9 MR. CHAPMAN: Ashley.

10 MS. SWAFFAR: So I am a data lover.
11 I do love data, but I don't know where this one
12 could really get -- gain us anything. On the
13 global yes, that could be, you know, knowing out
14 of a country what they would typically yield.
15 But like on a national, you know, if they say
16 like okay, I've got a farm in Arkansas and I have
17 100 acres of corn.

18 What's that going to tell you if I
19 sell you something, because I could sell you
20 that. I could buy some conventional and then I
21 could sell it to Sue, and give each of you a
22 certificate that says I've got 100 acres of corn

1 and I sold you the exact amount.

2 So without a transaction certificate,
3 I think that data doesn't really get us anywhere,
4 except for the global scale of typically we
5 should be getting X number of bushels of corn out
6 of Ukraine or wherever. So I think domestically
7 that's a challenge there.

8 MR. CHAPMAN: Have you got something
9 directly to her or -- okay, Emily, then Sue.

10 MS. OAKLEY: Well I hear what you're
11 saying and I think that's true, but I think
12 that's where the high level financial accounting
13 can come into play. I mean it's still obviously
14 totally impossible to execute fraud in accounting
15 as well. But I think it can help address some of
16 that.

17 MR. CHAPMAN: Sue.

18 MS. BAIRD: Yeah, I agree with Emily.
19 I didn't realize that inspectors didn't calculate
20 acreages and yields. I just thought that was
21 part of being an organic inspector, and I do
22 exactly what Harriet says.

1 I go to county records and I say oh,
2 this area gets an average of 50 bushel per acre
3 soybeans, and you know, I did your calculation
4 and you ended up and you sold 75 bushel? You
5 know, explain to me the discrepancies here.

6 So, and acknowledging that is a whole
7 lot easier than someone who does diverse
8 vegetable production. Then it becomes a lot
9 harder and a lot more work. I don't agree,
10 Ashley. I understand that you can use a
11 certificate and I've seen people do it, use their
12 certificate and sell over and over again.

13 But that's where the financial comes
14 in. I think that it's critical that we have that
15 acreage. Do we want to put it in the Integrity
16 Database? Perhaps not, because it is subject to
17 sunshine.

18 Anything that's out there is subject,
19 and maybe that is an issue. But at least the
20 certifier should have that data I think. Maybe
21 it doesn't need to be reported publicly.

22 MR. CHAPMAN: So we've got myself,

1 then Scott. So real quickly, I just want to
2 comment. I didn't hear, I didn't read in the
3 comments myself that certifiers were not doing
4 acreage, yield, mass balance, all that stuff. I
5 read that that was occurring.

6 What I read was that that might live
7 on a piece of paper in the inspection report, and
8 not in a readily available format that would make
9 it easy to then input it into a database, and
10 that was a big barrier with that piece. I think
11 one of the lessons I learned from my involvement
12 in the state of California program was like, data
13 is great, I love data too, but you've got to use
14 -- there's still a lot of cost and effort
15 involved in accumulating and maintaining that
16 data.

17 So really what we should be doing is
18 designing whatever this is with the end state in
19 mind. So we need to figure out what we're going
20 to use this data for and then collect it
21 appropriately. You know, some of the problems
22 that caused a reaction in the state of

1 California, which was really driven at the grower
2 level, was that it was too intensive, the
3 information they were seeking.

4 It was, you know, Jake noted it was a
5 parcel, crop, crop year. I'm missing something,
6 but there's another slice in that, and maybe even
7 more sales. Yeah, that made it even more
8 intensive. So I think, you know, we need to --
9 you can't take this data point so low that it's
10 intrusive and unmanageable.

11 You also can't take it so high that
12 it's unuseful and doesn't give you any valuable
13 data. But one of the takeaways I took from this
14 is we really need to figure out what are we going
15 to do with this, and then design whatever our
16 request is around this to match that. So anyway,
17 that's my thinking. Scott, yeah.

18 MR. RICE: Yeah, just a quick follow-
19 up on the yield conversation. I think it speaks
20 to inspector qualifications to a degree and
21 sending the right inspector to the right
22 operation, so that you have someone who is

1 knowledgeable in that cropping system or
2 livestock production or whatever the scope or
3 scale might be, that they can see the yield.
4 They can see the acreage and have an
5 understanding of what makes sense for that, and
6 know when to smell something funny.

7 MR. CHAPMAN: Jenny, did you have
8 anything to add related to crop acreage, OID,
9 just want to share anything?

10 DR. TUCKER: We've actually been doing
11 a fair amount of looking at this problem. So
12 what we would like to do and we raised during the
13 call with the certifiers, our sort of acreage
14 working session, is sharing. The Organic
15 Integrity Database already has password
16 protection for certifiers.

17 Right now, certifiers in the system if
18 they log in, they can see the acreage associated
19 with their own operations, but not the acreage
20 associated with others. Now we have gotten -- so
21 what we'd like to be able to do is make that
22 acreage field available to all certifiers. So

1 all certifiers can see all acreage in the
2 database.

3 That information would still be
4 protected as business proprietary information.
5 So for example if there was a FOIA request, for
6 example, as we get FOIA requests, that field, the
7 acreage field is always redacted, because it is
8 business proprietary information, so that field
9 would simply be protected.

10 So the question is are we allowed to
11 share acreage data between certifiers and so far
12 I have not found a legal basis for not allowing
13 that.

14 So we have been checking with NASS and
15 ERS because they have very strict data-sharing
16 rules, to see whether there are any rules that
17 would prohibit that acreage-sharing. We also
18 have checked with Office of General Counsel, and
19 we already trained the certifiers in February
20 about the fact that certifiers can share
21 information credibly needed to certify, decertify
22 or investigate an operation.

1 And so there is a lot of impetus for
2 being able to have certifiers be able to see each
3 other's acreage data. Now when we first did
4 requirements around the Organic Integrity
5 Database back in like 2013, bunches of certifiers
6 did not want that, which is why we protected it
7 at a certifier level only. In the working
8 session, no certifier objected.

9 So there's really been a bit of a
10 shift in terms of what we're hearing as to how
11 certifiers feel about that kind of data-sharing.
12 So that's just my four and half cents on that
13 one.

14 MR. CHAPMAN: Thank you. And Jenny, I
15 invite you to hop in on any of these discussions,
16 more so than we normally would have you do,
17 because you know, the perspective of the Program
18 I think is vital as we continue these
19 discussions.

20 DR. TUCKER: Thanks. I'll try and
21 keep it to a minimum.

22 MR. CHAPMAN: No, no, don't worry

1 about that. Steve.

2 MR. ELA: It's just my -- I think that
3 kind of thing is really critical. I think the
4 public database from NASS or by county is
5 suspicious. I don't know how many times I get
6 the call from NASS as I'm out doing something and
7 they want my peach production report. And I, you
8 know, I get within probably 15 percent from
9 memory, but it's not anywhere near exact.

10 The other issue is, at least in our
11 area, if there's only one operation that's
12 certified in that county, then it can't be
13 reported because you're actually reporting
14 information that directly ties to a producer. So
15 in Iowa, where you're looking at by county a lot
16 of organic producers, that data's probably pretty
17 good.

18 If you get into Colorado, we can't
19 even get documentation for organic prices on
20 peaches, even though there's a lot of growers and
21 peaches because it's not enough growers to not
22 reveal who the growers are once you do the

1 statistics.

2 And so I think that -- while it sounds
3 good, that county-level data it's -- it's hard to
4 actually pinpoint it down when you have few
5 growers in a county, so.

6 MR. CHAPMAN: All right. Anything
7 else? I guess we'll move on to the next one,
8 which was equivalency recognition agreements and
9 certified operation databases, like the Organic
10 Integrity Database. And so we were asking about
11 basically all the operators in the world that can
12 sell to the U.S., that aren't part of the OID and
13 what we should do about it, and we got a lot of
14 feedback on this.

15 We got a lot of feedback on how
16 important the OID has become to handlers and
17 certifiers in verifying the veracity of some of
18 the documents that they get, and that it's an
19 incredibly useful tool for enforcement.

20 I do want to make a little side kind
21 of editorial comment here that, you know, there's
22 been a lot of critiques of the Program and of

1 certifiers on being reactive to this issue of
2 fraud and importer issues and oversight.

3 And I do want to point out that this,
4 you know, when you're in these kind of crisis
5 situations you kind of forget that it could be
6 worse, and that there were some actions taken
7 proactively, maybe not all the ones that were
8 necessary. But this is definitely one that was
9 done proactively. This was in the works for I
10 don't know how long. How long was the OID in the
11 works for?

12 DR. TUCKER: We did a needs assessment
13 in 2012-13. A lot of people contributed to that.

14 MR. CHAPMAN: Yeah. So '12-'13 since
15 then, and it has really become a critical tool
16 for everyone to verify, again the veracity of the
17 certification documents. So, incredibly useful
18 tool and we are asking here about how we could
19 expand that.

20 So there was a lot of information.
21 Generally people agree that there are concerns
22 around being able to verify the validity of

1 equivalent and recognition partners, because
2 there is no equivalent kind of database out there
3 for people to go out and reference.

4 I know and maybe Jenny can pipe in a
5 little bit, we talked really briefly in the
6 Subcommittee that this, you know, including them
7 in the OID would potentially be a very large
8 scope of work and potentially difficult to do.

9 But you know, one of the perspectives
10 that we had taken when we asked them this and
11 there was a lot of agreement was, can this not be
12 part of the equivalency agreement, that the
13 expectations are equivalent partners develop a
14 similar system of their own to manage their own
15 certified operations.

16 In my personal opinion, that is the
17 right way to go about it with an equivalency
18 because it's really their standard. It's theirs
19 to manage and we're recognizing them as
20 equivalent. That includes the ability to
21 validate the authenticity of their certificates.
22 Do you want to talk a little bit about --

1 DR. TUCKER: I'll reaffirm your
2 thinking on the equivalency. We don't see it as
3 reason -- it's just not manageable to have
4 equivalent folks in OID. The recognition
5 agreements is something that we actually always
6 saw as a long-term goal. Right now, that's
7 actually more of just a policy question on how to
8 implement it and how to ensure the data quality.

9 It's not a technical problem. The
10 system's built to accommodate it. We just
11 haven't gotten there yet.

12 MR. CHAPMAN: Yeah, and that was one
13 of the comments we got back from that, was a lot
14 of folks thought recognition agreements basically
15 require ACAs to still operate under the USDA
16 standards. So as part of that reporting to the
17 NOP it should be one of those requirements, and
18 so they should be held to the same reporting
19 requirements as every other ACA out there.

20 People like to have it as more robust
21 than paper certificates, but there were still
22 some concerns around like not listing brands or

1 labels, how it could be verified, the validity of
2 the data and how frequently -- a lot of the
3 comments around how frequently data is reported
4 and how real time it is. Any comments on this
5 section? Harriet, Harriet?

6 MS. BEHAR: We didn't really cover
7 this, but when one of our equivalency partners
8 flags a certifier as being in suspension or
9 having problems, you know, that we don't have the
10 same risk attention to them.

11 MR. CHAPMAN: Certifier or operator.

12 MS. BEHAR: Both.

13 MR. CHAPMAN: So certifier is in the
14 later sections but --

15 MS. BEHAR: Oh okay. But yeah. So
16 I'm just wondering too about putting in place
17 some sort of policy, that if one of our partners
18 has flagged a problem operation that we
19 scrutinize it as well.

20 MR. CHAPMAN: Under their equivalency?
21 But it's there. I mean like the European
22 equivalency for example, or a Canadian

1 equivalency, like it's a Canadian organic
2 certificate. There is no American organic
3 certificate there. That's --

4 MS. BEHAR: Right. But if Canada has
5 identified an operation as being problematic,
6 then we should also be somewhat suspect about
7 their sales, and flag them as something to look
8 at, because -- just because -- I mean they're
9 coming in under an equivalency, but their
10 overseeing agency has identified them as being --
11 as having problems with maintaining integrity.

12 MR. CHAPMAN: Yeah, yeah. I hear
13 that. I guess my concern right now is we can't
14 even get a full list from Canada as to who their
15 operators are, let along their problematic ones.
16 So yeah, I don't know, baby steps. Anyone else
17 on this subject?

18 (No response.)

19 MR. CHAPMAN: All right. Up next was
20 the role of residue testing to verify bulk
21 shipments of grain. A lot of people talked about
22 how this should be part of a risk assessment.

1 Some of the risk criterias people talked about
2 was if there was an issue with the exporter or
3 the country in the last 12 months.

4 We asked questions around volume and
5 we got a mixed response, a lot of industry saying
6 that volume should not be a factor in it. But
7 you know, I think Sam had some interesting
8 insight on the panel that, you know, a single
9 shipment can have some dramatic impacts on
10 certain markets, and so volume may actually be a
11 risk factor that should be considered.

12 People talked about it should be a
13 requirement and checked at CBP for clearance. We
14 asked some questions about how it would be
15 managed and who would be responsible for it. You
16 know, those questions seemed unclear from the
17 answers who, when, who pays, how it should be
18 done.

19 A lot of people talked about its
20 importance as a deterrent. We also heard that a
21 lot of handlers are already doing this, but that
22 information is not being shared. So it kind of

1 goes back to that question I asked about the good
2 actors are avoiding it in their supply chain, but
3 it's still allowing that product to be out there
4 for the bad actors.

5 There was also some comments that the
6 current NOP listing for testing doesn't list that
7 testing screening that's out there, and that
8 guidance document doesn't have common fumigants
9 like aluminum phosphate, methyl bromide,
10 phosphine. And so maybe there should be some
11 consideration about revising that documentation,
12 that advice. If you want to hop in on that one.

13 DR. TUCKER: We agree. We understand
14 that that is out of date. It needs to be
15 updated, and that's one project. Having an
16 acting deputy administrator from Science and
17 Technology Programs has offered unique insights
18 into that so --

19 MR. CHAPMAN: Yeah. Some folks talked
20 about, you know, best practices, and how this
21 could be incorporated into an organic systems
22 plan, and that it should be part of a supplier

1 risk program, and if a supplier, you know, if
2 someone's not doing that in their supply chain,
3 then that should be an indication of higher risk,
4 which then opens them up to potentially more
5 inspections or sampling by the certifier as an
6 interesting way of approaching it.

7 There was some questions around how
8 useful this data would be, and that we should
9 make sure that requiring this is effective, is an
10 effective deterrent basically. There was a lot
11 of comments around GMO testing as well, and yeah,
12 that's pretty -- that's a pretty good summary I
13 think.

14 There was also a lot of comments
15 around different product commodity types, that
16 this, you know, may make more sense for certain
17 grain shipments, but could present an issue for
18 fresh produce, although there's other discussion
19 later that maybe it's not good at a proactive way
20 of preventing fresh produce issues.

21 But it could be a way of identifying
22 again some of those issues where they exist if

1 you, you know, the produce you test might be
2 released for sale and consumed by that point, but
3 then it would allow you some data points on where
4 to start digging back into that supply chain.
5 I'll stop it there and open it up. Harriet,
6 Scott.

7 MS. BEHAR: I think it's important
8 that we make sure that we don't go down the path
9 that a clean residue test means it's organic.
10 There's a lot of conventional product that will
11 come back as not showing any pesticide residue.
12 So this is just one tool in your tool box, but
13 that is not -- that it's not necessarily the only
14 thing that proves organic status.

15 MR. CHAPMAN: Yeah, and that was
16 actually a very common theme, thanks for saying
17 that, that this is a tool. It's a tool that we
18 should use, but again it's not -- like everything
19 else, it's not the sole -- it's not a substitute
20 for a lot of the other things.

21 MR. RICE: Yeah, and I would just add
22 on that that there -- similar to the -- the

1 produce testing may not catch it in real time,
2 but it shows that a system might not be working.
3 So a clean test may not show residue, but maybe
4 some risk-based and random sampling of soils
5 would potentially show a similar, reveal a
6 similar broken system or fraudulent system.

7 MR. CHAPMAN: Yeah, and thanks for
8 bringing that up. Peter brought that up about
9 soil testing as a way. It was kind of outside
10 the scope of this question. We unfortunately
11 scoped this one in about bulk shipments of grain
12 and kind of missed some comments on maybe a wider
13 section. But definitely that was a good comment
14 on, you know, a tool for overall enforcement and
15 detecting fraud at the farm level. Sue.

16 MS. BAIRD: Yeah. I just agree with
17 Harriet and Scott. I don't think that we -- I
18 don't think that we should require all of the
19 shipments to be pesticide-tested. It's just way
20 too expensive.

21 You know most feed mills brokers that
22 I do inspections for routinely test every

1 shipment that they receive for GMO, because it's
2 pretty cheap to run the strip test for GMOs.

3 But pesticide testing is relatively
4 expensive. But I do think that it needs to be
5 implemented more often, and I agree especially
6 for produce it would be a risk assessment tool as
7 opposed to a product, and we're not supposed to
8 be doing it, you know. Organic certification is
9 a process certification anyway so --

10 MR. CHAPMAN: A strip test when the
11 truck shows up at a feed mill is cheap, but a
12 strip test when a bulk grain ship shows up at a
13 port in America and gets rejected, it's quite
14 expensive. Yeah, that's what I'm saying. But
15 Emily, Asa.

16 MR. BRADMAN: I just want to echo
17 those comments, and I think we have to think of
18 testing in two ways. One is compliance, the
19 other is monitoring, and I think the monitoring
20 component can point to problems, and there may be
21 individual case follow-up.

22 For example, we heard about the USDA

1 transfer of information if there's a problem
2 measurement. But those samples are usually
3 collected randomly and they're not, you know,
4 inspection-generated. But I think that there
5 could be some general monitoring that could be
6 expanded beyond, as we just talked, beyond
7 commodities to include like soils and perhaps
8 plants themselves.

9 And then at the same time, a test
10 could assist with a compliance investigation, but
11 should not be, you know, considered necessarily
12 the gold standard. I think there is some utility
13 there.

14 MR. CHAPMAN: Emily, then Sue.

15 MS. OAKLEY: The panel also discussed
16 the disincentive around testing because of its
17 cost, and I think we really need to address that,
18 especially when testing reveals fraud, and if
19 there's a way to pass that test on to the
20 fraudulent entity and potentially a fine as well,
21 which could potentially offset some of the other
22 testing.

1 MR. CHAPMAN: Yeah, that's a good
2 point. Sue.

3 MS. BAIRD: It is a good point.
4 Unfortunately, it's not written into the rule
5 that way. It says that the certifier has to
6 assume the cost, unless it were an investigation,
7 and then I think you can pass that on. I agree
8 with Asa; it is definitely, should always be done
9 in investigative circumstances. But on a routine
10 basis, and I know that we're required to do five
11 percent of testing, is that correct? Is it five
12 percent that we're supposed to do?

13 I'm not sure that's enough, you know.
14 Five percent, and I think Sam made that point.
15 Five percent of a whole lot is not very much. So
16 but I'm cognizant it costs a lot of money to run
17 these pesticide tests, and certifiers need some
18 kind of help with the cost of it, because it
19 really does cut down on any kind of
20 sustainability for the certifier.

21 MR. CHAPMAN: So I'm also pretty sure
22 people are getting tired of me stating the state

1 of California as an example, but the state of
2 California organic program does have a monitoring
3 program, where they go out and they test and
4 market product and, you know, they sample as part
5 of their own CDFA and CDPH audits of facilities,
6 and I guess I want to lob a question that you,
7 Jenny, just so you're ready.

8 But I mean clearly like that's funded
9 through a fee that's imposed on all operators in
10 California. But if, you know, what are the
11 hurdles to a similar kind of monitoring program
12 done by the agency instead of certifiers.
13 Clearly cost is one, resources is another. Are
14 there other areas that present roadblocks to
15 looking at such a program?

16 DR. TUCKER: The cost and resources
17 are always the limit. I think one of the things
18 we've been trying to look into in terms of the
19 way the pesticide residue rule was written in
20 2013, that was published in 2013, it did make
21 some pretty specific comments about what costs
22 were covered and what costs weren't.

1 However, certifiers do have fee
2 schedules, and one of the fee schedule items is
3 unannounced inspections, right. If you have
4 reason to believe that you need to do an
5 investigation because you question whether an
6 operation is truly compliant or not, an
7 unannounced inspection is a tool that can be
8 used.

9 So if you're doing testing during an
10 unannounced inspection, that unannounced
11 inspection should be on the certifier's fee
12 schedule, and therefore should be able to charge
13 for that. So I think we need to -- we've been
14 talking a little bit internally of how could we
15 -- how do we think about certifiers.

16 Certifiers do need to be able to
17 charge for the services that they do, without it
18 becoming a disincentive. So we're not trying to
19 set up counter and some disincentives here. The
20 question is how do you -- how do you frame it in
21 a way that is also legal with the regulation as
22 written.

1 So we have been, we are -- we think
2 there may be some sort of misinterpretations on
3 how that is being applied, because unannounced
4 inspections are a part of the allowed certifier
5 schedule of services, and testing should and
6 could be part of that unannounced inspection. So
7 we're working on that.

8 MR. CHAPMAN: In terms of like a
9 monitoring program, resources, funding, is the
10 authority there? Is that something we need to
11 look into? Do you know --

12 DR. TUCKER: I don't think we need to
13 look into the -- well, I don't know why we
14 wouldn't have the authority to do that. We have
15 done some work with S&T in the past, in terms of
16 surveillance sampling and testing. We have
17 talked about doing that, you know.

18 Some of -- Sam during his comments had
19 a lot of ideas on how to spend that extra money,
20 and some of those ideas were very similar to
21 ideas that we have been thinking about how to
22 explore in terms of sampling testing. So we

1 certainly have done that in the past without a
2 legal challenge.

3 MR. CHAPMAN: Okay. Asa.

4 MR. BRADMAN: --as part of the concept
5 of continuous improvement, technologies for
6 measuring pesticides and other contaminants at
7 low levels is changing and improving rapidly. So
8 costs may go down. There may be new technologies
9 to screen at quite low levels for different
10 classes of pesticides.

11 There also may be the possibility of
12 -- if we think there's a material that's being
13 used improperly and it's say more commonly used
14 on a fruit or on grain, there might be a screen
15 specific to that commodity that might have a
16 lower cost per file than just a standard AMS
17 screen.

18 So we meet periodically with people
19 who are developing very sensitive detectors for
20 pesticides, and many of these things aren't on
21 the market yet but I think they will be.

22 MR. CHAPMAN: All right. We'll move

1 on to number eight. Oops, yep. Go.

2 DR. LEWIS: One thing that was brought
3 up also is having an understanding of the
4 production practice if you're visiting -- if
5 you're visiting the field and you find the field
6 is clean, clean of any wheat pressure, kind of
7 thinking about maybe there was an application
8 being made. So kind of understanding in terms of
9 the crop production practices, and we heard that
10 from several people as part of the panel.

11 MR. CHAPMAN: All right. Is the role
12 of certifier operation when certifying commodity
13 in a third country with import controls on the
14 commodity. As part of this, this was basically
15 looking at if a commodity had some sort of import
16 controls, generally a fumigation requirement and
17 it was being certified to the National Organic
18 Program, that should -- should that be a risk
19 factor. Should that be something that gets
20 considered.

21 We got a lot of comments on this, that
22 this seems to be an emerging area and a need for

1 more information-sharing and education to
2 basically everybody, on what are the requirements
3 for import of different commodities and then
4 really what are the expectations for different
5 actors and supply chain and their knowledge.

6 There seemed to be some level of
7 dispute or disagreement over should it be the
8 NOP, should it be the certifier of the importer.
9 Should it be the certifier of the operation in
10 the country, should it be the importer itself or
11 should it be the operator, or should it be all of
12 them who are well aware of these requirements to
13 bring in product within the U.S.

14 There's also some talk about the NOP
15 could publish a comprehensive list of products
16 requiring mandatory fumigation upon entry into
17 the United States, which would negate the organic
18 status. There was, I think they did some
19 training on this regard recently, and a lot of
20 people recognized the value of that and asked for
21 more.

22 And then there was just, you know,

1 some requests around clarification of
2 recordkeeping requirements, especially in regards
3 to the CBP and APHIS and those notifications and
4 who would do it, especially if the importer is
5 not certified.

6 Jenny, I don't know if you want to
7 touch on it. I know you touched on some kind of
8 relevant or related points to this in your
9 presentation last time about fumigation notices
10 and your follow-ups, and is there anything you
11 just want to --

12 DR. TUCKER: I don't anything I
13 haven't already discussed.

14 MR. CHAPMAN: Okay. I was curious
15 about those fumigation notices. Are those,
16 because I dug in. As part of this, I dug into
17 the APHIS manuals to try to understand. I was
18 trying to kind of link together some crops and,
19 you know, something I would see in the APHIS
20 database that required fumigation, that I wanted
21 to find it on the OID. I'd be like what's going
22 on here.

1 What I actually learned from it is
2 there's a variety of techniques for a lot of
3 crops to be brought in. APHIS allows for a lot
4 of what would be organic compliant kind of cold
5 storage style pest control or hot treatments,
6 CO2. I didn't see any CO2, but CO2 I imagine, in
7 addition to those fumigations.

8 So I was curious. Those 1,600
9 fumigation notices, does that include all of
10 those, or does that just include like use of a
11 controlled chemical?

12 DR. TUCKER: So the fumigation notices
13 we are receiving are the ones when APHIS says
14 this needs to be fumigated, right?

15 MR. CHAPMAN: Yeah.

16 DR. TUCKER: We don't know if it was
17 actually fumigated or not. It could have oh,
18 wait. No, I don't want it to be fumigated, so
19 I'm going to do something else with it, or it
20 could be it isn't even organic, or I'm going to
21 sell it as conventional. So yeah, we don't know.
22 We're still -- the fumigation rules are

1 incredibly nuanced.

2 I mean when the APHIS guy was doing
3 the training, he did a very nice job with the
4 training, but he was literally training people
5 how to search for terms in PDF documents. The
6 rules change. They're nuanced, and there are
7 lots of different mitigation approaches for it.

8 That's what makes it hard, is you
9 can't program these business rules very easily,
10 yeah. It's hard. The fumigation thing is hard.
11 That is my main comment.

12 MR. CHAPMAN: Yeah.

13 DR. TUCKER: Yeah.

14 MR. CHAPMAN: I would echo that,
15 having been at that training. It's dense. The
16 organic data sets in the APHIS system, would that
17 have a large impact on this?

18 DR. TUCKER: What we're trying to do
19 is yeah, we're learning as we go along here.
20 What we're trying to do is the APHIS notification
21 systems are independent of the ACE, of the
22 Automated Commercial Environment that CBP

1 manages. What we're trying to figure out is does
2 the outcome of that fumigation, what happened,
3 the end of the story. Does that feed back into
4 ACE so we know what actually happened?

5 That's what we really need to have
6 happen, and so that's part of what we're trying
7 to figure out now. The process does split from
8 APHIS and CBP at some point. The question is
9 where in their worlds do they reconnect, because
10 they've got the same complexities of systems too,
11 and we don't quite have that final piece of the
12 -- we just don't understand how that system feed
13 works, if it even does.

14 MR. CHAPMAN: Yeah, okay. Steve.

15 MR. ELA: Jenny, I want to follow up
16 on Tom's question. I mean the fumigation notice,
17 to me fumigation is fumigation and there are
18 other mitigation controls that APHIS might allow,
19 like heat treatment or cold treatment or other
20 things. So does -- yes. Are those fumigation
21 notices actual materials being applied, or is
22 that some kind of control or mitigation need to

1 be applied?

2 DR. TUCKER: The notices are
3 fumigation is going to be a condition of entry.
4 Honestly, this is -- we're still learning, and so
5 I'm not entirely, not entirely sure. We're still
6 trying to get our arms around these nuances.

7 MR. CHAPMAN: Anything else? All
8 right. We'll move on and just to keep you guys
9 on your toes, I skipped number seven.

10 MR. RICE: I was just going to point
11 that out at a convenient spot.

12 (Simultaneous speaking.)

13 MR. CHAPMAN: I'm sure you were. We
14 got the notification from the public, so all
15 right. Moving up the list to number seven,
16 verification of organic status in perishable
17 supply chains. We heard an immense amount of
18 this from Mike Dill on our panel.

19 Clearly, there's unique issues with
20 the speed and perishability of produce, and
21 there's a lot of talk around the need for supply
22 approval programs, how important that is in

1 verifying the authenticity of these products,
2 issues around labeling, how they're opened, how
3 they're handled by various operations including
4 retail distributors, the number of hands and
5 transactions that occur in these sales, the
6 difficulty in going back multiple steps, the time
7 it takes to do it, the impacts that testing
8 requirements have on product quality and age.

9 Some people talked about having
10 multiple certifier certificates for a single
11 product and how to deal with those issues, that
12 the certificate of fumigation is not specific
13 enough, that a fruit or vegetable category is too
14 generic to be able to then say this cucumber is
15 actually organic.

16 There is talk around the need for
17 standardized certificates and terminology and
18 that that would help. I mentioned it earlier,
19 but the bulk labeling and issues there. Yeah.
20 What did I miss? Any other discussion? Harriet.

21 MS. BEHAR: I think the rapidity that
22 he needs the information is so important, and I

1 was impressed that he still had a full head of
2 hair, because I would have pulled mine all out by
3 then.

4 MR. CHAPMAN: Definitely.

5 MS. BEHAR: Trying to do what he does.
6 You know, worrying about the, you know, he gets
7 something. He's got a suspicion and now he's got
8 to move it in, you know, four hours.

9 MR. CHAPMAN: Yeah, and I think
10 another very valid point he made too was that
11 it's not even just the suspicion. It's the lack
12 of documentation he has to pass on the sales on
13 certain product or purchases of certain product
14 that ultimately would be sales for them.

15 That product that might be very or,
16 you know, organic is just the way the
17 documentation comes in. It just makes it
18 impossible for them to do their due diligence in
19 verifying it. Scott.

20 MR. RICE: I think just to build on
21 that, the challenge of not only losing that sale
22 but seeing it go to potentially a competitor who

1 isn't holding that supplier to the same bar, or
2 doesn't have the same procedures in place, and
3 knowing that, as we heard in other sort of areas,
4 this discussion that that potentially non-organic
5 labeled organic product is continuing to be in
6 the marketplace because of just somebody else's
7 due diligence, and why you can maybe file a
8 complaint when there is clear fraud. That's not
9 always the case in these situations.

10 MR. CHAPMAN: Ashley.

11 MS. SWAFFAR: Yeah. So I just wanted
12 to bring up the point that he was talking about
13 private label. You know that is not just in
14 produce or in grain or anything like that. It
15 drives me nuts in eggs, because they'll be a
16 grocery store that has a very simple carton and
17 it has their name on it and organic eggs and it's
18 certified by Certifier A, but I know that plant's
19 certified by somebody else, you know, and it's
20 just --

21 It's a mess, and I think that that's
22 an area that touches all parts of the -- of

1 products and private labels.

2 MR. CHAPMAN: Steve.

3 MR. ELA: Yeah, and I think it comes
4 back to what, I mean you've mentioned way back if
5 once something -- let's say it's fumigated or
6 let's say it's rejected or, you know, we know
7 it's fraudulent. How do you get the organic name
8 off of it? I don't have a good solution. That's
9 a tough one, I mean.

10 But I think we really need to wrap our
11 heads around that because it is -- I mean we see
12 one of the warehouses we rent space from, I mean
13 they kick a pallet out for a moldy case, and they
14 kick the whole pallet and they'll turn around and
15 sell it to a guy who takes them to the farmers
16 markets for pennies on the dollar, and he
17 undercuts us in price.

18 But it -- but, you know, there's so
19 many ways to game that system. I think it's a
20 real tough one, but I -- but we -- I think it's a
21 real issue, and you always have to find a home
22 for something. You can't let it sit on the

1 warehouse dock, because they're going to charge
2 you for that.

3 And so somebody's going to pick it up
4 and somebody's going to take it down the road,
5 and what happens with that we lose control of.

6 MR. CHAPMAN: Jenny.

7 DR. TUCKER: I just wanted to very
8 briefly correct, just clarify for the record. I
9 was looking back over my notes. We get the
10 fumigation notice after it's been fumigated. So
11 there are two notification processes, and I was
12 getting confused on which notification. It's the
13 second notification process, where somebody's
14 actually sprayed the stuff. That's when we get
15 the notice.

16 MR. CHAPMAN: Thank you.

17 DR. TUCKER: Thank you.

18 MR. CHAPMAN: Yeah. I mean that
19 highlights one of the downsides of that increased
20 documentation on the product, right, if you've
21 labeled all your apples with organic stickers and
22 then it gets fumigated. What do you do with it?

1 Yeah.

2 On a plus side, I guess in this one
3 area, you know, very clear comments were around
4 those two, the top two issues at least, it seemed
5 from people, and ways to address this is --
6 despite maybe that threat -- is still clear
7 documentation and then certifying uncertified
8 handlers seemed to be the best two steps, which
9 is the areas that we're already looking at, to
10 also addressing issues and produce supply chains.
11 Harriet.

12 MS. BEHAR: I think this -- the
13 produce has another unique aspect, and that is
14 the boxes and the storage are open, and then
15 they're stacked on top of each other and they
16 could have ice and dripping, and there's just
17 more issues of contamination and possible
18 commingling, especially when they're resorting
19 and that sort of thing, that you wouldn't find in
20 other commodities.

21 MR. CHAPMAN: Okay. We'll move on to
22 number nine. Additional controls for origins

1 with document and fraud and integrity issues.
2 Most people generally agreed this was a useful
3 tool, but there was some concern around bad
4 actors just avoiding those origins or using
5 complex supply chains to obfuscate the origin of
6 the products.

7 There were some comments around the
8 need to balance the need versus the impact, and I
9 think those were comments kind of looking at what
10 happened in Europe and around their import
11 control process and the burden it lays on people
12 importing products.

13 There was some discussion about this
14 not being as effective for fresh produce. But we
15 did get a lot of good comments around potentially
16 what risk measures we should use, including
17 spikes in production data, the inability to ID
18 acreage or number of suppliers to match
19 production volumes, the number of positive
20 residue tests for a certain area, issues with
21 political stability or corruption, certifiers
22 losing accreditation by foreign accreditation

1 operations in that region.

2 Yeah, that was at the high level. Any
3 discussion on this one? Harriet.

4 MS. BEHAR: That was kind of for
5 Jenny. Someone mentioned needing like stop
6 import authority, and I don't know if that's
7 possible or not.

8 DR. TUCKER: Yeah. We've learned a
9 good amount about CBP. They have different
10 levels of ability to stop or hold product, and
11 each comes with different requirements for both
12 authorities and the amount of evidence that you
13 need to have.

14 And so I think a MOAD, marketing
15 orders program, they have something called -- I
16 think it's called conditional release, where the
17 product is approved for release.

18 But they can pull it back within 30
19 days. So the question is can you actually pull
20 that back. But if you -- so you could try and
21 pull it back or notify who it went to and then if
22 they sell it, then they're liable for having sold

1 it. But they are put on notice.

2 The stop import or hold intact, that
3 has very, very high barriers in terms of the
4 amount of evidence. The other thing we have to
5 remember in organic, and you were just mentioning
6 it Steve, is this idea that a stop sale, you
7 know, actually stops it. This product could be
8 sold as conventional. So is it really fair to
9 actually stop it when it could be released into
10 the market as conventional.

11 So our interest is making sure that it
12 isn't sold as organic. We're not trying to stop
13 sale entirely, and that's a really interesting
14 kind of nuance of how do you manage stop sale or
15 how do you think about stop sale in an
16 environment where you're actually not stopping
17 sale. You're stopping sale as organic, and those
18 are two different things.

19 MS. BEHAR: So I'm wondering if
20 something comes in and it's here, and it -- I'm
21 not sure if it's -- I guess what I'm trying to
22 get at is the fines that we have in place, when

1 we are aware of something that's fraudulent that
2 came in. I mean I know we have the violation
3 penalties in our regulation, and I'm wondering
4 how do we use those or can we use those? I don't
5 know.

6 DR. TUCKER: So civil penalties are,
7 that's a really interesting topic. Our primary
8 goal when dealing with certified operations is
9 we care about certification. So we're more
10 interested in getting an operation suspended or
11 revoked. That's what we have the most control
12 over and what we care about the most.

13 We tend to use civil penalties more
14 with uncertified operations. So if somebody's
15 uncertified and selling as organic, we'll use
16 civil penalties because that's our best tool
17 there. The challenge with civil penalties
18 honestly is that we have the ability to levy
19 civil penalties.

20 We're not a collection agency, and so
21 the authority to collect is more problematic. So
22 actually we levy civil penalties through

1 settlement agreements, which means that an
2 operation has to agree to pay it through a
3 settlement agreement.

4 Now if you're an operation, you're
5 going to say you know what? Sure, I'll pay your
6 civil penalty, but only if I get to keep my
7 certification, right.

8 And so if we try and do a settlement
9 agreement to levy a civil penalty, any good
10 lawyer is going to say well sure, I'll pay a
11 civil penalty but I get to stay certified. We
12 actually care more about them not being certified
13 than we care honestly about the money. It's
14 about getting them out of the system.

15 So that is -- that's a challenge for
16 us, is how do we levy civil penalties in a way
17 where we don't have to -- yeah, it's a challenge.

18 MR. CHAPMAN: Well, is there other
19 agencies in the U.S., other agencies you can
20 point to that have collection authority, or that
21 lacking authority, that you need to make the
22 civil penalty effective?

1 DR. TUCKER: There are different forms
2 of fines, and this is -- I don't have a lot of
3 background on this. This is something that
4 again, I think is worth more discussion and more
5 research. There are ways that federal agencies
6 can gather money in different ways than our
7 authorities.

8 But I will go outside my knowledge
9 area if I speculate on what those are. I know
10 they exist. I don't know what they are right
11 now.

12 MR. CHAPMAN: Okay. Steve.

13 MR. ELA: Jenny, I'm trying to wrap --
14 I mean, you know, on some of these additional
15 controls, that it kind of wraps back to the
16 perishable things where we have limited time or
17 we have high risk, and there's lots of -- I mean
18 for the most part, those are -- like on
19 perishables, there's a purchase order issued
20 before they're shipped.

21 I'm wondering if maybe one way we're
22 dealing, trying to deal with timeliness. When

1 they hit the dock, what's the certification?
2 Maybe with that purchase order we need to look at
3 on perishables, if there's a risk that the
4 documentation gets submitted with the purchase
5 order, so that it's not a crisis when it gets to
6 the dock.

7 And that, you know, there's lots of
8 variables in that and I'd have to really think
9 about it. But it's another way of pre-certifying
10 some of this when that order is actually
11 executed, rather than when it hits -- the truck
12 is backed up.

13 DR. TUCKER: So I bring up the
14 penalties because I think tightening up the
15 system is one deterrence. But knowing that
16 you'll be punished if you're caught is another.

17 MR. CHAPMAN: All right. I don't see
18 anything else on this subject, so we'll move on
19 to number ten, full supply chain audits. Again,
20 like most other items, there was a consensus on
21 the benefit of this, but there was --

22 I think I had a question around who

1 was the right party who had the correct level of
2 responsibility or authority, and it did seem like
3 a lot of people were looking to the NOP at being
4 the right entity with the authority, if a supply
5 chain, you know, has products in there for
6 multiple certifiers from multiple regions across
7 the world.

8 People talked about the need for
9 cross-checks, and that needs to become a more
10 common practice among certifiers and needed to be
11 strengthened. You know crop and acreage and
12 yield data kind of crept its way back into
13 this, and that that would be a vital part of
14 being able to conduct these.

15 Some certifiers noted that in the
16 past, when they have tried to do kind of similar
17 full supply chain audits on their own, they have
18 been told by accreditation authorities that it
19 was outside their authority. So that also kind
20 of leads to, I think, a lot of the certifier
21 perspective that this is a role for government.

22 There were concerns around costs,

1 about it being too broad, about the time and the
2 benefit for it. Then there was also questions
3 about how it would work with equivalency and
4 recognition agreements, and how it would work
5 with global supply chains that have steps of
6 aggregation in them. Any comments on this one?
7 Dave.

8 MR. MORTENSEN: Yeah. I got the sense
9 that in the same way that the uncertified
10 operations were critical, that this was critical.
11 That was my take from the Board and the panelists
12 generally, that it would be challenging but it's
13 critical.

14 MR. CHAPMAN: We'll just go down the
15 row. Harriet, Scott, Sue, Emily. Harriet.

16 MS. BEHAR: I think we're going to
17 need some education and training. I don't know,
18 templates, something to just help people through
19 this, because it's so complicated and it's
20 something new that we haven't been doing. So I
21 don't think it's someplace we need to go, but
22 this is not going to be the model.

1 MR. RICE: Yeah. I definitely know
2 about the need for education and outreach. The
3 other thing I wanted to add, you know Jenny you
4 mentioned region-wide or countrywide kind of full
5 audits and I'm curious if that is going to pull
6 the certification folks into that process, or is
7 that something that NOP is mounting on their own?

8 DR. TUCKER: We are at early concept
9 on that, even just thinking about what a scope
10 would be on that. So I think we'd be kind of
11 very open to ideas. I'd like to pick a project
12 that could be done. I think somebody mentioned
13 earlier we tend to make things so big that we
14 don't finish them.

15 So I'd love to find some kind of a
16 pilot study that is small enough, where we could
17 actually figure out how to do this and then apply
18 it at broader scales. But we need a small case
19 study just to figure out how do to it and who
20 does need to be involved. This is new territory.

21 MR. RICE: Well, our agency would be
22 happy to help; with mangos in Costa Rica if you

1 wanted to have -- no.

2 MR. MORTENSEN: And this is an
3 example, in my opinion, of where models would be
4 really helpful, like what Scott's talking about.

5 Like I was really impressed with what
6 Pipeline was sharing with us. I mean they
7 basically have this in place, I think. But they
8 have it in place for their own chain. But it
9 seems to me there is a lot to be learned from
10 those kind of examples.

11 MR. CHAPMAN: Sue.

12 MS. BAIRD: I agree. This is a real
13 education, inspector education issue. I heard
14 from Silke that certifiers don't want -- some
15 certifiers in some instances don't like seeing
16 the inspector taking enough, sufficient time to
17 do full audits, and I've experienced that myself.

18 I think it's education of our
19 certified entities, and if the certified entity
20 realizes that it's for their protection to assure
21 they're doing full audits, they'll be a whole lot
22 more receptive to the fact that they may have to

1 pay for eight hours instead of four hours of
2 inspection cost.

3 And that's what I usually do when I go
4 into these facilities and have to do a full
5 inspection. You know, this is for you. When I
6 was a QA manager for a major turkey processing
7 facility, I expected for a HACCP auditor to come
8 in and be there for a week, because I knew to do
9 a full food safety audit it was going to take
10 that long.

11 We're expected as inspectors to go
12 into these same facilities and do an audit in
13 four hours. That's a problem. That's a problem,
14 and I know that entities shop sometimes based on
15 pricing. So it's got to be an education for the
16 certified entities.

17 It has to be an education and
18 inspector qualification training, and I think it
19 needs to be cooperation between -- as much as
20 possible, and I know it's a business -- between
21 certifiers to realize that we need to make the
22 cost a little more equitable so that that

1 certified entity cannot do shopping of certifiers
2 based on cost of inspections.

3 MR. CHAPMAN: Emily.

4 MS. OAKLEY: Jenny already answered my
5 question.

6 MR. CHAPMAN: Do you -- you were
7 trying to say something?

8 MR. RICE: Mine kind of bleeds into
9 the bucket of other things, and all of the above,
10 yeah.

11 MR. CHAPMAN: Anything else on this
12 one? All right. Last but not least, other
13 areas, questions, opportunities and threats. We
14 received a lot of feedback on this. I'm just
15 going to run through a list of the ones I heard.
16 There were others I didn't capture here. I
17 apologize for that, but we will again be going
18 through the comments in more detail.

19 Research into testing methodologies to
20 detect fraud or determine growing practices and
21 origins. Oh sorry, research into other testing
22 methodologies that aren't currently available,

1 kind of what Asa talking about.

2 But beyond just pesticide testing,
3 that would be able to detect again if the product
4 wasn't grown using organic conditions, maybe the
5 presence of synthetic nitrogen or other isotopes
6 that would again indicate growing practices or
7 origins.

8 There were discussion, and we heard it
9 in the panel as well, about the time and
10 transparency of the complaint process. There was
11 another area is the outdated technology and
12 international trade tracking. There's an area
13 about collaborative investigations amongst
14 investigative actors, so certifiers, the NOP,
15 other government agencies.

16 There was expanded review of global
17 certification agencies revoked by foreign
18 accreditors. Better training for other
19 government agencies like CBP and APHIS on
20 organic. There was a discussion of using
21 captain's logs as it related to the import of
22 organic products to be another investigative tool

1 or documentation tool on the organic status of
2 those products.

3 And there was also a question around
4 insurance, the role of insurance in organic on
5 these bulk shipments and whether or not that's a
6 tool to be used in the documentation or
7 investigation of organic compliance. There was
8 inconsistencies in how in and out mass balance or
9 trace facts are done between certifiers, and if
10 greater consistency there is an area of focus for
11 us.

12 Again, the role of inspectors and
13 reviewers in this process, the qualifications,
14 the linking of correctly qualified inspectors and
15 reviewers with complex operations. There was a
16 request to prioritize that we work on definitions
17 and terms, so that we are all talking about the
18 same kind of actors and environments that we're
19 working in here. So especially I think this is
20 critical in the arena of uncertified handlers.

21 There was a lot of discussion around
22 increased oversight and education of certifiers,

1 especially certifiers with satellite offices, the
2 frequency of audits of these certifiers,
3 especially around desk audits and internal
4 audits.

5 And I think there was a lot of support
6 around how the accreditation system can be used
7 to strengthen the integrity around kind of making
8 sure certifiers and through them inspectors are
9 consistently implementing the same
10 interpretations of the standards.

11 What else? What did I miss? If
12 anyone has anything to add, what other areas,
13 what discussion of these -- are any of these
14 areas that we should prioritize as the CACS digs
15 into this pile of work? Asa.

16 MR. BRADMAN: I just want to repeat
17 what I said earlier and kind of amplify the
18 comment we had from the panel, about the idea of
19 a 332 review. I've been doing a little skimming
20 on their website with the International Trade
21 Commission, and it seemed like that might be a
22 way to perhaps get some, an independent

1 assessment of where the flows are dollar-wise,
2 economically and in terms of materials.

3 It seems like that would be important,
4 especially perhaps focusing as a start on grain,
5 as given the importance of that and the enormous
6 loss that went to the organic community, and that
7 might also provide a basis for policy, you know,
8 for the USDA to argue for needed policy changes.

9 It's pretty interesting if you
10 actually look at some of their reports that
11 they've done. So I think that was a great
12 suggestion --

13 MR. CHAPMAN: Yeah. Thank you for
14 bringing that up. The ideas that were raised at
15 the panel, my notes predate that.

16 So unfortunately I haven't captured
17 any of these to bring up here, but yeah, that was
18 a good point as well that we should add to the
19 list. So I have Harriet, Scott, Emily and then
20 Lisa. Harriet.

21 MS. BEHAR: I want to thank the
22 Organic Trade Association for their Global

1 Organic Supply Chain -- I have to talk into the
2 microphone. I want to thank the Organic Trade
3 Association for their Global Organic Supply Chain
4 Integrity document.

5 I'm going to admit that I did not
6 absorb all of the information and just let you
7 know that we will be looking at that again in
8 depth, because it brings so much of the actual
9 trade knowledge and experience there, from what I
10 could read. But excuse me if I can't repeat it
11 all verbatim.

12 MR. CHAPMAN: And that's a good point.
13 That was raised as well in the public comment
14 section around our role in endorsing or kind of
15 bringing prominence to this document.

16 There was discussion around, you know,
17 is this -- can this become an endorsed document?
18 What, is that in the realm of possibilities?
19 What's the steps to sort of thinking about that?

20 MS. BEHAR: You know, it's a great
21 question. It's one we've also been asking about.
22 You know, ACA also does best practice documents,

1 and so in the past we have not done formal
2 endorsements or other things like that. But I do
3 think because, you know, this is such an
4 interdependent problem, finding a way to be able
5 to do, for the government to say yeah, actually
6 we think these are good ideas out there without
7 having to translate it into a guidance document,
8 which is, you know, has such hurdles.

9 You know, how do we use the public-
10 private partnership in a different way, that also
11 respects administrative procedure. Because the
12 first question's going to be well, you're saying
13 you endorse this best practice document. Does
14 that mean you're going to enforce against it?
15 Right. That will be the question.

16 But we can't enforce against something
17 that doesn't have, you know, that -- the APA, you
18 know, sort of process. So those are the
19 challenges. There's got to be a way, and I'd
20 have -- but I don't know right now what it is.

21 MR. CHAPMAN: Scott.

22 MR. RICE: I've been trying to think

1 of how to really capture all of this, but it kind
2 of goes across all of the things that we've
3 talked about in terms of, you know, we hear
4 through all these areas about increased costs,
5 and you can't do multiple full supply chain
6 audits for free much less one, that you know, all
7 of the measures that we've talked about cost
8 money.

9 Grain or product is seized and pulled
10 out of the market, and prices may and often do go
11 up. It's a reality, and I think it's something
12 that you know, maybe also ties back to Mr.
13 Ibach's comments on you have some people that
14 look for cheap food and some that are willing to
15 spend some money on knowing where it comes from.

16 But what does that threshold look like
17 and what does that space look like, and are we
18 going to -- is there a breaking point, and
19 another broken record here, but that education
20 and outreach of just explaining what these
21 increased costs are coming from.

22 If we start seeing more of that,

1 certainly to the consumer, certainly to the
2 trade, but just something I've been thinking
3 about through all of this.

4 I don't have an answer right now, but
5 just simply to add to the discussion, I guess.

6 MR. CHAPMAN: I have Emily, Lisa, Dan,
7 then Harriet.

8 MS. OAKLEY: To your question as to
9 what the CACS should do next, I think we have a
10 very complicated situation that's going to take
11 long-term approaches, but we also have an
12 immediate crisis that needs as many short-term
13 solutions as possible, and I think really it's a
14 dialogue between the NOSB and the NOP at that
15 point.

16 But as a farmer myself, I definitely
17 sympathize with the critical issues that farmers
18 are addressing, especially in the grain imports
19 area. I think as much partnership as can occur
20 between those with information and sharing
21 between the NOP for the immediate relief, as much
22 as is possible, I think is something that should

1 be looked for.

2 But you're going to have to take both
3 that short- and long-term approach as we
4 prioritize our priorities for the future. And
5 anybody who wants to join the CACS, I'm not the
6 chair, but I keep thinking Dave, you've got a lot
7 of good insight. You might just want to come on
8 board.

9 MR. CHAPMAN: CACS is accepting
10 applicants. I have already coerced people into
11 joining the CACS, so and speaking of such, Lisa.

12 MS. DE LIMA: Emily kind of touched on
13 what I was going to say. You know, from the
14 retailer perspective, of course it's a complex
15 issue. We're going to need long-term solutions.
16 But then put yourself in the shoes of a retailer
17 and you've got customers asking you questions
18 about the products on the shelf, and like how
19 much discussion is happening here and like how in
20 the world does a retailer boil that down into
21 something to make the consumer feel better?

22 I don't have an answer to that, but

1 just so we keep thinking about. We heard a lot
2 about how this is impacting the farmers of
3 course, and then also, you know, how are
4 consumers going to react and continue to react to
5 this sort of publicity?

6 MR. CHAPMAN: I have Dan, Harriet,
7 then Dave.

8 DR. SEITZ: So in terms of how to move
9 ahead, Tom I think you mentioned and it jumped
10 out at me that there were a couple of things that
11 seemed to be very much a matter of consensus,
12 like extending a requirement for certain entities
13 within the supply chain to also be certified.

14 I wonder whether the CACS could find
15 a couple of things that they feel are pretty
16 straightforward, focus on crafting a proposal
17 around those while -- and then that would have
18 some impact. While at the same time as many
19 comments have acknowledged, there are these more
20 subtle questions that will require conversation,
21 research and so forth that can also be worked on.

22 So that way, in addition to actually

1 having some impact, it also I think sends a good
2 message that we've heard a few things we can take
3 care of, and we have these other things that we
4 want to do right.

5 MR. CHAPMAN: Harriet.

6 MS. BEHAR: So I think we need to
7 prioritize and part of that prioritization
8 process will be what is achievable in the shorter
9 term, and then look at the longer term. But for
10 now, my achievable is what is a GGN number. Jake
11 was talking about that, that people and no, we
12 never really asked what that was. But that's
13 where you can follow an entity as they change
14 ownership or names or something.

15 MR. CHAPMAN: It's a centralized place
16 where entities register and they get a number.
17 You know, for imports, a classic number like that
18 is the DUNS and Bradfield number, D&B number,
19 yeah, Bradstreet. You know, that's used in
20 importing now. That's a recognized number for
21 identifying who an entity is via a number. Dave.

22 MR. MORTENSEN: I'm dragging, sorry.

1 I have three thoughts on the cost issue that
2 Scott raised, and I definitely there's -- you
3 know, it is clear there's going to be a cost. On
4 the grain side of things, it seems to me that the
5 people that are bearing the cost right now are
6 the American growers, where the grain price
7 dropped to half.

8 So somehow maybe some sort of, you
9 know, look at what's influencing the price and
10 then the price, the cost of having integrity in
11 the commodity grain supply system is how we could
12 figure that out I think, and I think there's a
13 lot of money there. The grain price fell in half
14 or something.

15 To Harriet's point about what's
16 achievable, I was really struck by Silke's idea
17 of this 80-20 Pareto analysis idea, that you
18 know, what -- so it's not what's just achievable;
19 it's what's achievable and matters, and I think
20 her approach to that, there's a lot there that
21 could be unpacked and she -- anyways, so I think
22 that's worth looking at.

1 And then other thing I was struck by,
2 and in large research projects these days, in
3 interdisciplinary large things, we are always
4 required now to have an advisory board mostly of
5 our stakeholders, farmers and folks like that. I
6 was incredibly impressed with our industry people
7 today, and through the public comments over the
8 last several weeks.

9 A number of times they've talked about
10 we need to enhance the private sector-public
11 sector fusion here to chart the path forward. It
12 seems to me there's enormous untapped potential
13 here or not tapped as fully as it could be, to
14 bring together the deep knowledge and practical
15 understanding of where the places are working
16 great, and where the places are sort of broken a
17 little bit, and start from there.

18 I don't know if we have an advisory
19 panel or a committee of best practice
20 practitioners that could be working with NOSB/NOP
21 to ensure that we are on the right path. But I
22 really was really impressed by the panelists.

1 MR. CHAPMAN: Steve.

2 MR. ELA: I think the other thing that
3 we need to continue to be aware of and focus on,
4 and it does come back to education and its
5 oversight, is that you know this, that -- and I
6 don't know how to say this well, but we see areas
7 where our accredited certifiers differ on things
8 and what they think should be certified and what
9 they shouldn't, and you know, under the NOP it's
10 supposed to be equal.

11 And so I still think we also need to
12 pay attention that within the certifiers and
13 within, you know, NOP oversight of certifiers
14 that we really try and promote consistency, so
15 that it's not okay to shop around. You know, I
16 mean if I was going to -- somebody that wanted to
17 commit fraud, I'm going to shop for the lowest
18 hanging fruit.

19 You know, I'm not picking these
20 certifiers out, because -- but you know I
21 probably pay attention to who's going to do the
22 most thorough audit and who's not. So I think

1 making sure that we're really promoting certifier
2 consistency should be a high priority, so that
3 we're all playing on the same level playing
4 field.

5 MR. CHAPMAN: Scott.

6 MR. RICE: It's hard not to respond to
7 that. I wanted to share that in the Accredited
8 Certifiers Association, we've got about 50 of the
9 -- nearly that number in the -- of the domestic
10 certifiers, and certainly some international as
11 well, and that I think is a reflection of the
12 collaboration and effort at consistency.

13 So I think while there's always, you
14 know, tweaking and work to do, in the years that
15 I've been in certification it's been amazing to
16 see that cooperation grow and that real just
17 commitment to making that an even playing field
18 and lot of good discourse there so --

19 MR. CHAPMAN: Right. I think we're
20 coming to an end on the subject. So to wrap it
21 up, like people said we will take this back to
22 the Subcommittee and then again focusing on the

1 areas of the most importance and the most impact,
2 and then also keeping into consideration the
3 speed of which we can work on those as well.

4 I think there's a good opportunity for
5 us to take this back and do an analysis on where,
6 you know, a high level analysis on where the
7 opportunities are, where are the threats, where
8 are the weaknesses, where are the strengths of
9 the program as it is now.

10 I just did a spot there for you
11 business folks. But you know looking at it at
12 that level and then really identifying what are
13 the areas, what are the mitigation steps for
14 those areas, and taking all this information we
15 gathered here today. This is what we needed. We
16 need this exposure, and then digging in and
17 prioritizing those.

18 So don't expect a 75,000 page
19 documented proposal coming back out of this in
20 the fall meeting. But I now would expect that
21 this going to get split off into more bite-sized
22 chunks for us to address piece by piece, and

1 we'll continue to work on this as a priority area
2 in the CACS and on the NOSB as a whole.

3 I do have to say the expert panel was
4 just an incredible resource for us, and I look
5 forward to opportunities of which we can use
6 expert panels at meetings, and maybe even in
7 between meetings in the future, to be able to
8 address and assess and get input on items that
9 we're working on. I hope we can find a way to
10 make that happen.

11 With that, it's six o'clock. I would
12 normally hand this back to the CACS chairman, but
13 I'm thinking right now we will break for the day,
14 and start up tomorrow with the remaining items on
15 the CACS agenda, and continue on with the
16 remaining subcommittees. So without objection,
17 we'll go into recess, convening tomorrow at 8:30
18 in the morning.

19 (Whereupon, the above-entitled matter
20 went off the record at 6:10 p.m.)
21
22

A		
A- 237:9 238:11	accreditation 3:14 25:5 28:4 46:20 78:16 190:18 327:18 371:22 371:22 378:18 386:6	100:13 140:17 182:6 287:14
A-Dae 1:19 165:2 178:16 237:22 265:18 266:12	accredited 6:15 8:3 14:10 37:15 201:15 397:7 398:7	actionable 33:20 170:10
a.m 1:9 4:2 70:9,10 136:3,4	accreditors 384:18	actions 153:2 184:9 318:19 341:6
ABC 165:8	accumulated 326:10	active 205:12 219:4 245:9,11 264:3
ability 34:4 42:7,14 186:3 190:12 192:9,9 192:11 201:4,14 342:20 372:10 374:18	accumulating 334:15	activities 50:17,18 74:1 87:6 306:16
able 18:2,4 20:7 90:4,12 110:17,18,21 130:1 131:15 132:3 141:17 146:21 148:13 169:3 178:7 186:12 190:12 195:10 294:10 297:1 297:15 299:14 316:20 336:21 338:2,2 341:22 355:12,16 365:14 378:14 384:3 389:4 400:7	accurate 143:15 325:19 accurately 242:17	activity 32:11 34:2,12 74:3 151:2 156:14 167:6,19 194:5 291:19 322:13
above-entitled 70:8 136:2 202:22 284:13 400:19	ACE 362:21 363:4	actors 56:19,21 59:11 96:22 168:1 193:18 199:3 347:2,4 359:5 371:4 384:14 385:18
abroad 318:20	aches 209:3	acts 238:18
absence 124:8 271:20	achievable 42:13 394:8 394:10 395:16,18,19	actual 29:12 38:17 299:15 300:17 363:21 388:8
absolute 96:13	achieve 63:12 122:4	actuality 49:16
absolutely 41:22 65:7 95:11,18 97:4 124:14 248:21 258:18 313:3	acid 3:9,11 234:2,5,9,13 234:22 235:4,13 242:2,4 244:5 247:15 247:18 248:4,8,12,17 249:11,15,20 257:3 260:22 261:12 263:18 267:12 270:4	add 9:21 39:18 80:17 83:4 120:2 128:8,10 143:6 190:8 193:1 229:7 241:1 255:19 257:16 258:13 259:10 259:13 260:17 267:4 270:4 275:10 276:12 336:8 349:21 380:3 386:12 387:18 391:5
abuse 38:7	acid-based 248:21	added 102:1 128:18 227:5 254:4 275:4
abused 65:13 198:18	acidified 252:5 253:7 256:14 262:7	addendum 175:1
ACA 11:3 28:22 163:10 343:19 388:22	acidifieds 256:13 260:15	addendums 174:17,22
ACAs 100:21 343:15	acknowledged 116:12 393:19	adding 249:10 254:9 255:12,14 257:3 258:6,14,20 273:11 277:6
accept 176:18 178:7 223:4 289:5	acknowledging 333:6	addition 22:20 100:6 151:21 201:10 211:2 227:7 234:21 283:1 304:7 361:7 393:22
acceptability 246:10	acquire 108:7	additional 57:17 59:3 102:22 117:9 119:16 119:17 144:18 164:8 182:2 205:8,22 206:2 206:4,8 207:15 208:9 264:1 370:22 376:14
acceptable 277:19	acre 333:2	additions 282:20
accepted 26:15 295:2	acreage 29:18 30:4,5,9 30:13,14 31:3 33:1,4 33:18 34:5,6 36:1,16 36:18 39:22 41:2,15 41:21 42:2 63:17,20 63:22 64:5 82:21 83:4 95:17 101:4 197:15 305:3 325:6,13,16 326:5,18,19,22 327:12 328:16 333:15 334:4 336:4,8,13,18 336:19,22 337:1,7,11 338:3 371:18 378:11	additive 204:16
accepting 392:9	acknowledging 333:6	additives 264:6
access 186:14 232:2 249:3	acquire 108:7	address 7:5 20:8 24:20 30:1 33:17 92:21 93:12 94:13 142:21 166:16,18 168:9 178:19 184:17 202:11
accidental 205:15	acreage-sharing 337:17	
accommodate 343:10	acres 74:17 95:20 331:17,22	
accomplish 17:13 140:17 143:5	acres 74:17 95:20 331:17,22	
accomplishes 273:19	acronym 316:5	
accord 130:3	Act 79:9 114:6 127:16 127:21	
account 278:22	acting 2:3 347:16	
accountable 96:22 167:22	action 34:1,4 96:20	
accounting 304:11 332:12,14		

AgMotion 71:13,14,15
119:10
ago 8:4 45:12 46:17
75:9 77:18 92:13
126:21 127:11 159:20
315:8 322:18 323:10
324:3
agree 12:9 65:11 67:11
67:11 138:5 150:22
158:16 161:19 182:8
232:9 256:1 266:20
272:22 275:4 289:11
310:1 311:13 317:9
318:22 332:18 333:9
341:21 347:13 350:16
351:5 353:7 375:2
381:12
agreed 225:22 371:2
agreeing 225:16 244:4
agreement 37:16 95:18
160:5 212:15,21
342:11,12 375:3,9
agreements 31:5 340:8
343:5,14 375:1 379:4
agricultural 2:3 8:14,16
97:22 207:16 228:1
232:15
agricultural-specific
104:17
agriculture 1:1 6:10,21
258:16
agronomist 7:13
ahead 183:18,19 189:6
229:6 315:18 393:9
aid 66:5 248:10 274:17
288:3
aiding 274:7
aimed 68:14
airborne 218:7,8
221:12,13
airflow 85:10 89:13
Airlines 73:9,15
alarming 87:11
Albrecht 2:12 7:11,13
21:7 25:13 28:8,9
39:17 43:8 66:13
137:7 149:3 153:13
153:19 158:11 168:8
170:3 171:9 187:4
Albrecht's 122:9
150:22 290:20
alcohol 205:11 207:6
207:16
alcohol's 207:10
alcohols 3:7 204:15
205:10
alert 100:5,7 198:9,11
198:21 199:17

alerts 100:9
alignment 306:11 309:3
aliphatic 205:10
allegations 30:2
alleged 34:2
Allen 317:20
Alliance 256:22 257:3
allocated 44:22
allow 16:6 61:16 70:17
105:16 141:11 170:15
212:7,8 213:7 349:3
363:18
allowance 263:13 303:8
allowed 57:13,16 66:16
66:17 163:14 198:20
205:20 218:22 226:12
229:18 234:5 239:11
241:7 255:2 262:3
273:16 289:5 303:1
337:10 356:4
allowing 212:5,5
337:12 347:3
allows 26:4 89:1 361:3
alongside 295:20
alterations 237:8
alternative 192:18
alternatives 206:9
208:9 215:2 239:3,5
249:21 250:1 255:4
257:8 260:5
altogether 287:3
aluminum 104:19 347:9
amazing 398:15
Amazon 127:12 164:12
amend 268:16,19 269:7
amending 271:13
amendment 267:10
270:2
America 7:15 24:4 65:9
71:21 96:11 108:18
351:13
American 44:5 345:2
395:6
Americans 122:8
amount 40:20,21 43:12
49:17 51:13 68:16,17
150:20 185:11 255:19
281:3 285:6 332:1
336:11 364:17 372:9
372:12 373:4
amounts 40:2
amplify 386:17
AMS 357:16
analysis 104:12 188:14
395:17 399:5,6
Analyst 72:4
and/or 114:16 210:19
288:6

anesthetic 237:5 238:8
241:17
angle 174:4
animal 71:17 209:15
210:15 217:1 218:20
219:3 220:6,10 225:8
225:10,14 237:8
256:5 257:18,18,19
264:7 277:14 280:17
animals 209:8 218:13
224:10,11 238:19
242:4 282:22 283:3
315:11
annotation 226:3 227:5
229:19 232:1 236:3
236:18 239:8,18
240:22 241:1 242:13
242:20
annotations 271:13
announced 44:14
annual 101:2 193:2,11
330:21
annually 64:10
anomaly 302:21
anonymity 176:15
anonymized 45:21
anonymous 166:8
176:18
answer 39:21 41:4
47:21 53:4 55:7 57:11
57:22 74:12 103:22
107:5 116:20,21
119:22 134:17 138:3
153:12,14 155:12
175:5 206:10 208:10
251:10 255:16 305:14
391:4 392:22
answered 247:9 383:4
answering 247:13
answers 126:10 285:11
285:12 346:17
anti-inflammatory
209:2
antibiotics 225:1
antigen 210:17
antiseptics 207:18
anybody 36:22 154:4,5
162:17 163:16 164:20
206:17 208:13 214:11
236:22 243:20 250:20
275:15 276:5 392:5
anybody's 330:9
anymore 20:17 313:1
anyway 50:3 260:22
311:16 335:16 351:9
anyways 395:21
APA 389:17
apart 149:6

APEDA 37:15
APHIS 74:22 360:3,17
360:19 361:3,13
362:2,16,20 363:8,18
384:19
apologize 383:17
apology 286:3
apparent 291:18
appeal 27:19
appeals 14:22
appear 19:17 169:15
appears 217:11
appendix 244:14
applause 202:15,17
apples 149:12 161:22
162:18 321:7 369:21
applicable 204:15
207:9 210:5 224:22
226:11 234:4 237:6
238:8 241:18
applicants 146:16
392:10
application 107:17,18
108:1 118:14 163:5
238:16 240:3,15
358:7
applications 50:20
102:2 264:8,8
applied 108:13 215:22
238:19 240:12 356:3
363:21 364:1
applies 19:19 112:13
apply 112:14 181:17
186:14 264:12 380:17
applying 22:2 186:16
188:2 249:6 308:21
appointee 8:13
appraised 16:16
appreciate 5:21 47:10
49:19 58:7,9 82:20
118:20 176:17 178:17
200:10 247:14 266:12
266:20 273:22 310:1
appreciated 203:7
appreciates 17:20
appreciation 8:19
approach 20:21 27:14
47:15 135:10 178:9
178:10 199:19 324:16
324:21 392:3 395:20
approaches 103:1
140:20 362:7 391:11
approaching 348:6
appropriate 146:12
147:16 172:15 181:5
182:3 183:4 189:11
269:8 323:3
appropriately 286:6

288:21 334:21
approval 364:22
approve 171:13,19
 195:5 252:7 282:19
approved 108:2 174:20
 175:2,11 208:18
 211:11 228:12 240:16
 241:19 242:14,16
 246:11 252:16 260:12
 264:7 271:13,20
 274:6 372:17
April 1:7 205:6,7 227:19
 271:12
area 40:19 101:1
 132:14 150:1 189:21
 201:17 260:20 274:10
 286:15 291:12 296:13
 307:13,15,20 309:2
 309:21 321:21 327:2
 333:2 339:11 358:22
 367:22 370:3 371:20
 376:9 384:11,12
 385:10 391:19 400:1
areas 17:14 20:2 21:1
 73:12 107:6 119:16
 126:4 158:2 180:6
 192:10 245:1 278:7
 285:16,19,20,21
 301:3 302:3 308:3,5
 308:19 309:15 326:12
 354:14 367:3 370:9
 383:13 386:12,14
 390:4 397:6 399:1,13
 399:14
arena 385:20
Argentina 76:19 169:11
argue 387:8
arguing 217:9
argument 112:5 252:18
 258:12
Arizona 1:9
Arkansas 218:5 331:16
arm 240:5,10
Armenia 78:7
arms 364:6
arrangements 98:2
 184:13,19
arrive 76:19
arrived 21:9
ARSENAULT 2:2
article 45:14 127:10
artificial 240:3
Asa 1:14 114:3 115:22
 115:22 137:5 144:7
 214:12 216:19 262:19
 304:13 351:15 353:8
 357:3 384:1 386:15
ASC 260:11 262:15

Ashley 1:21 204:4
 216:19 219:7 250:22
 251:8,22 262:20
 267:12 270:5 275:9
 283:12 284:9 313:7,8
 314:6 331:9 333:10
 367:10
Ashley's 318:11
Asia 6:13
aside 205:15 230:18
asked 11:20 21:10 25:8
 45:6 46:18 78:4 108:4
 126:8 127:15,18
 129:5,12 137:9 144:9
 171:17 212:14 216:14
 227:18,22 243:2
 285:14 287:4 295:14
 309:3 329:21 342:10
 346:4,14 347:1
 359:20 394:12
asking 12:18 45:18
 79:16 103:13 127:5
 168:14 175:6 182:15
 182:15 198:1 241:9
 254:17 265:5 289:1
 295:12 340:10 341:18
 388:21 392:17
ASPCA 266:17
aspect 123:10 159:17
 370:13
aspects 8:5 224:8
 266:14
aspirin 3:7 208:16,18
 208:18 209:1,1,6,20
 209:21
assembled 136:8 326:6
assess 86:18 98:15
 400:8
assessing 88:6
assessment 16:5 17:4
 99:1 327:13 341:12
 345:22 351:6 387:1
assets 94:17,17
assign 101:16
assigned 125:8 265:16
 265:17
assist 101:10 352:10
Associate 2:4
associated 63:22 93:21
 95:11 134:22 167:17
 198:10 205:18 235:11
 236:6 299:13 336:18
 336:20
association 2:19 6:16
 7:10 28:22 38:3 73:21
 97:21 198:15 387:22
 388:3 398:8
association's 98:4,11

198:7
associations 235:18,20
assume 10:8 331:3
 353:6
assuming 126:14 182:4
 303:6
assumption 139:14
 251:3
assumptions 322:5
assurance 92:11
 124:13
assure 381:20
Atlantic 75:12
attach 299:14
attached 173:9
attempt 69:7
attempting 56:15 69:10
attention 34:18 101:12
 191:20 233:18 236:10
 344:10 397:12,21
auction 315:8,9
auctions 99:11
audible 203:15 208:14
 209:22 226:6 237:1
 238:2 241:11
audience 202:3 244:4
 245:15
audit 44:8 45:5 79:8
 83:20 139:4 192:16
 193:11 288:3,17
 382:9,12 397:22
audited 110:21 327:20
 327:20
auditing 110:13,15
 139:17 142:9 191:5,7
 191:10
auditor 19:12 191:12
 192:2 382:7
auditor's 288:18
auditors 304:6
audits 44:9,10 45:1
 138:20 139:1,3 140:3
 141:15 166:11,14
 173:11 182:2 186:19
 188:13,15 192:12
 296:3 313:20 354:5
 377:19 378:17 380:5
 381:17,21 386:2,3,4
 390:6
authenticity 342:21
 365:1
author 71:10
authorities 45:10 47:2
 133:18 184:8 372:12
 376:7 378:18
authority 26:1 46:12
 58:22 59:1,13,19 65:1
 65:17 164:21 182:2

183:1,16 356:10,14
 372:6 374:21 375:20
 375:21 378:2,4,19
authorized 19:10,15
 56:8
Automated 362:22
autonomy 192:11
available 63:21 64:9,9
 142:15 169:21 170:1
 192:1,3 206:9 208:9
 209:12,13 210:7
 213:12 215:5 228:6
 231:4 232:17 249:21
 255:7 257:8 267:5
 327:8 329:18,22
 330:8 334:8 336:22
 383:22
avenue 167:10,14
average 85:22 121:2
 333:2
avocados 23:14
avoid 39:15 168:1
 249:5 281:11
avoiding 347:2 371:4
aware 93:8 170:9 178:3
 179:7,10 203:22
 359:12 374:1 397:3
awful 177:4
Azerbaijan 78:6 331:1

B

B 45:4 294:4
B.S 6:20 73:16
baby 345:16
back 14:22 19:13 42:15
 45:22 46:21 47:22
 48:12 53:6 59:18
 69:18 70:2,14 79:11
 81:20 88:13 93:8
 96:17 97:7 99:4
 106:11 109:13 111:4
 111:5 115:1 119:20
 136:6,9,11 137:1,4
 141:17 142:6 148:13
 156:15 167:1 169:14
 177:14 188:19 191:3
 195:2 201:9 202:20
 203:6 244:12 250:16
 254:7 259:15 263:8
 267:7 271:1 274:20
 278:13,20 279:2
 280:14 281:5 282:17
 284:17 285:1 290:19
 293:20 294:11 297:1
 299:1 300:9,13
 302:20 307:2 312:7
 313:16 321:5 324:1
 325:9 326:8 327:3

- 338:5 343:13 347:1
 349:4,11 363:3 365:6
 368:4,4 369:9 372:18
 372:20,21 376:15
 378:12 390:12 397:4
 398:21 399:5,19
 400:12
backed 15:5 377:12
background 5:9 271:7
 376:3
backstop 145:16
backward 59:11
bacteria 210:22 248:16
bacterial 210:13
bad 56:21 96:22 146:19
 168:1 172:1 190:16
 193:17,18 347:4
 371:3
bag 156:10,22 157:3
 161:10
BAIRD 1:14 66:3 67:21
 68:7 222:14 226:17
 230:13 231:1,10,17
 232:9 239:17 241:22
 246:14 251:7 267:18
 269:11 270:19 281:20
 284:1 303:13,19,21
 304:2 309:22 313:2
 332:18 350:16 353:3
 381:12
bakeries 165:20 322:21
bakery 109:14 323:7,14
baking 165:20
balance 23:22 25:3,6,7
 100:22 110:19 223:20
 225:3,12 334:4 371:8
 385:8
ban 213:14
bar 109:15 296:20
 367:1
barely 222:7
barn 218:3,4
Barr 323:8
Barr's 320:9
barrier 42:6 334:10
barriers 169:12 257:16
 373:3
based 43:5 49:18 73:7
 80:18 82:5 102:15
 128:14 139:13 228:14
 253:11 281:1 294:22
 309:17 330:10 382:14
 383:2
baseline 30:10 31:7
 32:15 35:15,19 36:4
basic 33:3 36:8 110:15
basically 30:19 31:21
 54:13 104:12 105:4
 123:2 141:7 154:2
 174:5 213:5 218:10
 241:8 242:9 340:11
 343:14 348:10 358:14
 359:2 381:7
basics 36:17
basis 26:21 101:2,6
 192:10 211:13 213:10
 337:12 353:10 387:7
batch 149:15
beans 40:20
bearing 283:3 395:5
beat 197:21
beautiful 66:16
becoming 55:21 355:18
beef 217:1 222:15
 314:17,18
beekeeper 244:2,3
beekeepers 242:9
 243:10,15 245:20
beekeeping 247:3
bees 242:10 243:17
beginning 22:22
begins 217:3
behalf 66:5 323:4,17
BEHAR 1:13 35:7 60:9
 124:18 125:17 126:17
 128:20 165:3 175:12
 206:18 210:10 215:16
 221:21 224:6 225:3
 231:7,11,18 233:9
 236:13 239:21 241:5
 243:9,19 244:1 252:5
 256:1 260:21 267:22
 269:15 270:11 271:4
 271:18 272:6,9 273:2
 273:5 275:14 276:19
 278:11 279:6,16,22
 280:14 282:7 283:15
 296:15 302:11 304:5
 311:17 320:22 322:15
 329:2 330:13 344:6
 344:12,15 345:4
 349:7 365:21 366:5
 370:12 372:4 373:19
 379:16 387:21 388:20
 394:6
believe 24:15 64:6 69:9
 98:22 168:16 180:5
 244:21 252:5,13
 265:4 325:12 355:4
believes 191:17
Bellingham 76:8
 131:17,19
belong 242:1
bene 195:18
benefit 161:12 296:5
 316:1 377:21 379:2
benefits 312:22
Benzing 2:12 7:11 21:7
 21:8,14 25:14,18
 28:11 39:20 43:20,22
 48:9 138:5 140:5
 149:4 154:2,13,15,21
 158:15 170:4 171:10
 187:5
berries 168:17 293:1
best 14:17,20 15:3 20:4
 25:10 45:7 47:5 92:5
 98:14 107:13 123:22
 124:16 126:14 146:12
 163:10 167:15 302:6
 320:17 347:20 370:8
 374:16 388:22 389:13
 396:19
Betsy 130:13,15 177:10
 295:14
Betsy's 176:21 177:17
better 18:2,4 56:4,4
 82:3 100:10 113:20
 127:5 143:17 172:10
 178:2,6 184:2,8
 190:11 195:22 201:11
 201:12 211:20 224:17
 253:6 265:4 278:21
 282:10 297:12 311:10
 315:2 329:3 384:18
 392:21
betting 77:8
beyond 79:8 129:17
 159:14 228:8 230:14
 235:19 237:14 239:2
 263:1 294:19 305:6
 352:6,6 384:2
bias 146:3
big 8:18 49:13 64:17
 82:18 87:2 138:2
 140:14 145:4 151:13
 172:21 173:4,8,11
 181:2 184:20 246:2
 293:16 319:13 334:10
 380:13
bigger 63:11
biggest 45:3 77:15,19
 157:7 158:1
bill 302:17
billion 117:18,19
binders 53:13
bio 98:7
Biologics 3:8
biologics-vaccines
 210:6
Bioterrorism 127:16
birds 217:1,22 221:15
 221:20
birthing 225:10
bit 11:6 35:1 38:9 47:22
 48:2 78:13 82:12
 84:19 91:16 94:15
 98:20 101:7,9 102:18
 114:8 117:16 119:2
 123:16 129:3 151:6
 158:20 166:21 184:8
 194:9 204:1 206:12
 213:19,20 230:5
 260:6 263:8 275:8
 277:22 279:3 289:1
 321:10 338:9 342:5
 342:22 355:14 396:17
bite-sized 399:21
black 119:18 122:16
 166:21
blackfoot 222:18
blah 282:5,5,5,5,5
bleed 315:7
bleeds 383:8
blind 31:1
Bloc 330:19
block 83:12 84:2
blockchain 108:11
 109:17 111:12 124:1
 124:3 137:14 299:9
blocking 194:1,3
blow 133:4
blowing 133:10 218:11
blue 252:20
blueberries 113:10,14
 169:2
blunt 144:16 145:13
BO 198:13
board 1:3,8 2:2 4:5 6:7
 35:5 47:14 70:19
 72:14 103:12,18
 136:5 143:11 175:19
 191:16 202:2 203:3,5
 206:15 211:12,19
 212:22 214:5 223:16
 258:12 259:9 260:4
 264:22 265:3 271:19
 283:9 290:1 300:21
 322:12 379:11 392:8
 396:4
Bob 310:9
Bobbe 2:13 71:2,2
 74:15 122:15 129:4
 130:7 131:10,21
 132:2,12 133:2,6,19
 158:19 196:21
bodies 28:10
body 7:17 27:6,9
 170:22 201:15
boil 392:20
boilers 234:17
bolstered 97:3

Bolton 76:7
boluses 240:7,11
bonus 24:12
book 123:17 126:22
books 110:17
boots 33:15 106:19
121:15 122:11
border 68:16 74:22
75:3 101:14 299:21
299:22
borders 107:10
borne 148:10 220:9
boticide 242:5
bottom 54:5,6 79:6 89:6
bought 38:8 40:15
115:4
bound 134:19
box 87:2 88:7,10,12,18
162:18 254:15 257:11
258:13,15 259:17
261:15 300:10 301:19
349:12
boxed 88:19 89:9
boxes 61:3 85:4 88:5
112:11 160:14 161:21
162:9 164:7 300:15
300:16 370:14
Bradfield 394:18
BRADMAN 1:14 116:2
144:8 214:13 215:3
215:13 262:18,20
263:4,17 264:10
268:7 269:19 270:15
283:19 304:14,17
305:7 351:16 357:4
386:16
Bradstreet 394:19
brand 113:16 165:7
168:15,17,21 169:20
175:17 176:11
branding 291:14
brands 113:4 168:14
343:22
Brazil 245:1,2
bread 165:20
break 4:12,13 54:21
70:5 116:6 129:18
135:20 136:17 140:13
141:11 181:7 400:13
breaking 390:18
breaks 202:1
breast 265:22 266:5
breath 235:8
breathe 162:10
breeding 282:22 283:2
breeds 221:22
bricks 88:6
brief 250:3

briefly 39:17 41:17
55:20 70:16 104:6
168:11 180:14 306:10
342:5 369:8
brights 162:14
brilliant 191:13
bring 5:16 12:22 50:8
70:2 129:11 171:2
179:18 180:10 190:17
197:10 199:14 229:11
261:1 274:9 281:5
304:6 313:10 321:5
359:13 367:12 377:13
387:17 396:14
bringing 95:19 319:4
350:8 387:14 388:15
brings 13:20 201:20
388:8
broad 132:14 379:1
broader 380:18
broke 289:5
broken 350:6 390:19
396:16
broker 113:9,12,17
313:11,18
broker-trader 157:8
brokers 86:10,21 99:12
308:20 309:2,4 310:6
310:12,15 312:1,15
313:21 350:21
bromide 347:9
brought 102:10 106:2
107:10 108:20 110:5
191:4 211:7 215:21
224:14 229:12 278:20
279:11 291:11,13
295:14 308:20 323:12
323:18 326:17 350:8
358:2 361:3
bucket 383:9
budget 151:13
buffer 147:14
BUIE 1:15 36:21 39:9
205:3,5 207:13
267:19 269:12 270:8
284:2
build 95:3 234:11
366:20
building 5:6
builds 31:7
buildup 234:22
built 83:19 145:8 147:8
343:10
bulk 81:19 112:12
154:18 156:7 302:13
302:21 303:1,11
308:12 345:20 350:11
351:12 365:19 385:5

bullet 118:21
bump 61:11
bunch 295:10
bunches 338:5
burden 212:11 282:9
371:11
burns 75:9 235:7
bushel 333:2,4
bushels 290:16 332:5
business 23:10 24:1
60:17 61:14 92:17,18
93:20 94:16 112:7
121:2 126:9 133:4
138:14 190:3,11
297:12 337:4,8 362:9
382:20 399:11
businesses 23:21
43:10 166:10
butchered 316:5
buy 40:15 193:20 195:6
314:17 331:20
buyer 12:6 99:3 197:10
buyers 79:22 86:3
199:8
buying 84:3 111:4
113:9 147:22 160:18
232:21 294:5
buys 95:5
buzz 98:9
byproduct 226:18

C

C 45:4
CACS 4:17 203:8
284:11,18 307:20
386:14 391:9 392:5,9
392:11 393:14 400:2
400:12,15
cake 77:5
calcium 225:6 234:20
calculate 332:19
calculation 333:3
California 8:4 24:8
41:14 43:4 63:17 64:5
74:22 75:19 76:16,20
151:6,12,16,22 197:2
246:1 287:21 326:20
328:5 334:12 335:1
354:1,2,10
call 57:15 80:12 101:11
165:8 170:17 180:21
259:8 286:7 294:2
311:7 336:13 339:6
call-in 265:5
called 20:5 25:19 79:8
107:15 126:22 130:22
372:15,16
callout 287:19

calls 167:14
Canada 82:14 94:18
129:10 184:17 345:4
345:14
Canadian 117:6 129:11
230:9 344:22 345:1
Canal 129:9
cane 108:17,18 109:1
canning 162:15
cans 157:19 158:13
160:13 162:13,13
capabilities 97:4
capacity 105:14 121:22
290:12
captain's 78:21 384:21
capture 329:5 383:16
390:1
captured 291:3 292:17
387:16
carbohydrate 228:3
care 117:20 208:19
216:11 273:12 374:9
374:12 375:12,13
394:3
careful 31:13 46:13
189:9
cargo 75:5 76:14 78:1
78:22 79:1 131:3,3,12
Carlson 2:14 71:12,13
80:4,5 84:10,14 108:8
109:22 116:22 119:1
126:2 200:14
carry 177:16 290:15
carton 367:16
case 14:5 25:2 27:1
63:10 68:12,15 86:14
122:15 125:4 132:2
147:21 152:10 159:15
161:2 181:2 184:11
186:2 217:2 228:21
263:19,21 290:21
313:1 318:20 326:18
351:21 367:9 368:13
380:18
case-by-case 211:13
cases 25:5 26:10 45:11
49:13,21 65:15 85:17
144:17 152:6 157:20
159:4 180:17 197:7
Cassel 6:22
catalyzed 227:1
catastrophic 94:12
catch 96:3 147:15
350:1
catch-all 285:21
categories 64:7
category 314:22 365:13
cater 231:15

- cations** 225:6
- cattle** 159:14 217:1
222:16,22 239:10
248:10
- caught** 37:22 82:4
377:16
- causation** 152:18
- cause** 32:4 46:16 89:22
221:22 235:6 303:3
328:7
- caused** 76:15 255:15
334:22
- causes** 47:6 86:19
256:3
- causing** 248:15
- cauterize** 237:7
- caution** 245:12
- cautious** 189:19
- CBP** 346:13 360:3
362:22 363:8 372:9
384:19
- CCOF** 2:18 8:1 28:18
41:14,15 273:6,9
325:12
- CDFA** 354:5
- CDPH** 354:5
- cell** 210:22
- center** 71:1 245:18
- centers** 87:3 155:18
- centralized** 394:15
- cents** 338:12
- CEO** 92:14
- CERES** 2:12 7:12,16,18
43:18 46:7
- cert** 175:4
- certain** 80:7 118:4,11
118:19 119:18 182:18
193:3 214:21 222:2
224:3 281:2,3 293:16
301:9 346:10 348:16
366:13,13 371:20
393:12
- certainly** 126:4 302:8
317:22 357:1 391:1,1
398:10
- certainty** 96:14
- certificate** 10:12,14,18
10:22 11:2,19 17:1
25:19,20 32:19 38:5
57:19 89:19 90:1,5,8
112:18 113:11,13,18
115:6,18 139:9
168:22 169:1,20,21
175:1,1 196:8 292:22
298:15,17 317:15
321:13,18 326:18
331:22 332:2 333:11
333:12 345:2,3
365:12
- certificate's** 323:11,13
- certificates** 16:19 18:10
18:19 25:18,21 32:14
38:6,17 89:22 113:3,3
168:16 187:12 287:18
289:10 298:22 310:16
319:3,6,11,12 342:21
343:21 365:10,17
- certification** 2:12,18
3:14 5:13 6:9,12,18
7:12,17,20 8:1,5,7,8
8:11 9:20 10:3 13:4
13:11 66:4 72:17 99:9
111:21 112:3 117:11
138:11 146:19 153:18
153:22 154:8,11
158:3,14,20 163:7,15
163:21 164:2 175:7
186:11 190:8 195:16
293:16 306:15 315:2
316:18 317:5 321:9
321:11 323:4,7
341:17 351:8,9 374:9
375:7 377:1 380:6
384:17 398:15
- certifications** 55:18
- certified** 9:19 10:1
11:10,14,17 12:20
13:2,3 16:15,22 17:19
18:15 19:5,13,20
37:10,13,14,16 61:10
61:16 62:10 68:1 72:7
77:16 78:9 87:6,22
90:11 99:16,18 101:1
111:1 112:2,6 113:17
115:5,10,15 145:6
153:16 154:20 155:1
155:3,4,6,11,16 156:4
158:7 159:8 160:9,16
162:12,20 163:17
165:6,9 171:21 175:4
175:21,21 176:9,12
186:3 187:9,15 188:1
190:6 275:2 301:6,16
306:7,13,13 309:12
309:21 310:7,12
312:2 315:16,20
324:2,5 339:12 340:9
342:15 358:17 360:5
367:18,19 374:8
375:11,12 381:19,19
382:16 383:1 393:13
397:8
- certifier** 6:1 7:8 10:8
11:8,9,20 24:2 29:3
30:1 37:14 46:9 110:4
110:8 144:4 147:20
150:17,19 166:7
169:5 171:14 176:3
185:21 186:4,13,16
187:16 188:6,13
195:4 212:11 235:21
245:9 294:12 300:9
300:20 301:5 305:22
311:7 327:13 333:20
338:7,8 344:8,11,13
348:5 353:5,20 356:4
358:12 359:8,9
365:10 367:18 378:20
398:1
- certifiers** 6:15 355:11
- certifiers** 3:2 4:11 7:3
10:6 13:11 14:2,10
19:16 20:18,20 23:21
24:11 25:1 26:12 28:2
28:10,12,19 29:10,17
29:18,19 30:3,6,21,21
31:10,12 32:7,10,20
34:7 35:17 40:18
42:15 43:1,10,16 44:6
47:18,19 55:9 56:11
56:12 59:7,15 68:21
69:1 78:17 79:21
101:6 112:13 119:2
122:14 125:19,21
126:1,3 138:7,13
139:22 143:19 145:2
149:22 150:9 167:17
169:10 181:21 185:17
187:1 188:15 189:9
190:14,19 194:18
201:13 209:18 212:5
212:16 213:3 214:2
225:18 227:11 247:8
272:13 274:4,9,13
277:13,17 302:8
324:4,9 327:5,10,11
329:3,18 334:3
336:13,16,17,22
337:1,11,19,20 338:2
338:5,11 340:17
341:1 353:17 354:12
355:1,15,16 371:21
378:6,10,15 381:14
381:15 382:21 383:1
384:14 385:9,22
386:1,2,8 397:7,12,13
397:20 398:8,10
- certifiers'** 191:6
- certifies** 300:19
- certify** 12:11 148:5
160:7 175:10 318:7
322:20 337:21
- certifying** 7:19 8:3
14:13 59:15 115:20
171:12 201:15 245:16
312:3 358:12 370:7
- cetera** 17:15 40:22
331:2
- chain** 4:22 6:5 9:2,17
9:22 10:2 12:17 13:14
14:21 22:12,16 32:1
43:17 49:4 52:13
59:10,12,16 80:1 81:5
82:7 83:11,12 84:1,2
86:13 87:18,18 88:1
92:8 93:1,2,5 94:2
95:3,8,10 98:12,16
106:15 108:6 109:19
110:11 111:17 115:21
124:4,7,8,12 127:5
142:13 148:15,17
149:2,17 153:22
157:9 160:7 166:6
198:7 199:6 286:13
288:8 291:16 297:20
303:16 306:6,9,14
307:1 308:14 310:3
311:21 312:15 315:6
318:15,19,22 319:1
319:14 347:2 348:2
349:4 359:5 377:19
378:5,17 381:8 388:1
388:3 390:5 393:13
- chains** 22:10 23:1 43:9
92:10 108:14 145:18
154:8 307:16 320:5
320:16 364:17 370:10
371:5 379:5
- chair** 1:12,13 4:16 6:15
48:16 98:4,10 103:7
204:4 268:12 270:1
270:20 278:3 284:3
392:6
- chairman** 1:10 400:12
- challenge** 36:2 112:4
178:13 292:19 298:7
299:6 324:10 332:7
357:2 366:21 374:17
375:15,17
- challenges** 5:4 6:4
92:19,21,22 93:13
181:11 192:6 221:10
313:19 389:19
- challenging** 107:22
182:11 379:12
- championed** 278:18
- chance** 113:20
- change** 55:9 65:21
124:3 125:10,11
128:9 162:7 163:18
164:3 190:14 213:6
213:11 226:2 239:18

- 240:22 242:13 274:18
274:18 277:1 287:10
287:22 299:11 311:16
312:5 317:8 362:6
394:13
changed 126:19 188:5
241:2 252:2
changes 38:20 63:19
111:14 186:20 274:6
274:20 387:8
changing 128:7 184:16
184:16 200:20 357:7
Chapman 1:10,12 4:3
14:6,8 15:7,9 28:8,12
41:11 43:7,21 47:9
48:7,11 55:8 58:13
60:4 67:14 69:15
70:11 80:3 84:8,13,16
89:16 90:15,20,22
96:5,8 97:6 103:4
104:6 106:21 107:2
108:3,9 111:9 114:2
115:22 118:8 120:1,4
121:7 122:12 123:11
123:13 128:21 129:16
131:6,18 132:1,10,21
133:5,12 134:14
135:7,14,19 136:5,15
151:5 153:6 154:12
154:14,17 155:5
156:6,17 157:5
158:10 162:21 163:2
163:5 191:3,11
193:14 202:5,18
203:3 219:6,12,19
230:4,16 232:12
244:19 256:20 259:3
262:6 265:11,14
267:8 268:12 269:2,5
270:1,20 273:4 282:3
282:18 284:3,8,16
285:4 291:11 293:5
294:15 300:22 303:12
303:17,20,22 304:3
304:12,15 305:5,8
313:7 315:21 318:10
319:16,19 320:3,21
321:22 322:11,17
324:12 325:1 330:11
331:3,9 332:8,17
333:22 336:7 338:14
338:22 340:6 341:14
343:12 344:11,13,20
345:12,19 347:19
349:15 350:7 351:10
352:14 353:1,21
356:8 357:3,22
358:11 360:14 361:15
- 362:12,14 363:14
364:7,13 366:4,9
367:10 368:2 369:6
369:16,18 370:21
375:18 376:12 377:17
379:14 381:11 383:3
383:6,11 387:13
388:12 389:21 391:6
392:9 393:6 394:5,15
397:1 398:5,19
characterize 259:10
charge 16:14 355:12,17
369:1
chart 396:11
cheap 351:2,11 390:14
cheat 62:19
cheated 50:9 179:16
cheaters 100:13
check 48:14 57:14
110:19 157:2 288:16
checked 54:1 262:1
337:18 346:13
checking 288:20
337:14
checks 139:19
cheese 228:20
chemical 226:22
234:13 235:5 242:2
361:11
chemically 227:1
Chemistry 72:19
Chemours 247:20
chickens 219:9 220:2,7
Chile 169:11
China 24:3 45:16,19
46:8,10,11,17,21
Chinese 46:12 47:2
chlorate 262:7
chloride 252:6 253:7
256:14
chloride's 260:16
Chlorine 260:9
choose 59:2
choosing 70:19 74:14
chunks 399:22
circle 53:6 191:3
circulate 107:18
circumstances 353:9
citations 279:19
cited 45:15
citrus 88:10
civil 374:6,13,16,17,19
374:22 375:6,9,11,16
375:22
claim 195:8
claimed 179:9
claiming 155:20
clamoring 243:21
- clamshells** 168:18
clap 81:20
clarification 150:14
151:3 176:13 259:4
274:17 315:15 360:1
clarified 112:21 163:7
clarifies 236:18
clarify 115:11 182:14
194:9 232:13 240:20
273:10 369:8
clarifying 3:12 28:9
151:4 271:1
clarity 83:5 239:22
274:8 277:4 318:11
class 94:22
classes 66:11 357:10
classic 306:20 394:17
classification 267:9,11
268:3
classify 267:11,15,16
clean 54:2 92:8 117:11
234:10 256:9 349:9
350:3 358:6,6
cleaner 234:6,15
cleaning 132:13 234:21
clear 29:22 99:4,14
105:22 150:15 213:2
217:3 248:20 257:16
264:9 273:8,18 288:2
293:2 308:6 309:10
367:8 370:3,6 395:3
clearance 346:13
clearly 21:19 174:22
262:13 277:18 301:9
306:19 307:17 354:8
354:13 364:19
clever 40:7
Clicker 97:10
client 12:7 14:19 44:17
57:9 156:9 329:19
clients 7:20 19:1 24:12
Clif 296:20 320:8 323:8
close 5:16 83:9 88:12
201:21 305:8 308:1
closed 46:17 113:1
163:14 272:2,4
307:18
closely 29:9 64:6 93:10
189:8
closer 51:12 91:8
151:14
closing 324:11
clue 22:5 171:15 172:3
310:21
CNCA 46:20
co- 176:2
co-authors 127:2
co-host 204:9
- co-packer** 165:6 168:9
169:22 175:15
co-packers 165:5,10,19
171:11 174:18,21
CO2 361:6,6,6
Coalition 72:11 316:4
coals 326:1
coast 96:10 231:21
code 107:20 124:21
125:3,7,14 134:21
179:1 301:20
coded 102:15
codes 74:5,5 101:13,14
101:20,21 102:1,21
104:7,9 106:21,22
107:8 108:2 124:20
125:16 179:2 289:15
298:22
coerced 392:10
coffee 136:14
cognizant 353:16
coherent 180:1
cold 249:8 311:4
316:15 317:3 321:6
361:4 363:19
collaborate 31:10,11
collaborating 29:18
collaboration 14:12
43:1 114:11 167:10
183:16 398:12
collaborative 31:16
33:19 384:13
colleagues 28:18
150:18 175:6
collect 41:15 52:6
310:15 334:20 374:21
collected 352:3
collection 41:21 42:2
374:20 375:20
collective 110:2
collectively 146:6
color 252:21
Colorado 339:18
combination 56:9
115:7
combined 3:4 4:14
30:16 48:8 69:19
come 20:19 39:6 41:1
47:22 48:12 50:12
54:10 61:17 77:14
86:18,19 91:14 96:17
97:7 135:22 139:2
140:18 146:22 149:2
156:9 169:11 171:8
173:3,4 182:8 188:19
201:2 203:5 213:4
233:17 236:9 244:9
260:21 262:7 274:21

- 276:3 278:5 281:14
309:3 320:1 332:13
349:11 382:7 392:7
397:4
comes 5:1 19:3 58:8
80:13 81:19 106:11
109:1 130:7 161:20
162:9,17 177:12
189:4 196:21 245:1
263:10 300:9 333:13
366:17 368:3 372:11
373:20 390:15
comfortable 134:5
194:10,20
coming 4:4 10:18,19
11:16 30:7 37:9 61:5
77:9 89:5 100:4 102:8
102:9 117:5 122:8
132:7 135:16 136:6
178:21 197:9 206:18
216:22 252:8 253:7
254:16 256:18 262:12
292:4 345:9 390:21
398:20 399:19
comment 51:7 93:7
116:4 163:8 205:7
207:3,14 212:15
213:21 225:15 228:7
228:18 229:5 237:14
239:1 240:19,22
243:12 252:14 253:17
254:14 255:3,22
258:4 259:4 261:7
262:5,9,10 265:20
266:20 272:13,18
273:6,7 279:1,12,13
279:21 280:6,7
281:20 300:16 304:14
307:19 323:21 334:2
340:21 350:13 362:11
386:18 388:13
commented 228:8
288:2 325:8 327:12
327:21
commenter 241:9
260:7
commenters 5:4 35:3
178:21 212:16 243:7
243:12 249:14,19
287:19
comments 9:1 15:3
91:2 123:12 129:22
136:12 144:19 159:19
193:17 205:8 206:2
207:3,15 209:5,19
210:9 214:11 227:7,9
230:1,3 235:14,17
236:12,17 237:12
- 238:1,21,22 242:22
243:1,2,10 247:1
248:16,18 253:13
254:12 255:9 257:22
260:17 261:10,22
262:22 266:13 271:17
273:1 275:3,15,18
276:9 278:1 286:8,9
286:15 289:9 291:6
292:16 294:16 304:4
306:12,17 307:2,7
311:16 316:8 325:8
334:3 343:13 344:3,4
347:5 348:11,14
350:12 351:17 354:21
356:18 358:21 370:3
371:7,9,15 379:6
383:18 390:13 393:19
396:7
commercial 74:16
91:14 244:22 362:22
commercial-size
220:22
commercially 206:9
208:9 213:12
commingled 298:2
commingling 89:2
128:13 370:18
commission 28:1 74:6
101:16 104:13,19
106:8 304:21 386:21
commit 397:17
commitment 172:18
199:5 398:17
committed 23:7 95:12
166:5 299:11
committee 4:17 8:15
104:22 106:7 167:13
227:4 274:21 276:11
278:21 279:2 396:19
committing 56:17
80:19
commodities 50:15
64:6 85:13 117:3
330:1 352:7 359:3
370:20
commodity 90:1 113:7
227:10 290:11 314:9
330:5 348:15 357:15
358:12,14,15 395:11
common 114:21 125:16
243:4 287:15 294:15
295:3 318:2 347:8
349:16 378:10
commonly 209:8 242:4
357:13
communicate 167:21
communicating 167:11
- communication** 69:6
99:22
communities 137:15
community 5:14 133:21
183:3 212:10 216:6
221:6,8 253:15
259:11 272:21 387:6
compaction 241:3
companies 11:7 37:22
39:2 57:13 62:11,17
67:9 69:5 95:9 109:6
133:7 149:20 150:9
165:4,18 172:2
175:20 195:20 218:1
231:15 233:10 291:17
293:17
company 2:15 12:6
24:17 37:21 39:13
66:6,9,18,21,21 69:9
72:4,6 83:16 86:1
92:8,20 93:12 94:1
119:9 155:2,2 171:14
173:8 174:18,21
175:12 187:22 194:16
195:14 215:8 247:20
291:20 293:14 316:3
compare 101:7 145:4
compared 324:19 329:8
compatible 239:5
competent 41:6
competition 24:22
104:15 105:5,5
competitive 104:12
105:17 106:12,12
257:6,13
competitor 366:22
competitors 169:17
complainant 177:14
complaint 77:2 99:22
146:10 170:10 172:9
172:14 177:12 178:7
178:11 194:14 196:7
198:22 367:8 384:10
complaints 100:4,17
146:9 170:6,9,13
171:2,5 172:11,20
176:15,19,21 177:5
178:4 192:19 194:16
complete 172:20
198:22 200:13
completed 208:20
238:10
completely 27:14 68:3
213:14 219:15,16
complex 18:6 22:10
36:10,11 43:20 81:1
82:7 84:5 86:13,15
109:18,19 117:14
- 173:8 371:5 385:15
392:14
complexities 43:17
304:10 363:10
complexity 9:2,7 95:11
318:6
compliance 3:14 17:11
18:14,17 27:8 42:8
53:12 58:19 72:3,6
79:12 89:11,21 94:22
152:1 167:2 176:22
192:8 264:11 289:8
351:18 352:10 385:7
compliances 24:21
compliant 149:15 355:6
361:4
complicated 11:7 36:12
38:16 39:12,16
379:19 391:10
complicit 168:2
complicity 79:21
comply 264:3
component 248:5
351:20
components 93:22
94:16
composition 234:14
compound 207:21
compounds 115:19
comprehensive 19:6
150:6 359:15
compromised 317:14
compulsatory 43:12
compulsory 25:18,22
computer 54:12 293:11
298:21 330:9
computer- 54:5
conceal 38:13
concentration 235:2
concentrations 235:3
concept 183:5 357:4
380:8
concern 105:5 107:7,13
107:16 129:9 170:17
184:20 239:2 251:8
255:10,11 261:4
279:20 287:12 296:13
327:2 345:13 371:3
concerned 129:6
217:10
concerns 166:18
167:11 170:9 179:18
180:1 260:8 262:4
289:13 326:4,21
328:12,13,20 341:21
343:22 378:22
conclude 14:10
concluded 70:2 200:9

- concludes** 247:6 284:6
conclusion 51:6 64:1
condition 364:3
conditional 372:16
conditions 225:11
 248:13 249:7 283:4
 384:4
conduct 12:10 150:9
 293:4 296:2 378:14
conference 123:4
confinement 224:8,9
confirm 65:20,22
confirmed 27:13 75:10
conflicted 255:17
conformities 139:6
confused 369:12
confusing 70:22
confusion 291:15 292:6
 292:7 294:20 303:3
Congress 182:9,10
connect 38:16 292:15
connected 124:4 327:3
connecting 287:1
 292:12 305:22
connection 125:21
 133:13,17
cons 64:19
consensus 203:11
 287:9 377:20 393:11
consider 59:21 120:22
 139:7 157:16 191:20
 218:21 274:16 305:1
consideration 229:10
 241:15 247:17 258:21
 266:21 347:11 399:2
considered 64:22 65:7
 65:8 76:22 112:12
 206:6 208:6 218:20
 227:2 228:16 230:8
 235:5 240:9 264:2,13
 317:2 327:17 346:11
 352:11 358:20
considering 64:18
considers 263:12 264:1
consistency 199:6
 274:9 385:10 397:14
 398:2,12
consistent 13:16 14:11
 14:16 105:20 121:9
consistently 236:13
 292:19 386:9
consolidations 299:20
consolidators 86:15
constantly 51:3 199:9
 258:14,17
constipation 239:10
 240:1,2,9
constitute 272:15
construction 94:19
consultant 78:5
consulting 73:5,7
consumed 349:2
consumer 22:19 24:8
 71:17 72:5 81:11
 149:11 161:17 261:11
 391:1 392:21
consumers 23:3 24:4
 393:4
contact 123:1 169:10
 202:8,9 234:6 294:12
contacted 45:17 46:12
contacting 38:1
contacts 122:17
container 53:20 54:8,16
 55:6 61:6 102:16
 131:12 157:4 161:2
 163:20
containers 54:18,19
 55:4 62:6 85:6,7
containing 134:20
contains 210:16
contaminants 357:6
contaminated 148:19
 150:7 298:2
contamination 128:14
 152:17 185:4 205:16
 205:19 370:17
CONTENTS 3:1
context 15:21 187:20
 242:12 307:12
continual 271:9
continue 27:21 97:2
 136:22 202:5,7,11
 233:20 236:8 243:3
 255:12 286:11 297:22
 310:20 320:20 338:18
 393:4 397:3 400:1,15
continued 70:3 235:15
continues 124:6
continuing 284:22
 367:5
continuous 312:10
 357:5
continuously 108:21
contract 308:13
contracted 39:1
contracts 40:8
contrast 9:1
contribute 256:6
contributed 341:13
contributes 207:21
control 27:6,9 28:9 88:8
 93:14 106:18 174:6
 219:14,16 221:7,13
 237:7 242:9,18 243:4
 244:7 248:6 250:2,18
 251:21 255:5 260:3
 263:16 282:22 361:5
 363:22 369:5 371:11
 374:11
controlled 138:13
 361:11
controlling 242:6 249:1
 249:13 255:3 267:6
controls 146:21 358:13
 358:16 363:18 370:22
 376:15
controversial 210:11
convenient 364:11
convening 400:17
conventional 79:1 80:9
 80:11 89:9 90:9 195:9
 195:10 258:16 331:4
 331:6,20 349:10
 361:21 373:8,10
conversation 4:21 35:6
 84:19 87:1 91:6,13,18
 93:4 116:5 130:8
 178:18 185:16 286:20
 289:21 305:6,10,16
 335:19 393:20
conversations 130:13
 155:9 203:7 206:14
conversions 109:21
Convert 3:16
cool 299:5
cooperated 76:1
cooperation 130:12
 382:19 398:16
cooperative 71:5
cooperatives 71:6
coordinated 168:6
coordinates 188:7
coordinating 184:7
coordinator 72:9,10
copies 141:18
copious 261:2
copper 237:19
cops 60:13
copy 10:11,13 175:9
core 71:20
corn 35:13 76:5,14,21
 77:13,21 78:6,7 81:15
 123:6 125:4,5 134:20
 135:1 228:16 330:5
 331:17,22 332:5
corners 153:9
corns 71:19
corporate 73:14
correct 125:2 185:22
 200:3 219:17 233:19
 233:21,21 254:12
 279:18,19 318:13
 353:11 369:8 378:1
correctly 111:5 254:13
 298:9 385:14
correlate 190:12
correlated 157:11
corrosive 235:5
corruption 24:14 49:5
 371:21
cost 20:12,19 57:3
 79:18 95:4 138:20
 148:10 321:12 328:12
 334:14 352:17 353:6
 353:18 354:13,16
 357:16 382:2,22
 383:2 390:7 395:1,3,5
 395:10
cost-effective 210:14
Costa 380:22
costs 81:3 148:13
 353:16 354:21,22
 357:8 378:22 390:4
 390:21
cotton 149:7 330:5
couch 105:4
Counsel 337:18
count 268:15
counter 355:19
counterfeit 179:2
counterparty 94:3
counterproductive
 24:9,13
counting 165:13 175:13
 175:17
countries 7:21 22:9
 23:2 28:3 29:5 38:9
 40:5 44:7 45:2,4,4
 66:10 74:1 78:15 98:7
 105:16 106:4 110:3
 138:10 139:1,2
 182:18 184:4 187:21
 314:19 328:21
country 4:9 5:11 21:18
 47:7 50:3,3 75:4
 101:5,5 102:9 111:6
 165:21 278:7 294:3
 331:8,14 346:3
 358:13 359:10
countrymen 24:7
countrywide 380:4
county 64:8 330:1,12
 333:1 339:4,12,15
 340:5
county-level 340:3
couple 15:20 33:1 37:8
 50:10 75:1 127:10
 137:2 189:7 197:11
 207:3 233:18 235:17
 274:13 290:4 296:15
 329:2 393:10,15

- coupled** 83:9 183:8
course 22:20 25:10
 41:2 45:2 82:4 100:12
 107:4 111:21 138:6
 138:19 149:10 166:12
 184:4,12 198:9
 200:19 201:18 210:10
 213:4 312:7 314:7
 392:14 393:3
cover 81:14 126:20
 173:5 174:5 344:6
covered 49:14 325:2
 354:22
covers 192:7 301:22
cow 240:6,11 259:20
cow's 249:8
cows 252:21
cracked 125:4 248:14
 256:10
crafting 155:13 274:7
 393:16
create 23:17 31:17
 33:14 92:20 95:2
 102:7 157:14 291:14
 292:7
created 13:12,13 31:1
 90:9 93:11 160:20
 295:7,10 323:19
creates 292:6 296:1
creating 42:6 84:5
 95:10 124:14 305:17
creation 92:16
credibly 337:21
creeped 378:12
crime 122:19
criminal 179:1 181:9
crisis 341:4 377:5
 391:12
criteria 229:8
critierias 346:1
critical 30:5,19 31:4
 85:12 209:16 247:11
 258:18 293:13 310:2
 313:15 333:14 339:3
 341:15 379:10,10,13
 385:20 391:17
critically 36:4 216:11
 216:16 245:7,8,13
 260:1
critiques 340:22
Crohn's 251:16,17,19
crooks 97:1
crop 3:17 30:4,12,13
 42:3,4 101:2 146:13
 185:10 197:9 208:2
 246:20 247:4 261:19
 290:11 325:5,20
 326:2,14,15 328:16
 330:2,14 335:5,5
 336:8 358:9 378:11
cropland 328:14
cropping 336:1
crops 30:7,9 147:2
 149:7 325:21,22
 327:22 328:1 330:5
 360:18 361:3
cross 299:22
cross-checks 59:7
 378:9
crossing 299:21
crowding 217:3
cucumber 365:14
cultivator 122:4
cultural 122:1 217:14
 218:20 219:2 220:16
 220:17 223:5,13,19
 244:6 258:8 277:5
culturally 256:11
culture 199:5,11 210:21
cultures 210:22
cure 256:2
curious 49:17 114:4,14
 217:6 230:7,18
 246:13 250:22 276:9
 292:13 360:14 361:8
 380:5
current 6:15 10:3 13:7
 32:12 42:21 92:14
 116:7,17 205:1
 211:15 248:22 255:6
 273:17 347:6
currently 42:12 64:5
 96:10 99:9,18 102:14
 106:3,12 146:15
 151:15 153:17 238:14
 250:1,17 255:5
 383:22
customer 85:18 100:15
 100:18
customers 94:1 392:17
Customs 25:22 74:22
 75:3 101:14 309:4
cut 300:2,11 309:20
 353:19
cycle 56:20 108:22
 256:7 281:3
-
- D**
-
- D&B** 394:18
Dae 237:10 238:12
daily 26:21
dairies 141:3
dairy 222:14,15 225:17
 227:10,14,16 231:8
 231:16 233:13 234:10
 234:10,11,19 235:18
 235:19 236:14 243:13
 248:10,20 249:22
 250:14 251:11,18
 254:8 256:22 257:2
 257:15 258:22 259:21
 261:13,17 264:22
 282:22 283:2
damage 235:7
damaged 88:18
Dan 1:20 48:17 114:3
 115:22 116:1 118:8
 185:14 223:8 234:8
 236:11 253:9 254:6
 256:20 258:2 259:14
 391:6 393:6
Dan's 255:8
dangers 235:1
data 41:15,21 42:2 47:4
 68:19 102:7 121:19
 121:20 145:3 147:7
 152:4 177:6 186:22
 244:21 299:15,16
 300:3,4 325:13,13,16
 325:17 326:2,5,7,13
 326:17 327:12 328:20
 329:3,4 331:10,11
 332:3 333:20 334:12
 334:13,16,20 335:9
 335:13 337:11 338:3
 340:3 343:8 344:2,3
 348:8 349:3 362:16
 371:17 378:12
data's 339:16
data-sharing 337:15
 338:11
database 26:9 30:4
 31:6 36:13 37:17
 43:12 169:15 186:10
 187:9 298:17 299:2
 307:8 327:8 329:9,13
 329:17 333:16 334:9
 336:15 337:2 338:5
 339:4 340:10 342:2
 360:20
databases 340:9
date 149:11 205:1
 260:13 347:14
Dave 1:17 60:1 70:12
 120:1 121:7 137:5
 216:18 245:13 246:6
 313:8 317:6 319:21
 320:3 379:7 392:6
 393:7 394:21
Dave's 201:9
day 83:15 86:1,2 97:13
 132:15,15 142:20,21
 143:2 144:5 167:20
 173:10 194:21 314:7
 400:13
days 15:20 27:18 85:16
 114:1 120:15 121:2
 127:11 142:18,20
 149:11 169:12 281:3
 313:16 372:19 396:2
DBA 291:20
DBAs 291:18
DE 1:15 268:10 269:20
 270:16 283:20 392:12
deal 25:12 58:17 64:17
 113:8 140:9 171:1
 181:2 199:10 240:1
 266:4 267:10 285:11
 292:11 321:5 326:14
 326:15 365:11 376:22
dealing 24:18 43:15,16
 43:18 67:18 122:19
 142:22 374:8 376:22
dealings 126:5
dealt 126:6 322:3
death 235:8
debate 270:6
decades 302:20
December 196:10
decertify 337:21
decide 217:15 221:11
 259:9,12
decided 119:14 274:19
 278:8
decision 14:22 205:10
 241:10 266:9
decisions 247:12
decisive 203:22
dedicated 59:6 94:19
 138:18
dedicating 59:21
dedication 95:2
deep 267:1 396:14
deeply 16:11 193:4,5
default 187:9,17
defer 119:1 153:4
deficient 55:13
define 146:1 272:11
defined 155:15 179:1
 306:19
defining 99:14 204:8
 271:5 272:15 315:19
definitely 74:10 78:14
 184:12 245:20 255:9
 263:1 287:9 291:15
 292:18 293:8 306:13
 308:18 325:15 327:1
 341:8 350:13 353:8
 366:4 380:1 391:16
 395:2
definition 99:19 126:18
 128:7,8 156:1 163:19

211:20 273:20 277:6
282:21
definitions 155:13
385:16
definitive 251:17
defraud 69:10
defrauding 69:7
degree 42:20 64:8
72:18 96:13 185:20
220:21 335:20
deliberate 272:19
delist 228:13
delivered 318:5
Delta 73:8
Delta/NWA 73:11
delve 55:10
demand 23:12,17 95:22
138:10
demanding 79:14
demonstrated 180:5
182:17
denied 146:18 259:11
denominator 117:20,21
dense 362:15
density 217:1,17 218:6
218:12,20 219:3
220:6,8,10,11,13
221:3,4,4,5,6,8 223:2
dent 125:4
denying 257:7,10 259:4
259:6,8
deodorize 237:8
department 1:1 47:12
47:12 68:18 151:22
152:3 292:4
depend 235:1
dependent 42:2 109:3
depending 110:3 121:1
121:3 142:20 212:10
deposits 234:17,20
depth 42:12 388:8
deputy 2:3,4 347:16
describe 242:17
described 47:13
design 335:15
designate 327:19
Designated 2:5
designation 296:10
designations 286:17
designed 16:21
designing 334:18
desk 386:3
desperately 312:9
despite 370:6
destined 74:21
detail 19:8 146:10
213:15 383:18
detailing 316:9

details 96:18 286:8
291:8 307:22
detect 44:11 51:9,13
148:12 383:20 384:3
detected 185:11
detecting 13:8 191:8
350:15
detectors 357:19
determination 113:6
140:8,9
determine 17:10,14
128:17 268:18 383:20
determined 75:1
determining 128:12,19
143:16 280:12
deterrence 377:15
deterrent 346:20
348:10
detriment 306:15
detrimental 259:20
develop 82:6 98:14
100:21 172:12 189:15
199:4 212:22 342:13
developed 7:4 11:4
16:5,10 198:13
developing 92:9 123:21
198:10 357:19
development 19:21
73:9 152:14,20
184:22 229:8 232:6
developments 151:9
device 21:22 22:1 61:4
devices 60:20 61:22
Devon 2:7 204:10 207:6
208:15,22 210:2
224:18 226:7,16
233:16 234:8 237:2,9
238:4,11 240:18
241:13,21 247:15
248:3 263:7,7,9
278:11,14 279:17
dextrose 229:17
dialogue 288:8 391:14
Diana 76:7
dicey 318:3
differ 397:7
difference 27:4 172:21
214:15 290:10
differences 43:11 84:22
different 21:1 23:2
25:21 27:14 30:7
31:18 37:4 40:21
49:11 93:22 94:5
107:20 126:3 143:18
143:20 150:4 159:22
165:20 174:4 176:3
180:6 184:4 195:15
204:1 207:3 214:5

215:8 218:2 221:3
222:5 227:10 228:20
248:12 253:18 258:7
264:4 277:12,13,13
278:6 296:21 306:19
313:6 328:3 348:15
357:9 359:3,4 362:7
372:9,11 373:18
376:1,6 389:10
differently 211:16
254:19 258:4 266:8
277:12
difficult 41:5 69:8 82:16
115:17 126:15 134:3
148:21 218:18 233:1
243:20 315:12 316:20
328:2 342:8
difficulties 9:16 150:8
difficulty 287:1 295:17
365:6
digest 285:9
digging 349:4 399:16
digits 125:9
digress 13:6
digs 386:14
diligence 169:18
366:18 367:7
Dill 2:15 72:2,2 84:18
89:18 111:11 114:18
120:2,5 127:8 143:6
143:14 159:21 168:9
168:12 194:8 364:18
dimension 121:13
137:10 291:1,2
dioxide's 260:9
dip 226:12 228:6 231:4
231:5,9 232:3,7
247:20 252:7 253:2
260:17 263:22
dips 231:10 233:7
248:6,13,21 249:1,4,6
250:13 251:9 253:6
255:12 263:12 264:1
direct 31:9 95:5,7
135:10 146:11 160:21
234:6 238:16 299:1
directed 105:19 318:12
direction 213:3
directive 191:15
directives 158:5
directly 10:17 29:7
37:13 42:15,20 71:20
94:7 95:9 113:18,19
228:8 229:10 254:1
254:17 316:12 332:9
339:14
director 2:6 71:3 72:22
73:19

dirty 134:13
disadvantage 257:13
disaggregate 299:16
disagree 68:3 277:15
disagreement 359:7
disappeared 130:20
disaster 79:19 133:22
disclose 115:8 322:19
discourse 398:18
discover 23:16 90:5
discovered 20:2 141:21
148:22
discrepancies 326:16
333:5
discretionary 118:11
discuss 14:18 103:14
206:2,11 208:5
285:19
discussed 155:17
198:8 213:15 272:14
352:15 360:13
discussing 28:6 98:19
139:12 271:7
discussion 3:4,15 5:8
5:17 6:6 15:20 98:20
103:3 127:12 130:9
144:10,12,15 158:20
159:19 202:1 206:17
208:19,13 216:10
224:16,18 226:5
239:16,22 241:10
246:7 250:8 264:18
267:2 269:3 272:11
275:21 279:4,7
282:16 284:20,22
285:2,7 289:14,22
296:11 302:5 309:13
309:19 310:1 311:22
319:5 329:1 348:18
365:20 367:4 371:13
372:3 376:4 384:8,20
385:21 386:13 388:16
391:5 392:19
discussions 16:1 179:4
212:4 301:3 338:15
338:19
disease 210:15,19
214:17 215:10 217:2
220:9 221:10,21
222:6 223:5 251:16
251:19
diseases 218:8 222:16
222:19
disincentive 352:16
355:18
disincentives 355:19
disincentivizes 172:16
disinfectant 204:14,15

205:21 207:8,10
210:4 224:21 226:10
248:9
disinfectants 205:13
234:3
disinfection 207:17
dispatched 21:2
dispenser 156:8
display 283:8
displayed 295:4
dispute 359:7
disruption 94:2
disrupts 145:15
distance 122:10
distant 24:4
distinction 263:11
distribute 120:16
154:10
distributed 86:8 90:3
90:10 113:12 115:10
283:9
distribution 85:5 87:2
89:7 155:18 157:18
308:14 318:1
distributor 16:20 72:7
128:1 171:20,20
distributors 86:22
99:10 109:11 120:19
150:3 158:12 308:21
318:8 365:4
diverse 333:7
diversified 328:2
diverted 195:9
divide 325:15
Division 2:6 71:14
167:2 177:1
dock 89:3 127:6 129:10
369:1 377:1,6
docket 275:10
docking 197:2
document 3:15 32:19
80:19,22 84:6 204:8
268:18 278:16,18,21
284:20 285:2,7,13
287:8 289:3 290:3,8
291:1,5 295:20
298:13 314:10 320:20
347:8 371:1 388:4,15
388:17 389:7,13
documentation 9:17
11:22 16:7 39:7 59:13
62:1 142:2 280:8,10
280:15 282:4,8 287:2
287:22 288:3 289:6
293:8,9 295:13 297:9
301:2 304:1 339:19
347:11 366:12,17
369:20 370:7 377:4

385:1,6
documentations
294:22
documented 87:7
281:19,21 282:1
287:10 300:8 317:12
399:19
documenting 174:19
documents 14:17 15:4
34:9 54:15,16 80:21
81:1,6 84:5 160:20
161:4 278:4 286:13
286:17,21 287:5,5,6,9
287:11,13,14,22
288:1,6,9,10,11,13,15
289:21 292:12,14,15
292:20 293:16 295:21
299:4,19 305:6,12,13
305:17,18,19 340:18
341:17 362:5 388:22
doing 39:14 40:16
44:22 45:6,16 56:4
59:21 67:10 95:19
99:16 112:8 119:11
122:6 137:15 139:16
140:2 141:13,15,20
142:4 148:3 150:16
151:19 156:1 164:20
167:12 171:22 178:1
191:14,14 194:1
220:7 221:9 301:15
313:17,20 321:3
328:11 334:3,17
336:10 339:6 346:21
348:2 351:8 355:9
356:17 362:2 379:20
381:21 386:19
dollar 61:1 166:13
368:16
dollar-wise 387:1
dollars 59:4
domestic 52:10 87:20
105:7 184:10 185:8
313:11,19,22 315:1
318:20 319:7 327:10
398:9
domestically 9:14
332:6
door 278:19
doors 134:11
dots 305:22
double 283:5
dovetailed 181:6
downside 296:5
downsides 369:19
Dr 2:3,4,6 48:18 52:9,15
65:19 90:17,21 91:7,9
118:9 176:17 180:14

185:15 223:9 234:9
252:21 253:10 254:11
258:3 259:7 268:1
269:16 270:12 283:16
298:16 318:21 319:17
323:21 336:10 338:20
341:12 343:1 347:13
354:16 356:12 358:2
360:12 361:12,16
362:13,18 364:2
369:7,17 372:8 374:6
376:1 377:13 380:8
393:8
dragging 394:22
dramatic 346:9
dramatically 172:19
drank 251:19
draw 162:4 307:22
dreaded 224:14
dripping 89:12 370:16
driven 198:9,11,21
335:1
drives 367:15
driving 60:10
dropped 395:7
drug 209:2 263:11,20
264:8,8,13
drugs 263:12 264:1
due 52:11 65:9 169:18
185:18 200:7,12
215:22 261:7 366:18
367:7
dug 308:19 360:16,16
dumped 157:3
DUNS 394:18
dust 241:3
dynamic 63:4 318:22
dynamics 319:1

E

earlier 54:19 57:7
155:18,22 176:7
304:20 365:18 380:13
386:17
early 80:9 83:1 196:17
200:11 204:20 205:12
245:2 380:8
easier 108:1 155:12
175:3 191:1 300:4
333:7
easiest 311:14
easily 187:19 305:13
362:9
East 1:9
Eastern 330:19
easy 24:19 44:19 61:19
125:12 173:19 187:22
277:10 293:9 334:9

eaten 149:12,13
eater 122:10
echo 255:8 265:10
314:1 324:13 351:16
362:14
echoed 274:3
Ecolab 252:13
economical 257:5
economically 387:2
Ecosystems 3:16
edge 105:17
editorial 340:21
educate 116:7
educated 69:5 311:13
educating 178:10
education 14:13 67:1
69:12 301:4 359:1
379:17 380:2 381:13
381:13,18 382:15,17
385:22 390:19 397:4
effect 191:18 220:9
324:8
effective 13:8,22 17:18
28:2 33:14 43:14 44:5
44:22 144:16 146:9
179:11 183:7 242:5
248:9 249:1,13
251:10,14 257:5
348:9,10 371:14
375:22
effectively 31:11,20
59:20 100:14 171:2
effects 256:4
efficacy 116:17 211:3
214:15
efficiency 95:3
efficient 140:1 210:14
efficiently 100:14 296:3
effort 41:16 51:1 98:14
100:17 101:10 334:14
398:12
efforts 184:7
egg 314:16
eggs 314:3,15 367:15
367:17
Egypt 66:4
eight 121:2 127:16
224:20,22 241:15
268:8 358:1 382:1
Eighty 77:17
either 28:1 131:12
153:15 155:2 170:13
181:20 211:4 212:22
225:7 226:19 280:17
313:1
ELA 1:16 114:4 246:8
268:6 269:18 270:14
276:8 283:18 293:6

300:5 317:8 339:2
 363:15 368:3 376:13
 397:2
elaborate 129:2 250:7
electrolyte 225:3,11
electrolytes 3:8 225:1
electronic 60:18 61:8
 159:11 233:22 299:17
 300:3
element 31:4 186:10
elements 123:17
elevate 69:3
elevator 159:9
elevators 94:20
eligibility 205:10
eligible 10:2
eliminate 153:9 157:21
Eliminating 3:16
else's 367:6
email 166:18 263:8
emails 46:21
embrace 147:4
emerged 206:9 208:10
emergency 3:12 204:8
 271:2,5,5 272:12,15
 273:11 277:2,6,7,20
 280:13 282:21
emerging 358:22
Emily 1:18 60:1 63:6
 128:21 153:5 165:2
 180:13 181:3 182:15
 236:15 239:12 250:4
 250:19 255:7 256:1
 264:19 266:11 267:14
 275:21 280:7 296:14
 317:7 324:12 332:9
 332:18 351:15 352:14
 379:15 383:3 387:19
 391:6 392:12
employ 20:4
enable 224:7
enables 210:18
enclosed 163:20
encompasses 315:2
encounter 16:13 19:11
encourage 59:20 142:8
 143:19 170:20 200:22
 201:5 231:11 324:7
encouraged 56:2
 237:20
encourages 89:1
encouraging 56:4
 104:8
ended 297:4 333:4
endemic 80:7
endorse 389:13
endorsed 388:17
endorsement 254:2

endorsements 389:2
endorsing 388:14
ends 296:10
enforce 65:14 122:8
 389:14,16
enforced 278:6
enforcement 13:19
 43:5 60:16 93:6 97:3
 133:18 177:1 179:14
 179:18 180:3 184:8
 184:21 199:13 306:16
 340:19 350:14
engage 58:5 143:19
engaged 121:22 122:7
engagement 275:17
engaging 121:15
enhance 211:3 320:20
 396:10
enhancement 116:10
enormous 387:5
 396:12
enormously 121:10
ensure 14:11 30:8
 44:19 79:1 209:15
 343:8 396:21
ensured 78:22
ensuring 96:13 161:16
enter 194:6 217:14
entered 26:14 124:11
entering 5:11 93:5
entire 12:12 60:5 94:11
 142:12
entirely 364:5,5 373:13
entities 19:20 39:13
 80:19 111:1 381:19
 382:14,16 393:12
 394:16
entitled 55:22
entitlement 57:2
entity 16:22 19:13 78:9
 166:4 190:5,7,9
 309:11 352:20 378:4
 381:19 383:1 394:13
 394:21
entree 180:15
entry 183:14 359:16
 364:3
environment 20:11
 31:16 32:8 65:6 85:11
 88:22 117:3 200:20
 219:15 362:22 373:16
environmental 73:2,7
 73:10,12,18 95:1
 114:7 152:17 205:16
 205:19 222:3 225:9
 235:11 236:5 249:16
environments 385:18
envision 14:13

EPA 185:5 205:14
 263:19 264:13,15
equal 397:10
equally 296:9
equipment 234:5,17,18
 234:21
equitable 382:22
equivalencies 328:21
equivalency 98:1 101:9
 184:2,13 340:8
 342:12,17 343:2
 344:7,20,22 345:1,9
 379:3
equivalent 198:15
 342:1,2,13,20 343:4
eradicate 62:8
Eric 93:7
Erin 2:17 72:21 73:4,9
 73:16 90:15 96:5 97:8
 134:15 144:22 188:9
 320:9
error 55:19 69:6
errors 326:13
ERS 121:20 326:7,10
 337:15
ESOP 73:7
especially 26:10 41:6
 60:22 111:14 114:5
 172:20 174:3 183:8
 184:15 186:4 201:6
 249:7 266:15 288:8
 293:10 316:14 351:5
 352:18 360:2,4
 370:18 385:19 386:1
 386:3 387:4 391:18
essential 206:6 208:6
 216:11,16 217:8,8
 224:12 225:4 227:16
 245:8 249:17
essentiality 250:10
 253:12
essentially 32:16 84:4
 104:15,20 106:5
 166:20 167:13 245:7
 245:13
established 124:5
establishing 101:13,21
 123:18
estate 73:14
ester 242:4
esters 3:11 241:19
 242:1,2
estimate 83:9
estimates 83:6 101:5,6
 330:21
et 17:15 40:22 331:1
etcetera 106:12,16
 315:14,14

ethanol 3:7 204:15
 205:5,8,11,17,20
EU 25:11 26:2,9 27:2
 28:1 43:11 77:17
 184:17 320:11
Europe 26:18 80:12
 117:9,17 148:16
 157:12 371:10
European 7:3 25:10
 26:22 43:16 44:4
 63:10 111:2 117:9
 135:9,12,16 145:4
 153:21,22 158:11
 344:21
evaluate 116:17
evaluating 229:9
evaluation 305:3
events 8:8
eventually 258:15
everybody 4:4 12:14
 66:22 69:16 70:16
 97:11 129:19 136:11
 156:3 167:20 221:2
 225:21 266:7 359:2
everybody's 56:22
 276:6
everyday 33:9
everyone's 203:22
 220:7
evidence 51:5 58:19
 59:1,6 75:16 177:7,7
 180:1,18 181:1 182:3
 182:5,16 194:13
 372:12 373:4
evolution 56:13
evolve 93:11 229:2
evolving 305:6
exact 83:5 168:4 181:8
 235:1 280:7 288:6
 318:4 332:1 339:9
exactly 114:15 165:17
 181:6 182:18 251:8
 332:22
examination 78:21
example 11:12 18:9
 19:12 33:22 37:9 39:8
 44:9 53:18 56:18
 57:10 62:21 99:16
 104:18 140:1 161:9
 168:12 188:6,20
 195:22 214:20 219:8
 221:1 244:13 272:20
 275:16 312:10 319:6
 322:17 337:5,6
 344:22 351:22 354:1
 381:3
examples 37:9 38:15
 117:4 160:12 325:21

381:10
exceeds 23:12
excellent 52:20 84:6
 275:17
exception 239:11
 317:18
exchange 319:7
excipient 264:4
excipients 261:21
 262:1,2
excited 100:14
exciting 95:22
exclude 185:7
excluded 99:10 128:5
 153:17,21 155:11,19
 156:14 163:14,20
 211:10,17,21 212:1
 217:12 224:14
excluding 159:18 160:1
exclusion 10:3 128:10
 157:14 185:2 308:2
exclusions 309:16
exclusively 246:12
excuse 5:16 7:9 21:6
 225:19 234:14 388:10
execute 332:14
executed 73:22 182:4
 377:11
execution 73:9
executive 71:3
exempt 128:4 155:22
 156:15,19 158:13
 310:13
exemption 155:21
exemptions 309:16
exfoliating 248:14
exist 26:16 36:1 101:5
 215:11 257:12 348:22
 376:10
existed 13:12
existence 92:17
existing 101:20 144:12
exists 30:9 172:9
expand 153:14 314:6
 341:19
expanded 352:6 384:16
expanding 318:15
expect 142:16 304:9
 399:18,20
expectation 36:5 130:6
 131:9 147:19 192:6
expectations 56:10,11
 342:13 359:4
expected 56:12 125:5
 129:22 135:17 139:20
 382:7,11
expects 81:11
expediently 296:3

expedite 262:14
expedited 196:12 200:5
expense 142:6 148:8
 150:5 319:7
expensive 119:6
 145:14 316:20 350:20
 351:4,14
experience 8:4,10
 36:16 40:1 49:1,11
 117:2 166:20 168:13
 253:19 388:9
experienced 381:17
experiences 57:8
 146:14
expert 156:18 220:1
 400:3,6
expertise 74:12
experts 4:8 144:2
explain 21:10 138:12
 262:20 263:4 333:5
explaining 4:15 390:20
explicitly 161:3
exploited 295:8,9
explore 231:2 232:11
 356:22
exploring 314:10
export 29:7 32:11 34:11
 74:2
exported 109:8 183:11
exporter 77:15 346:2
exporters 22:17 38:1
 86:16
exporting 83:2 125:8
exports 29:20 52:11
 102:5
exposed 166:7
exposure 235:6 399:16
express 201:21
expressed 255:10,19
extending 164:2 393:12
extensive 8:10 71:22
extent 63:13 94:9 96:22
 97:2 134:18 145:15
 183:9,12 290:7
 324:15
external 116:13,16
 237:5,7 238:7,18
 239:4 241:17 263:16
extra 125:3 145:16
 150:11 164:11 356:19
extraction 229:1
extraordinarily 80:21
extras 164:9
extremely 101:3 107:14
 126:7 134:3,3 198:4
 199:7
eye 235:7 236:8

F

FAA 79:5
face 85:1 123:7
facilitate 309:8
facilities 94:20 220:12
 354:5 382:4,12
facility 11:10 16:14
 72:5 382:7
fact 10:16 51:2 52:3
 66:1 68:5 145:8
 147:15,20 172:14
 190:13 197:14 200:10
 229:1 329:6 337:20
 381:22
factor 128:12,19 217:7
 331:7 346:6,11
 358:19
factors 35:19 49:3
 98:17 104:15 258:20
 330:10
facts 288:3 385:9
fail 38:11
failing 133:13
fails 270:21
failure 94:13 190:22
fair 46:5 52:12 65:9
 150:20 198:3 336:11
 373:8
fairly 49:1 82:16 142:22
 271:7
fall 204:21 206:16
 224:18 233:4 247:7
 273:10 399:20
falls 100:17
false 197:22
FAMACHA 280:18
familiar 127:8 292:5
 324:10
family 242:2
fans 218:11
far 4:10 5:22 23:3 24:6
 41:3 42:10 69:11
 114:19 140:3 157:10
 158:1 159:3 217:16
 280:16 337:11
farm 7:15 8:6 21:17
 66:5 111:6 149:11,17
 159:1 187:22 219:13
 221:4,9,19 251:18
 259:21 281:14 321:2
 321:9 326:15 331:16
 350:15
farmer 24:5 36:22 64:14
 124:10 220:19 221:5
 235:18,19 253:15
 259:1 294:12 321:12
 391:16
farmer's 71:2,10 151:18
 159:2 197:7 219:14
 219:16
farmers 22:3,4,13,14
 23:1 40:15,17 50:1,4
 67:5 71:3 74:15 77:18
 79:19 95:6,7,15,17
 133:9 161:14 197:18
 245:6,8 254:10,16
 255:1 258:6 282:10
 368:15 391:17 393:2
 396:5
farming 7:14 26:7
 133:21
farms 40:8,10 41:2
 58:10 77:16 188:7
 220:12 261:17 277:20
fashion 307:5
fast 20:14
fastest 57:4
fat 228:4
fats 226:13,20 227:6
fatty 242:2
favor 159:18 276:8
favorite 273:7 302:19
FBI 180:10
FDA 127:15,18 214:22
 262:4 263:12,22
 264:5,6,7,16
fear 25:4,4 36:5
feasible 29:21 33:20
February 132:6 337:19
fecal 280:17,21
federal 2:5 5:9 35:4
 233:22 272:2 298:17
 312:6 376:5
federally 214:21
fee 354:9 355:1,2,11
feed 151:20 204:16
 222:4,4 310:5 313:3
 315:13 321:15 350:21
 351:11 363:3,12
feedback 181:14 202:2
 340:14,15 383:14
feeding 265:22 266:5
feeds 71:17
feedstock 230:21
feel 45:9 89:18 90:13
 112:3,21 113:3
 118:17 128:6 134:5,8
 160:10 166:4,9
 171:22 178:19 194:10
 194:20 216:15 229:21
 253:8,22 267:3
 338:11 392:21 393:15
feeling 298:8
feels 166:7
fees 52:6
fell 395:13

- felt** 165:12 212:1,9
250:16,22 276:21
- fenbendazole** 271:10
271:14
- fermentation** 228:2,15
228:19,21 229:9
230:17,18
- fertilizer** 180:9
- fertilizers** 40:12
- fever** 209:4,12
- fiber-** 283:2
- fiber-bearing** 282:22
- field** 21:21 73:2 85:18
98:9 124:9 146:13
216:20 336:22 337:6
337:7,8 358:5,5 398:4
398:17
- fields** 108:19 122:2
- fifth** 94:19
- fighting** 132:16
- figure** 15:16 62:18
130:1 133:15 140:6
148:18 169:13 296:22
334:19 335:14 363:1
363:7 380:17,19
395:12
- figured** 141:1 285:15
- figures** 83:1
- file** 17:1 18:19 77:2 79:5
170:8 194:14,16
357:16 367:7
- filed** 170:13,14,14
- fill** 253:21 302:6
- fills** 253:20
- filter** 178:2
- final** 40:13 84:13
260:14 363:11
- finalized** 278:19
- finally** 22:19 27:1,22
40:14 46:5,16,22
79:18 101:11 117:12
- finance** 92:16
- financial** 94:3 102:22
110:15 191:5,7,10,22
192:2,16 201:6 304:6
304:8 312:22 332:12
333:13
- find** 16:6 24:12 41:5,7
50:19 52:7 56:1,15,17
56:21 57:22 58:3
62:13 67:12 69:8 81:7
82:10 118:5 122:17
126:9 140:10 147:8
147:11,16 149:9
151:9 152:7,18 176:3
178:5 187:11 188:21
189:1 193:17 195:4,6
229:13 233:1 279:12
- 297:2 324:9 358:5
360:21 368:21 370:19
380:15 393:14 400:9
- finding** 41:9 44:18 51:3
67:12 68:4,14 141:6
141:18 148:14 149:14
149:16 272:21 324:4
389:4
- findings** 67:17 216:21
- fine** 84:15 93:21 352:20
- finer** 373:22 376:2
- fingers** 63:12
- fingertips** 330:9
- finish** 380:14
- finished** 146:3 147:3
151:11 157:17 158:12
160:11 162:6 296:22
311:3
- fire** 41:12 197:12
- first** 5:12 16:9 19:4
27:15 36:7,18 41:13
48:18 49:21 64:3
66:12 67:17 71:1
74:13 75:8,13 86:20
87:10 93:12 97:15
99:13 101:21 103:20
103:22 104:1,2
124:19 137:3 140:11
157:6 203:17 206:5
230:12 267:8 285:4
286:12 310:11 338:3
389:12
- firsthand** 310:18
- fit** 56:9
- fitting** 127:11
- five** 16:4 20:8 48:15
70:17 71:6 72:15
109:2 120:15 121:18
140:2,4 148:4,5 185:4
237:6 267:13 353:10
353:11,14,15
- fix** 55:17 223:17 294:17
303:9 311:14
- fixed** 55:14 62:13
187:18
- fixing** 55:19 289:2,4
- flag** 125:3 135:2 161:5
173:9 345:7
- flagged** 344:18
- flags** 173:12 263:2
344:8
- flat** 292:22
- flax** 71:18,18 117:6
- flexibility** 249:6
- flight** 79:5
- flights** 136:19
- floor** 53:15 89:3 214:11
- flow** 102:12 137:20,21
- flows** 101:17 387:1
- flush** 234:11 280:6
- focus** 9:1 18:13,16
23:20 34:20 45:5 92:6
100:15 103:13,19
128:9 139:3 157:10
191:16 192:10 193:3
286:14,18 385:10
393:16 397:3
- focused** 17:8 104:2
139:17
- focuses** 28:4
- focusing** 20:1 94:6
158:3 201:1 327:21
387:4 398:22
- FOIA** 337:5,6
- folks** 99:7 124:12
137:12,19 178:10
203:6,18 232:21
245:15 246:4 250:14
254:1 285:5 287:20
288:2 289:11,12,17
313:14 325:11 328:19
343:4,14 347:19
380:6 396:5 399:11
- follow** 139:15 177:22
194:18 223:22 229:17
252:10 277:22 363:15
394:13
- follow-** 335:18
- follow-up** 53:2 153:3
158:10 170:16 351:21
- follow-ups** 360:10
- followed** 5:14 220:19
- following** 15:6 93:10
177:8 283:3
- food** 23:6 72:2,18 74:8
76:6 79:9 94:1 95:9
112:7 114:6 152:5
158:2 178:22 190:4
264:6,11,14 382:9
390:14
- foods** 2:17 23:14 73:1
91:5,12,15 92:7
- fool** 118:15
- foot** 290:6
- force** 98:5,12,19 116:16
176:2 198:8 296:6
- forces** 29:1
- Ford** 127:1
- foreign** 8:16 87:20
97:22 287:17 327:11
371:22 384:17
- forest** 32:5
- forever** 242:1 272:19
- forge** 298:19
- forged** 184:19 305:14
- forgery** 298:13
- forget** 198:16 341:5
- form** 209:11
- formal** 106:19 389:1
- formalities** 28:5
- format** 109:14 154:18
232:16 334:8
- formation** 207:22
- formed** 226:22
- former** 8:13 238:17
- formerly** 71:13
- formic** 244:5,10
- forms** 376:1
- formulate** 232:22 233:7
304:18
- formulation** 231:5
261:5
- forth** 46:22 49:5 100:20
104:22 107:14 110:11
142:6 258:10 263:8
273:18 278:13 393:21
- forthcoming** 132:9
- fortunate** 4:19 195:20
- fortunately** 29:21
- forward** 4:21 5:5 31:5
33:21 59:10 65:16
98:2,19 100:16
114:22 171:3 177:16
191:17 211:7 216:8
220:15 224:17 241:6
257:21 279:9,14
286:11 305:10 316:22
396:11 400:5
- forwarding** 155:1,2
- found** 67:7 68:20 75:8
79:3 130:19 151:21
177:17 179:8 183:13
212:4 228:10 234:17
242:4 262:5 337:12
- foundation** 31:8
- foundational** 324:6
- founded** 8:3
- founder** 6:13 92:14
- four** 17:14 19:21 35:2
43:14 73:21 94:16,17
97:20 98:8 120:15
121:18 210:6 235:14
284:10 338:12 366:8
382:1,13
- fraction** 52:11 145:5
- fragmented** 92:22
- frame** 196:6 290:12
304:18 355:20
- framework** 7:6
- Francis** 264:21 265:14
265:15
- Francis'** 265:8
- frankly** 42:11 190:19
299:3

fraud 13:9,13,17 20:2,4
22:8 23:19 24:20
25:12 30:2 33:6,8
37:22 39:22 43:18
44:2,13 45:14 49:1,4
49:7,9,15,22 50:11,22
51:8,9,13 52:7,10,11
56:16,17 58:18,21
61:19 62:8,16 75:17
79:20 80:6,19,20,22
81:15 82:12 99:3
100:2 117:15 118:6
124:1 125:18 128:14
132:16 140:10,22
141:22 143:22 149:16
153:1 157:12 166:5
179:1,20 180:5 184:3
191:8 194:2,3,12,12
201:8 292:8,9 295:11
296:1 300:4 314:21
314:22 332:14 341:2
350:15 352:18 367:8
371:1 383:20 397:17
fraudsters 84:6
fraudulent 26:5 27:20
34:2 50:16,18 51:16
75:11 82:16 90:2 93:4
93:8 106:14 115:4
130:2 133:16 134:11
146:20 151:2 167:6
167:19 194:5 196:8
291:19 350:6 352:20
368:7 374:1
free 62:21 390:6
freeze 249:8
freight 154:14
frequency 386:2
frequently 24:15 344:2
344:3
fresh 111:18 114:5
150:17,19 196:14
292:21 314:8 348:18
348:20 371:14
friend 75:22 265:7,8
friends 111:2 220:2
front 175:19 176:20
233:2 283:8
frozen 90:6
fruit 8:15 88:17 149:8
164:8,9 316:15
357:14 365:13 397:18
frustrated 175:6
frustrating 200:11
frustration 195:22
FSMA 94:22 114:11,18
115:14
Fuchshofen 2:16 6:19
15:12 48:3 52:22 53:4

53:8 57:5 62:7 138:2
161:19 162:22 163:3
173:2 176:4,7 188:11
192:22
fuel 73:13,13
fulcrum 290:20
fulfill 18:2,4
full 9:16 32:1 48:1
75:13 79:12 85:6,7
113:5 135:21 136:7
321:11 345:14 366:1
377:19 378:17 380:4
381:17,21 382:4,9
390:5
fully 16:16 29:18 138:5
268:15 396:13
fumigants 347:8
fumigated 298:1 361:14
361:17,18 368:5
369:10,22
fumigation 296:8
358:16 359:16 360:9
360:15,20 361:9,12
361:22 362:10 363:2
363:16,17,17,20
364:3 365:12 369:10
fumigations 361:7
fun 240:5 251:20
function 99:17
functioning 41:19
47:17 288:14
functions 94:15
fundamental 33:3
fundamentally 91:17
funded 92:13 97:22
354:8
funders 92:15
funding 356:9
funnel 178:2,6
funny 54:4,21 336:6
further 6:6 81:1 120:9
226:5 241:10 264:18
270:6 274:17 279:4
282:16 301:21 302:4
fusion 396:11
future 156:19 210:19
214:9 265:2 281:12
392:4 400:7

G

gain 331:12
gaining 312:21
game 161:11 368:19
gamut 227:14
gap 106:15 190:4
gaps 141:20 142:2
gather 182:10 216:2
376:6
gathered 399:15
gathering 142:7 214:7
gauge 49:17
geared 19:22
general 42:16 50:5,6
116:3 117:1 135:1
183:5 223:11 229:8
237:20 239:1 253:16
254:14 258:4,5 259:2
266:2 319:1,14 325:7
337:18 352:5
generally 117:2 119:7
155:5 217:13 234:16
258:22 276:8 286:14
287:8 289:16 295:19
306:11 318:12,21
326:5,7,9 341:21
358:16 371:2 379:12
generated 54:6,7,11
generic 365:14
generously 130:16
gentleman 180:7
genuine 9:22
Georgia 78:7
geotagging 83:12
108:11
germ 62:20
Germany 4:10
get-out 79:17
getting 10:16 13:3 26:1
26:6 70:13 97:1 102:1
103:19 112:6 114:8
138:15 152:19 157:18
182:10 199:14 215:4
272:20 278:13,18
301:10 305:18 315:1
315:13 325:17 328:20
332:5 353:22 369:12
374:10 375:14
GGN 190:2,5 394:10
give 10:13 11:12,13
15:10 18:8 37:8 39:20
46:2 49:14 53:18
109:4 131:1 132:20
142:18 158:5 192:11
196:5 213:2 265:20
266:5 303:9 331:21
335:12
given 16:18 50:13 59:3
90:6 124:12 146:8
157:10 181:22 182:5
200:4 217:19,22
236:4 240:8 254:3
257:22 306:22 316:22
387:5
gives 18:22 30:10
giving 15:2 76:2 97:12
260:2 272:17

glad 15:14 276:3 279:9
global 31:6 92:7 98:12
105:12 190:4 198:7
291:7 325:4,5 331:13
332:4 379:5 384:16
387:22 388:3
Globally 30:11
globe-side 291:7
glucose 229:17
glycerin 3:9 226:11,17
226:21 227:8,15,20
228:2,4,15 229:6,15
230:7,12,20,20 231:3
231:13 232:6,17,22
233:8 256:12
glycerin-based 231:9
glycerins 228:13
glycolic 3:11 247:15,18
248:4,8,12,17,21
249:11,15,20 257:3
260:22 261:12 263:18
267:11 270:4
GMO 151:16,19,20
212:6,8,12 213:7,14
215:1 217:10 348:11
351:1
GMO- 214:15
GMOs 351:2
go 21:12,16 22:21
36:21 37:2 47:17 53:7
53:15 57:9 60:11,20
60:21 65:16 78:4
83:13 85:3 99:5
112:18 114:19 115:18
119:20 129:10 131:14
132:3,7 134:10 155:8
157:5 158:4,17 159:3
164:6,12 170:1,18
173:10,19 176:10
183:19 187:8 189:6
191:1 193:21 194:4
196:16 200:8 202:18
216:7 220:14 229:5
244:16 256:7 259:15
273:22 278:8 279:10
279:14 281:2 285:12
285:15 294:11 297:1
300:13 304:16 311:10
316:22 326:1 333:1
342:3,17 349:8 354:3
357:8 358:1 362:19
366:22 376:8 379:14
379:21 382:3,11
390:10 400:17
goal 273:19 343:6
374:8
goals 14:16
goes 25:7 30:15 85:18

106:8 122:18 149:16
 162:2 202:12 232:8
 243:16 268:20 295:20
 302:20 326:10 347:1
 390:2
going 4:15,16 5:16 6:2
 14:3 15:10 26:19
 31:22 37:3 44:20 46:1
 56:20 57:22 61:2,16
 62:18 64:15 69:16
 70:5,21 77:7 78:20,22
 79:13,15 81:18 84:22
 86:19 88:4,9,12,17,18
 88:19 89:16 91:20
 92:2 94:14 95:6 96:5
 96:18 97:2,6 103:5,7
 103:9,12,20 108:5
 111:5 112:4 118:5,21
 120:7,7,9,12,17 121:6
 122:16,22 123:4
 128:7 129:9 133:19
 134:6,7,13 141:14
 147:21 150:2 157:1,2
 159:3,4 160:6,14
 165:7,21 170:20
 176:1 178:8 180:22
 183:21 187:1 188:16
 189:21 195:2,3,4,5,6
 195:8 197:1,19,21
 198:16 199:8,22
 204:6 215:17 218:14
 219:14 222:17,21,22
 252:10 255:13,14
 257:14 260:12 261:12
 261:16 263:6 272:10
 275:10 280:14 281:14
 281:15,17 283:7
 285:11 286:10 289:19
 294:2,18 295:8,9
 296:9 300:2,20
 303:17 306:5 307:9
 307:22 308:1,8
 310:19 317:14 330:4
 331:18 334:19 335:14
 360:21 361:19,20
 364:3,10 365:6 369:1
 369:3,4 375:5,10
 379:16,22 380:5
 382:9 383:15,17
 388:5 389:12,14
 390:18 391:10 392:2
 392:13,15 393:4
 395:3 397:16,17,21
 399:21
gold 31:6 352:12
good 4:3,18 8:22 11:18
 13:16 14:1 33:5 44:11
 50:7 56:19 80:21 81:3

81:21 84:16 91:4,10
 97:11 107:22 112:17
 113:7 118:3 119:19
 119:19,21 126:22
 128:20 137:17 144:20
 147:3 168:3 172:14
 174:1 176:22 182:21
 190:15 194:1 199:10
 202:6 223:10,15
 230:10,10 232:2
 250:17 254:14 273:3
 275:3,16,17 282:11
 286:1 288:8 294:8,9
 297:10,16 298:21
 325:10,13 330:21
 339:17 340:3 347:1
 348:12,19 350:13
 353:1,3 368:8 371:15
 372:9 375:9 387:18
 388:12 389:6 392:7
 394:1 398:18 399:4
good- 231:18
good-sized 231:19
goods 72:1 82:6 84:4
 111:3 137:20,22
 146:4 157:17 158:12
 179:3,8 289:18
Google 131:15
GORP 126:22
GOSCI 123:17 167:13
 172:11
gosh 193:9
gotten 121:9 134:4
 175:9 185:15 254:1
 336:20 343:11
government 13:20
 104:14 130:20 138:16
 147:19 224:2 287:15
 309:9,10 330:18
 378:21 384:15,19
 389:5
government-created
 287:13
governments 28:10
 138:14 287:17
GPS 188:6,7
grade 228:1
grain 29:11 34:3,6
 71:10 74:16,18 75:15
 80:9 84:20 86:14 92:9
 95:5 105:11 117:2
 123:5,9 132:14
 134:10 141:2 158:22
 159:5 196:21 197:3,6
 197:7,15,16 297:19
 309:2 314:2 327:1
 330:19 345:21 348:17
 350:11 351:12 357:14

367:14 387:4 390:9
 391:18 395:4,6,11,13
grains 40:2 71:15 80:8
 314:9
granola 40:22 109:15
grant 97:22
granular 330:20
grapeseed 40:21
graphics 102:7
GRAS 262:4 264:5
gratitude 201:21
grazing 281:4
great 8:19 23:16 35:22
 37:12 48:10 51:2 52:9
 52:22 58:17 64:11
 97:10 135:8 136:21
 144:19 146:14 180:11
 193:2 202:2 204:18
 218:14 221:9 222:12
 224:17 226:4,7 231:1
 232:19,19 233:1
 236:15 238:3 265:1
 267:4 273:4 293:10
 301:13 334:13 387:11
 388:20 396:16
greater 235:3 287:6
 385:10
greatest 6:4,4
great 251:18
grocery 147:21 367:16
gross 42:4 63:18
ground 33:16 77:11
 106:19 121:13,15,22
 122:11 137:14,19
group 22:13,14 67:3,3
 95:5
grouped 20:22
groups 212:16 225:18
 227:10 249:22 272:14
 274:4
grow 78:7 398:16
grower 42:3 67:3 87:21
 88:1 89:6 148:19
 169:2,7 335:1
growers 114:11 122:1
 137:14 255:19 339:20
 339:21,22 340:5
 395:6
growers' 72:12
growing 69:10 95:17
 96:1 330:22 383:20
 384:6
grown 2:15 34:6 66:9
 72:4,6 85:22 108:17
 108:19 194:16 195:17
 210:21 316:3 384:4
growth 229:2 242:7
guaranteed 260:20

guess 41:13 50:21,21
 51:4 68:2,22 69:5
 77:7 90:13 133:12
 137:7 148:3 156:17
 173:4 186:17 214:2
 215:3 218:17,17
 220:14 231:13 264:12
 276:10 277:15 279:17
 283:6 293:7 315:21
 340:7 345:13 354:6
 370:2 373:21 391:5
guesstimate 331:7
guidance 126:20 164:4
 213:1 278:2,4 288:5
 347:8 389:7
guide 71:11 123:17
guidelines 78:13 116:7
 116:18
GUO 2:3
guy 193:21 362:2
 368:15
guys 15:10 69:17,21
 70:13 136:20 181:13
 193:18 194:1 198:14
 202:7 236:19 250:5
 260:1,5 276:2 282:15
 364:8

H

H2PO 234:14
H3PO4 234:15
HACCP 382:7
hair 366:2
half 85:13 338:12 395:7
 395:13
hand 4:16 46:3 47:4
 136:9 204:3 400:12
hand- 54:6
handful 137:22
handle 9:10 10:4 31:18
 85:20 157:16 294:1
handled 10:7 12:5,21
 109:5 115:9 298:1,9
 365:3
handler 7:6 10:13 11:16
 15:18 16:8 19:9 87:16
 87:17 115:5 128:5
 230:10 301:7,8
 306:20
handlers 3:3 4:13 9:18
 9:19,21 10:20 11:5
 13:1 29:11 86:11
 87:12,15 90:11
 111:22,22 148:20
 153:7,10 155:15,17
 155:19,22 160:8
 301:16 315:5 340:16
 346:21 370:8 385:20

- handles** 164:10
handling 11:14 127:3
 137:16 154:17,18
 160:10,17 161:11
 163:16 226:15 227:19
 228:14 230:5 232:13
 293:15 298:5 312:20
 312:22
handoffs 109:21
hands 111:14 124:9
 134:13 137:13 298:4
 365:4
hanging 397:18
happen 4:15 37:19
 51:19 58:18 88:16
 113:21 195:11 262:15
 299:10 310:20 326:12
 363:6 400:10
happened 144:5 197:3
 363:2,4 371:10
happening 37:4 50:8
 55:12,18 115:12
 125:15 152:18 190:13
 196:4 216:5 262:14
 392:19
happens 23:19 24:2,15
 25:9 61:19 68:16,18
 108:21 201:19 326:16
 369:5
happy 114:11 135:4
 380:22
harbor 75:9 131:17
hard 28:20 33:13 59:8
 63:1 101:7 112:7
 122:3 256:20 340:3
 362:8,10,10 398:6
hard-wired 220:18
harden 92:1
harder 59:14 61:18,20
 199:14 295:22 296:2
 298:18 333:9
hardest 33:7
harmonization 201:12
harmonize 100:21
Harriet 1:13 60:1 70:12
 123:11 153:4 165:1
 206:17 210:8 221:20
 224:5 225:2 226:5
 231:6 232:19 233:8
 236:12 239:20 243:6
 243:18 251:5,6 252:3
 254:3 255:21 258:7
 261:18 267:13 271:3
 275:20 276:17 278:10
 278:16,17 279:5
 282:6 283:10 296:14
 300:22 304:4 320:21
 329:1 332:22 344:5,5
 349:5 350:17 365:20
 370:11 372:3 379:15
 379:15 387:19,20
 391:7 393:6 394:5
Harriet's 278:18 395:15
harsh 260:10
harvest 83:8 85:19
 328:1
harvested 108:20
harvesting 108:21
harvests 325:22 328:4
hat 6:19
hate 231:22
hazardous 234:22
hazards 235:3,10,11
 236:5 249:17
head 133:8 197:22
 366:1
headed 75:4
heading 129:8
headline 94:4,7
heads 76:10 368:11
health 74:8 95:1 208:19
 209:15 216:11 225:5
 225:8,13 236:5
 249:16 257:18,18
 273:12 281:20,21,22
healthy 23:16 218:13
 256:9
hear 5:12 15:8 21:7
 28:13,14 81:8 91:3
 95:15 100:15 108:10
 112:5 123:20 166:22
 177:19 206:22 207:1
 213:22 219:19 245:6
 246:3 248:20,22
 249:3,14,22 267:4
 268:9 276:14 292:13
 299:19 320:7 327:10
 332:10 334:2 345:12
 390:3
heard 5:3 22:6 23:9
 35:1 80:18 84:20 99:7
 129:21 194:17 202:1
 243:9 251:22 252:9
 259:22 268:14 286:22
 292:18 298:19 303:14
 305:12 310:17 320:5
 327:1,9 346:20
 351:22 358:9 364:17
 367:3 381:13 383:15
 384:8 393:1 394:2
hearing 49:2 193:15
 279:4 300:15 320:12
 338:10
heartburn 317:21
heartening 48:20
heat 226:20 363:19
heaviest 89:13
heavily 220:4,5
heavy 277:1
heck 198:14
hectares 40:9,19
heightened 100:8
 181:18
Heitkamp 2:17 72:21
 91:3,8,10 96:7,9
 123:15 134:16 135:9
 135:15 145:1 166:16
 182:14 183:6
Heitkamp's 320:9
held 73:11 79:20
 315:14 343:18
help 30:1 44:2,13,15
 46:19 78:6 97:16 99:2
 108:9 114:15 119:21
 120:7 127:2,4 144:2
 146:7,11 150:2,2
 155:12 172:21 174:8
 177:21,21 178:2,14
 184:21 189:15 218:14
 222:1 240:7 249:5
 259:19 260:2 282:9
 301:17 302:5 305:2
 324:11 332:15 353:18
 365:18 379:18 380:22
helped 29:2 47:8 279:2
helpful 34:16 44:1
 45:10 100:11 101:3,8
 105:4 107:14 118:1,4
 121:10 144:14 151:10
 170:7 172:17 188:5
 233:15 246:4,5 285:7
 290:4 381:4
helping 172:10 240:10
 278:12 279:17 297:11
helps 17:21 28:5 30:5
 44:11 102:7,12
 186:10
herbicides 122:6
herd 259:20
hesitated 265:19
hey 311:8 323:14
Hi 204:5
hide 118:14
hiding 248:15
hierarchy 24:16
high 17:14 19:11,22
 21:3 51:11 52:6 56:10
 56:10 60:14 61:1,1,1
 61:7 69:2 78:14
 133:21 138:16 142:11
 145:17 148:11 180:22
 201:14 218:6 220:10
 224:7 225:7 251:12
 285:17 286:4 325:11
 332:12 335:11 372:2
 373:3 376:17 398:2
 399:6
higher 20:18 23:10
 24:18 52:14 125:12
 166:10 182:1 235:3
 348:3
highest 142:13
highlights 98:17 369:19
highly 21:4 36:9,9 47:4
 109:3 183:7 307:11
hired 192:3 327:14
historical 282:11
history 71:22 291:22
 319:13
hit 319:20 377:1
hits 377:11
hive 245:19
hives 246:1
hold 96:22 120:13
 167:22 196:2 211:19
 290:12 372:10 373:2
holding 160:3 290:14
 367:1
holds 6:20 73:16
hole 166:21 253:20
holes 31:17
home 368:21
homes 303:14
honest 62:10 190:21
honestly 57:1 138:3
 147:6 364:4 374:18
 375:13
honey 242:10 244:22
 245:21
honeybee 246:10
honeybees 242:19
 243:4 246:13
honor 28:17 34:18
hop 338:15 347:12
hope 20:6 275:18
 295:16 312:19 400:9
hopefully 97:7 100:16
 195:7 246:3
Horticulture 72:20
hot 23:12 43:9 320:15
 361:5
Hotel 1:9
hour 21:10 74:20
 108:22 136:16 159:10
 202:20
hours 114:1 159:14
 366:8 382:1,1,13
house 62:20 104:21
 106:6
houses 220:11
housing 222:3
How's 154:13

HS 74:5,5 101:13,13
 102:21 104:7,8
 106:21,22 107:8
 124:19 125:3,16
 134:21 289:15
huge 23:17 27:3 42:20
 51:22 94:2 152:20
 218:12 301:4
human 42:17 121:12,21
 137:10 290:22 291:2
humane 209:7 266:14
 266:17,19
humor 264:21
hundred 74:17
hundreds 21:15 131:7
hurdle 200:21
hurdles 354:11 389:8
hurt 50:2,4,9
hydrated 3:10 237:6,12
 237:15,18
Hydrogen 260:9
hydrolysis 226:13,19
 227:1,6 228:4
hydroxide 226:22

I

Ibach's 390:13
ice 370:16
ID 160:22 161:5 188:4
 371:17
Idaho 180:7
idea 50:7 62:5 122:10
 128:20 143:10 150:12
 163:11 183:6,7 196:5
 198:19 199:16 216:7
 290:15 304:6,20
 311:11 325:10 373:6
 386:18 395:16,17
ideally 95:7 101:2
ideas 5:5 61:22 356:19
 356:20,21 380:11
 387:14 389:6
identified 10:17 11:2
 66:12 98:18 131:19
 161:6 186:5 193:18
 193:19 194:5 345:5
 345:10
identifies 100:7 131:11
 142:11
identify 19:22 92:5
 98:15 105:22 106:4
 131:8,20,21 141:19
 146:7 181:17 187:22
 302:5
identifying 102:14
 107:6 130:4 131:9
 289:16 348:21 394:21
 399:12

ignorance 246:8
ignore 236:21,21
 317:18
ii 207:10 283:6
illegitimate 146:11
imagine 49:6,12 291:2
 361:6
imbalance 225:5
immediate 196:22
 391:12,21
immediately 34:7 73:4
 164:1,5 177:13
 183:10 185:6
immense 85:21 364:17
immune 210:18
immutable 299:10
impact 122:18 229:10
 317:4 362:17 371:8
 393:18 394:1 399:1
impacted 254:2
impacting 393:2
impacts 346:9 365:7
impermeable 85:9
 112:1 309:18
impetus 338:1
implement 62:2 164:5
 271:22 343:8
implementable 327:6
implementation 14:11
 94:21 212:19 274:10
 299:9
implemented 6:12
 214:1 277:11 351:5
implementing 47:17
 386:9
import 3:15 4:8 5:1
 11:21 29:10 97:17
 135:1 181:13 182:4
 182:16,18 183:14
 184:6,11 244:20
 284:22 285:22 314:14
 318:12 319:3,11,12
 358:13,15 359:3
 371:10 372:6 373:2
 384:21
importance 101:12
 286:19 346:20 387:5
 399:1
important 52:2 65:6,10
 81:6,10 82:2 83:21
 84:1 88:8 89:20 91:6
 91:13 102:17 115:20
 138:15 146:2 178:11
 183:1 184:22 191:17
 199:3,7 200:16 207:4
 209:7 251:22 288:12
 294:14 297:17 323:22
 325:14 340:16 349:7

364:22 365:22 387:3
importantly 100:12
imported 9:12 11:15
 12:13 32:18 34:3
 79:19 86:9 97:18
 105:21 135:11 148:22
 315:1
importer 32:12 77:13
 83:17 84:3 109:9,11
 309:6 341:2 359:8,10
 360:4
importer's 306:18
importers 3:2 4:12
 22:17 29:8,12 86:16
 99:11 119:10 123:21
 155:8 306:6,10,12,21
 307:11,13
importing 71:22 96:10
 125:7 197:16 309:5
 314:15,20 371:12
 394:20
imports 16:12 29:6 30:1
 40:1 52:11 93:8 95:14
 95:16 96:2 98:5 102:6
 105:6 107:11 121:18
 141:2 154:6 185:8
 198:2 284:22 286:14
 313:10 391:18 394:17
imposed 354:9
imposing 100:12
impossible 65:16
 126:12 332:14 366:18
impressed 366:1 381:5
 396:6,22
impression 49:15
 185:15 200:3
improperly 357:13
improve 9:5 29:10
 31:22 44:11 78:17
 99:21 172:18 187:7
improved 100:18
improvement 5:5 30:18
 42:22 201:18 312:11
 357:5
improvements 14:4
 18:1,3 187:6
improving 100:6 153:2
 305:17 320:18 357:7
in- 42:11 123:21
in-market 147:18
in-person 124:5,15
inability 371:17
Inaudible 28:11
inbound 32:18
Ince 75:12
incentive 3:16 148:9
incentivized 126:9
incidence 52:3

incidences 157:12
incidents 217:2 223:6
include 9:4 64:12,13
 86:4 92:22 156:5
 160:21 185:8 207:17
 286:16 322:15 352:7
 361:9,10
included 225:16 260:16
 312:16
includes 8:5 82:10
 86:21 98:1 264:5
 342:20
including 8:12 43:2,11
 82:14 180:6 201:5
 307:21 325:12 342:6
 365:3 371:16
inclusion 229:22
incompatible 249:17
inconsistencies 385:8
inconsistency 6:17
 13:14 212:4,19
 215:21 216:4
inconsistently 214:1
 277:11 278:6
incorporated 71:5
 347:21
incorrectly 102:15
increase 36:6 52:5
 125:21 137:21 138:8
increased 80:15 107:11
 138:9 369:19 385:22
 390:4,21
increases 81:3 121:18
increasing 33:2
incredible 201:22 400:4
incredibly 48:19 95:22
 178:11 340:19 341:17
 362:1 396:6
independent 7:1,8
 15:15 362:21 386:22
India 37:10,14 38:1,5
 67:14
Indiana 75:10
indicate 38:7,11 384:6
indicating 34:13
indication 51:3 348:3
indicator 55:15
individual 42:3,3 59:15
 67:5 210:17 213:10
 221:5 321:1,21
 326:22 327:3 351:21
individuals 4:9,20
indoor 205:13
industries 224:2
industry 5:15 20:12,16
 22:8 50:1 70:1,15
 91:19,20 92:19 93:10
 93:17 94:8,11 96:1

- 98:6,14 100:1,9
102:19 105:11 107:15
112:11,17 134:2
161:13 167:4,9 168:6
170:19 172:10 179:5
199:4,11 214:20
221:18 222:14,15
227:15 231:8 245:11
295:3 311:21 316:10
346:5 396:6
industry- 198:8,10,20
industry-driven 199:16
industry-wide 98:22
100:22
ineffective 145:14
inert 261:4 263:13
inertia 30:22 36:7
inerts 261:8,19 262:1
262:21 263:14
infection 210:19
infections 210:13
infested 238:19
inflammation 208:19
209:9,12
influence 216:22
influencing 395:9
inform 185:6 320:17
information 26:7 31:7
31:14,20 34:8 35:2,22
36:4 37:11 54:10,12
63:21 64:8 76:3 78:19
102:6 113:17 115:7
115:17 130:10 132:17
132:20 133:1 135:4,6
142:7,14 166:22
167:5,15 168:15
169:20 170:15 177:15
186:13 194:10 213:21
214:8 216:3 250:17
285:8 286:5 293:3
304:22 305:18 325:6
327:7 330:1 335:3
337:3,4,8,21 339:14
341:20 346:22 352:1
365:22 388:6 391:20
399:14
information-sharing
359:1
informative 48:19
informs 266:9
ingrained 20:11
ingredient 92:9 219:4
289:8
ingredients 2:14 17:15
18:15 71:13,16,22
95:9 109:16 119:9
176:1 205:12 261:5
263:13 264:2,3,6
296:21 297:2,4
inhalant 260:10
inhalation 235:6
inherent 199:18
initial 82:9 184:18
initially 179:9
initiated 5:7
injured 49:22
inklings 178:22 179:4
inoculation 220:13
input 276:11 281:15
285:6 296:19 334:9
400:8
inputs 16:12 237:16
281:21,22 282:1,13
insects 246:15,18
insemination 240:4
inside 21:22 280:1
insight 346:8 392:7
insights 2:16 6:20
347:17
insignificant 51:19
inspect 159:2
inspected 11:10 155:4
176:9,12
inspecting 52:7
inspection 5:14 7:7 8:6
17:6 18:12 20:9 25:19
25:20 53:14 58:2,15
61:9 78:10 174:2,4,11
192:7,16,17 193:7,8
201:13 310:18 311:2
321:2 334:7 355:7,10
355:11 356:6 382:2,5
inspection-generated
352:4
inspections 16:4 20:12
20:17,19 29:15 47:19
55:18 56:7,15 88:4
126:13 160:13 162:15
164:15 173:2,4,6,7,15
189:13 192:10 193:3
251:11 310:4 313:20
322:16 348:5 350:22
355:3 356:4 383:2
inspector 3:15 6:2,19
7:1,7 15:16 19:3
21:20,22 24:5,7,19,20
72:17 166:7 192:1
201:14 277:3 281:13
303:15 304:7,9,10
332:21 335:20,21
381:13,16 382:18
inspectors 7:9 13:11
15:20 19:7,9 20:13,22
21:4 22:4 24:10,11
33:16 35:17 40:18
41:6,7 47:19 55:9
56:2,6,18,19 126:6,11
141:15 173:12 201:12
302:9 332:19 382:11
385:12,14 386:8
install 62:18
instance 214:22 217:20
239:9
instances 50:18 179:7
381:15
institute 46:21
instructed 40:9 323:5
instruction 322:8,12
324:2
instructions 40:11
288:6
instrumental 102:13
insurance 73:1 330:2
330:15 385:4,4
intact 373:2
intake 177:3
integrate 190:1
integrated 124:8 190:6
integrating 36:5
integration 42:22
integrity 4:22 6:17 18:5
23:22 24:13 25:3 30:4
30:20 31:6 37:17
42:12 96:14 98:12
138:15 161:16 186:9
187:8 195:14 198:8
199:6 298:4,6,17
299:1 307:8 311:12
312:14 317:1,16
318:16,19 322:6
329:9,12,17 333:15
336:15 338:4 340:10
345:11 371:1 386:7
388:4 395:10
intending 127:18
intends 27:7
intensely 327:20
intensity 223:14
intensive 335:2,8
intent 96:13 143:4
intentions 126:14
interaction 223:6 309:8
interchangeably 292:3
interdependent 389:4
interdisciplinary 396:3
interest 80:15 228:7
373:11
interested 41:9 55:8
111:15 132:13 144:10
180:4 295:12 299:8
374:10
interesting 49:20 62:5
66:10 112:11 229:14
290:17 292:11 304:6
330:17 346:7 348:6
373:13 374:7 387:9
interests 138:14
interfere 26:4
interfered 197:4
intermediaries 22:16
22:18 201:7
intermediary 22:15
intermediate 140:15
148:20
internal 39:14 45:8
240:15 386:3
internally 355:14
international 6:14,21
7:9,16 8:11 46:9,14
73:20 74:6 97:14
101:15 104:13 106:8
190:2,3 384:12
386:20 398:10
internationally 137:18
interpretation 256:21
interpretations 386:10
interpreted 258:1
277:12
interrelated 306:4
intersection 53:9 92:4
intervention 223:19,21
intestinal 241:2
intrigued 121:19 122:9
intro 14:8
introduce 6:1 70:16
247:16
introduced 177:11
introduction 75:21
132:18
introductions 103:5
intrusive 335:10
invaluable 29:1
inventory 85:15,17
294:2
investigate 26:12,13
149:2 152:12 177:13
179:19 337:22
investigated 129:15
152:19
investigating 180:4
investigation 26:17
43:13 55:1 58:20
75:21 76:2 105:8
106:20 177:6 181:9
200:4,6 352:10 353:6
355:5 385:7
investigations 31:10,12
31:17 32:9 33:19
180:2,16 200:11
384:13
investigative 43:2 57:7
57:7 75:20 353:9

384:14,22
investing 95:12,19
investment 93:19
 189:20
invite 338:15
invited 144:4
inviting 15:13 21:9
 167:4
invoice 302:17
invoices 38:16
involve 111:11
involved 7:14 9:18 11:8
 23:2 38:13 75:19
 79:21 142:12 167:19
 195:19 334:15 380:20
involvement 334:11
involves 9:7 24:17
iodine 249:9 260:7
IOIA 15:14
Iowa 339:15
isolate 220:6
isopropanol 3:7 207:10
 207:20
isoproponal 207:17
isopropyl 205:11 207:5
 207:16 208:1
isotopes 384:5
issue 18:7 20:8 27:15
 32:14 63:11 79:11
 83:4 86:2 89:14 91:20
 93:22 94:10,13 95:14
 115:3 116:4 130:14
 137:10 140:10 162:1
 174:17,22 178:19
 179:6 194:4 202:6,7
 212:17 213:18 216:4
 216:6 257:18 259:18
 260:3 262:21 266:1
 280:2 286:11 289:7
 296:19 308:9 313:21
 314:14 315:8 316:9
 316:11 317:10 321:5
 323:12 324:17 333:19
 339:10 341:1 346:2
 348:17 368:21 381:13
 392:15 395:1
issued 32:16 169:22
 260:13 376:19
issues 5:18 7:5 8:11
 14:21 25:16 29:17
 41:18,20 43:2,15,19
 85:1 92:18 103:14
 139:4 141:3 176:2
 196:18 262:9 282:13
 295:19 297:19 314:9
 317:1 322:4 324:1
 341:2 348:20,22
 364:19 365:2,11,19

370:4,10,17 371:1,20
 391:17
Istanbul 75:14
Italy 328:17
ITC 104:14 105:1,8
item 226:7 243:20
 247:15 265:12 267:4
items 33:20 50:11 86:5
 107:13,16 140:17
 168:19 202:9 204:7
 247:6 253:5 255:6,14
 262:11 271:1 309:5
 355:2 377:20 400:8
 400:14
IV 229:17
ivermectin 271:10,20
 272:1
ivermectin's 272:10

J

jail 180:9
Jake 2:18 7:22,22 8:10
 28:14 34:21 35:8
 37:12 39:21 41:13
 48:22 55:10 63:16
 69:15 116:6 145:20
 151:5 157:6 158:16
 168:7 181:15 189:6
 191:9 193:1 194:17
 335:4 394:10
January 271:21
Japan 184:16
Jean 278:17
JENNIFER 2:4
Jenny 65:18 66:2
 136:13 178:15 180:13
 318:14 336:7 338:14
 342:4 354:7 360:6
 363:15 369:6 372:5
 376:13 380:3 383:4
Jesse 1:15 36:20 39:21
 205:2 206:13 207:12
 208:15 270:5,7
 283:10
Jesse's 41:4
Joan 176:19
job 47:1,5 56:4 194:1
 259:12 279:18 362:3
jogged 291:12
John 2:13 71:1,2 74:13
 74:14 80:3,5 122:13
 122:14 128:22 129:16
 157:6 158:18 193:16
 196:20
John's 83:1
join 392:5
joining 73:4 392:11
journalist 45:17,22 46:5

journey 5:22
Joyce 127:1
jump 65:20 96:19
 150:18 233:10 300:12
jumped 393:9
jumping 183:18
justification 257:9
justified 92:16
justify 276:12

K

Kazakhstan 40:4 75:5
 77:22 78:5 331:1
keep 23:18,22 52:19
 58:2 60:2,6,21 164:19
 193:15 195:8 206:21
 236:8 244:19 255:14
 290:19 305:10 306:2
 316:13 320:19 338:21
 364:8 375:6 392:6
 393:1
keeping 60:8 69:18
 83:22 100:3 203:18
 330:19 399:2
keeps 256:9
Kentucky 71:8
kept 196:18
kernel 77:12 123:6
ketchup 66:6,9 67:1
ketosis 229:18
key 44:3,21 97:18 98:17
 100:15 106:4 107:6
 107:13 123:17 147:17
 184:20 201:17 293:22
kick 35:6 368:13,14
kidding 310:12
killed 211:5 215:1
kind 32:4,7 34:15 35:15
 41:20 42:8,22 46:13
 49:16 54:9 55:1 58:6
 59:7 61:8 63:8 64:21
 95:2 102:4 104:1
 105:3 106:1 108:11
 114:21 116:15 124:12
 125:12 127:3 131:3
 134:17 137:8,11
 139:8 140:15,22
 141:11 142:15 144:15
 144:15 146:19 147:1
 147:9 149:20 150:10
 153:1,10 168:18
 173:17 174:6 179:15
 181:5 182:12 186:20
 188:17 189:2 190:13
 190:21,22 191:5,13
 192:12 213:1 214:5,9
 216:2 219:4 220:16
 225:21 240:15 244:14
 244:16 245:5 250:2
 252:6 256:15 266:9
 280:20 285:15,20,21
 287:2 288:16 294:15
 295:18 303:9 306:5
 307:21 309:15 310:19
 314:9 317:3 318:16
 318:18 321:4 322:2
 323:9 327:19 328:10
 329:16 338:11 339:3
 340:20 341:4,5 342:2
 346:22 350:9,12
 353:18,19 354:11
 358:6,8 360:7,18
 361:4 363:22 371:9
 372:4 373:14 376:15
 378:12,16,19 380:4
 380:10,15 381:10
 383:8 384:1 385:18
 386:7,17 388:14
 390:1 392:12
kinds 222:19 314:3
Kingdom 76:9 77:6
kit 253:18
knew 132:6 195:12
 196:7 250:13 323:1
 382:8
know 10:15 11:9,22
 12:1,5,11 13:2 14:3
 14:17 15:5,11 16:19
 19:3 22:6 25:10 26:18
 35:12,16 36:21 37:19
 38:3,5,22 39:5 43:17
 44:17 45:3 46:15
 48:13,20 49:17 51:4
 51:10 52:19 53:10,12
 54:1,5,7,20,21,22
 55:7,12 56:17,20 57:6
 57:8,9,15,18,21 58:1
 58:7,10,10,11 60:10
 60:11,13,19 61:3,21
 62:2,12,15,20,21 63:1
 63:3,4 64:17 66:7,14
 66:15 76:11 77:3 78:4
 82:22,22 83:2 84:20
 94:9 100:19 104:3
 107:5,21 108:4,17
 111:7 112:5 113:8
 120:19 121:6 122:2
 126:8 129:8,21
 131:17 132:16 134:11
 136:20 140:13,15,16
 140:21 141:2,6,8,9,11
 141:17,22 142:4,14
 142:17,20 143:21
 144:2 145:22 148:6
 148:12,19 151:2
 155:7,9 156:2,8,9,22

157:1 161:21 162:1,2
 162:5,7,8,9,13,15,18
 163:11,22 164:14,16
 164:19 165:7,13,19
 166:9,14 168:3 169:3
 170:16,21 171:17
 173:9,10,11,14,21,21
 174:3,5,6 175:5,6
 176:10,14 177:7
 179:10 180:10 181:4
 183:14 185:22 186:14
 187:1 188:12,16,20
 189:3 190:15 193:3,8
 193:10,12,19 194:12
 195:13 196:6,14
 199:10 200:19 202:8
 206:19 215:7,17
 219:20 221:8,18
 222:1,3,3,7 223:5
 225:21 227:13 230:7
 233:6 243:11,15
 244:9,15 245:17,22
 247:4 250:15 251:15
 251:18 252:18,21,22
 254:18 256:10,15,16
 259:15,15,20,22
 260:1,2,6,8,12,13
 261:3,9,10,11,16
 262:2 265:6,18
 272:10 277:10,22
 278:16,19,22 279:1
 281:7 290:5,6 292:6
 292:10,14,15,21
 293:14 294:1,3,5,6
 295:15 296:8 297:16
 298:3 299:19 300:6
 300:14,16 302:5
 307:4 308:15,19
 309:17 310:10 311:6
 311:6,8 313:9,16,17
 313:17 314:3,15,16
 314:17,19,19,22
 315:6,10,18,22 316:3
 316:5,8,14,16 317:2
 317:19,20 318:4,5,6
 322:19,21 323:4,10
 324:2,17,21 326:7,8
 327:18 328:19 329:9
 329:21 330:2,16
 331:11,13,15 333:3,5
 334:21 335:4,8 336:6
 338:17 339:5,8
 340:21 341:4,10
 342:4,6,9 344:9
 345:16 346:7,8,16
 347:20 348:1,16
 349:1 350:14,21
 351:8 352:3,11

353:10,13 354:4,10
 356:11,13,17 359:22
 360:6,7,19 361:16,21
 363:4 366:6,6,8,16
 367:13,18,19 368:6,6
 368:18 370:3 372:6
 373:7 374:2,5 375:5
 376:9,10,14 377:7
 378:5,11 379:17
 380:1,3 382:5,14,20
 387:7 388:7,16,20,22
 389:3,8,9,17,18,20
 390:3,6,12 392:13
 393:3 394:17,19
 395:3,9,18 396:18
 397:5,6,9,13,15,19,20
 398:14 399:6,11
knowing 60:20 124:10
 331:13 367:3 377:15
 390:15
knowledge 82:21
 195:16 359:5 376:8
 388:9 396:14
knowledgeable 336:1
known 80:6 110:8,9
 196:3,3
knows 75:18 83:17
 192:14

L

lab 121:1
label 11:7,8 14:14 89:19
 90:7,9 92:8 113:18
 115:8,16 156:11
 158:7 161:13 162:16
 162:17 163:6 168:17
 168:20,21 169:6,14
 171:19 174:17,17,18
 174:20,21 175:2,9,11
 175:20 176:11 246:9
 246:10 291:13 296:6
 300:8 308:21 367:13
labeled 113:11 124:21
 158:13 160:11,15,15
 246:15,18 295:6
 367:5 369:21
labeling 88:14 89:15
 112:10,12,22 114:20
 115:7,19 157:2
 241:20 242:14,16
 246:12 287:11 293:2
 293:2 302:12 365:2
 365:19
labels 112:14 162:19
 165:13,14 168:15
 171:13 174:20 175:13
 175:14,16,17,22
 194:19 292:20 344:1
 368:1
lack 25:1 93:1,1,5
 306:15 366:11
lacking 139:10 375:21
LaCrosse 130:16
lactation 256:7
lading 302:18
land 234:7
landscape 220:9,17
language 107:20
 169:12 213:7 272:17
 272:17 273:8,12,20
 274:7,13,14 275:8,19
 278:12
large 31:2 34:3 40:1,8
 51:17 62:6 66:6
 200:21 208:1 324:15
 342:7 362:17 396:2,3
large-scale 205:18
largely 145:7
larger 25:16 145:12
 165:18 324:19
largest 8:2
lastly 102:17 126:17
 329:21
late 330:20
Laughter 150:13
Laura 181:8
law 179:14,18 180:3
 311:18 312:5,6 313:3
 313:4,5
laws 313:6
lawsuit 75:1
lawyer 375:10
layers 248:14
lays 371:11
lead 43:17 50:19 139:19
 139:20 265:17 277:5
 277:7 285:2
leader 6:11 92:14
leading 74:1 319:13
leads 51:5 137:22
 378:20
learn 177:18 328:10
learned 129:5 334:11
 361:1 372:8 381:9
learning 60:16 362:19
 364:4
leave 40:13 69:22 84:10
 136:19 223:7 230:17
 243:13,14 275:5
 313:13
leaves 77:18 146:14
 159:16 252:20
leaving 115:14 186:15
 190:20
led 71:14 73:4,9
ledger 124:3 299:10

leery 117:16
left 74:20 86:22 132:5
leg 233:14
legal 39:13 65:1 76:18
 77:20 178:22 181:19
 200:19 337:12 355:21
 357:2
legislative 64:22 65:21
 181:11 182:6
legislators 104:21
legitimate 77:1
lemons 88:11
lenient 185:21
lentils 71:19
lessen 282:12
lessening 210:15
 271:14
lessons 334:11
let's 13:10 24:3 35:13
 36:18 58:1,2 78:8
 84:7 103:17 108:15
 108:18 135:20 137:5
 180:10,19 182:11
 219:7 229:5 254:4
 294:3 302:16 320:7
 368:5,6
letter 46:20 106:7
 256:22
letters 32:4
lettuce 149:13
level 21:3 29:15 33:3
 51:9 58:16,16 65:2,17
 82:8,9 85:5 110:14
 118:12,19 133:20
 138:16 149:17 152:8
 155:10 177:8 185:5,9
 195:15 285:17 286:4
 290:6 300:17,19
 312:17 317:22 330:20
 331:8 332:12 335:2
 338:7 350:15 359:6
 372:2 378:1 398:3
 399:6,12
levels 21:1 40:11
 117:10 357:7,9
 372:10
levy 374:18,22 375:9,16
Lewin 2:18 7:22 28:15
 28:16 35:21 41:22
 49:19 55:20 64:3 65:5
 68:2,10 145:21 151:8
 157:7 179:7 181:16
 189:7 191:10,12
Lewin's 8:4
LEWIS 2:6 358:2
liability 301:22
liable 372:22
lice 238:20

licensed 161:21 309:9
lie 118:7
life 24:2 53:11 62:22
 85:14 134:2 217:22
 225:8,9 281:3
light 50:8,12 272:22
 315:9
liked 47:15
LIMA 1:15 268:10
 269:20 270:16 283:20
 392:12
lime 3:10 237:6,12,15
 237:18
limit 159:11 186:2
 273:13 354:17
limitations 116:11,19
limited 117:2 126:12
 309:17 376:16
line 69:12 79:6 100:17
 162:4 166:4,17,21
 167:9 170:5 180:21
lines 100:5 125:13
 308:1 325:9
lingering 137:3
link 59:16 89:19 113:15
 251:15 360:18
linkage 55:6
linked 19:13 188:4
 223:2,13 257:19
linking 113:18 292:19
 293:8 385:14
links 293:12 299:1
liquefied 109:13
liquid 109:14 180:8
Lisa 1:15 317:20 387:20
 391:6 392:11
list 11:19 69:19 92:18
 98:16 101:19 107:22
 108:16 188:16 206:22
 209:20 211:8,13
 213:9 217:15,21
 222:9 229:6 230:1
 232:14 244:5,12,14
 249:11,20 252:15
 253:5,6 255:13,20
 257:4 268:19 269:7
 271:21 281:15 287:15
 287:17 303:18 305:9
 325:12 345:14 347:6
 359:15 364:15 383:15
 387:19
listed 113:16 132:8
 227:13 230:9 242:8
 243:3 300:9 329:8
listen 275:19
listening 300:6
listing 89:22 113:7
 115:6 208:17 210:3

211:8,15 215:19,22
 224:22 226:11 227:20
 229:14 234:4 235:15
 238:8 241:18 247:4
 248:17 249:15 269:7
 270:3 271:9 343:22
 347:6
listings 233:21
lists 175:2
literally 131:7 362:4
little 11:6 28:5 38:9
 47:22 48:2 54:4 60:11
 66:12 67:3 78:13
 84:19 91:16 94:15
 98:20 101:7,9 102:18
 114:4 116:22 117:16
 119:1 123:16 129:3
 140:22 151:6,13
 156:10 158:20 159:22
 166:21 184:8 194:9
 204:1 206:12 210:11
 230:5 233:14 254:19
 260:5 263:8 276:15
 277:22 279:3 289:1
 293:22 315:12 321:10
 322:7 330:7 340:20
 342:5,22 355:14
 382:22 386:19 396:17
live 53:11 211:5 334:6
lives 310:5
livestock 3:5,12 74:16
 151:20 203:10,13,17
 204:4,6,12 205:21
 206:7,19 208:7
 209:17,19 212:10
 216:12 222:15 225:5
 226:12 230:11 234:7
 238:15 243:17 246:21
 247:2 261:20 263:15
 265:2,7 266:15 269:8
 271:3 273:9,12,17
 278:3,5 279:8 284:7
 314:8,11,12 315:6
 336:2
LLC 2:14,18 8:2
load 77:4
loaded 160:3,8
loading 127:6 154:19
 159:7
loads 60:20,21 61:6
lob 354:6
local 24:5,7 46:11,16
 121:22 137:15 237:5
 238:7 241:17
location 17:3 101:2
locations 188:8
lock 301:20
log 159:11 336:18

logging 100:2
logical 52:10 114:10
 273:20
logs 78:21 159:10,11
 384:21
long 13:21 14:3 22:10
 22:16 43:9 49:4 149:1
 178:4,13,18 195:18
 196:19 200:8 262:3
 271:7 300:3 310:10
 315:8 325:18 341:10
 341:10 382:10
long-standing 124:15
long-term 343:6 391:11
 392:3,15
longer 56:15 173:6
 319:18,19 394:9
longing 138:20
look 5:5 20:3 30:6 34:5
 34:11 35:15 37:1
 40:19 54:14,15,22
 55:2 57:17,20 58:2
 63:15 76:16 86:17
 87:9 96:21 98:2,18
 103:1,21 108:15
 110:21 137:18 140:16
 145:2 152:22 163:21
 164:6 174:8 188:15
 189:8 190:20 193:4,5
 193:10 208:11 212:18
 216:6 246:9 281:14
 291:1 297:3 309:15
 321:19 328:10,18
 329:10,12 345:7
 354:18 356:11,13
 377:2 387:10 390:14
 390:16,17 394:9
 395:9 400:4
looked 54:4 177:3
 213:17 244:21 307:12
 314:8 329:20 392:1
looking 4:5 16:10 50:22
 57:21 59:6 82:19
 87:14 92:15 96:11
 97:16 110:17 111:20
 115:13 147:11,12
 196:17 199:9 215:19
 217:12 224:17 232:5
 247:1 253:12 256:8
 259:1 261:1,6,14
 266:22 280:7 281:10
 284:9,20 296:20
 297:8 301:18,21
 302:12,15 304:13
 324:1 326:9 336:11
 339:15 354:15 358:15
 369:9 370:9 371:9
 378:3 388:7 395:22

399:11
looks 87:9 89:4 104:15
 170:10 305:5 325:1
loop 137:4
loophole 307:18 318:2
loopholes 128:3 297:20
 311:14 324:11
loose 69:13 322:7
lose 69:14 133:10
 222:22,22 232:2
 369:5
losing 25:4,4 120:15
 223:19 366:21 371:22
loss 387:6
losses 94:12
lost 117:11
lot 5:19 23:6 30:17 33:8
 33:16 35:3 36:10,11
 37:10 39:14 47:14
 51:1 55:5 62:10 69:13
 69:14 80:20 81:9,14
 81:22 82:11,13 84:20
 84:21,21 86:5,6 93:14
 98:9 102:6 103:13
 108:17 111:2 112:15
 112:16,16,20 113:19
 114:20 119:10 120:7
 121:20 134:10 138:21
 142:5,6,6 143:3 150:2
 155:7 169:8 173:5
 176:20 177:4 190:14
 196:16 200:18 201:3
 206:19 218:7 222:14
 250:9 251:11 256:5
 256:10 275:17,19
 278:22 285:12 286:14
 286:15,18,20 287:19
 288:2,22 289:2,9,14
 289:20 290:3 291:6,8
 291:9 294:19 295:2
 297:7,19 302:14
 305:11 307:7 309:13
 310:4 312:7 313:5
 314:1 316:13 320:7
 323:19,20 325:22
 327:5 328:7 333:7,8,9
 334:14 338:1 339:15
 339:20 340:13,15,22
 341:13,20 342:11
 343:13 344:2 345:21
 346:5,19,21 348:10
 348:14 349:10,20
 353:15,16 356:19
 358:21 359:19 361:2
 361:3 364:21 371:15
 376:2 378:3,20 381:9
 381:21 383:14 385:21
 386:5 392:6 393:1

395:13,20 398:18
lots 68:11 94:4 222:5
 297:3 302:9 326:2
 362:7 376:17 377:7
Louisiana 71:8
love 107:6 121:14 141:9
 169:19 290:2 320:6
 331:11 334:13 380:15
lover 331:10
low 40:11 50:20 51:16
 152:8 156:5 220:13
 225:7 335:9 357:7,9
lower 52:3 220:11
 357:16
lowest 57:3 397:17
loyalty 24:6
LT 221:12
lubricant 238:9,16
 239:4 240:3,9,14
luckily 90:12 195:16
lunch 136:17 200:1

M

mad 79:16
magic 118:21
magnesium 225:7
main 128:9 235:12
 245:19 362:11
maintain 225:4 298:6
maintained 298:5
 312:14
maintaining 18:5
 288:11 311:12 334:15
 345:11
major 69:9 87:1 105:12
 157:11 158:16 179:18
 382:6
majority 29:17 66:8
 70:12 221:1 244:22
 269:9
making 5:21 14:4 123:1
 134:12 165:19 167:2
 194:5 228:20,20
 233:13 247:11 254:21
 257:16 265:20 266:20
 286:16 293:12,13
 296:10 305:20 373:11
 386:7 398:1,17
MALE 136:14
malleability 63:18
man 311:2
man-days 140:2,4
manage 91:21 95:7
 137:20 316:20 342:14
 342:19 373:14
manageable 343:3
managed 97:21 234:7
 323:2 346:15

management 73:2,18
 209:9,12 219:2 222:6
 281:1,8 282:9
manager 24:17 72:3
 382:6
manages 72:5 363:1
managing 7:12 72:22
 321:16 322:6 323:3
 323:16
mandate 191:15 192:4
 224:2
mandated 41:20 118:18
 166:11 214:21
mandates 126:16
mandatory 118:10,11
 124:20 359:16
mangos 380:22
manipulated 198:12
manipulating 84:7
manner 301:12 323:3
manuals 360:17
manufactured 226:19
 242:3
manufacturer 170:1
 231:12
manufacturers 225:17
manufacturing 226:18
 303:3
March 71:16 196:6
 272:4,6
Marez 2:19 73:19 97:10
 104:5,11 106:22
 107:4 121:1 125:1
 147:17 160:19 172:8
 183:17,21 198:6
 201:9
marginal 185:19 186:6
market 25:10 26:4,6,21
 26:22 27:8,10,21
 40:16 71:18 74:16
 93:6 138:8 151:17
 194:6 197:5,14,18,22
 198:4 257:6,15 297:8
 304:21 354:4 357:21
 373:10 390:10
market-driven 138:7
marketer 113:9 168:21
 169:16 197:6
marketers 86:21 132:13
marketing 2:4 71:4,10
 197:7 372:14
marketplace 78:20
 92:15 194:3 297:15
 312:12 367:6
markets 23:12 25:9
 43:9 122:18 132:14
 151:18 197:4 346:10
 368:16

mass 100:22 110:19
 334:4 385:8
massive 37:21 262:8
 285:6
master 157:19
Masters 6:20 73:17
 74:8
mastitis 248:6,11,15
 249:2,14 250:2,18
 251:12,16,21 255:4
 255:15 256:2,3,4
 259:19 261:13 265:21
 267:6
match 10:22 176:1
 335:16 371:18
matched 21:3 90:7
 293:20
material 16:19 19:14
 206:8 208:8 225:13
 226:2 236:14 245:3,3
 248:4 249:5 265:9
 266:19 291:10 357:12
materials 2:7 56:7
 193:17 204:12 207:4
 211:3 230:22 235:13
 261:20 264:5 266:14
 281:15 302:13 363:21
 387:2
matter 34:20 35:21 43:5
 56:22 64:22 65:1 70:8
 82:7 121:18 122:17
 136:2 137:22 182:7
 201:15 202:22 212:13
 252:12 284:13 327:11
 329:6 393:11 400:19
matters 117:21 395:19
maturity 311:20 312:17
 313:6
McAvoy 76:12 130:8,14
meals 71:19
mean 12:19 37:5 39:22
 43:22 45:12 58:9
 60:17 61:14,18 63:11
 65:14 67:4 77:1 81:22
 81:22 109:18 114:4,6
 114:11,12,16 128:8
 130:11 132:2 133:9
 134:1,4 138:6,9,19
 139:4 149:6,10,13
 154:21 155:7 156:17
 159:3 165:7 173:5
 182:20 193:16,22
 196:1,16 200:17
 221:22 222:5,9
 231:21 246:11 253:4
 253:16 255:15 256:11
 258:11 259:7,8 261:2
 261:6 276:13 295:7,8

300:7,8 308:7 314:21
 317:10,15 319:9
 322:17,20 332:13
 344:21 345:8 354:8
 362:2 363:16 368:4,9
 368:11,12 369:18
 374:2 376:14,17
 381:6 389:14 397:16
meaning 40:19 274:19
meaningful 9:21 13:5
means 12:13 22:7,22
 52:4 62:16 85:14
 87:19 88:5 104:21
 106:7 163:19 178:5
 349:9 375:1
meant 56:21 147:15
 245:7 282:8,9
measure 181:10 201:11
measurement 352:2
measures 181:20
 371:16 390:7
measuring 101:1 357:6
mechanism 328:15
media 46:15 50:11
medical 204:14 207:8
 207:19 210:5 224:21
 226:10 234:4
meet 114:9 121:16
 312:5 357:18
meeting 1:5 105:6
 130:16 206:16 262:17
 274:21 283:3 318:13
 399:20
meetings 272:12 278:1
 400:6,7
meets 32:6
member 98:13
members 4:6 11:13
 35:5 70:12 71:7 136:5
 143:12,17,20 202:2,3
 203:3,5,20,21 204:2
 248:20 284:17
memory 291:12 339:9
mention 110:12 204:19
mentioned 4:20 15:21
 15:22 22:11 37:12
 44:1 48:22 98:7 116:4
 118:12 129:1 130:15
 143:10 155:21 176:19
 235:20 237:17 302:14
 365:18 368:4 372:5
 380:4,12 393:9
mentioning 373:5
merchandiser/handler
 110:14
merchant 95:5
merge 306:5
merger 73:11 291:21

- mess** 317:9 367:21
message 46:2 99:4
 121:9 248:20 293:7
 394:2
messages 301:10
met 1:8
metal 234:17
methanol 204:17
method 100:21 210:14
 229:1
methodologies 383:19
 383:22
methodology 7:5
 179:11
methods 9:3 16:6,10
 63:2 210:20 211:4,10
 211:17,21 212:2
 217:12 224:15 228:5
 244:6 277:5
methyl 347:9
metric 74:18
Mexico 29:8 98:5
 146:16
mic 91:2 123:12 136:12
 205:4 210:9,12
 271:17 273:1
Michael's 316:6
Michelle 2:2 143:11
microbial 228:2 263:18
microorganisms 229:3
microphone 222:8
 388:2
mics 90:16
middle 157:9 158:2
Midwest 35:16 327:2
Mike 2:15 72:2,2,5,14
 72:18 84:17 89:16
 90:15 111:9 114:2,16
 126:17 143:13 149:5
 150:15 171:11 193:15
 364:18
miles 76:12 130:8,14
 311:4,8
military 131:2
milk 222:22 251:19
 260:9 271:16
milking 234:11,22
 248:6
mill 108:20 313:17
 321:15 351:11
milled 71:18
million 59:4 74:2 76:4,5
 79:19 93:19
millions 290:16
mills 321:15 350:21
mind 35:9 60:6,8
 127:22 162:12 189:4
 242:1 244:20 291:4
 306:3 316:13 320:20
 334:19
mindful 223:18
minds 97:5
mine 252:2 366:2 383:8
mineral 3:10 234:16
 238:9,15,18,22 239:7
 241:1
minimizing 298:14
minimum 205:17
 317:11 338:21
mining 235:11
Minnesota 71:6
Minnesota- 73:6
minor 209:3
minors 72:19
minute 15:10 25:16
 329:10,11
minutes 48:16 60:2
 70:1,5,18 129:19
 202:21
miserable 244:2
misinterpretations
 356:2
misrepresent 295:16
missed 69:17 350:12
missing 44:4 61:10
 62:9 88:16 289:3
 314:10 335:5
Missouri 218:6
mistake 268:18
mistakes 62:10 153:1
misused 323:14
mite 244:7 245:19
 246:2
mites 238:19 242:9,18
 243:5
mitigate 98:15 124:16
mitigating 124:1 256:4
mitigation 99:2 362:7
 363:18,22 399:13
mixed 262:1 307:2
 346:5
mixes 149:18
MOAD 372:14
mod 225:19
mode 141:1
model 320:9,10,11
 321:19 323:9 328:9
 328:17 379:22
modeling 320:6 330:17
models 24:11 320:6,13
 320:16 381:3
modern 22:3,4
Modernization 114:6
modest 220:8
modification 144:14
modifications 116:19
modified 211:5
modify 280:22 281:8,11
MODKA 225:19
MODPA 225:20
moisture 109:3
Moldova 75:5
moldy 88:11 368:13
moment 28:18 140:6
monetary 197:8
money 23:6 80:20
 126:13 134:12 138:21
 150:11 164:15 187:8
 353:16 356:19 375:13
 376:6 390:8,15
 395:13
Monique 2:19 73:19,22
 74:4 97:9 104:2
 121:19 124:19 172:6
Monique's 137:13
monitor 186:21,21
monitoring 139:22
 282:4 351:19,19
 352:5 354:2,11 356:9
monstrous 94:8
Montana 71:8
month 172:15
months 27:20 44:14
 92:13 93:20 108:22
 113:22 140:4 175:8,9
 196:11 346:3
morass 300:7
morning 4:3,7,18 5:7
 5:12 8:22 91:4 97:11
 299:22 400:18
MORTENSEN 1:17
 121:8 137:7 216:19
 218:17 219:22 223:3
 245:14 268:2,4
 269:17 270:13 283:17
 290:2 314:5 320:4
 330:16 331:5 379:8
 381:2 394:22
MOSA 275:2
mother 265:22
mothers 266:5
motion 133:16 203:22
 267:9,9,11,12 268:13
 268:15,21 269:2,6,7
 270:2,3,4,5,21 282:18
 283:9 284:4
motions 268:19
mounting 380:7
mouth 229:16
move 4:12,20 13:1
 33:21 71:1 97:7 103:8
 109:6 121:14 135:20
 153:6 157:17 159:14
 174:15 203:10 204:7
 279:14 284:10 286:11
 305:9 306:3 307:9
 310:16 340:7 357:22
 364:8 366:8 370:21
 377:18 393:8
moved 9:12 39:1 56:5
 246:1 279:9
movement 9:8 38:18,21
 39:2 190:13
moves 241:6
moving 31:5 38:12
 42:14 69:22 100:16
 104:7 157:20 160:13
 161:1 179:22 187:2,2
 203:8 207:5 208:15
 210:2 224:19 233:16
 237:3 238:3,5 241:12
 247:14 305:10 325:2
 364:15
moxidectin 271:10,14
multiple 17:2 39:13
 135:5 230:19 249:4
 291:18 292:1 325:22
 328:3 365:6,10 378:6
 378:6 390:5
multiply 292:11
mutual 75:22
-
- N**
- naive** 137:21
Nakagawa 75:9
name 46:1,2 66:7,22
 113:12 165:7 171:14
 172:2 175:17 198:16
 291:20,20 300:20
 305:21,21 367:17
 368:7
named 292:12
names 46:3,6 103:21
 190:3 292:1,2 293:14
 317:8 394:14
narrow 297:15
NAS 64:7
NASS 326:12 329:4
 337:14 339:4,6
national 1:3 2:2,3,5,6,7
 8:2 72:13,13 78:18
 152:10 184:1 211:8
 211:11,12,18 212:21
 213:9 215:21 222:9
 230:1 244:14 249:11
 255:12 257:4 268:19
 269:7 270:3 271:19
 271:21 274:15 275:1
 275:6 280:3 325:5,5
 331:15 358:17
nationwide 165:5
Native 3:16

- natural** 146:4 210:21
226:19
- nature** 49:7 128:11,14
146:10
- near** 339:9
- nearly** 73:21 312:20
398:9
- neatly** 89:5
- Nebraska** 216:21
- necessarily** 12:9 75:10
75:16 105:6 123:7
141:22 144:16 157:21
159:6,8 224:7 244:8
275:3 330:4 349:13
352:11
- necessary** 113:5
122:17 138:22 149:22
182:7 217:5 223:14
248:22 253:1 258:19
273:11 276:10,14
341:8
- necessitate** 225:12
- necessity** 312:9
- need** 12:22 13:4 15:16
19:5 20:3,9,10 30:22
31:15 32:11 36:4 41:6
51:11 52:4 56:2,9
57:17 60:2,15 61:19
62:3 64:22 68:8 69:5
69:12 85:2 89:17
91:21 92:1,17 93:16
95:16 96:2,2,5 97:3,6
100:13 116:6,21
127:20 136:19 137:12
140:17 145:12,13,18
146:5,6 147:5 155:8
160:16 167:10 170:19
170:19 177:15,22
178:11 180:11 182:8
189:8,9 190:17,20
194:10 197:15 199:4
201:10 214:10 217:18
218:22 223:20 231:2
232:10 236:7,17
244:11,15 245:17
246:4 253:8 255:19
257:4,17 258:21
259:19 268:19 272:14
277:7 279:7 282:12
290:7 293:2 300:18
301:4 302:4,17
306:13 312:13,16,18
315:15 316:1 318:7,9
321:4,20 324:16
333:21 334:19 335:8
335:14 352:17 353:17
355:4,13,16 356:10
356:12 358:22 363:5
- 363:22 364:21 365:16
368:10 371:8,8
372:13 375:21 377:2
378:8 379:17,21
380:2,18,20 382:21
392:15 394:6 396:10
397:3,11 399:16
- needed** 13:17,19 100:9
141:12 229:15,16
235:13 249:12 250:11
250:15 272:11 277:16
279:14 288:7 309:11
319:6 321:17 323:5
337:21 378:10 387:8
399:15
- needing** 299:22 372:5
- needs** 9:21 17:4 20:17
56:14 61:13 65:8,9
67:1 89:13 117:21
126:19 137:18 168:5
168:5 174:10 189:20
229:20,22 293:19
308:18 312:12 315:20
316:11 317:11,12,13
324:2,5 341:12
347:14 351:4 361:14
365:22 378:9 382:19
391:12
- negate** 359:17
- negligence** 80:1 125:19
- neighbor** 218:10
221:12
- neighbors** 221:17
- Neither** 102:21
- Netherlands** 198:14
- never** 85:8 115:3 123:6
175:9,11 177:19
240:4 244:9 326:15
394:12
- new** 13:21 24:12 47:18
92:12 102:1 146:16
197:9 264:7,8 305:17
305:20 322:22 357:8
379:20 380:20
- nice** 80:14 135:8 206:22
252:20 253:17 299:5
362:3
- night** 21:9
- nightmare** 168:13
- nine** 4:8 172:14 196:11
203:21,21 209:1
370:22
- nitrogen** 384:5
- no's** 270:21
- nobody's** 78:22 175:16
- NODPA** 225:19,21
- NODPAs** 225:22
- nomenclature** 107:21
- 15:14
- nominating** 15:14
- non-**24:20 139:5 180:7
- non-compliance** 27:16
- non-compliances**
141:21 186:12 324:4
- non-conformity** 139:11
- non-food** 228:1
- non-GMO** 80:10 212:12
213:12 214:16 215:5
215:6,9
- non-OLPP** 219:8
- non-organic** 164:11
367:4
- non-partisan** 104:14
- non-perishable** 290:11
- non-residues** 81:11
- non-steroidal** 209:1
- NOP** 6:12 13:12,12,18
14:2,18,19,22 15:2
19:17,18 25:2 27:14
28:1,20 29:10 30:6
31:5,9,12 32:6,11,21
34:11 44:9 45:10 46:3
46:18 57:13 58:16,19
59:1,5,9,18 63:14
76:11 78:18 79:12
91:19 92:1 93:17
96:21 99:6,9,21
100:16 104:10 116:8
125:20 128:3 129:21
130:6,11 133:14
134:9 139:1,5 141:4
142:8 147:21 150:2,5
163:11,18 164:5
166:3,19 167:2,10
168:6 171:12,17
172:13,18 188:13
194:15 198:22 201:19
213:1 248:1 280:1
302:7,8 343:17 347:6
359:8,14 378:3 380:7
384:14 391:14,21
397:9,13
- NOP's** 99:22 186:19
- NOP-accredited** 37:13
- NOP-excluded** 16:7
- NOP/NOSB** 107:3
- normal** 119:6 225:4
308:16
- normally** 174:12 187:10
338:16 400:12
- North** 71:21
- northeast** 245:21
- Northwest** 73:14
- NOSB** 2:2 63:14 91:4
91:11 99:6,8,20
100:20 102:19 104:8
107:14 135:5 170:7
- 183:22 201:18 212:18
213:18 227:19 229:7
236:7 271:8,12,22
274:14 391:14 400:2
- NOSB's** 247:21
- NOSB/NOP** 105:20
396:20
- note** 86:6 203:18 207:2
262:11 276:20 327:9
- noted** 287:19,20 335:4
378:15
- notes** 246:16 261:2
369:9 387:15
- notice** 27:16,16 77:10
140:4 363:16 369:10
369:15 373:1
- noticed** 273:22 294:16
- notices** 17:3 360:9,15
361:9,12 363:21
364:2
- notification** 362:20
364:14 369:11,12,13
- notifications** 360:3
- notified** 74:20
- notify** 372:21
- notifying** 167:17
- noting** 239:11
- November** 262:11
271:18
- nuance** 373:14
- nuanced** 254:20 362:1
362:6
- nuances** 94:5 122:1
364:6
- number** 4:20 5:3 7:19
40:8 51:15 52:4 53:20
54:8,17 55:5,6 85:21
100:1 112:15,16,20
121:9 131:13 133:6
137:19 139:10 140:7
140:8,18 185:12
190:2,5,10 206:10
208:7,10,11 255:16
262:8 302:15 315:9
320:6 332:5 358:1
364:9,15 365:4
370:22 371:18,19
377:19 394:10,16,17
394:18,18,20,21
396:9 398:9
- number's** 171:6
- numbers** 110:21 145:3
227:13 251:12
- numerous** 111:3
165:18
- nutrients** 228:22
- Nutrition** 74:8
- nuts** 192:8 367:15

NYU 74:9

O

o'clock 202:20 284:10
299:21 400:11
OAKLEY 1:18 63:8 65:3
65:11 128:22 181:4
182:20 236:16 239:14
250:5,20 251:2 255:8
264:20 266:12 267:17
269:1,22 270:18
275:22 280:8,12
281:13 283:22 298:11
324:13 332:10 352:15
383:4 391:8
oats 156:7,7,10,11
330:6
obfuscate 371:5
objected 338:8
objection 203:12,14
251:8 400:16
obliged 46:4 47:3
observation 50:11 67:5
observing 140:20
obtain 9:16
obtained 90:8 247:22
obtains 18:11
obvious 21:18
obviously 65:13 88:22
107:8 186:16 254:22
312:13 332:13
occasions 117:8
185:13
occur 65:2 89:2 205:19
217:4 224:3 365:5
391:19
occurred 157:13
occurrence 33:9 52:2
occurring 13:15 191:7
334:5
occurs 51:8 234:7
ocean 109:7
octanoate 3:11 241:19
241:22 242:3
October 248:1 271:8
OEFFA 261:7
OEFFARM 2:13 71:5
off- 122:7
offer 6:2 143:9 209:14
offer's 144:6
offered 347:17
offers 7:7
office 26:6 44:10 46:11
46:17 53:12 54:14
139:4 142:5 176:20
188:8 337:18
officer 72:17
offices 386:1

official 2:5 26:9 125:2
officials 309:9
offline 144:15
offset 352:21
offsite 314:2
OFIS 43:12
OFPA 13:15
oh 15:16 19:2,8,8 39:10
52:15 57:14 66:17
107:4 134:14 142:18
144:19 173:2,3
175:13 188:11 197:10
198:14 243:13 265:15
279:4 303:19 310:13
311:3 315:22,22
333:1 344:15 361:17
383:21
Ohio 71:9
OID 336:8 340:12,16
341:10 342:7 343:4
360:21
OIG 79:13 180:15,15,16
180:20
oil 3:10 226:21 229:16
238:9,15,18,22 239:8
241:1
oils 226:13,20 227:6
okay 15:19 19:8 21:8
53:8 54:9 55:3 58:12
60:9 70:11 84:16,18
89:18 90:21 91:3,10
96:9 97:11 103:4
104:11 111:9 129:16
134:14 135:7 136:13
144:20 149:1 151:14
155:5 160:1 162:22
165:1,3 188:10
202:18 203:4 205:3
206:13 207:5,13
214:4 215:13 216:9
233:15 236:22 237:2
237:3,11 238:13
239:15,19 241:12
247:5 254:22 259:1,7
267:8 268:15 271:4,5
273:5 275:14,14
280:5 282:15 285:4
286:2 304:2 309:22
319:16 331:16 332:9
344:15 357:3 360:14
363:14 370:21 376:12
397:15
old 98:13 326:13,14
OLPP 218:14 219:7,8
279:13
Olympia 75:13
on- 322:15
once 9:13 26:14 70:2

131:19 159:16 174:8
244:1 285:10 296:7
299:11 321:15 322:9
339:22 368:5
one-time 288:18
one-year 98:13
OneCert 2:20 6:9,13,13
6:14
ones 29:7 50:9 122:22
301:16 305:20 341:7
345:15 361:13 383:15
online 99:11
oops 183:18 271:4
358:1
open 6:6 8:20 31:16
32:7 34:22 58:20
70:19 80:8 85:11 88:7
88:22 89:8 103:6
162:10 163:13 167:4
178:4 197:4 198:3
206:14 208:12 214:11
240:21 250:3 257:1
260:17,19 271:5
272:3,6 275:21
276:16 289:22 309:19
328:22 349:5 370:14
380:11
opened 113:1 365:2
opening 8:20 302:4
openly 82:16
opens 348:4
operate 29:8 94:17
189:21 291:17 292:1
343:15
operates 7:19 17:5
operating 11:14 69:2
123:9 153:20 189:10
288:21
operation 11:2 16:15
17:10,15,20 18:1,3,14
18:16 21:2 31:4 42:18
44:20 87:22 88:3,9
89:12 99:14 113:16
115:9,9,11,15 117:14
128:1 154:20 160:3,9
186:3 188:4 192:11
197:4 288:19 301:6
303:16 305:21 308:16
316:19 327:4 335:22
337:22 339:11 340:9
344:18 345:5 355:6
358:12 359:9 374:10
375:2,4
operation's 190:22
operational 16:11
30:20
operations 9:9,11 10:1
10:7 15:19 16:8 17:7

18:21 19:5 20:1 21:3
29:4 30:12,13 37:11
37:16,20 44:15 45:1
53:10 69:4 86:11,20
87:5,6 94:22 99:10,15
114:8 145:15 148:4,6
153:16 160:2 187:10
187:14 191:5 198:4
206:20 209:20 224:9
230:11 231:16 234:10
234:19 292:12 306:8
307:6,10,16 309:21
310:3 317:6 324:19
328:2 329:8,11
336:19 342:15 365:3
372:1 374:8,14
379:10 385:15
operator 10:11 12:10
12:12 14:21 27:7,10
27:18 185:6 316:17
326:22 344:11 359:11
operators 141:20
185:19 274:8 277:17
315:5 316:14 317:4
327:2 340:11 345:15
354:9
opinion 156:18 342:16
381:3
opportunities 6:4 31:21
33:17 74:2 89:1 93:13
286:1 295:7,11 296:1
298:13 323:20 383:13
399:7 400:5
opportunity 5:20 6:3
33:14 36:15 97:12
102:18 103:16 106:18
116:15 174:11 183:22
184:15 292:8 294:20
301:4,14 302:10
303:9 328:9 399:4
opposed 249:15 289:3
351:7
option 181:13 184:12
259:8 260:2 266:7
options 213:6,16 236:8
249:13 257:4,7,7,12
259:5,5,6 266:6
oral 240:16
orally 239:9 240:8
order 4:4 51:13 86:4
89:20 107:12 164:13
177:16 203:6 376:19
377:2,5,10
orders 86:2 372:15
Oregon 72:8,16,20
organ 244:15
organic 1:3 2:2,3,5,6,7
2:16,19 3:12,16 4:22

5:1 6:5,10,11,18,19
 7:1,6,9,14 8:2,5,6,8
 8:11 12:20 13:10,14
 14:12,14 15:16,22
 16:2,15,18 18:5,10,15
 18:18 19:5,6,9 20:11
 20:12,13 21:17 22:5,8
 23:6 26:1,7 27:9
 28:22 30:7 34:5 37:17
 41:14,18 42:19 50:1,4
 51:18,21 53:12 66:3
 66:17 68:20 71:2,7,10
 71:14,17,18 72:3,7,9
 72:10,12,13,14,15,17
 73:20 74:5,16,18
 75:15 76:5,5,22 77:16
 77:22 78:3,19 79:1,9
 80:13 81:11,15,15
 82:1,6,8 84:4 87:7,12
 89:11,22 92:9,19
 96:14 97:14,21 98:6
 98:10,11,12,15 102:1
 105:11 107:8,9
 114:13 117:6 119:5
 124:21 125:12,15
 126:22 131:9 134:20
 134:21 135:11,14,15
 135:17 141:22 146:1
 151:12 152:6,9,10
 154:6 156:11 157:2,3
 159:13 160:21,22
 161:4,5,13,13,16
 164:10,11,17 165:15
 175:16 179:21 180:4
 180:8,8 184:1,2 185:2
 185:7 186:9 187:8
 189:16 192:1,7,15,15
 192:17 195:8 198:6,7
 198:15 199:5 205:21
 206:7 207:21 208:2,7
 209:7,16,20 211:18
 212:9,22 218:3
 227:10,16 228:15,15
 228:17 230:6,11,15
 230:19,20,21 231:3,8
 231:12,13,15 232:1,6
 232:22 233:8,11
 236:14 238:14,15
 239:6 242:1 244:22
 245:21 247:2 249:12
 249:18 254:8 256:22
 257:2,4,11 261:13,17
 271:3,19 273:12,16
 274:10,15 275:1,2,6
 277:2 279:8 280:3
 281:9,11 282:10
 283:2 286:13,17
 287:7,10,15,17,21,22

288:14 289:8,17
 292:14 294:21 295:1
 295:4,5,19 296:7,10
 297:20,22 298:4,16
 300:21 302:18,22
 303:1,6,10 304:7,9,10
 306:6 307:8,9 310:8
 310:15 311:12,18,20
 312:21,22 313:20
 315:13 316:4,17
 317:4 322:22 323:15
 323:15 325:5 326:11
 329:6,8,12,17 330:6
 332:21 336:14 338:4
 339:16,19 340:9
 345:1,2 347:21 349:9
 349:14 351:8 354:2
 358:17 359:17 361:4
 361:20 362:16 364:16
 365:15 366:16 367:5
 367:17 368:7 369:21
 373:5,12,17 374:15
 384:4,20,22 385:1,4,7
 387:6,22 388:1,2,3
organic- 115:13
organic-minded 233:11
organic-specific
 101:13 104:18
organically 2:15 72:4,6
 77:13 85:22 145:6
 194:15 195:17 234:7
 316:3
organics 195:19 211:12
 322:22
organization 92:13
 94:11 101:22 245:10
 245:11 248:19
organizations 167:18
 233:13 245:16 247:9
organize 285:9 286:6
organized 40:6 122:19
 122:20
organizers 123:3
origin 75:11 371:5
original 59:6
originated 75:7,14
origins 370:22 371:4
 383:21 384:7
OSP 311:5 317:12
OTA 73:22 101:20
 126:22 167:13 181:8
 325:12
other's 338:3
ought 156:4
ourself 84:3
outcome 363:2
outcomes 56:1
outdated 18:11 384:11

outdoors 222:17
outline 170:10
outreach 301:5 380:2
 390:20
outside 22:12 79:8
 158:3 174:12 203:7
 292:5 321:13 350:9
 376:8 378:19
outsources 155:1
over-extended 189:17
over-simplistic 37:5
overall 30:12 32:21
 34:7,11 100:6 153:8
 288:4 306:11 350:14
overcome 28:6 30:22
overly 273:9
overseeing 345:10
oversight 3:15 5:10
 19:2 29:11 30:1 33:6
 50:10 73:13 125:22
 285:1,22 310:19
 318:12 341:2 385:22
 397:5,13
overview 105:10 250:3
overwhelmed 293:18
overwhelming 237:20
owned 321:13 323:6,7
owner 154:22 168:21
 168:21
ownership 9:8 38:20
 394:14
owning 9:11 56:1
owns 176:8,10 309:7
ozone 207:22

P

P-R-O-C-E-E-D-I-N-G-S
 4:1
p.m 203:1,2 284:14,15
 400:20
pace 23:18 96:1 100:4
pack 174:19
package 102:3 107:18
 163:12
packaged 10:4,6
 112:22 128:11 157:17
 168:19 309:18
packages 113:11
packaging 85:9,10
 112:2,14 120:10
 128:15 160:16 162:5
 165:10 309:18
packed 85:8 158:12
 175:22 308:7,10,11
packer 169:7 176:3
packers 86:15
packing 99:17
page 111:21 399:18

paid 39:9,11 321:10
pain 209:3,9 328:7
painful 266:2,2,3
pallet 302:16 368:13,14
pallets 157:19
Panama 129:8
panel 3:2,3,4 4:8,11,12
 4:13 5:8,13,15 6:2
 11:13 48:1,8 49:2
 60:5 69:17,19 70:1,6
 70:15 74:11 83:16
 98:20 121:11,11
 135:22 136:7 137:3,9
 145:2 153:11 201:22
 202:13 285:5 286:22
 288:9 294:17 305:13
 319:2 346:8 352:15
 358:10 364:18 384:9
 386:18 387:15 396:19
 400:3
panelists 5:17,21 34:22
 49:10 63:13 67:14
 70:17 103:22 135:22
 136:19 178:20 290:22
 379:11 396:22
panels 4:13 5:6 48:4
 400:6
paper 53:22,22 54:3
 61:10 62:9 116:14
 300:4 334:7 343:21
Paper's 300:2
paragraph 207:9 210:5
 224:20 226:9 234:1
 237:6 238:5 241:15
 283:1,5,5
Paraguay 108:19 109:7
parallel 38:19
parasite 282:21
parasites 238:20 281:2
 281:6,7 282:4
parasiticide 237:5
 238:7,18 239:4
 241:17 271:15 277:8
 277:18 280:11
parasiticides 3:12
 271:2,6,9 273:14,16
 280:22
parcel 42:4 328:14
 335:5
pared 285:13
Pareto 20:5 395:17
Park 1:9
part 5:14 9:19 22:5
 31:19 39:22 40:6
 41:16 54:8 55:1 57:6
 62:19 63:8 78:1,17
 82:19 83:20 91:21
 110:12,22 119:5,21

- 127:5 134:9 140:16
142:13 155:21 159:16
167:8 192:5 200:16
213:8 215:18,22
240:9 245:9,10
252:16 262:8 264:7
271:10 280:20 281:9
282:1 296:17 297:10
308:16 312:19 313:15
318:3 327:13 329:16
332:21 340:12 342:12
343:16 345:22 347:22
354:4 356:4,6 357:4
358:10,14 360:16
363:6 376:18 378:13
394:7
- partially** 303:4
PARTICIPANT 136:14
participants 74:3
participate 91:5,12
particular 94:6 100:3
110:20 111:6,6
145:17 149:14 176:5
185:10,10 220:18
242:8 246:19 258:18
259:12 287:13
particularly 5:1 29:7
153:20 202:13 299:17
parties 38:13 79:15
81:3 82:17 157:8,8,11
160:21
partners 7:12 81:4
101:9 147:18 184:9
184:20 342:1,13
344:7,17
partnership 14:1 91:18
93:16 302:8 389:10
391:19
parts 117:18,19 218:14
367:22
party 42:6 49:22 109:12
132:18 170:22 179:11
179:14 317:3 323:17
378:1
pass 148:13 274:22
352:19 353:7 366:12
pass- 315:10
passed 67:4 180:12
278:17
passes 268:13 270:2,2
284:4
passing 160:22
password 336:15
password-protected
329:16
pasture-based 224:10
224:11
pastured 218:4
- path** 32:13 129:1 191:1
349:8 396:11,21
pathogens 210:21
pathway 158:8
pathways 192:20
patient 278:13
Patrol 74:22 75:3
pattern 208:2 238:17
patterns 50:12
PATTILLO 2:7 204:11
207:7 208:17 210:3
224:19 226:8 233:17
237:3 238:5 240:20
241:14 247:17 260:15
263:10,21 264:14
272:4,8
patting 79:10
PAUL 2:6
Pause 21:13 264:17
pay 23:6 191:19 375:2,5
375:10 382:1 397:12
397:21
pays 346:17
PCO 275:2
PDF 362:5
peach 339:7
peaches 339:20,21
peak 125:3
peer 79:8,11 116:13,16
peeves 302:20
penalties 100:13
200:17,18,20 374:3,6
374:13,16,17,19,22
375:16 377:14
penalty 125:2 375:6,9
375:11,22
pending 75:2
pennies 368:16
Pennsylvania 220:3
231:20 275:2
people 21:18,20 22:22
23:5,15 28:13 38:21
41:8 42:18 52:19
56:16 59:5 60:16 76:2
108:5 121:16 130:21
132:12,15 134:1,5,10
138:16 140:8 142:12
142:14 143:1 148:10
148:13 156:21 157:16
160:13 166:4 170:16
172:22 173:19 179:8
180:9 187:10 190:14
195:17 199:13 243:13
244:10 276:21 286:1
297:9 300:12 305:12
307:12 327:12,21
328:3 333:11 341:13
341:21 342:3 343:20
- 345:21 346:1,12,19
353:22 357:18 358:10
359:20 362:4 365:9
370:5 371:2,11 378:3
378:8 379:18 390:13
392:10 394:11 395:5
396:6 398:21
percent 16:8 30:14,15
30:17 46:7,10 51:8,12
51:12,20 62:16,16
68:13 77:17 86:7,9
107:12 146:18 148:4
148:5,7 177:18,22
185:5 197:16,17
224:5 235:4 339:8
353:11,12,14,15
percentage 51:11 52:1
perform 85:22 88:4
105:8,10
performing 87:5
period 96:2 105:22
110:1 197:21 207:15
315:11
periodically 32:21
357:18
perish 290:13
perishability 364:20
perishable 290:10
364:16 376:16
perishables 299:18
376:19 377:3
perishes 290:14
permanent 235:7
permit 238:14
permitted 237:7
peroxide 260:10
persistent 276:2
person 10:17 35:9
123:22 137:20 175:17
192:13,18 314:17
316:18 323:17
personal 25:3 342:16
personally 76:12
121:14 126:6 277:15
personnel 16:14 53:13
189:11
perspective 30:21 50:6
64:20 95:4 178:22
179:12 265:1,10,21
265:21 288:17,18
292:13 338:17 378:21
392:14
perspectives 191:6
342:9
pertains 263:14
pertinent 228:10
pest 174:6 237:7 242:6
245:19 263:16 361:5
- pesticide** 26:11 45:15
45:18 46:8 50:14
68:19,19 81:16 121:3
151:16,22 152:1,3,4
246:18 263:11,14,19
264:13 349:11 351:3
353:17 354:19 384:2
pesticide-tested
350:19
pesticides 40:12 66:14
67:8 118:14 119:13
147:15 149:8 228:8
230:14 235:19 237:14
239:2 263:1,15 357:6
357:10,20
pet 302:19
Peter 2:14 71:12,13
75:20,22 80:3,4 84:17
108:4,4 114:16 116:3
118:12 125:17 191:4
350:8
Peter's 93:7
petition 228:12 230:5
247:15,18,22
petitioned 3:11 229:22
247:18 248:5 262:12
270:4
petitions 262:14
Ph.D 304:11
phone 171:6 265:7,8
phosphate 234:20
235:12 347:9
phosphine 347:10
phosphoric 3:9 234:2,5
234:9,13,22 235:4,13
photo 136:1,11
photochemical 207:22
physical 38:17,21
166:13 228:5 229:1
237:8
physically 9:10 38:12
physiology 225:4
phytosanitary 12:1
287:14,18
pick 125:13 222:18
369:3 380:11
picking 77:1 397:19
pickling 228:19
picture 21:16 75:18
145:4 188:18
pictures 21:15 252:22
piece 36:8 44:3 61:9
94:7 299:6 334:7,10
363:11 399:22,22
pieces 91:20,22 93:3,3
93:15 94:5
pike 252:8 253:7
pile 386:15

pilot 380:16
pilots 79:6
Pima 1:8
pineapple 90:6,10
 115:3,4 143:22
pineapples 90:2 115:6
pinpoint 288:16 340:4
pipe 342:4
pipeline 2:17 73:1,4
 91:5,12,15 92:7,12,16
 93:9,17 94:15 167:12
 252:6 260:11 320:10
 381:6
pipelines 234:12
pitch 267:2
pivotal 101:21
place 18:18 27:7 37:6
 54:13 60:12 61:17
 63:3,19 78:10,11
 105:15 122:5 147:13
 157:10,15 160:6
 198:17 201:4 211:9
 211:10 213:1 245:15
 250:8 268:20 279:9
 280:4 311:18,19
 323:6 344:16 367:2
 373:22 381:7,8
 394:15
places 69:2 179:21
 248:15 257:12 396:15
 396:16
placing 257:9
Plain 245:22
plan 79:5,5 209:21
 229:7 281:9,11 282:2
 347:22
planning 203:9
plans 17:9 87:7
plant 18:5 242:7
plant's 367:18
planting 64:15 82:20
 197:8
plants 146:5 147:2
 242:4 246:19 303:3
 352:8
play 34:15 91:21 104:9
 104:10 145:12 306:14
 309:4 317:17 332:13
playing 191:8 398:3,3
 398:17
pleasant 62:14
please 45:22 46:19
 103:13 120:22 136:20
 202:9 216:17 313:13
pleasure 28:21
plenty 160:12
PLU 88:16
plus 98:13 303:15

370:2
PO 54:12
pockets 221:18
point 17:7 18:9 27:22
 41:8 43:3 44:21 59:10
 66:8 92:3 93:21 95:8
 109:4,8 117:20
 124:11 133:10 134:9
 134:17 145:9 151:4
 151:17 158:17 159:11
 159:13 161:8 167:8
 167:20 182:17 189:6
 192:8 194:7 195:1
 201:10 214:17 215:7
 215:10 222:12 223:10
 223:11 229:20 230:14
 232:20 233:13 254:7
 254:20 259:3 261:19
 264:10,20 265:10
 275:13 279:6 291:21
 292:11 296:11 310:2
 312:16 313:11 314:1
 316:2 320:13 328:4
 335:9 341:3 349:2
 351:20 353:2,3,14
 363:8 364:10 366:10
 367:12 375:20 387:18
 388:12 390:18 391:15
 395:15
pointed 258:8 328:15
points 22:21 145:17
 150:22 223:4 315:17
 318:11 326:17 327:6
 328:7 349:3 360:8
policies 105:15
policy 72:4 73:10 343:7
 344:17 387:7,8
political 106:6 371:21
Pollinator 245:18
ponder 55:2
Pooler 310:9
port 74:20 75:18 129:10
 131:4 132:3,3,9
 193:20 351:13
Portland 72:10
ports 29:12 78:10 109:7
 308:20
posed 206:3 208:4
 247:10 249:16 250:12
posing 136:11
position 24:18 33:5
 43:5 50:13 131:16
 132:20
positions 73:12
positive 46:7,10 149:1
 152:7,13,20 226:1
 371:19
positives 50:19 68:20

possession 294:22
 309:14
possibilities 388:18
possibility 233:3,6
 357:11
possible 20:20 68:14
 85:15 126:4 147:13
 153:15 179:5,21
 212:18 236:17 266:6
 294:5 325:17,18
 370:17 372:7 382:20
 391:13,22
possibly 60:15 83:3
 232:5
Post 45:13 80:14
post- 248:5
post-milking 247:19
 248:9
potassium 225:6
potatoes 113:10,14
potential 65:12 75:17
 100:2 114:15 128:13
 151:20 152:15 159:9
 159:13 248:17 396:12
potentially 49:3 105:16
 158:5 179:17,19
 186:5 189:17,20
 207:21 232:17 245:4
 248:15 318:15 342:7
 342:8 348:4 350:5
 352:20,21 366:22
 367:4 371:15
poultry 214:20 217:20
 218:6 220:11,12,22
 221:18 222:2 279:8
pound 156:7,8 161:10
pounds 76:4 83:17
 294:4,5,7
pouring 156:22
power 58:22 65:14
practical 189:3 190:1
 396:14
practically 141:7
practice 52:18 73:5
 145:9 217:14 218:20
 219:3 220:17 223:5
 223:13 273:13 295:3
 306:17 358:4 378:10
 388:22 389:13 396:19
practices 14:17,20 15:4
 55:10 69:3,11 98:14
 127:1 146:20 163:10
 219:13 227:22 258:9
 273:18 279:8 281:1,8
 347:20 358:9 383:20
 384:6
practitioners 396:20
pre- 247:19 248:5

pre-certifying 377:9
pre-emergence 81:16
prearranged 136:19
precious 121:5
precise 37:1,3
predate 387:15
predictable 44:14 45:1
preference 215:9
preferred 42:16 213:13
prepared 141:8 226:15
 233:5
prerogative 103:6
prescribed 208:2
prescriptive 273:9,19
presence 384:5
present 1:11 2:1,10 4:6
 70:12 159:1 203:5
 276:21 280:22 284:17
 306:1 348:17 354:14
presentation 47:11
 48:20 290:20 360:9
presenting 235:3
president 6:9 8:1
presiding 1:10
pressure 88:6 220:10
 226:20 232:16 358:6
pressured 56:19
pretty 26:3 64:10,11
 109:19 140:21 160:1
 217:3 231:18 250:16
 285:21 292:18,19
 293:4 330:20,21
 339:16 348:12,12
 351:2 353:21 354:21
 387:9 393:15
prevalence 49:11
prevalent 49:9
prevent 44:13 99:2
 141:14 184:3 188:5
 240:1 300:4
preventative 201:1,2,11
 221:17 273:18
preventing 13:9 348:20
prevention 217:18,19
 217:20 248:11
previous 121:11 211:18
previously 80:16 283:8
price 23:10 51:18,21
 83:18 93:1 368:17
 395:6,9,10,13
prices 110:18 197:2
 339:19 390:10
pricing 382:15
primarily 92:9 149:14
 247:2
primary 29:16 374:7
principal 152:21
principally 71:18 147:2

147:9 151:10
principle 20:5
printed 272:2
printer 164:13 298:22
 299:5
prior 73:4,11 82:20
 117:3 183:10 262:16
priorities 99:6 392:4
prioritization 394:7
prioritize 199:5 201:11
 385:16 386:14 392:4
 394:7
prioritizing 399:17
priority 97:4 398:2
 400:1
privacy 326:21
private 11:7 14:2 138:6
 138:13 168:15,17,20
 174:16,18 175:20
 176:11 179:11,14
 291:13 300:8 367:13
 368:1 389:10 396:10
proactive 20:3 143:16
 146:15 348:19
proactively 167:16
 341:7,9
probably 33:21 37:18
 66:13 76:15,21 86:19
 110:15 118:3 120:17
 122:5 126:12 131:7
 133:4 147:5 149:6
 157:15 182:7 199:12
 232:20 245:19 252:8
 253:5 255:17 281:9
 300:18 310:2 311:14
 319:17 322:19 339:8
 339:16 397:21
problem 9:20 13:21
 16:13 80:22 88:2 99:3
 110:13,22 115:19
 118:22 124:17 142:11
 148:16 152:15 158:1
 159:10 170:12,22
 171:7 184:10 186:18
 192:5 195:13,14
 199:11,11 245:20
 246:2 250:2 255:6
 256:5 259:16 260:10
 281:2,12 289:4
 296:21 297:2 310:14
 310:14 320:15 336:11
 343:9 344:18 352:1
 382:13,13 389:4
problem's 55:14
problematic 212:9
 345:5,15 374:21
problems 15:21 16:6
 23:11 28:6 32:9 45:8

47:6 90:14 147:12
 152:22 153:1 159:13
 334:21 344:9 345:11
 351:20
procedure 139:9
 172:16 296:18 389:11
procedures 16:2,12,17
 16:21 17:7,13,17,21
 18:8,16,21,22 19:6
 28:4 47:16 53:19
 57:17 59:13 99:22
 139:14,15,18,19
 160:6 367:2
proceed 269:6 270:3
 282:16 320:18
process 29:2 37:1,6
 55:16,17,22 56:3,15
 65:9 83:20 98:18
 106:13 110:13 144:3
 145:9 155:17 161:7
 172:19 177:3 178:12
 195:5 200:7,12 214:7
 214:10 226:18 228:22
 275:17 288:4,11,12
 288:20 289:5 298:3
 320:15 351:9 363:7
 369:13 371:11 380:6
 384:10 385:13 389:18
 394:8
processed 163:6 303:4
processes 170:5
 228:22 229:2,9
 369:11
processing 7:1 10:5
 16:14 19:9 58:9 94:20
 105:13 110:1,7 117:3
 120:10 156:1,12,13
 234:21 321:3 382:6
processor 22:14,15
 165:6 321:2
processor/handler
 110:5,6
processors 23:1 47:14
produce 40:15,20 72:7
 77:12 83:3 84:19 85:2
 85:4,6,8,12 86:14
 111:13,19 112:11,12
 113:21 114:5 120:3,6
 120:8,9,22 121:3
 127:13 149:6 150:4
 150:10,17,19 151:11
 152:22 159:21 163:13
 163:13 168:19 195:11
 197:18 292:21 294:4
 294:6 300:6,14
 308:17 314:8 316:9
 348:18,20 349:1
 350:1 351:6 364:20

367:14 370:10,13
 371:14
produced 83:9 86:8
 106:3 162:14 210:20
 214:16 215:8 226:13
 227:5 228:2,4
producer 82:9 110:2
 111:3 117:6,11
 264:22 272:14 274:4
 310:16 317:13 321:17
 328:6 339:14
producers 42:11,13
 71:7,21 72:11 81:4
 83:8 86:15 105:7,12
 110:2,3 119:5 123:1,4
 212:17 213:3 214:20
 218:9 221:7 232:2,7
 245:21 249:12 254:8
 257:2,4,10,12 265:2
 267:5 273:9 274:4
 277:3 316:4 321:1,6
 324:15,18 339:16
producers' 256:22
 321:20
produces 154:6 210:16
producing 81:15 82:17
 106:14 227:1 232:15
 330:3
product 9:10,11 10:22
 11:1,15,20,22 12:4,15
 12:21 17:1 26:2 27:8
 27:11,21 32:18 38:1
 38:22 39:3,5,7 41:1
 83:11 85:18 86:6,7
 87:13,20,21 88:4,5,20
 89:4,6,7,8,8,9 93:4
 102:9 108:7,15 113:6
 113:19,20,22 114:22
 115:10 120:13,16,20
 128:11,18,18 129:11
 130:2 134:20 135:11
 142:1 147:22 149:21
 150:7 151:11 152:6
 154:6,22 160:4,11
 161:4 162:9 163:6
 168:18 169:3,4,16
 170:2 175:15 176:8
 182:1 183:10,11
 185:3,7 194:2,11
 195:6 196:7,8,13,14
 199:15 225:16 244:3
 264:2 288:7 289:6
 294:21 295:6,22
 296:7,19,22 297:5,14
 299:15,16 300:14
 303:1,2,4,7 308:7,11
 308:12,13 309:14,17
 311:3 312:8 317:14

319:4 347:3 348:15
 349:10 351:7 354:4
 359:13 365:8,11
 366:13,13,15 367:5
 369:20 372:10,17
 373:7 384:3 390:9
product's 11:11 38:12
production 3:13,17 8:6
 77:17 78:1,3,6 79:9
 96:3 101:1 105:13
 146:11 204:13 205:21
 206:7,19 207:17
 208:3,7 209:17 218:2
 218:10 223:1 225:10
 227:16 228:14 236:14
 238:15 239:6 247:3
 249:18 256:6 261:13
 271:3 273:17 305:4
 328:16 331:4,8 333:8
 336:2 339:7 358:4,9
 371:17,19
products 5:2,10 10:4,6
 26:5 37:9 38:18 40:13
 51:18,21 67:6 81:12
 96:15 97:18 100:8
 101:18 102:8 104:16
 105:21 106:1,2 107:7
 107:10 112:1 113:1,4
 114:17 139:2 145:6
 148:7 151:20 154:10
 154:18 162:6 165:15
 169:11 185:8 209:13
 225:17 228:21 229:9
 232:21 242:15 252:19
 261:3 271:16 287:1
 287:16 289:17 291:14
 292:15 303:11 309:8
 310:17 327:22 328:6
 359:15 365:1 368:1
 371:6,12 378:5
 384:22 385:2 392:18
professional 55:22
 57:3 117:14 126:7
professionals 5:8
profoundly 223:6
program 2:2,3,5,6,7 8:2
 16:15 41:14,16,19
 42:1,20 68:20 72:13
 78:19 100:20 147:19
 151:7,12,19 152:9,11
 176:14,16 184:1
 189:16 221:3 252:9
 260:13 262:2,10,13
 274:15 275:1,6 278:9
 280:3 287:21 298:12
 298:21 310:5,9 315:2
 315:15 318:18 322:8
 322:12 323:10,16

328:6 334:12 338:17
 340:22 348:1 354:2,3
 354:11,15 356:9
 358:18 362:9 372:15
 399:9
programmatic 305:3
programs 7:20 98:1
 144:13 152:6 310:6
 323:5 347:17 364:22
prohibit 185:11 337:17
prohibited 183:13
 204:16 241:3
project 22:5 78:5 152:4
 297:10 347:15 380:11
projecting 330:18
projects 396:2
prominence 388:15
prominent 49:13,14
promote 397:14
promoting 398:1
promotion 8:12
promptly 70:6 135:21
proof 53:21 212:11
propagate 201:8
proponal 208:1
proponent 6:10 145:22
 181:16
proposal 3:11,12,15,16
 3:17 204:7 215:4
 271:6 273:6,7,10,17
 274:5 275:8 282:19
 282:19,20 283:11,12
 284:4 393:16 399:19
proposals 74:5 284:21
propose 313:13
proposed 27:17 92:20
 205:22 240:21 241:5
 241:6 260:16 271:22
 274:13,16
proprietary 329:14
 337:4,8
pros 64:18
prosecute 96:21 179:20
protected 74:2 134:7
 337:4,9 338:6
protection 101:15
 210:18 336:16 381:20
protocol 183:9
protocols 78:11 119:6
protracted 179:12
proud 21:21 22:3
prove 146:1
proved 61:15
proven 209:16 212:8
proves 349:14
provide 20:6 45:18 46:1
 100:10 167:4 189:11
 249:6 274:14 304:21

318:10 387:7
provided 81:14 234:6
 316:8
provides 72:11 85:10
 114:14 273:8 274:8
 293:3
providing 132:22
 170:21 202:14 285:6
provision 182:16 185:3
provisionally 27:10
public 5:3 35:3 49:15
 74:8 163:8 200:9
 205:7 207:1 212:1,15
 213:21 216:3,13
 225:15 227:7,9
 242:22 252:13 255:3
 272:13,16 274:1,7
 275:16,18 279:1
 285:5 286:7,9 339:4
 364:14 388:13 396:7
public- 389:9
public-private 91:18
publication 127:9
publicity 393:5
publicly 63:20 64:9
 169:21 329:22 330:8
 333:21
publish 46:6 359:15
published 45:14 46:14
 248:1 354:20
pull 88:12 130:22 297:5
 372:18,19,21 380:5
pulled 198:17 326:2
 366:2 390:9
pulling 88:10 101:7
punished 377:16
purchase 86:2,4 376:19
 377:2,4
purchased 11:15 12:5
 16:20 83:18 86:8,10
purchasers 71:20
 120:20
purchases 12:15 87:13
 231:9 366:13
purchasing 16:16
 47:11,12 73:14 87:12
 87:15,17 117:5 119:4
purge 236:19
purification 211:1
purpose 196:2
purposeful 50:19
purposes 197:8,8
pursue 307:21
pursuing 65:4
push 182:9 253:14
put 51:1 61:4 63:3
 100:20 104:22 107:14
 126:22 136:16 156:10

161:22 162:19 164:8
 164:12 165:14 168:1
 169:5,7 172:4 175:16
 191:17 196:1 211:12
 211:19,22 212:2,17
 213:1,9 217:15
 231:22 250:20 252:15
 253:1 254:5 257:21
 279:8 280:1,4,19
 293:13 298:18 302:2
 311:17,18 325:11
 333:15 373:1 392:16
puts 93:20 109:15
 156:8
putting 78:9,11 122:8
 159:8 161:10 320:1
 344:16

Q

QA 382:6
QAI 322:21
QR 298:22
qualification 382:18
qualifications 3:15 20:9
 335:20 385:13
qualified 74:10 172:13
 237:14 385:14
quality 20:19 88:4,8
 120:18 171:7 172:10
 201:12,14 326:1,3,6
 343:8 365:8
quantities 83:22 110:18
quantity 110:4,9
question 12:18,22 28:9
 35:8 41:4 43:8,20
 49:20 53:5 67:8,13
 95:15 103:13,20,22
 104:1 107:1 108:4,10
 116:2 118:9 121:17
 123:16 128:6 129:17
 131:18 134:18 137:4
 137:9 138:3 140:7,11
 140:14 144:21 153:11
 155:12 166:17 168:3
 173:3,18 174:17
 176:18 182:21 183:2
 183:15 206:5 214:13
 217:17 227:18 228:9
 228:11 231:2,3,5,7
 233:5 236:16 239:13
 239:17,19 245:2
 253:12 258:6 262:6
 262:15 279:12 290:17
 298:11 304:12 337:10
 343:7 347:1 350:10
 354:6 355:5,20 363:8
 363:16 372:19 377:22
 383:5 385:3 388:21

389:15 391:8
question's 389:12
questionable 308:3
questioned 250:11
questionnaire 123:18
questions 6:6 35:1,5
 39:19 41:11 48:15
 60:5 69:20 70:20
 74:13 75:17 97:8
 103:6 105:9 116:21
 124:18 126:8 127:6
 136:8,22 137:3
 143:13 144:9 166:1
 172:7 175:4,5 176:15
 184:18 191:2 206:1,3
 206:4 208:4,5 209:21
 211:7,22 212:14
 216:14,17 219:20
 230:3 247:10,13
 250:4,12 258:9
 281:17 285:3,10,14
 285:18 287:4 295:13
 309:3 346:4,14,16
 348:7 379:2 383:13
 392:17 393:20
quick 15:9 20:17 28:9
 53:2 85:15 103:2
 123:14 124:18 142:16
 143:7 158:10 176:4
 176:13 193:14 223:17
 315:10 322:2 335:18
quickly 26:5 33:22 47:9
 59:19 63:3 65:20 87:8
 92:7 94:14 99:5
 113:21 142:22 143:14
 176:6 187:7 200:2
 300:15 317:19 334:1
quinoa 23:15
quite 5:22 24:6 35:1
 39:18 40:6 50:20
 82:12 152:8 173:4
 195:17 213:19,20
 225:18 252:19 254:10
 261:10 265:17 275:8
 304:18 309:10 325:11
 351:13 357:9 363:11
quorum 4:6
quota 109:10

R

raise 220:2
raised 116:11 144:11
 161:5 175:18 263:2
 289:12 326:4,21
 328:19 336:12 387:14
 388:13 395:2
raises 290:17
Rakola 130:14 295:14

rampant 49:16
random 68:13 152:1
 169:9 301:19 350:4
randomly 352:3
range 185:16
rapidity 365:21
rapidly 357:7
rare 33:6,12 49:2 51:4,6
 80:7
rarely 26:20
rate 79:2 146:18
ratio 26:17
rationale 257:21
raw 19:13 251:19
 327:22
re- 88:18
re-registration 205:9
reach 45:8,9 140:3
 202:9
reaches 9:13 22:19
react 123:16 266:8
 393:4,4
reacted 138:8
reaction 196:22 226:22
 227:2,4 334:22
reactive 141:1 200:15
 200:16 341:1
read 27:5 125:13 228:7
 228:9 233:20 254:11
 254:12,18,19 257:1
 258:3 261:3 273:5
 275:7,9,12 279:15,16
 283:7 292:16 307:14
 334:2,5,6 388:10
readily 50:17 142:15
 228:5 327:8 334:8
reading 121:20 233:19
 233:20 262:22
ready 23:5 47:21 53:4
 53:14 89:7 146:20
 189:18 279:10 354:7
reaffirm 343:1
real 15:9 24:2 73:14
 139:3 140:9 143:6
 147:3 158:10 167:11
 167:22 192:5 209:11
 243:17 291:18 293:21
 313:12,21 322:2
 324:10 334:1 344:4
 350:1 368:20,21
 381:12 398:16
reality 177:4 319:9
 390:11
realize 116:6 285:10
 332:19 382:21
realized 180:12
realizes 381:20
realizing 285:20

really 15:4 23:4,7 25:22
 27:2 28:5,20,20 29:2
 31:14,22 34:16,18,19
 38:19 40:14 41:4,9
 43:1,4 44:12 45:8
 46:15 47:10 49:20
 50:7,20,21 52:15 53:9
 55:15 57:14 58:7,7
 62:2,17 64:16 66:10
 67:2,2,2 82:6 83:15
 85:12 87:11 88:8
 91:13 92:6 93:21
 94:14 95:1 97:15
 98:22 99:8,8,13
 100:10,22 102:6,11
 103:17 104:3,6
 106:17 107:19 108:6
 110:15 111:19 112:3
 112:6,16 115:6,16
 117:14,17 118:1,13
 119:6 120:6,7,12
 122:3 123:18 127:11
 137:8 139:3,18
 142:16 143:15 145:8
 146:2 147:3,6,11
 149:4 150:6 153:2
 158:16 159:9,12
 164:17 165:10 170:17
 171:12 176:22 177:3
 177:3,5 178:13
 179:15 187:12 192:22
 193:22 195:21 202:2
 219:14 229:21 240:5
 240:12,16 243:11,15
 247:11,14 251:14,21
 252:20 253:8,21
 254:2 256:8 259:9
 262:15 265:9 273:21
 276:10 278:4 279:2
 285:13,17 286:4
 288:16,18,19 289:19
 290:11 291:6 294:14
 296:17 298:21 299:5
 303:7 304:5,22
 305:19 306:10 307:20
 313:14 314:15 319:4
 323:22 327:10 331:12
 332:3 334:17 335:1
 335:14 338:9 339:3
 341:15 342:5,18
 344:6 352:17 353:19
 359:4 363:5 368:10
 373:8,13 374:7 377:8
 381:4,5 390:1 391:13
 394:12 395:16 396:22
 396:22 397:14 398:1
 399:12
realm 325:11 388:18

reaping 161:12
rearing 220:12
reason 23:18,20 26:16
 68:4 90:4 161:6,14
 180:3 252:17 281:22
 291:18 301:21 343:3
 355:4
reasonable 194:21
 259:13
reasons 187:13 190:14
 212:2 251:17 266:19
 295:12 326:3
Rebranded 71:15
recall 5:7 94:4 296:18
 297:10,13
recalls 297:6
receipt 288:1
receive 26:15 54:18
 164:7 209:5 245:12
 253:14 351:1
received 17:2 46:2
 68:22 72:18 209:10
 227:9 243:1 248:16
 262:9 286:14 325:9
 383:14
receives 12:12 86:1
 172:13
receiving 16:21 18:7
 50:3 53:19,21 54:7,11
 54:14,17 85:6 88:3
 89:3 150:3 192:14
 292:3 361:13
receptive 381:22
recess 70:7 202:19
 284:10 400:17
recognition 37:15
 328:21 340:8 342:1
 343:4,14 379:4
recognize 9:15 66:7,22
 199:18 312:17
recognized 262:3
 359:20 394:20
recognizing 342:19
recommend 99:8,8,20
 100:19 149:19 184:1
 282:20
recommendation
 100:20 104:22 125:5
 160:19 191:16,18
 193:7 232:13 252:11
 272:1
recommendations
 79:13 107:15
recommended 92:6
 96:19 163:9 227:20
 230:6 271:8 273:11
recommending 170:8
 171:1

reconnect 363:9
reconvene 129:19
 135:20 136:18 284:11
record 55:13,13,19 70:9
 136:3 170:18,21
 174:22 203:1 284:14
 369:8 390:19 400:20
recorded 10:14 161:3
recordkeeping 16:11
 47:16 288:17 360:2
records 17:8,16 18:13
 18:21 39:4 52:20,20
 53:10,10,16,21 54:21
 142:15 164:19 282:11
 304:8 333:1
recourse 181:19
red 173:9,12
redacted 337:7
reduce 44:2 118:6
 208:19 209:8 237:18
reducing 95:10 209:4
 219:3
reevaluated 322:3
refer 156:15 264:15
 282:11
reference 27:11 115:15
 168:19 254:7 282:12
 342:3
referring 18:6 22:11
refers 28:10
refinements 328:8
refining 279:3
reflect 268:21
reflected 290:7
reflection 398:11
reform 41:16
regard 158:21 167:3
 304:4 359:19
regarding 236:17
 238:17
regards 16:12 151:10
 180:7,8 360:2
regime 220:19
regimen 118:16
region 34:5,12 35:13
 122:16 181:22 189:15
 372:1
region-wide 380:4
regions 30:7 35:14
 96:12 100:8 119:18
 277:13 327:22 378:6
register 35:4 42:7
 127:16,19,20 190:5,7
 272:2 394:16
registered 109:9
 134:19 135:12,18
 205:11 263:18
registration 32:20

- regularly** 32:7 50:15
regulated 65:6 93:6
regulation 27:2 65:22
 68:19 151:22 152:4
 154:5 211:9 213:8
 216:1 274:11 312:11
 355:21 374:3
regulation's 276:13
regulations 14:12
 122:9 156:15 184:16
 184:17 185:3 230:9
 233:22 238:14 264:15
 276:13
regulatory 73:13 213:2
 213:6 278:12
reinvent 320:7
reinvigorating 127:4
reiterate 172:8 224:1
reject 193:18 194:11,22
 283:11
rejected 76:15,18 77:6
 129:7 132:6 193:20
 351:13 368:6
rejecting 169:16
rejections 120:18
relabeling 19:18 156:2
relate 218:13 219:20
 261:19
related 39:21 64:7
 130:6 151:7 219:12
 285:22 306:18 307:11
 318:19 328:16 336:8
 360:8 384:21
relating 218:3
relation 217:17
relations 121:13 137:10
relationship 71:4
 123:19 124:6 217:3
relationships 7:3
 123:22 124:15 184:3
 184:22
relatively 351:3
release 205:16 372:16
 372:17
released 349:2 373:9
releases 208:1
relevant 93:3 360:8
reliably 118:19
reliance 277:1
relief 209:2 391:21
relist 225:16 237:13,21
 239:7
relisted 204:22 211:16
 236:7
relisting 209:6 239:1
rely 78:18 101:9 220:3
 220:4
relying 133:15
- remain** 42:7
remaining 400:14,16
remand 152:8
remarks 8:20
remedy 179:16 183:12
 209:16
remember 13:10,15
 199:4 251:4 324:7
 373:5
remind 185:1 214:5
reminder 206:15
removal 271:20 272:1
remove 150:8 234:16
 234:20 277:20
removed 27:13 205:1
removes 248:14
removing 213:7 227:21
 257:7,11 259:5
remuneration 24:9
rent 368:12
reopen 262:10
reopened 272:5
reorder 203:9,12
reordered 203:16
repackaging 156:2
repackers 22:18
repacking 19:18 88:14
repeat 107:1 193:11
 304:19 386:16 388:10
repeatedly 16:13
replace 237:16
replaced 128:18
replicate 258:15 293:10
replied 159:19
reply 143:2 175:8
report 19:17 26:13
 29:17 30:4 32:11,21
 42:12,15 58:18 79:12
 100:22 110:4 149:21
 226:14 238:10 247:22
 334:7 339:7
reported 26:11 30:15
 63:20 64:5,7,10 74:3
 326:18,19 327:8
 333:21 339:13 344:3
reportedly 34:6
reporter 75:20
reporting 29:20 30:5
 31:4 33:18 36:1,14
 42:3,5,10 63:17 64:2
 83:7 110:6 129:20
 130:5 326:22 327:14
 327:16 328:14,15
 339:13 343:16,18
reports 148:16 210:7
 387:10
repository 190:3
represent 156:20
- 245:16 254:10
Representative 8:17
representatives 5:15
represented 98:6 227:9
 227:14
representing 5:13
 316:7
reputation 25:4 134:4
request 102:17 104:20
 335:16 337:5 385:16
requested 171:13 176:8
 196:12 200:5 229:7
requesting 102:21
requests 26:17 288:5
 337:6 360:1
require 26:1 27:9
 102:22 105:1 160:20
 163:17,18 215:1
 295:4,5 316:18
 343:15 350:18 393:20
required 19:15,16
 26:12 38:5 56:6 68:12
 79:3,4 87:6 99:9
 110:16 112:22 115:8
 119:8,17 148:3
 158:22 164:18 171:20
 190:7 222:10 236:19
 262:10 280:9,10,15
 287:7,10 353:10
 360:20 396:4
requirement 30:20
 106:9 119:4 125:6
 159:2 183:10 264:4
 286:16 302:13,14
 346:13 358:16 393:12
requirements 61:7
 105:7,20 114:9 119:2
 164:2 184:5 188:17
 235:21 301:10 307:6
 338:4 343:17,19
 359:2,12 360:2 365:8
 372:11
requires 100:21 112:15
 114:7 163:6 190:4
 287:21
requiring 9:18 13:1
 78:9 135:11 158:7
 235:22 236:1 287:17
 312:4 317:4 348:9
 359:16
research 19:21 376:5
 383:19,21 393:21
 396:2
residual 152:16 197:13
residue 40:16 43:3
 45:16,19 46:8 50:14
 78:11 81:9,9,13,18
 120:21 149:9 151:16
- 345:20 349:9,11
 350:3 354:19 371:20
residues 26:11 40:13
 67:7 81:12,21 82:4,19
 117:10 121:4 260:8
resistance 219:1 222:1
 244:10 249:5
resolve 295:18
resolved 196:10,18
resolving 194:4
resorting 370:18
resource 400:4
resources 20:4 44:21
 59:3 97:3 102:22
 138:18 139:21 140:1
 185:18 189:10 191:21
 354:13,16 356:9
respect 217:8
respectful 130:13
respective 5:10 138:10
respects 389:11
respond 63:2 67:15
 167:22 312:11 398:6
responding 100:16
response 13:13 28:11
 100:7 119:19 127:19
 169:14 172:15 192:19
 203:15 208:14 209:14
 209:22 210:18 226:6
 237:1 238:2 241:11
 269:4 345:18 346:5
responsibilities 92:4
responsibility 12:7
 18:4 19:1 69:2 161:15
 167:21 378:2
responsible 79:20
 149:20 346:15
responsive 13:8 209:11
responsiveness 178:3
rest 30:16 289:22
restore 225:13
restrictions 257:10
result 76:4 94:12
 146:17 211:4
resulted 76:14
results 26:15 106:18
 118:13 120:14 146:22
 147:16 149:12 185:4
resumed 70:9 136:3
 203:1 284:14
retail 87:21 126:20
 128:1 155:18 157:17
 162:2,6 164:7,16
 300:17,19 303:2
 365:4
retailer 61:4 87:19
 99:19 126:18 127:20
 128:2,4,7 156:6 318:3

392:14,16,20
retailers 22:18 87:1
 99:16 127:2 154:3,3
 155:16,20 156:3
 158:5 161:8,12 308:5
 308:15 312:3,4,8
 317:20 318:8
Retailing 127:1
retention 227:8
return 189:13
reveal 38:14 339:22
 350:5
revealed 66:13 106:13
reveals 352:18
reverse 241:9
review 3:6 17:16 18:9
 79:8,11 106:1 116:14
 116:17 144:13 204:12
 213:20 214:7,10
 215:18 227:17,22
 242:20 247:21 271:11
 280:16,18 286:7,8
 304:8,21 384:16
 386:19
reviewed 106:5 184:13
 204:20 206:8 208:8
 211:19
reviewers 15:22 19:7
 141:16 142:5 385:13
 385:15
reviewing 214:14
revised 176:21
revising 347:11
revisions 15:3
revisit 211:17
revoked 187:11 374:11
 384:17
reward 320:14
Rica 380:22
Rice 1:13 4:16,18 21:6
 25:13,15 28:14 34:21
 36:20 39:17 41:10
 48:14 53:2,6 59:22
 60:7 63:6 65:18 66:2
 136:10,13 137:1
 143:8 144:7,21
 145:20 149:3 150:14
 153:3 158:18 161:18
 165:1 168:7,11 170:3
 171:9 172:5 173:1
 174:14 176:6,13
 178:15 180:12 181:3
 181:15 183:19 185:14
 186:8 187:4 188:9
 189:5 191:2,9 192:21
 193:13 196:20 199:22
 201:20 267:21 269:14
 270:10 283:14 284:19

292:17 301:1 315:4
 319:22 322:2,14
 335:18 349:21 364:10
 366:20 380:1,21
 383:8 389:22 398:6
rid 244:17
ridding 256:5
right 4:3 14:9 20:1
 21:20 35:10 47:8
 52:22 54:22 61:2
 62:11 63:20 67:21
 70:4,14 100:1 101:4
 107:5 124:14 126:8
 126:10 133:20 135:2
 136:6,10 137:19
 139:14,16 157:7
 162:1 163:4 176:18
 177:19 182:5,11,11
 183:5 196:13 200:18
 202:19 203:8 205:2
 207:5 210:1 230:13
 231:1,10 233:12
 247:5,14 254:11
 257:1 262:22 264:14
 267:5,7 268:20 272:3
 273:3 278:14,15
 280:4 284:8,9,16
 286:3 300:1,11,13
 305:18,19 307:10
 313:3 318:12 322:13
 325:1 326:8 335:21
 335:21 336:17 340:6
 342:17 343:6 345:4
 345:13,19 355:3
 357:22 358:11 361:14
 364:8,15 369:20
 375:7 376:10 377:17
 378:1,4 383:12
 389:15,20 391:4
 394:4 395:5 396:21
 398:19 400:13
rights 84:4
rigor 185:16
rigorous 186:17
rigorously 145:19
rinse 235:22 236:1,18
risk 16:5 17:4,14 19:11
 20:1 21:3,3 60:15
 61:1,7 69:3 78:14
 93:21 94:1,3,4,4,7,8
 98:17 99:2 119:17
 138:14 140:21 142:11
 142:13 143:16 145:17
 148:12 156:5,21
 157:21 158:17 166:12
 181:17,18 182:1
 188:14 197:19 205:15
 225:9 324:18,22

327:13,22 344:10
 345:22 346:1,11
 348:1,3 351:6 358:18
 371:16 376:17 377:3
risk-based 7:4 20:20
 45:2 140:19 178:10
 192:9 324:16 350:4
risks 45:3 51:2 100:10
 198:10 199:18 299:12
 319:10
risky 327:15,17
road 37:2 60:11 120:17
 169:17 194:22 369:4
roadblocks 354:14
robust 11:4 108:1
 343:20
role 16:1 73:8 104:7,9,9
 107:2 145:12 147:3
 179:17 180:20 191:4
 191:7 286:12 302:9
 303:15 306:6,8,14,18
 307:15 309:4 345:20
 358:11 378:21 385:4
 385:12 388:14
roles 5:10,19
ROMERO-BRIONES
 1:19 178:17 237:11
 238:13 265:19 268:11
 269:21 270:17 283:21
room 4:5 30:17 56:3
 172:7 202:12 311:3
Rooms 1:8
root 86:18 89:21,21
rose 307:14
rot 256:10
rotation 249:4 252:19
rotationally 281:4
rotting 162:11
round 202:15
roundtable 32:8
route 181:9
routes 256:3
routine 118:18 273:15
 353:9
routinely 67:7 127:18
 350:22
row 233:2 379:15
RUIHONG 2:3
rule 20:5 50:5,6 126:19
 135:1 155:15 163:17
 164:3,18 212:20
 240:21 241:6 260:16
 271:22 276:22 277:11
 279:19 280:15 302:21
 311:17,19 312:1
 353:4 354:19
rulemakers 275:5
rulemaking 274:15

278:3,9 280:1 311:16
 319:9
rules 27:9 186:7 306:20
 306:21 307:4 337:16
 337:16 361:22 362:6
 362:9
ruminants 239:10
run 47:12 87:8 136:16
 136:22 297:11 323:6
 325:17,18 328:6
 351:2 353:16 383:15
running 159:12 318:1
rural 245:1
rush 20:15 254:5
 258:19
Russia 75:5 77:20,21
 331:1
Russian 122:21
rust 234:16

S

S&T 356:15
Sabino 1:8
sack 156:7,7
safe 194:22
safer 236:8
safety 72:3 95:1 114:6
 190:4 382:9
sake 276:13
sale 27:1 43:13 63:9
 64:17,17 65:6,20
 151:17 181:10 184:5
 185:2 197:12 271:16
 288:1 349:2 366:21
 373:6,13,14,15,17,17
saleable 75:6
sales 38:8 42:4 63:18
 185:7 287:11 335:7
 345:7 365:5 366:12
 366:14
salmonella 214:22
salt 234:20
Sam 2:20 6:8,10 8:21
 14:6 15:7 22:10 53:16
 55:10 59:22 67:11,11
 161:18 172:5 174:14
 176:7 183:20 186:8
 191:9 199:22 323:12
 346:7 353:14 356:18
sample 17:16 19:15
 51:11 56:8 354:4
samples 19:10 150:5
 280:17 352:2
sampling 51:10 56:6
 151:19 152:2,5
 280:21 348:5 350:4
 356:16,22
sanitized 247:19

sanitizer 204:14,16
 205:20 207:8 210:4
 224:21 226:10 234:3
saponification 230:21
satellite 386:1
satisfactory 322:9
savior 261:16
saw 53:20 54:21 92:19
 107:11 127:10 171:13
 216:5 252:22 290:21
 297:18 307:19 343:6
saying 14:10 19:2 62:9
 68:8 82:11 114:16
 123:5 142:18 156:11
 177:14 219:7 253:19
 263:19 304:16 316:21
 318:2,8 330:15
 332:11 346:5 349:16
 351:14 389:12
says 27:5 48:16 76:21
 105:1 113:12,13
 154:5 169:2,14 175:4
 197:10 213:8 242:14
 242:18 257:1 259:4
 282:3 331:22 332:22
 353:5 361:13
scale 198:5 208:1
 220:17,22 244:22
 321:6,20 324:15,18
 332:4 336:3
scales 380:18
scenario 168:10
scenes 48:22
schedule 102:2 219:10
 355:2,12 356:5
scheduled 76:19
 166:14
schedules 218:4 355:2
schemes 24:10
Science 6:21 72:18
 347:16
scientists 82:3
scope 154:5 289:1
 336:2 342:8 350:10
 380:9
scoped 350:11
scopes 30:13
score 203:19
Scott 1:13 4:16 69:18
 136:9 284:18 300:22
 313:8 315:3 317:6
 319:21 321:22 334:1
 335:17 349:6 350:17
 366:19 379:15 387:19
 389:21 395:2 398:5
Scott's 4:14 202:8
 292:13 381:4
screen 357:9,14,17

screening 347:7
scrolled 325:3
scrutinize 344:19
scrutiny 19:19 181:18
se 150:17 260:12
 300:18
Sea 119:18 122:16
seal 302:22 303:5,10
sealed 85:8 112:1 113:2
 128:16 160:13,15
sealing 159:16 183:11
search 187:17 362:5
season 197:8 330:22
 331:1
seasoned 123:21
seasons 143:21
seat 136:6
seated 203:4 204:2
seats 70:13
sec 172:5
second 19:8 43:7 48:5
 64:4 67:16 89:14
 99:20 112:10 140:12
 166:17 173:3 267:10
 268:22 269:1,3
 323:17 369:13
seconded 267:13 270:5
 283:10
Secondly 67:6 97:5
seconds 21:11
secret 80:8
Secretary 1:13 8:13
section 124:7 207:7
 224:20 226:9 234:2
 237:4 238:6 241:16
 242:8 246:20 269:8
 283:1,4 289:15 344:5
 350:13 388:14
sections 285:14 344:14
sector 396:11
sector-public 396:10
sectors 143:18
secure 296:9
see 5:19 18:15 21:16,19
 29:16 32:5 33:2,3
 34:12 44:19,20 55:13
 56:8 59:11 62:5,7,14
 76:4 80:6,7,15,22
 82:5 84:7 88:21 89:4
 89:6,14 90:12 92:3
 93:10 101:19 102:4
 107:7,19 110:13,17
 110:18 120:8,17
 138:17,22 141:12
 149:22 164:16 168:7
 169:19 190:20 206:20
 216:3 232:5,7 243:10
 243:19,20 245:17

250:5 251:12 254:4
 255:18 276:3 278:4
 282:15 284:16 291:15
 292:6 297:3 298:13
 312:9,14 314:4
 315:12 317:8 329:10
 336:3,4,18 337:1,16
 338:2 343:2 360:19
 361:6 368:11 377:17
 397:6 398:16
seed 67:19 180:8 310:5
 313:3
seeing 32:3 34:9 63:19
 134:10 203:16 210:1
 240:14 269:5 366:22
 381:15 390:22
seeking 191:1 335:3
seen 42:21 82:15 84:22
 125:18 179:20 277:9
 303:2,14 310:17
 319:5 321:14,14
 333:11
sees 275:18
SEITZ 1:20 48:18 52:9
 52:15 118:9 185:15
 223:9 234:9 253:10
 254:11 258:3 259:7
 268:1 269:16 270:12
 283:16 393:8
seized 390:9
select 44:15
self-reported 119:12
self-reporting 119:11
sell 85:13,16 95:8
 109:11,14 110:10
 111:3 123:5,6 165:15
 195:10 196:8 331:19
 331:19,21 333:12
 340:12 361:21 368:15
 372:22
selling 61:3 87:12
 160:17 180:7 312:8
 374:15
seller 109:16 169:16
seminars 8:7
senators 79:14
send 46:20 102:3
 113:10,13 152:11
 165:9 166:18,22
 169:1 170:16 175:14
 175:22 192:13,18
 201:14 274:20
sending 32:3 42:17
 99:4 201:16 335:21
sends 394:1
senior 29:15
sense 49:9 137:17
 178:20 216:13 220:1

220:5 242:21 253:22
 254:15 294:14 319:2
 336:5 348:16 379:8
sensible 157:15
sensitive 47:4 132:19
 357:19
sensitivity 117:10
sent 68:21
sentiment 274:3
separate 295:20
separately 229:22
separation 211:1
September 75:12 76:8
series 10:21 109:5
serious 24:20 33:10
 47:6
seriously 33:11 214:12
serve 288:15 308:14
serves 6:14
service 2:4 8:16 97:22
 100:15,18 191:22
services 2:18 8:1 73:13
 113:4 130:18 131:14
 179:3 192:3 355:17
 356:5
serving 8:12
session 103:10 136:7
 284:17 336:14 338:8
set 70:5 78:6 97:16
 101:20,21 121:19
 127:22 166:4 185:9
 201:7 264:4 307:5
 323:6 355:19
sets 273:17 362:16
setting 187:9,17
settlement 375:1,3,8
seven 60:1 74:4 202:21
 270:21 364:9,15
severe 235:7
shaking 124:9 137:13
shape 29:2
share 6:3 15:15 21:15
 34:7 74:12 135:4
 143:10,11 199:2
 336:9 337:11,20
 398:7
shared 5:4,17 161:15
 346:22
sharing 31:20 336:14
 381:6 391:20
shelf 85:14 87:22
 392:18
shift 338:10
ship 74:18 75:3,8,13
 76:17,18 77:17,21
 78:2,21 85:7 88:13
 102:14 129:6 131:1,3
 131:4,16,19,20,22

132:5,7 134:18 197:1
290:15 351:12
shipment 12:12 32:12
32:17 34:3 81:19 85:7
131:17 346:9 351:1
shipments 51:10 62:6
119:13 345:21 348:17
350:11,19 385:5
shipped 38:2 376:20
shipper 77:19
shipping 54:15 89:3
117:9 287:11
ships 37:21 75:19
76:13 79:4 129:21
130:1,4,9,17 131:8,9
131:12,12 133:16
159:5
shoes 392:16
shoot 85:16
shop 186:3 382:14
397:15,17
shopping 185:20 188:6
383:1
shore 29:22
short 92:12 141:8
325:17
short- 392:3
short-term 391:12
shortages 144:1
shortcomings 41:18
shortcut 27:12
shorten 178:5
shortening 95:10
shorter 52:13 394:8
shortness 235:8
show 17:17 33:22 37:17
38:15 39:7 50:16
53:14 57:19 81:18
141:9 151:2 168:22
317:13 350:3,5
showcase 18:9
showed 117:13
showing 21:21 22:3
349:11
shown 40:18 187:16
248:8
shows 151:1,1 350:2
351:11,12
side 25:2,6,7 34:9,10
47:3 92:2 116:5 143:1
172:18 201:5 230:6
232:13 293:15 300:6
313:11,22 316:15
340:20 370:2 395:4
sighs 267:1
sight 223:19
signal 197:18
signaling 197:15

significant 159:12
167:3 198:4 276:22
290:9
significantly 35:13
274:18
Silke 2:16 6:19,20 7:4
15:8 21:6 47:10 52:5
53:3 58:14 137:8
143:9,14 172:6 173:1
188:9,10 192:21
304:8 381:14
Silke's 320:13 395:16
similar 26:15 78:12
79:5 114:13 198:13
261:10 307:5 342:14
349:22 350:5,6
354:11 356:20 378:16
similarities 84:21
similarly 64:16
simple 11:12 18:8 82:7
108:6 134:17 269:9
301:14 367:16
simpler 42:11 288:4
simplest 153:15
simplistic 9:3
simply 24:14 26:20
30:22 31:1 36:2,6
51:2 57:3 75:4 80:12
91:22 131:15 157:16
159:10 161:1 337:9
391:5
Simultaneous 48:6
60:3 84:12 364:12
single 51:16 77:12
83:16,16 139:6,11
192:7,10 287:7
297:14 307:19 319:7
346:8 365:10
sit 368:22
site 35:18 322:16
sitting 48:3 172:19
233:2
situation 19:11 30:11
33:12 42:10,16 46:19
56:5 86:18 138:17
168:1 215:11 219:8,9
223:11 277:20 391:10
situations 60:15 61:1,7
146:8 341:5 367:9
six 19:4 61:3 85:16 86:3
238:6 270:21 400:11
six-fold 121:17 137:21
size 42:4 52:2 74:17
sized 231:19
skeptical 231:14
skill 21:1
skilled 21:4
skimming 386:19

skin 235:6,7 248:14
260:11
skins 248:13
skipover 181:5
skipped 364:9
skirting 79:11
slaughterhouse 321:16
slaughterhouses
321:14
slice 335:6
slide 27:3 66:12,13 85:3
96:19,20 97:15
slides 96:16 233:19
slightly 31:18 87:4
88:18 298:18
slippery 217:11
slope 217:11
slow 60:13 120:7,11
slowed 117:17
slows 81:2
small 36:22 51:13 59:16
60:10 81:17 154:3
187:5,18 220:12
233:9 299:7 316:13
317:3 321:20 328:5
380:16,18
smaller 81:4 321:6
324:15,18
smart 324:21
smell 336:6
smog 207:22
snap 63:12
snazzy 298:21
so-called 24:16
soapbox 243:17
social 24:16
Society 266:17
sodium 225:6 226:22
252:6 253:7 256:14
262:7
SOEs 242:1,22
software 299:6
soil 82:8,11,18 117:12
119:20 146:4,14
222:16,20 350:9
soils 350:4 352:7
sold 38:8 88:19 102:10
111:8 135:17 145:6
164:17 185:12 196:13
326:15 332:1 333:4
372:22 373:8,12
sole 349:19
solid 31:8 293:4
solution 30:3 31:9
67:18 81:7,8 83:7
110:12 118:3,7
119:21 168:4,5
186:19 189:18 195:12

195:21 223:18 235:2
235:5 368:8
solutions 33:15,18
43:14 78:8 82:10,13
85:1 90:14,18 92:6
108:12 111:10,18
118:6 178:18 212:18
213:5 391:13 392:15
solve 9:19 118:21
261:12 294:18
solved 55:14
solving 80:22 259:19
somebody 61:2 62:18
142:10 149:18 173:21
175:10 176:10 186:11
187:15 188:1 298:20
322:5 367:6,19
380:12 397:16
somebody's 186:15
330:3 369:3,4,13
374:14
someone's 348:2
someplace 379:21
somewhat 210:11
221:2 231:13 244:13
288:15 293:9 308:6
324:16 328:2 345:6
sooner 260:21
sophisticated 52:19
sore 235:7
sorry 15:19 18:2 53:8
73:6 106:22 115:22
120:10 123:13 125:19
134:15 136:15 140:5
180:13 183:18 251:2
262:18 268:4,5
276:20 279:5 303:19
303:21 313:2 318:10
319:17 325:3 383:21
394:22
sort 35:11 63:18 64:1
65:16 116:14,16
118:15 122:2 125:14
133:2 180:21 290:9
299:12 300:7 301:19
305:4 336:13 344:17
356:2 358:15 367:3
370:19 388:19 389:18
393:5 395:8 396:16
Sorting 88:8
sorts 132:22
sought 289:3
Sound 286:1
sounds 62:4 86:13
99:17 161:10 340:2
soup 157:19 158:13
192:8
source 50:2 76:8,9 77:7

129:13 132:7,11,11
 133:15 135:3 230:11
 235:12
sourced 313:18
sources 17:2 77:11
 87:14 132:19 133:17
 133:18 135:5 150:4
 228:1,4
sourcing 11:14 313:17
South 7:15 24:4 96:11
 108:18
southern 96:10
soy 40:20 134:20 135:1
soybeans 76:21 77:13
 81:16 197:17 330:5
 333:3
space 368:12 390:17
span 5:18
speak 11:5 20:7 31:15
 55:11 57:5 70:18
 97:12 123:9 126:2
 145:3 185:17 186:4
 205:4 223:17 305:13
speaker 90:16
speaking 15:18 42:19
 48:6 50:13 60:3 84:12
 98:2 116:22 119:8
 181:7 224:13 298:12
 364:12 392:11
speaks 82:12 335:19
Specialist 2:2,7
specialize 39:2
specialty 71:15 109:10
 187:21
species 216:12 277:14
specific 17:9 101:17
 107:8 115:14 125:6
 135:3,10 354:21
 357:15 365:12
specifically 45:20
 91:12 93:18 94:19
 98:3 109:22 177:20
 196:12 201:8 246:21
 248:10 275:1 295:6
specificity 83:5
specifics 135:4
speculate 376:9
speed 60:12 61:11,11
 295:18 364:20 399:3
spelled 283:4
spells 249:8
spend 52:7 58:11 91:15
 144:4 150:12 164:15
 356:19 390:15
spending 187:7
spent 17:12
spike 34:13,13
spikes 371:17

spills 205:15,18
split 226:20 250:6
 363:7 399:21
spoke 55:12
spot 110:19 250:21
 364:11 399:10
spots 31:1 320:15
spray 81:16,17
sprayed 369:14
spraying 117:13
spring 1:5 228:13
squash 61:3 95:22
stability 371:21
stable 260:9
stack 48:15
stacked 89:5,10 370:15
staff 2:1 17:19 18:11
 29:15,16 59:21 138:9
 301:17
staffing 137:12
stage 97:16 161:11
 256:6
stages 217:22 225:9,10
 242:8
stakeholder 255:10
stakeholders 170:8
 312:12,13 396:5
stance 176:16
standard 27:4 31:6
 112:13 212:22 217:21
 243:18 296:18 342:18
 352:12 357:16
standardized 298:14
 365:17
standards 1:3 2:6 72:14
 192:15 201:13 211:12
 211:18 218:16 271:19
 273:13 282:20 295:4
 306:18 343:16 386:10
standpoint 259:2
starch 228:16
start 4:11 8:21 41:13
 59:9 60:16 70:21
 74:13 103:7,22
 144:22 145:1 153:13
 153:19 155:12 157:18
 170:21 200:4 202:19
 204:6,9,11 232:5
 258:15 267:14 269:10
 270:6 283:12 284:21
 300:13 309:20 330:15
 349:4 387:4 390:22
 396:17 400:14
started 7:16 12:18
 21:14 45:13 70:14
 75:21 93:9 117:12
 171:11 172:4 178:12
 193:9 196:17 203:4

204:9 261:1 278:16
 294:13 301:15
starting 4:6,7 70:6,15
 99:3 200:10 204:13
 307:21
starts 82:8 108:17
state 41:14,18,20 42:19
 43:4 68:18 71:6 72:20
 79:14 151:6,12 152:9
 206:18 243:7 287:21
 310:6 312:2 326:19
 328:5 334:12,18,22
 353:22 354:1
state-mandated 42:1
stated 124:2 227:15
 249:12 274:5
statement 52:12 103:16
 108:5 169:6 170:8
 191:18 257:17 267:7
statements 214:6
states 1:1 22:12 23:5
 29:4 61:14 71:7,9
 74:6 75:6 77:8,14,21
 86:9 94:18 97:19
 102:11 105:11 134:19
 145:7 183:15 214:2
 245:22 330:14 359:17
stating 209:6 230:14
 248:19 249:19 353:22
statistics 340:1
status 176:16 292:14
 294:20 295:19 297:22
 298:4 305:21 306:22
 307:9 349:14 359:18
 364:16 385:1
stay 136:21 273:3
 375:11
steam 226:20 232:16
steam-producing
 234:18
steamship 75:14
step 31:3 34:4 41:3
 58:4 99:13 114:22
 115:1 124:2 170:7
 171:3 199:20
steps 29:22 140:15,15
 196:16 286:12 345:16
 365:6 370:8 379:5
 388:19 399:13
Steve 1:16 114:3,3
 246:7 276:7 293:5
 313:8 317:6 324:14
 339:1 363:14 368:2
 373:6 376:12 397:1
stick 133:8
sticker 161:22
stickered 88:17
stickering 88:15

stickers 164:8,11,13
 369:21
Sticking 303:22
stimulates 210:17
stocking 217:17 221:14
 223:2
Stockton 74:21 75:19
 76:16,19 197:2
stop 26:5 27:1 43:13
 63:9 64:16,17 65:5,20
 69:16 82:16 181:10
 181:12 182:3,15,17
 183:13 184:5,6
 193:15 289:20 309:19
 328:22 349:5 372:5
 372:10 373:2,6,9,12
 373:14,15
stopped 76:6
stopping 373:16,17
stops 81:2 373:7
storage 19:14 311:4
 316:16 317:3 321:7
 321:21 361:5 370:14
storages 314:2
store 164:10 311:4
 314:18 317:22 318:1
 318:4,5,7 367:16
stored 88:20 162:14
stores 87:2 147:22
 154:4,6,9 156:21
 161:20 162:3 164:7
 164:16 165:21
stories 299:20
storing 160:17 321:7
story 45:13 363:3
straightforward 109:20
 393:16
strained 114:8
strategy 72:22 73:11
 219:2
strawberries 330:3
stream 194:2 295:21
Street 1:9
strength 13:19 235:2
strengthen 15:3 78:16
 386:7
strengthened 378:11
strengthening 4:21 6:5
strengthens 302:1
strengths 17:22 399:8
stresses 225:9
strict 307:3 337:15
stricter 306:22
strides 167:3
strikes 62:1
strip 351:2,10,12
striving 14:11 274:1
strong 15:5 26:3 43:4

60:16 64:10 223:6
253:14,19 254:2
273:8
stronger 24:8
strongly 32:6 138:13
149:19 171:10 289:11
struck 121:12 137:8
216:21 290:5,12,18
290:19 301:1 320:5,9
395:16 396:1
struggling 45:7 260:1
323:22
studies 290:21
study 102:19 104:3,11
105:2 106:1,9 380:16
380:19
studying 320:16
stuff 77:9 82:2 177:21
178:8 230:17,18
314:4,20 334:4
369:14
style 361:5
styles 218:2
subcommittee 3:5,14
203:13 211:6,14
212:3 213:14 216:15
226:1 227:18,20
247:12 250:6 284:7
284:12,18 295:13
342:6 398:22
subcommittees 400:16
subcontractor 155:3
subgroups 98:11
subject 70:18 74:14
153:7 154:7,7,10
182:1 213:20 285:19
286:12,15 325:2
333:16,18 345:17
377:18 398:20
subjects 257:19 285:22
submit 19:5 79:12
172:10 186:13 189:6
submits 79:7
submitted 196:7 198:21
247:20 291:8 377:4
substance 185:10
206:6 208:6,20
223:20 226:8,14
235:1,16 236:3,6
241:14 254:4 259:13
substances 3:6 183:13
223:12,14 228:3
261:20 264:5
substantial 139:7
substantiated 27:6
substantive 43:2
substitute 349:19
subtle 393:20

subtracted 275:4
successful 24:1 49:6
102:1 104:19 158:8
287:16
successfully 42:7
sucrose 3:11 241:18,22
242:2,3
sudden 23:15
suddenly 55:3
sue 1:14 60:1 66:2
179:8 222:13 226:16
230:2 233:5,16
241:21 251:5,6
269:10 303:12 309:20
329:1 331:21 332:9
332:17 350:15 352:14
353:2 379:15 381:11
Sue's 314:1
Suess-looking 252:21
suffer 94:12 266:1
suffering 210:15
suffices 192:17
sufficient 10:22 30:8
59:12 170:15 229:4
255:18 289:6 301:20
381:16
sugar 98:5 108:15,17
108:17,18 109:1,4,10
109:10,13 110:1
suggest 32:6
suggested 181:9 236:2
236:4 239:7 242:12
suggesting 211:15
suggestion 181:12
242:11 278:9 387:12
suggestions 9:5 19:4
82:21 164:14 304:19
suited 266:7
suits 125:14 179:5,11
179:15
sulphate 237:19
summaries 325:4
summary 103:2 285:17
290:3 348:12
summer 80:13 119:12
119:16
sunflower 77:5
sunset 3:6 204:6,12
205:1 214:6,10
215:18 227:8 239:18
242:19 245:2 247:6
271:11
sunshine 333:17
super 23:14
supermarket 154:8
supermarkets 151:18
supervision 25:1 28:2,3
44:6

supplement 229:17
supplements 222:4
supplier 10:9,15,19
16:18 18:10,12 71:17
123:18 197:14 347:22
348:1 367:1
supplier's 10:11
suppliers 16:7 17:15
40:10 59:18 72:1
124:16 287:2 371:18
supplies 144:1
supply 4:22 6:5 9:2,17
9:22 10:2 12:17 13:14
14:21 22:10,12 23:1
23:13,17 32:1 43:9,17
49:4 59:10,12,16 76:6
80:1 81:5 82:7 83:11
84:1 86:13 88:1 92:8
92:10 93:1,2,5 94:2
95:3,8,10 98:12,16
105:19 106:15,15
108:6,13 109:19
111:17 115:20 124:7
132:17 142:12 145:18
148:15,17 149:17
153:22 157:9 158:2
160:7 166:6 198:7
199:6,9 286:13 288:7
291:16 297:20 306:6
306:8,14,22 307:16
310:3 311:21 312:14
315:6 318:15,19,22
318:22 319:14 320:5
347:2 348:2 349:4
359:5 364:17,21
370:10 371:5 377:19
378:4,17 379:5 388:1
388:3 390:5 393:13
395:11
supplying 22:13,14
support 14:19 30:9
33:4 56:14 95:17
106:6 107:6 146:5
171:10 194:13 209:6
235:15 237:13,21
245:12 247:21 257:22
261:7 286:16 386:5
supported 56:12
237:15 254:9 273:10
supporters 229:14
supporting 229:21
249:10
supportive 252:14
318:18
supports 257:3
supposed 21:17 88:15
125:15 171:18,19
351:7 353:12 397:10

supposition 68:3
suppressant 241:4
sure 11:13 13:4 18:18
57:12 90:17 104:5,11
109:22 111:12,13
123:5 126:20 143:8
149:3 165:17 168:11
174:16 182:5 186:19
191:20 194:6,15,16
201:19 231:17,20
232:4 240:8 256:2
261:9 264:12 268:15
275:3,7 288:20
293:12,13,17 296:10
304:18 305:20 348:9
349:8 353:13,21
364:5,13 373:11,21
375:5,10 386:8 398:1
surfaces 207:18
surgery 244:17
surmise 251:13
surprise 86:20
surprised 35:7 149:4
171:12
surveillance 356:16
survey 147:9,10 150:6
329:7
surveys 326:11
surviving 24:1
suspect 58:18 167:5,18
345:6
suspects 142:10
suspended 187:11,14
374:10
suspension 27:17,18
344:8
suspicion 27:2,7,13
63:10 366:7,11
suspicious 339:5
sustainability 72:22
73:3,5,10 353:20
Swaffar 1:21 204:4,5,18
205:4 206:13 207:2
207:12 208:12,22
210:1,8 214:4,18
215:12,14 216:9
217:16 219:5,11,17
220:21 222:12 223:8
223:22 224:16 225:2
226:4,7,16 230:2
231:6 232:18 233:12
234:8 236:11,15,22
237:2,9,22 238:3,11
239:12,15,20 240:18
241:8,12,21 243:6,16
243:22 244:18 245:5
246:6,22 248:3 250:9
251:1,4 252:3 253:9

254:6,22 255:21
 256:19 258:2 259:14
 260:19 261:18 262:19
 263:3,6 264:18 265:4
 265:13,15 266:11
 267:1,20 268:3,8,17
 269:13 270:9,22
 275:12,20 276:5,17
 277:21 278:15 279:11
 279:20 280:5,10
 282:6,15 283:13
 284:6 313:9 314:14
 331:10 367:11
switch 84:19
sympathize 391:17
syndicates 122:20
synopsis 246:17
synthesis 227:3
synthetic 3:12 228:13
 267:12,15 271:2
 273:14,15 384:5
system 13:7,17 17:5,9
 18:18 19:22 26:7,8
 32:13,17 35:12 44:5
 44:11,12 62:19 69:7
 69:10 78:10,12 80:18
 82:5 83:10 84:3 87:7
 92:1 100:3,6,7 109:10
 117:16 135:3,13
 137:14 139:13 140:13
 141:10,16 145:4,5,8
 146:21 151:1 153:1
 153:21 154:1 157:22
 158:11 172:9 185:19
 189:2 190:4,9,19
 192:6 198:9,11,13,17
 198:21 199:17 209:20
 281:9,11 282:2
 288:14 297:16 327:13
 327:19 336:1,17
 342:14 350:2,6,6
 362:16 363:12 368:19
 375:14 377:15 386:6
 395:11
system's 343:10
systems 35:22 36:3
 74:9 83:19 198:11
 200:15,16 201:3
 234:11 282:14 299:17
 302:1 347:21 362:21
 363:10

T

table 70:22 141:5 144:6
tag 302:16
Taiwan 147:18
take 4:14 14:3 19:10,15
 27:19 28:17 29:22

33:10 56:8 64:3 69:1
 70:13 87:8 103:21
 109:12 122:12 129:18
 136:1,6 140:6 150:5
 162:10,19 164:3
 180:16,17 181:1
 194:22 197:19 199:10
 203:6,13 216:17
 221:1,11 244:11
 276:18 309:14 324:16
 324:21 335:9,11
 369:4 379:11 382:9
 391:10 392:2 394:2
 398:21 399:5
take- 303:13
take-home 293:7
takeaway 302:11
takeaways 296:16
 335:13
taken 258:21 341:6
 342:10
takes 13:21 39:6 156:6
 164:4 169:12 172:14
 176:20 200:8,12
 203:21 295:18 365:7
 368:15
talk 18:7 20:10 25:9
 35:18 36:18 41:17
 57:1 78:8 90:13 94:15
 96:17 102:18 132:15
 133:9 151:5 181:6
 260:4 263:9 265:6
 313:12 318:13 342:22
 359:14 364:21 365:16
 388:1
talked 43:8,10 52:5
 129:20 211:7 260:5
 305:11 318:14 342:5
 345:21 346:1,12,19
 347:19 352:6 356:17
 365:9 378:8 390:3,7
 396:9
talking 31:19 32:2 33:8
 60:19 61:12 86:5
 91:16 107:20 111:15
 120:21 133:13,14
 140:19 141:4 181:10
 199:17 200:15 215:20
 223:12 246:12 256:12
 261:15 276:6 313:9
 315:19 316:1,6 319:3
 319:4 328:14 355:14
 367:12 381:4 384:1
 385:17 394:11
talks 211:9
tamper-evident 85:9
 112:2 160:16 163:12
tamper-proof 162:5

tampered 128:17
tapped 396:13
target 19:22 214:17
targeted 173:17
tariff 74:5 107:20
 125:10,11 289:15
tariffs 101:16
task 28:22 98:5,12,19
 116:16 126:15 198:8
tasks 126:12
taught 66:3 67:2,2
tax 125:8 197:8
taxed 125:12
taxes 39:16
TCEs 43:12
teaching 8:7 66:11
teat 226:12 228:6 231:4
 231:5,9,10 232:3,6
 233:7 247:19 248:6,9
 248:13,21 249:1,4,6
 250:13 251:9 252:7
 253:2,6 255:12
 260:17 263:12,22
 264:1
teats 249:8 256:9
technical 187:18 210:6
 213:20 226:14 238:10
 247:22 343:9
techniques 361:2
technological 223:17
technologies 83:13
 357:5,8
technology 72:19
 108:12 201:4 347:17
 384:11
tell 57:9,20 64:14 80:12
 82:3 104:3 131:5
 132:4 177:20 273:2
 331:18
temperatures 88:6
template 172:12
templates 379:18
temporary 209:2
ten 7:2 70:1,5,7 72:15
 108:16 117:19 125:9
 129:19 146:18 156:8
 159:10,14 161:10
 175:19 294:5,6
 305:20 377:19
tend 266:16,17 276:13
 374:13 380:13
tendency 31:13 189:14
tensions 148:2
term 178:18 277:1
 300:3 394:9,9
terminology 365:17
terms 19:1 24:13 51:14
 56:1 63:9,16 97:17

99:14 111:18 114:19
 143:15 146:15 178:6
 186:6 223:14 235:21
 254:19 298:12 315:4
 324:21 338:10 354:18
 356:8,15,22 358:8
 362:5 373:3 385:17
 387:2 390:3 393:8
Terra 2:14 71:12,16,16
 71:21 119:9
terrible 293:15
territory 135:18 380:20
test 81:21 120:12,14
 121:5 141:16 145:5
 146:4,13,16 148:4,9
 148:15 149:13 152:6
 152:9 183:10 349:1,9
 350:3,22 351:2,10,12
 352:9,19 354:3
tested 67:7 117:7
 148:11 149:1 161:21
testimony 202:15
 253:12
testing 26:19 43:3
 45:16 50:10,14,14,16
 67:10 68:9,11,11,12
 68:16,17 69:4 78:11
 81:9,10,14,18 82:11
 82:18 116:4,8,10,18
 117:1,12,18 118:2,10
 118:10,16 119:3,5,8
 119:11,14,17,20
 120:3,22 121:4
 144:10 145:12,21,22
 146:1,3,8,12 147:2,5
 147:8,12,14,22 148:3
 149:5,21 150:10,16
 150:19 151:7,11,12
 151:15 152:1,5,22
 183:8 185:4 189:1
 345:20 347:6,7
 348:11 350:1,9 351:3
 351:18 352:16,18,22
 353:11 355:9 356:5
 356:16,22 365:7
 383:19,21 384:2
tests 40:17 45:19 46:8
 46:10 118:13,17
 121:3 147:18 151:13
 162:3 188:18,19,21
 188:22 353:17 371:20
Texas 71:8 312:2
thank 15:12,13,13 21:4
 21:6 28:7,8,12,16,18
 34:17,19 41:10 43:7
 47:9 48:19 58:13 63:6
 66:2 69:15,15,20 70:3
 74:11,15 80:2,3,5

84:17 90:14,15 91:4,9
91:11 97:8,11 103:4,4
108:3 114:2 128:20
135:19 137:2 158:18
174:12 202:4,13,15
207:12 208:15,22
225:2 226:4,16 230:2
233:16 234:8 236:11
237:2,9,22 238:11
241:12,21 243:6
246:6 247:8,12 248:3
270:22 272:16 274:2
275:20 276:1,3
278:11,14 284:8,19
285:5 290:3 338:14
369:16,17 387:13,21
388:2
thanked 76:12
thanks 4:18 14:8 15:7
15:11 21:8 34:21,21
58:12 59:22 84:14
97:10 136:10,13
137:1 144:7 178:15
185:14 201:8 204:17
206:13 207:11 248:2
274:6 278:15 338:20
349:16 350:7
that's' 198:1
theirs 342:18
theme 294:16 349:16
themes 285:18 286:22
theoretically 190:15,15
theory 35:21
therapeutic 217:5
they'd 133:3
thing 9:9 22:9 23:8 33:6
33:7 45:6,15 49:21
57:16 62:12,12 63:1
64:21 65:10 89:20
121:11 123:8 125:7
127:9 139:8,16 147:1
156:9 176:5 181:8
182:5,12 187:18,20
189:22 191:13 193:12
199:3 218:12 219:4
229:13 236:20 244:19
271:4 290:17,19
291:7 294:11 300:5
301:1 305:4,11,15
317:19 320:4 324:6
339:3 349:14 358:2
362:10 370:19 373:4
380:3 396:1 397:2
things 14:18 17:14
21:12,16 22:20 25:8
25:11 26:16,20 33:21
34:14,14 38:14,14
44:18 46:14 47:7 50:8

52:20 53:15,16 54:6
62:13 63:3 68:4,14
70:22 75:1 76:2 80:17
82:3 102:7 103:3
110:10,11 111:19
112:8 114:5 121:10
122:2 139:12 141:13
141:17 144:1 147:8
148:12 149:18 158:17
164:6 165:4 173:22
174:5,7 176:22 177:2
177:10 182:10 186:1
189:8 199:13 214:6
218:7,11 222:6 223:1
235:9 244:12 258:7
288:1 290:5,10,11,15
293:18 298:18 299:7
300:8 314:11,16
320:12 325:8 329:2
349:20 354:17 357:20
363:20 373:18 376:16
380:13 383:9 389:2
390:2 393:10,15
394:2,3 395:4 396:3
397:7
think 9:5,15 12:21 27:3
33:7 35:11,19 36:1
39:15 41:4 43:3,22
44:20 47:1 48:1,12,16
49:21 53:9 55:20,21
56:9 58:14,17 59:2
60:14 61:6,16,18 62:3
62:8,17 63:13 64:10
64:12,14 65:4,5,12,15
80:6 81:7,8,9,13 82:1
82:9,18 83:14 88:1,9
91:17 94:6 95:14
97:13 101:8 103:1
110:12 114:18 116:10
117:22 118:3 119:18
121:8 125:18,20,22
126:4,11,18,21 128:9
128:19 133:19 134:17
138:1,3 139:5 140:3,7
140:10 144:8,11,18
145:3,11,18 146:2,6
148:11 151:4 155:7
155:14 156:3,4
158:19 159:22 162:20
163:7 164:6 165:8
166:2 167:1,6,9,11
168:4 170:5,6 172:21
174:7,14 176:7,9
177:11 178:1,9,15
180:15 182:22 183:2
183:5,7,17,22 184:21
189:8,14,18,22
190:18 191:15,21

192:4,4 193:1,9
196:17 199:3,21
201:17,20 216:10
218:12,21 220:15,18
223:3,10,15,16
225:22 230:8 231:2,7
232:10 239:18 240:12
251:10,22 252:18
253:1,10 257:22
258:11,14 260:3
261:12,22 263:10
264:14 266:13,16
268:13 275:16 276:14
277:4,9,16 278:5,20
279:22 280:2 285:8
290:4,21 291:5
292:17 293:12,19,21
294:7,8,10 296:6
297:18,21 298:7,16
299:3,12 300:3,5,8,16
301:13 302:4 303:13
305:16 307:18 308:7
309:2 312:16 313:11
313:14,21 314:11,12
314:21 315:17 316:4
316:5,11,12 317:11
317:17,19 318:2,7,9
319:1,8,10,10,11,22
321:22 322:7,18
324:11,14 328:9
329:7 332:3,6,11,11
332:15 333:14,20
334:10 335:8,19
338:18 339:2,3 340:2
346:7 348:13 349:7
350:17,18 351:4,17
351:17,19 352:4,12
352:17 353:7,14
354:17 355:13,15
356:1,12 357:12,21
359:18 365:21 366:9
366:20 367:21 368:3
368:10,19,20 370:12
371:9 372:14,16
373:15 376:4 377:8
377:14,22 378:20
379:16,21 380:10,12
381:7,18 382:18
385:19 386:5 387:11
389:3,6,22 390:11
391:9,13,19,22 393:9
394:1,6 395:12,12,19
395:21 397:2,8,11,22
398:11,13,19 399:4
thinking 29:3 47:18
48:4 121:15 147:7
182:19 217:7,14
220:16 222:18 290:19

304:15 305:2 307:3,4
314:12 320:17 335:17
343:2 356:21 358:7
380:9 388:19 391:2
392:6 393:1 400:13
third 17:19 19:16 23:20
28:2 44:6 45:1 89:21
100:19 109:12 113:2
132:18 317:2 358:13
thorough 17:20 20:15
286:7,8 397:22
thought 11:18 12:6
49:1 87:8 127:11
216:5 265:5 279:13
293:6 304:5,20
332:20 343:14
thoughtful 48:21 122:7
thoughts 6:3 84:13
137:11 202:10 236:20
395:1
thousands 74:17 107:9
107:9 131:6,7
threat 179:15 370:6
threats 286:1 383:13
399:7
three 27:19 29:4,16
32:10 33:18 34:14
41:11 43:15,16 44:1
62:1 75:19 85:16
86:18 93:12 103:7
106:10 111:19 120:15
124:18 213:6,15
219:1 242:22 243:2
243:12 271:9 299:21
395:1
threshold 181:1 390:16
throat 235:8
throw 88:9 169:8
225:11,20 267:2
thrown 198:19
thunder 4:15
THURSDAY 1:7
tide 167:7
tied 144:21 190:11
220:5
ties 339:14 390:12
tighten 318:9
tightening 377:14
Tilth 72:8,16
time 13:21 14:3 16:9
17:12 20:16 27:20
34:20 42:1 46:9 48:14
50:22 51:20 52:7,18
56:3,8 58:11 59:8
67:17 70:4 74:11
76:13 83:8 84:9 90:19
91:16 95:21 96:2
103:10,14,17,18

- 105:22 120:11 126:13
129:18 136:8 141:10
143:21 167:11,22
168:14 172:15 178:4
178:5,13 180:16
184:19 189:16 190:9
191:13 192:19 194:21
195:18 196:6 200:8
203:13 206:21 209:11
253:11 256:21 267:3
271:15 278:20 284:9
290:12 293:15 310:9
312:3 315:12 318:17
344:4 350:1 352:9
360:9 365:6 376:16
379:1 381:16 384:9
393:18
timeliness 376:22
timely 209:14
times 10:14 16:3 18:19
83:3 111:2,3,7,14
113:8 143:20 168:17
169:7,8 194:17 256:6
277:10 288:22 289:2
294:7 320:8 339:5
396:9
timing 85:12 99:21
105:21
tinier 148:6
tiny 145:5
tip 166:4,17,21 167:9
170:5
tired 276:6 353:22
tiresome 173:13
title 285:14 287:9,10,22
309:14
today 6:8 7:18 8:22
14:5 38:15 80:18 93:4
94:17 320:8 328:12
396:7 399:15
today's 83:15
toes 364:9
told 37:20 46:22 66:18
67:18 76:12 111:1
123:2 171:18 378:18
tolerance 117:22 185:5
tolerances 264:11,15
Tom 1:9,12 4:18,20
5:22 8:13 15:11 36:20
41:10 136:10 137:1,6
151:4 153:4,4 165:2
191:2 219:5 230:3
244:18 256:19 262:5
267:7 270:22 279:4
282:17 284:19 285:1
296:20 320:8 393:9
Tom's 53:5 363:16
tomatoes 66:8,15 293:1
- tomorrow** 400:14,17
tons 74:19 83:17
tool 20:6 26:3 30:10,19
32:15 38:7 39:15
47:16 65:3,7,13 99:2
100:1 102:17 118:7
129:2 144:16 145:13
145:14,14,16,18
146:2 172:22 174:1
221:17 224:10 243:4
253:17,18 254:14,15
257:11 258:13,13,15
258:18 259:17,17
261:14,15 277:17
340:19 341:15,18
349:12,12,17,17
350:14 351:6 355:7
371:3 374:16 384:22
385:1,6
toolbox 243:8
tools 33:15 36:14 44:1
63:2 98:15 100:10
124:1 207:18 217:20
257:11 258:4,13,14
258:20
top 54:5 68:15 69:19
89:4,10 97:4 99:6
108:16 307:14,20
370:4,15
topic 97:13 236:21
374:7
topical 207:18 237:4
238:6,9,16 241:16
topically 238:19
Topics 3:6
toss 122:13
total 77:16 80:1 110:22
242:21
totally 58:8 317:9
332:14
tote 302:16
touch 25:16 103:3
360:7
touched 230:4 360:7
392:12
touches 367:22
tough 368:9,20
town 60:11
toxic 237:16
TR 208:20 265:16
trace 59:17 111:5
114:17,22 117:10
141:17 288:3 297:1
385:9
traceability 12:10 32:1
36:22 89:15 92:10
95:13 114:7,12,19,21
201:3,5,6 293:20
- 294:11 296:17 297:7
297:16,21 299:4
306:16 307:6
traceable 81:4
traceback 293:4 296:3
traced 83:11
traces 111:4 135:13
tracing 62:5 298:8
track 9:8 32:10,11
39:10 60:22 76:13
83:10,22 101:17
102:12 107:13 130:1
130:9 131:20 175:3
299:18
trackers 60:19
tracking 29:20 33:19
36:6 61:4,8,22 62:4
130:17 177:18 188:7
297:9,22 384:12
tracks 38:19
Tracy 278:17
trade 2:19 5:15 8:12,14
8:17 14:2 28:22 31:5
32:12 33:19 38:7 50:5
50:7 56:14 61:17 72:3
72:15 73:20,20 74:6
80:6,9 97:14,21 98:4
98:11 101:15,17
104:13 105:14 106:8
117:17 120:8 135:12
143:18,18,19 144:2
147:20 149:20 150:9
150:16 171:1 172:16
195:18 198:6,15
248:19 292:21 304:20
384:12 386:20 387:22
388:2,9 391:2
trade-related 73:22
traded 38:10
tradeoff 316:21
traders 22:17 23:2 40:7
80:11 155:8 308:20
trades 154:6
trading 84:2 147:17
184:9
trafficking 179:2
trail 81:2 124:10
trained 19:7,10 337:19
training 7:13 8:8 58:15
195:13 310:11 359:19
362:3,4,4,15 379:17
382:18 384:18
trainings 7:8 20:10
trains 159:7
transact 289:17
transaction 25:20,21
32:13,14,19 38:4,6,17
51:17 112:18 135:16
- 160:21 289:10 319:6
319:13 332:2
transactions 39:14
51:14,15 52:4 85:21
110:20 299:10 365:5
transfer 161:3 352:1
transit 154:12,14 160:1
transition 197:20,20
translate 389:7
translates 94:7
translating 184:11
transloaders 29:12
transparency 78:17
92:10 93:1,2 95:12
197:5 198:3 277:4
384:10
Transport 154:15
transportation 109:6
158:21 159:17
transports 308:4 310:7
transshipped 80:10
trap 60:12 61:11
travel 79:5 87:20,21
202:14
traveled 4:9 39:8
treat 134:6 229:4
treated 300:18
treatment 67:20 204:8
207:19 209:7 217:5
237:4 238:7 239:9
240:16 241:2,16
271:6 277:2 282:21
363:19,19
treatments 204:14
207:9 210:5 224:21
226:10 234:4 361:5
tremendous 42:21
68:15,17
trending 33:2
trends 97:17
triangle 131:11 287:3
tricks 41:5
tried 44:2 130:17
138:12 172:11 378:16
trigger 184:6
triggers 184:5
trip 21:10
truck 159:1,16 195:3
351:11 377:11
trucker 158:22
trucking 159:5,6
truckloads 86:1
trucks 54:19 83:13
154:14,19 160:2,8
299:20,21
true 47:13,13 195:11
276:20 299:6 311:15
325:7 326:9,11

332:11
truly 31:7,20 32:4 33:12
 34:18 124:22 330:7
 355:6
trust 133:20 298:9
trusted 14:15 298:6
trusting 279:17
try 13:5 20:14 36:16
 38:16 63:14 85:15
 92:2 127:2 129:9
 141:14 169:12 188:21
 188:22 195:5 230:11
 266:5 297:2 338:20
 360:17 372:20 375:8
 397:14
trying 9:7,16 41:3 45:7
 47:5,7 59:17 67:12
 68:5,8 121:21 148:17
 173:13 195:4 218:18
 218:19 222:7 240:11
 240:17 244:6 246:9
 273:21 285:9 291:2
 293:15 299:18 304:17
 318:6 354:18 355:18
 360:18 362:18,20
 363:1,6 364:6 366:5
 373:12,21 376:13,22
 383:7 389:22
TUCKER 2:4 65:19
 90:17,21 91:7,9
 176:17 180:14 298:16
 318:21 319:17 323:21
 336:10 338:20 341:12
 343:1 347:13 354:16
 356:12 360:12 361:12
 361:16 362:13,18
 364:2 369:7,17 372:8
 374:6 376:1 377:13
 380:8
Tucson 1:9,9
turkey 34:3 38:2 40:2,3
 75:7,11,14 77:10,11
 77:12 80:10 82:22
 382:6
Turkey's 83:2
Turkish 122:20
turn 32:17 35:5 85:15
 90:16 91:7 93:13
 121:2 222:7 263:7
 285:1 368:14
turnaround 100:2
 120:11 142:17
turned 74:19 78:2 167:7
turning 282:17
turns 90:7
tweaking 398:14
tweaks 274:12,16
twice 120:18

two 5:6 38:19 63:8 75:9
 76:10 77:18 79:14
 85:14 88:11 93:2,3,15
 94:18,18 106:10
 120:15 128:3 142:20
 151:8 159:19 166:1
 166:14,14 173:10,12
 187:5 202:20 205:22
 206:3,10 208:4,7,10
 214:5 221:3 258:7
 271:1 272:12 282:20
 284:20 292:2 306:4
 309:15 313:6 351:18
 369:11 370:4,4,8
 373:18
two-thirds 203:20
 329:7
type 12:16 21:2 105:8
 142:9 209:14 287:5
types 50:16 67:9 99:14
 118:12 214:21 221:4
 224:11 228:20 242:6
 246:15,18 249:4
 309:1 317:6 325:20
 348:15
typically 214:18 330:6
 331:14 332:4
typos 233:18

U

U.N 78:5
U.S 7:2 8:13,16 9:13
 26:16,18,20 30:15,17
 40:22 51:18,21 66:5
 66:21 69:9 77:19
 78:10,12 95:17 96:3
 98:6,10 101:15
 104:13,14,16 105:1
 109:9 123:8 129:10
 134:22 148:22 157:12
 179:1 196:9 197:13
 197:13 205:12 330:18
 340:12 359:13 375:19
udders 252:22
ugly 179:12 307:22
Uh-huh 191:11
Ukraine 40:4,7 77:15,16
 77:19 123:2 330:12
 332:6
Ukrainian 122:21
ultimate 118:6
ultimately 31:22 37:3
 50:11,19 111:8
 145:11 366:14
unaccountability
 323:20
unanimous 237:13
unanimously 271:13,19

unannounced 140:2,3
 166:15 173:15 174:2
 174:11 189:12 355:3
 355:7,10,10 356:3,6
unavoidable 152:16
unbelievably 33:10
uncertified 7:5 9:18
 10:12,18,20 11:5,16
 13:1 16:20 19:17
 57:10 59:18 86:11,20
 87:11,15,16,17 89:11
 128:5 153:7,10
 168:20 175:15 301:7
 303:16 306:7,8
 307:10,13,15 310:3
 315:5 370:7 374:14
 374:15 379:9 385:20
unchangeable 124:11
unclear 346:16
uncover 31:21
uncovered 90:2 115:3
 132:5
uncovering 186:20
under- 179:13
under-utilized 179:22
undercuts 368:17
underestimate 180:19
undergo 27:15
undergrad 74:7
underlying 289:4
understaffed 138:1
understaffing 138:6
understand 17:5,13,22
 18:20 23:4,8 77:22
 108:12 121:21 127:3
 127:4 178:13,21
 195:19 196:15 199:13
 200:12 218:19 240:12
 244:20 255:9 257:15
 257:20 277:18 301:17
 312:15 329:14 333:10
 347:13 360:17 363:12
understanding 64:21
 114:21 122:1 185:18
 186:1 215:6 220:20
 263:22 280:21 319:12
 336:5 358:3,8 396:15
understood 219:6
 301:12
undetected 49:7
undocumented 77:5
 300:7
unfair 105:5
unfortunately 10:5
 189:15 243:11 294:18
 350:10 353:4 387:16
Union 63:10 135:12,17
Union's 135:10

unique 85:4 306:14,22
 347:17 364:19 370:13
United 1:1 22:12 23:5
 61:14 74:6 75:6 76:9
 77:6,8,14,21 86:9
 94:18 97:18 102:11
 105:11 134:19 145:7
 183:14 214:1 330:14
 359:17
universal 225:15
 319:15
universally 240:13
university 1:9 6:22
 72:20 73:16,18 74:7
 216:21 245:18
unknown 77:20
unlabeled 292:22
 300:15,15 308:12
unloaded 54:19 160:9
unmanageable 335:10
unorganic 296:8
unpacked 395:21
unpleasant 56:16
untapped 396:12
untreated 67:19
unuseful 335:12
updated 347:15
upper 35:16 54:8
upstream 99:4
urea 22:1
urgency 178:20
USA 82:13,18 119:5
usage 230:6
USDA 14:12,14 68:19
 75:2 79:7 101:14
 130:17 142:8 152:10
 164:21 180:20 200:4
 298:15 302:22 343:15
 351:22 387:8
USDA's 152:4 180:15
USDA-accredited 7:18
use 3:12 9:4 18:21 36:2
 40:11,12 57:10 59:2
 124:19 125:6,16
 145:19 172:22 174:6
 181:19 190:2 205:20
 207:5 208:2,19
 210:20 211:10 212:12
 214:21 222:10 225:12
 228:5 230:21 235:22
 237:15,17,18 238:9
 238:14,17 239:3,8,9
 240:15 241:1,3,7,7
 242:17 243:14,15
 246:10 247:19 256:17
 262:3 271:2,13,15
 273:13,15 277:8
 281:16,16,17,21,22

282:13 298:14 307:8
 310:16 316:15 322:18
 333:10,11 334:13,20
 349:18 361:10 371:16
 374:4,4,13,15 389:9
 400:5
useful 20:6,21 35:11
 118:6,13 166:3
 173:16,16 180:15
 202:3 224:9 236:3
 277:9,17 289:11,12
 297:11 325:19 326:1
 340:19 341:17 348:8
 371:2
users 29:6 105:18
 245:3
uses 207:16 221:2
 226:15 234:15
usually 17:9,20 58:6
 106:10 161:20 330:7
 352:2 382:3
utility 289:16 352:12
utilization 179:14
utilize 172:16 184:2
utilized 185:12
utilizing 184:20

V

vaccinated 210:17
 221:15
vaccinating 218:9
vaccination 218:4
 221:2,11
vaccinations 217:21
 219:9 224:3
vaccine 210:16 211:2,4
 211:5 212:12 213:12
 214:16,16 215:5,6,8
 215:10 222:21
vaccines 3:8 210:12,19
 211:11,17 212:2,6
 213:7,14 214:19,22
 215:1,2,20 216:11,16
 217:4,9,9,10,18,19
 218:22 219:1,21
 220:4,5 222:11 224:4
 224:7,9,13
vague 32:4 177:9
vaguely 170:14
valid 366:10
validate 342:21
validity 286:20 341:22
 344:1
valuable 34:20 147:6
 304:22 335:12
value 101:12 103:17
 152:21 299:4 359:20
value-added 94:20

valued 14:15 291:6
values 6:17
variability 86:6
variable 64:14 109:3
variables 377:8
variance 235:21
varied 218:5
varies 228:19
varieties 328:3
variety 179:20 210:20
 361:2
various 50:16 130:21
 214:2 217:22 286:21
 309:1 317:6 365:3
Varroa 242:9,18 243:4
 244:7 245:18 246:2
vary 87:4 228:22
varying 249:7
vast 244:21
vastly 52:5
vegetable 316:15 333:8
 365:13
vegetables 8:15 149:8
vehicles 309:1
vendor 7:5 57:18 72:5
vendors 19:17 57:11
 298:20
veracity 286:21 287:6
 340:17 341:16
verbally 213:22
verbatim 388:11
verification 9:3,6,22
 10:9,10 11:4 12:16
 16:22 32:1 87:13
 118:4 164:20 286:19
 364:16
verified 11:21 344:1
verifies 124:20
verify 11:1 12:2,7 18:22
 19:7 32:17 35:17
 47:16 55:16 89:21
 113:22 164:17 169:4
 194:18 288:7 307:9
 329:18,19 341:16,22
 345:20
verifying 10:6 12:14,20
 113:20 142:1 288:13
 340:17 365:1 366:19
version 213:13
versus 19:2 26:18
 125:4 219:1 263:11
 264:13 278:2 326:19
 371:8
vessel 129:1
Vesseltracker 131:1,10
vetted 72:1
vetting 15:2 17:20
viable 32:13 281:6

Vice 1:13
victims 126:1
view 223:4 278:3
 288:18
viewed 211:16
viewpoint 15:15 318:16
vigilance 100:8
Vilsack 8:14
violation 374:2
viral 210:13
virus 221:13
visibility 111:16 190:17
visit 16:9
visited 29:11,14 44:16
 44:16
visiting 358:4,5
vital 338:18 378:13
voice 72:12
volatile 207:20
volume 51:16 61:1
 85:20 166:10,13,13
 346:4,6,10
volumes 30:6,9 32:22
 105:14 371:19
voluntary 329:4
vote 203:20 206:16
 250:6 255:18 265:11
 265:13 266:18 267:7
 267:15,15 268:9
 269:6,9 275:13
 282:16 283:10,11
voted 250:21 251:1
 252:16 253:10 262:16
 265:16 307:17
votes 203:19,21,21
 268:12 270:1,20
 284:3
voting 204:21 206:15
 206:21 247:6 266:10
 267:14 269:9 270:6
 283:12
voyage 129:1
vulnerabilities 98:16
vulnerability 99:1

W

wait 27:17 143:2 329:10
 361:18
waited 175:9
waiting 175:8 256:15
walk 108:6
walk-through 237:18
want 14:9 15:5 18:8
 20:3,16 28:17 33:21
 38:1,4 41:7 46:13
 48:1,18 51:9 53:7,18
 58:11 62:11,17 65:19
 65:22 67:15 84:18

86:6,12 91:4,11,14,15
 95:21 106:1,5 108:9
 122:12 125:11,11
 129:16 141:18 142:19
 142:19 143:4,12
 153:13,19 164:14
 165:12 170:18 173:18
 180:19 185:1 189:15
 193:1 201:21 203:18
 204:18 206:11 208:5
 208:11 210:12 214:4
 216:10,13 222:10
 223:9,22 232:18
 239:12,21 240:18
 247:7 258:19 259:14
 259:18 260:4 261:19
 263:9 266:18 267:2
 273:5 275:7 276:12
 276:12,17 277:21
 278:11 281:5 286:6
 305:1,11,15 313:10
 314:1 315:22 316:2
 318:10 324:7 327:9
 328:4 333:15 334:1
 336:9 338:6 339:7
 340:20 341:3 342:22
 347:12 351:16 354:6
 360:6,11 361:18
 363:15 381:14 386:16
 387:21 388:2 392:7
 394:4
wanted 9:1 23:20 39:20
 120:5 123:15 137:4
 143:8 150:15 151:3
 153:6 181:6,13 191:3
 200:3 211:17 216:6
 228:9 229:11 243:8
 260:22 265:7,20
 276:1 280:5 302:2
 319:18,20 323:21
 324:13 330:2 360:20
 367:11 369:7 380:3
 381:1 397:16 398:7
wanting 103:15 259:16
wants 329:19 392:5
warehouse 10:20 11:17
 11:19,21 12:4,14,15
 12:19 75:13 155:10
 310:21 311:9,11
 316:19 317:16 321:16
 369:1
warehouses 88:21
 99:11 109:5 126:21
 127:13,14 155:10
 157:20 308:4,6,7,10
 308:11,12,13,14,15
 308:17 310:20 316:16
 317:3,5 323:13

368:12
warning 15:10 78:12
warranted 116:20
 144:12
wash 66:19,19
washed 159:1
washing 67:20
Washington 45:13 76:8
 80:14
wasn't 12:14 55:16
 184:19 197:1 249:17
 254:13 321:11 384:4
wastes 237:8
watch 131:15,16
watching 60:14
water 102:15 235:22
 236:1
way 34:15 40:7 45:22
 47:5,8,18 49:14 57:3
 57:4 59:10 62:2 64:4
 67:19 86:17 95:13
 102:19 105:20 110:20
 113:15 118:2 120:11
 122:7 123:22 124:13
 124:16 128:17 131:13
 140:1 141:17 146:10
 152:7 153:15 158:4
 161:16 167:15 169:4
 174:19 177:8 180:1
 186:2 216:14,17
 218:3 240:1,5 266:4
 293:20 294:8,9
 329:20 342:17 348:6
 348:19,21 350:9,19
 352:19 353:5 354:19
 355:21 366:16 368:4
 375:16 376:21 377:9
 378:12 379:9 386:22
 389:4,10,19 393:22
 400:9
ways 37:18 104:21
 106:6 159:15 171:1,4
 178:5 188:20,22
 191:20 230:19 232:15
 255:16 317:17 351:18
 368:19 370:5 376:5,6
we'll 4:4,11 5:12 8:20
 8:21 15:5 21:7 28:14
 48:7,12 53:6 60:4
 61:17 69:22 70:2,19
 81:7 82:10 103:21
 116:13 123:5 129:18
 129:18 136:16,17,21
 174:14 183:19 194:11
 194:21 202:19 203:11
 204:9,11,20 206:14
 206:16 208:12 221:1
 247:6 267:10 269:5

270:3 275:12 282:16
 284:11 285:1 305:9
 306:3 340:7 357:22
 364:8 370:21 374:15
 377:18 379:14 400:1
 400:17
we're 4:19 5:16 6:2 14:3
 14:4,19 15:6 20:1
 28:6 31:19 32:3 33:5
 33:8 42:14 45:7 46:1
 47:3,4,7,8 48:13
 50:22 51:3 56:3 59:17
 60:19 61:2,16 66:14
 67:11,12 68:4,5,7
 69:16 70:5,13,14,14
 77:1 82:19 84:3,8
 85:5 86:5 89:16 95:9
 95:18,19 96:9,11 97:6
 97:16 102:4 103:5,9
 107:20 110:21 111:20
 113:9 115:13 118:5
 119:4 122:7 129:6,17
 132:16 133:15 134:6
 136:6 139:12 140:22
 141:13 142:18,22
 148:12,14 159:12
 168:2,14 171:22
 172:19 175:13 178:16
 186:12 189:21 191:14
 191:14 195:9 197:16
 198:1,1 199:17,22
 200:15 201:1 203:4
 204:6 215:17,19,20
 217:12 220:15 223:11
 223:12,19 224:19
 237:3 242:19 246:12
 251:9 256:8 258:5,14
 261:14,15 271:7
 272:18 286:5 303:17
 308:1,8 312:17 313:9
 314:9,15 315:19
 316:1 319:3,3 323:16
 323:22 324:3 334:19
 338:10 342:19 351:7
 353:10,12 355:18
 356:7 361:22 362:18
 362:19,20 363:1,6
 364:4,5 370:9 373:12
 374:9,20 376:21
 379:16 382:11 385:18
 392:15 398:1,3,19
 400:9
we've 5:18 7:22 11:3
 14:22 26:14 29:9,11
 35:1 37:19 42:9,21
 48:14 56:5 63:6 66:18
 68:22 82:15 84:20
 94:16 98:18 101:22

119:11 121:8 130:12
 132:2,19 136:11
 142:1 144:4,7 145:21
 146:14,17 148:21
 149:1 153:4 165:1
 167:16 168:7 172:11
 175:2,18 179:20
 185:12 198:19 237:11
 253:22 259:11,22
 272:12 278:1 295:6
 295:10 298:19 310:14
 325:2 330:17 333:22
 336:10 354:18 355:13
 372:8 388:21 390:2,7
 394:2 398:8
weakness 37:19 44:9
 186:18
weaknesses 17:22
 44:12 399:8
weather 249:7,8
web 86:15
webinar 205:6 207:14
 265:6
website 132:8 248:1
 386:20
websites 132:4,9
week 76:17 85:19
 120:15 142:21 197:11
 200:5 262:12 382:8
weekly 167:14
weeks 39:6 45:12 46:17
 76:10 85:14 113:22
 169:12 197:11 396:8
weigh 266:18
weight 42:5 64:13
 235:4
welcome 8:18 130:12
 137:1 150:18 204:5
welfare 257:19
well-being 209:15
 225:13
well-chosen 17:16
Welsch 2:20 6:8 8:21
 8:22 14:7,9 37:8
 39:10 51:7 52:14,17
 58:14 62:4 67:16,22
 141:13 148:2 150:1
 155:14 156:13,20
 163:9 172:4 174:16
 175:18 185:1 186:9
 196:5 199:20 200:2
Wennick 73:6
went 46:21 67:17 70:9
 136:3 175:14 180:9
 197:3 203:1 230:16
 284:14 310:11 322:21
 328:11 372:21 387:6
 400:20

weren't 354:22
west 231:21
Western 254:8 256:21
 257:2
wheat 76:22 330:5
 358:6
wheats 122:3
wheel 320:7
whichever 125:13
whistle 133:11
whistleblower 132:22
 133:3
white 116:14
wholesaler 72:11,12
 128:2
Wholesalers 316:4
Whoriskey 75:20 76:1
widely 90:3 228:19
wider 350:12
widespread 22:9
wild 30:12 221:20
willing 132:17 133:7,8,9
 180:17 199:1,2,10
 233:10 390:14
willingness 143:4
win 313:12
wine 228:19
wings 256:15
Wisconsin 79:15
 231:19 329:12
Wisconsin-Madison
 73:17
wise 120:13
wisely 65:8
wish 193:6 195:12,21
wishes 118:1
withdrawal 271:15
withdraws 186:11
withhold 31:13
WODPA 225:20 249:10
women 266:1,8
wonder 55:2 393:14
wondering 49:8,10
 60:18 63:9,13 67:1
 116:9,12 188:11,12
 250:7 290:6 314:7
 329:15 344:16 373:19
 374:3 376:21
woo 107:21
word 40:21 61:13
 196:22 232:4 240:14
 302:18
wording 139:9 213:2
words 76:10 137:13
work 5:20 18:1,3,22
 20:11 29:3 32:8 33:14
 34:15 42:18 43:6
 47:11 48:21 49:4 57:2

58:6,7,15 59:4,10
62:17 92:5 98:1,19
99:21 102:20 109:18
109:20 111:13 116:18
121:6 130:18 146:6
165:5 173:20 182:8
182:11 186:1 188:15
190:19 199:12 201:18
202:5,7 210:12
212:18 214:8 215:17
229:7 233:14 250:18
255:4,13 265:21,22
276:2 291:10,17
315:18 333:9 342:8
356:15 379:3,4
385:16 386:15 398:14
399:3 400:1
worked 7:15 28:19 29:9
73:1 183:3 213:18
218:1 277:3 393:21
working 5:18 7:2 21:21
24:3 28:21 29:16
55:16 72:14 90:22
91:1 102:4 151:1
165:18 177:11 262:13
276:4 286:6,10
320:13 336:14 338:7
350:2 356:7 385:19
396:15,20 400:9
works 33:22 104:1
300:14 341:9,11
363:13
world 14:14 21:11 30:8
30:16 47:20 72:1 81:8
94:21 96:12 98:8
105:12 116:13 143:1
340:11 378:7 392:20
worlds 363:9
worldwide 8:9
worried 293:22
worry 338:22
worrying 366:6
worse 341:6
worst 68:14 147:13
168:12
worth 376:4 395:22
wouldn't 13:17 168:16
180:4 199:2 212:13
279:7 356:14 370:19
Wow 138:2
wrap 14:6,7 25:15
89:17 96:7,8 200:1
368:10 376:13 398:20
wrapping 79:7
wraps 376:15
write 54:16 107:16
209:18
writes 106:7

writing 177:14 213:22
written 17:8 54:7
235:14 238:21 291:6
353:4 354:19 355:22
wrong 21:12,16 22:21
73:6 81:2 88:11
111:20 139:9 158:17
216:13,17 236:20,21
271:4 280:4 318:14
wrote 13:6 46:7 74:4

X

X 332:5
XYZ 66:18,21

Y

yacht 131:2
Yale 73:18 74:7
yards 315:8,9
yeah 21:17 27:12 39:11
39:11,16,20 40:14
41:22 43:21 48:11,11
48:11,14 49:19 58:13
58:14 60:7 67:21
69:14 84:10 90:17,20
91:1 107:4,4 121:8
123:15 125:1 132:1
133:5 134:15,16
138:17,19 144:8
151:8 156:17 157:5,6
161:19 163:1,5 170:4
171:22 172:1 182:20
187:6 189:5 193:12
193:13 199:21 220:6
221:20 223:3 230:3
232:9,12 236:12,16
240:20 243:18 245:14
246:7,22 250:19
251:6,7 253:9,10
255:7,8 259:3 261:18
263:3,10,21 265:7
272:8 275:14 276:19
281:19 282:6 291:11
292:17 293:6 294:3,5
294:15 298:20 299:4
302:2 303:20 304:3,4
315:4 318:21 319:16
319:19,20,20 320:4
322:2,11,14,14,17
332:18 335:7,17,18
341:14 343:12 344:15
345:12,12,16 347:19
348:11 349:15,21
350:7,16 351:14
353:1 361:15,21
362:10,12,13,19
363:14 365:19 366:9
367:11 368:3 369:18

370:1 372:2,8 375:17
379:8 380:1 383:10
387:13,17 389:5
394:19
year 29:9 34:13 62:13
90:2 107:12 143:20
151:9 152:14 166:14
174:9 192:16 193:4,4
193:11 326:8 335:5
year's 193:7
years 6:11 7:2,14 8:4
16:5 42:21 72:15 73:3
73:21 75:9 77:18
97:17,20 98:8 106:10
117:6 119:10 121:19
126:21 127:17 137:22
159:20 175:19 184:14
222:20 277:4 303:15
310:18 313:5 315:7
316:9 322:18 323:10
324:3 398:14

yeast 210:21
yellow 131:11
yep 245:5 358:1
yeses 268:13,13,14
yesterday 5:4 35:4
74:19 78:2 79:4 129:5
129:7,12 132:5 163:8
176:19 197:1 259:22
yield 35:12,18,22 36:5,6
36:9,18 37:11 63:17
63:21 64:13,13,16
83:6 101:4 109:4
118:13 119:7 325:13
325:16,17 330:10,21
331:14 334:4 335:19
336:3 378:12
yields 35:12 83:7 109:1
110:6 294:8 329:22
330:1,19 332:20

Z

zero 117:22,22 267:13

0

1

1 3:2 26:18 30:3 46:10
51:8,20 86:4 109:2,2
1,000 40:9
1,300 329:13
1,600 361:8
1:53 203:1
10 83:2 86:5
10,000 290:6
10:03 70:10
100 74:1 86:2 88:10
224:4 331:17,22

11 226:9 285:16,20,20
11:15 136:3
11:30 135:21,21
11:37 136:4
12 83:2 109:2 227:7,8
227:12 346:3
12:13 341:14
12:45 136:17
12:53 202:19
13 203:20,21 268:13
270:1 284:3
136 3:4
13th 75:12
14 83:2 92:13 93:20
15 48:16 86:1 204:2
268:12,14 339:8
15,000 74:18
16 126:21 165:20
242:21 296:20
17-19 205:6
17th 207:14
18 73:3
19 71:7 234:1
1919 313:4
1948 205:12
1950s 330:20
1980's 13:15
1990 13:16 311:19
1995 205:14
1998 72:8
19th 207:14

2

2 3:3 31:9 62:16
2,000 40:9
2:06 203:2
20 64:6 139:5 303:15
20,000 40:19
2001 6:13
2002 311:19 312:7
313:5
2004 7:16
2008 71:15
2011 101:22 210:7
2012-13 341:13
2013 226:15 338:5
354:20,20
2014 80:9 93:9 210:7
2015 45:13 227:19
238:10 271:8
2016 75:12 77:6 247:21
271:12,18
2017 71:16 86:7 196:6
208:21 248:1 262:11
273:10
2018 1:5,7 271:21
2020 3:6
204 3:7

205.238(b)(4) 283:2
205.303 112:22
205.307 112:14
205.601 268:21
205.603 229:6
205.603(a) 204:13
 207:8 210:4 224:20
 226:9 234:3 248:7
 268:22 269:8 270:5
205.603(a)(2) 208:18
205.603(b) 237:4 238:6
 241:16
205.603(e) 263:13
205.605(b) 227:21
205.606 227:21
208 3:7
21 30:14 76:5 107:11
210 3:8
21st 132:6
225 3:8
226 3:9
23 74:1 86:9 98:7
234 3:9
237 3:10
238 3:10
24 21:10 108:22
241 3:11
247 3:11
25 93:19
25th 205:7,7
26 1:7 64:5,6
274 3:13
28 30:15
286 3:14
2nd 1:9

3

3,000 40:9
3,600 29:4
3:42 284:9,14
30 21:11 27:17 86:1
 98:13 142:18 372:18
300 121:5
332 102:18,21 104:3,11
 104:19,20 386:19
35 253:5
36 76:4
37 46:7
38 102:5

4

4:05 284:15
40 6:11 7:14 8:4 197:16
400 79:19
4009 324:1,7
44 29:4
440 77:15
49 102:5 107:8

5

5 3:2 86:5 109:2
50 26:18 51:12 86:2
 140:4 156:7 161:9
 190:8 311:4,8 333:2
 398:8

6

6:10 400:20
60 77:18
601 215:18
603 260:18
603(b) 238:17
603(f) 264:4
605(b) 228:13
606 232:14
650 329:11

7

7 30:17
70 3:3 7:20 197:16
75 16:8 68:13 285:10,11
 333:4
75,000 399:18
77 86:7

8

8:30 1:9 400:17
8:32 4:2
80-20 395:17
80,000 294:4,7
80.20 20:5
800 281:17
85 235:4
880 1:9

9

9:49 70:9
9:50 70:4
90 51:12 177:18,22
98 62:16

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Spring 2018 Meeting

Before: National Organic Standards Board

Date: 04-26-2018

Place: Tucson, Arizona

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.



Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2018 MEETING

+ + + + +

FRIDAY,
APRIL 27, 2018

The Board met in the Sabino and Pima Rooms of the Tucson University Park Hotel, 880 East 2nd Street, Tucson, Arizona at 8:30 a.m., Tom Chapman, Chairman, presiding.

PRESENT

TOM CHAPMAN, Chair
HARRIET BEHAR, Vice Chair
SCOTT RICE, Secretary
SUE BAIRD
ASA BRADMAN
JESSE BUIE
LISA DE LIMA
STEVE ELA

DAVE MORTENSEN

EMILY OAKLEY

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR

STAFF PRESENT:

MICHELLE ARSENAULT, NOSB Advisory Board

Specialist, National Organic Program

Dr. RUIHONG GUO, Acting Deputy Administrator,

National Organic Program, Agricultural

Marketing Service

DR. JENNIFER TUCKER, Associate Deputy

Administrator, National Organic Program;

Designated Federal Official

DR. PAUL LEWIS, Director, Standards

Division, National Organic Program

DEVON PATTILLO, Materials Specialist, National

Organic Program

T-A-B-L-E O-F C-O-N-T-E-N-T-S

	Page
Compliance, Accreditation & Certification Subcommittee (CACS)	
Proposal: Inspector qualifications	4
Proposal: Eliminating the Incentive to Convert Native Ecosystems into Organic Crop Production proposal.40
Crops Subcommittee	
by Steve Ela.77

P-R-O-C-E-E-D-I-N-G-S

(8:31 a.m.)

1
2
3 MR. CHAPMAN: All right. Looking
4 around the room we have everyone but two members
5 so we have a quorum and we'll come back into
6 session.

7 Lisa will be joining us a little bit
8 later this morning, she wasn't feeling well, and
9 so I think she will be missing the very first
10 part of this morning's agenda, but we still have
11 well over a quorum.

12 We will be starting up again with CACS
13 and I will hand it right back over to Scott.

14 MR. RICE: Thanks, Tom, and thank you
15 for that digest of our import panel and the
16 comments yesterday. That was both useful and
17 overwhelming as to our list of things to do, but
18 it was all good information.

19 We are turning this morning to
20 inspector qualifications. In our discussions
21 over the last couple days we continually heard
22 the important role that inspectors play in

1 upholding organic integrity.

2 The inspector serves as the eyes and
3 ears and often the only face-to-face contact
4 between the certifier and the certified
5 operation, responsible for verifying and
6 documenting the many control points of what can
7 be very complex operations.

8 For these reasons we need an inspector
9 pool that is highly qualified and equipped to
10 competently evaluate all of those control points.
11 The proposal that we brought forth for the spring
12 meeting it drew from the excellent work that was
13 completed by the International Organic Inspectors
14 Association and the Accredited Certifiers
15 Association best practices document.

16 As we noted in the proposal, and this
17 is not a new topic, there has been a lot of
18 discussion, a lot of good work on it, but there
19 has been an absence of a formalized recognition
20 of sort of what do those qualifications look like
21 and should we have minimum qualifications or what
22 those standards should be.

1 The proposal divides the
2 qualifications into several distinct areas,
3 knowledge, skills, experience, training, and
4 evaluation, the last being one that the NOP has
5 approached and come out with some guidance for
6 certifiers and inspectors in terms of in-field
7 audits and whatnot, which we have talked about
8 here.

9 The proposal recommends that the
10 program draw from the existing body of work that
11 I mentioned to establish qualifications and
12 training and continuing education guidelines to
13 ensure that we do have a professional and
14 competent inspector pool.

15 We received a number of great comments
16 on this, very engaging and informative. I think
17 it is safe to say that all agreed with the need
18 for the strong qualifications.

19 Commenters supported the ACA best
20 practices document that lays out that criteria
21 for determining those abilities and capacity to
22 inspect.

1 Many commenters urged caution in
2 drafting overly prescriptive qualifications, or
3 inflexible minimum qualifications noting that any
4 qualifications should allow some flexibility for
5 the certifier to consider previous experience,
6 such as academic experience and/or mentorships.

7 Qualifications should be mindful of
8 scope and scale, ensuring that inspectors are
9 assigned to the size and type of operations that
10 they have experience with, not merely just a
11 scope in which they are trained but able to
12 approach those complex operations thoroughly and
13 competently.

14 There was a very common thread of
15 commenters expressing a need for greater
16 mentorship opportunities to bridge that gap
17 between initial training and as a novice
18 inspector entering the field as a capable
19 independent inspector.

20 Some certifiers facilitate that
21 relationship, but that's not always universal. A
22 lot of commenters supporting a licensing system,

1 as we noted in the proposal, but expressed some
2 caution in establishing a system that would be
3 either too burdensome or too expensive and
4 highlighting particularly part-time inspectors
5 that would be potentially impacted and might not
6 have the capacity to become licensed.

7 And I think it's important to note
8 that those independent inspectors in general
9 carry a burden that is greater than other say
10 staff inspectors.

11 There is a cost of maintaining
12 vehicles, insurance, health insurance, liability
13 insurance where they opt to do so, just a host of
14 expenses that are already there and licensing
15 could be helpful but potentially some of those
16 same results could be achieved through mandatory
17 inspection requirements and accreditation audits
18 via the existing system to ensure consistent
19 implementation.

20 A number pointed to the need to have
21 any such licensing body be accredited, pointing
22 to ISO-19011 as a basis for that as well as

1 existing USDA accreditation for certifiers.

2 And to Dave's earlier comment, those
3 are all examples of models that we can capitalize
4 on and not necessarily re-invent the wheel on
5 this.

6 There was some concern expressed that
7 turning this over to NOP to establish
8 requirements would prevent a participatory
9 process at the NOSB level.

10 And I think I can totally relate to
11 that and understand and want it to be really
12 clear that is was my and our intent I think
13 bringing this forward that we continue that
14 dialogue with the community and with the program
15 and that we're not just kind of brushing our
16 hands and handing it off never to see it again
17 until its final.

18 I think the it would really -- I think
19 the expectation is that we will have that
20 dialogue and that input so that we come to an
21 agreement or an understanding as a community of
22 what those qualifications look like.

1 And with that I think I would open it
2 up to discussion. Emily?

3 MS. OAKLEY: Yes, I want to echo the
4 last point you made and maybe this would be a
5 good time for us to discuss how that kind of NOSB
6 stakeholder and NOP dialogue could occur as those
7 guidelines are developed.

8 I am not entirely sure myself how that
9 would play out, maybe someone with more knowledge
10 could give some thoughts on that.

11 MR. RICE: Yes, I would love to hear
12 from the program as well, so maybe I will turn it
13 over to you, Jenny, to share your thoughts on
14 that, is that --

15 DR. TUCKER: Yes, so a couple of
16 thoughts. There was the work that was attached
17 to the proposal that got posted. That was work
18 that NOP had contracted for, in I think 2011 or
19 so, it was actually just as I was getting to the
20 NOP.

21 I think that the challenge ended up
22 being, well it was sort of just like the

1 conversation yesterday about best practices, well
2 if we put it out there what does that mean.

3 The next question, of course, is, well
4 are you enforcing against that. So that's always
5 sort of the challenge of how do we deal with
6 these things that are really good ideas but when
7 you look at them in terms of how they relate to
8 the exact regs and do you have the authority to
9 post that or how are you going to deal with that
10 from an enforcement perspective.

11 So one of the things that we have been
12 thinking about, we think this topic really needs
13 to move forward and it feels like there are just
14 different ways of hosting things now and, yes,
15 we're in a bit of different environment now so I
16 think that it is worth re-visiting, you know, how
17 do we really encourage these public, private
18 partnerships in a way that perhaps we haven't
19 been able to in the past.

20 One of the things we are considering
21 for this incremental funding that we have gotten
22 is, and so I am sharing it so we can get some

1 feedback from the Board here, is there is already
2 an AMS program that has a learning management
3 system and so we have talked to them about could
4 we set up an organic section of that learning
5 management system where actually certifiers and
6 inspectors could sign up for an account, it would
7 be a federal system, so they would sign up for an
8 account and we could construct different learning
9 paths for, for example, folks who are involved in
10 compliance, you know, how to write, somebody
11 suggested this morning, a non-compliance that
12 holds up in court, sampling and testing, how do
13 you actually go out and collect a sample, so some
14 of the very core sort of learning paths.

15 And so we are thinking about using
16 some of the incremental funding. We are pre-
17 contract phase so I can talk about this
18 publically at this stage where we are still
19 trying to formulate what the requirements would
20 be.

21 And so maybe actually we start with
22 that, you know, start with providing the

1 training, which would be a really useful service,
2 and then in parallel really think about, okay,
3 well here is some of the training we think
4 everybody needs, what does that say about the
5 skills and qualifications, and so use them as
6 sort of parallel paths.

7 So that's not a licensing program but
8 we certainly would have access to all of the
9 folks who registered and completed certain
10 training paths.

11 So, yes, we are sensitive to not
12 necessarily wanting to compete with private
13 sector firms that are already providing training,
14 so we would be looking at, yes, what are services
15 we can provide that are right now a gap that no
16 one is doing, and how could we serve that market.

17 It does feel like there might be a
18 role for government to play in providing some of
19 that shared resources that no one certifier may
20 be able to create on their own.

21 So that's a sort of a sketch of what
22 we are thinking. The idea of sort of

1 crowdsourcing or getting community input on the
2 training content with some kind of executive
3 technical advisory board that would vet all the
4 content for accuracy before it went into the
5 system so we'd know it was great content.

6 Those are all things that need to be
7 thought through in how to construct this, but
8 right now that's sort of some of the concepts we
9 have been playing around with.

10 Sorry, probably more than you were
11 looking for.

12 MR. RICE: No, not all, that's very
13 helpful. And in that development as you go down
14 that path of contracting or seeing what that
15 looks like is that something that you would be
16 able to share that ongoing process with the TACS
17 Committee or Subcommittee?

18 DR. TUCKER: Yes. There are certain
19 things that we can talk about before we release,
20 it's just like rulemaking where once you release
21 a proposed rule you can't talk anymore,
22 contracting is sort of the same way, where you

1 can talk up to a certain point.

2 And this kind of thing that is big
3 enough, that what I have been trying to talk to
4 contracts about, pretty successfully so far, is
5 can we release like some kind of, you know,
6 request for information, which would allow
7 everybody in the community to, you know, we think
8 if you did a contract it should like this.

9 So during that phase we could
10 absolutely talk to CACS and anyone else who
11 wanted to talk about that, and then we would use
12 that to create some kind of a contract vehicle
13 where there would be in theory some kind of a
14 steering organization that would have the ability
15 to contract with the government and then they
16 would reach out and contract with other entities.

17 Does that make sense? So bottom line,
18 yes, we can talk to CACS until a certain point
19 and then we would have to go into the formal
20 contracting phase.

21 All of this has to be done before
22 about the beginning of September, not the whole

1 project being done, but the whole contract
2 process.

3 Money must be put on contract before
4 the end of the fiscal and then with government
5 deadlines that's usually early September. So
6 we've got a lot of work to do in a fairly
7 compressed timeframe here.

8 So, yes, I want to talk and at some
9 point we're going to have to just sit down and
10 write so we can get it out there. Does that make
11 sense?

12 MR. RICE: Yes, thank you. I think
13 one of the challenges in the certifier community
14 that we have had is when we talk about developing
15 guidance or instruction, wanting to have an
16 opportunity to see where that's going and
17 understanding that we are the regulated party
18 with USDA in a sense and we can't necessarily, as
19 you in the past have described, have direct sort
20 of shaping of it, but at least if we can have
21 that partnership to reach an end product that is
22 something we can implement and much less agree

1 with, or in overall principle anyway.

2 DR. TUCKER: Right. Yes, in theory it
3 would be a fairly narrow period of time where we
4 couldn't talk about it because once it was
5 awarded we would build into the contract that the
6 contractor shall have, you know, community
7 listening sessions, shall have certifier working
8 sessions, that would be built into the project to
9 facilitate that open dialogue, so it's only the
10 contractual window.

11 This is why I kind of like the idea
12 of, you know providing a training capability
13 because then, you know, just looking down the
14 road, if we ended up having like a qualifications
15 or skills it would be very normal in a learning
16 management system to have a, you know, here is
17 your training road map or here are your, you
18 know, every agency has, here is your leadership
19 competency road map, or something like that.

20 And so then that could become a
21 companion to a training system, you know, rather
22 than having to be something like an instruction

1 or directive, but there is still the question of
2 are you enforcing against it, and, again, we got
3 to figure that dimension of it out. Does that
4 make sense?

5 MR. RICE: Yes, absolutely. I think
6 that offers an interesting way forward. Dave and
7 then Harriet?

8 MR. MORTENSEN: Jenny, when you
9 described some of these things and the end
10 phrase "Does that make sense?" a lot of that
11 doesn't make sense to me.

12 And that's not intended to be some
13 sort of a cut, I just don't know this area that
14 deeply so it's hard for me to judge if that makes
15 sense or not, and it raises the question in my
16 mind, is there some sort of external body would
17 this be the sort of thing that would be good to
18 vet with the accreditation step that happens with
19 NOP so that you've got this is our plan, we have
20 an extra "x" dollars, we're going to think about
21 using it in this way and then measure the
22 progress against the plan and, you know, really

1 look at the whole plan, because sometimes we are
2 talking about things in pieces, like this is a
3 piece, the panel yesterday was a big piece, this
4 is a big piece, right, accreditation, I mean the
5 certification is a big piece.

6 But then we have to see the pieces
7 together, the whole of the pieces in order to
8 like determine if that makes sense to me. So I'd
9 just raise the question would this sort of big
10 picture decision-making step be best evaluated by
11 having the whole plan laid out with its component
12 pieces and then sitting with a group that can
13 reflect on the whole plan and provide some
14 meaningful input.

15 And I don't know if that's the
16 accreditation process or some other process, but
17 I am just responding to your response with that
18 idea.

19 DR. TUCKER: Do you want me to respond
20 to that?

21 MR. RICE: Sure.

22 DR. TUCKER: Okay. It's a great

1 question and I know that in the past the Board
2 has asked for, okay, you know, more insight into,
3 you know, budget decisions and things like that.

4 So what I just shared is sort of one
5 element of how we would consider spending the
6 increment of money. That is obviously something
7 I would not have shared with a group that hadn't
8 been signed off by our leadership.

9 And so the Board that makes that
10 decision is our leadership, so Bruce is the
11 person that we report to in terms of funding
12 decisions, and we have shared our plan of
13 thought, obviously, with Mr. Ibach who spoke on
14 Wednesday.

15 So I already mentioned -- So we talked
16 about this training thing, I mentioned yesterday
17 our interest, or the day before, our interest in
18 getting funding to CBP in order to build organic
19 import certificates.

20 Those are two very large initiatives.
21 Another area where we are considering putting
22 some spending, and some of it is we are

1 constrained by time, right, the appropriations
2 was signed, you know, almost mid year and so we
3 have a fairly narrow window to commit funding.

4 We have more time to spend and do the
5 work because it can extend into the next fiscal
6 year, but we are actually under very, very tight
7 timeframes in terms of making decisions.

8 And so some of the other ideas that
9 we're exploring are things like right now the
10 entire Compliance and Enforcement Division is run
11 off an access database which collapses with some
12 regularity.

13 So anyone who has an access database
14 running their organization probably understands
15 what that is like. We really need to invest in
16 stabilizing that so, for example, we can code
17 complaints as being high priority, being low
18 priority, you know, seeing a dashboard of how
19 long complaints are there. So that's one other
20 element that we are looking at.

21 So there are a number of other smaller
22 projects, those are right now the biggest ticket

1 items that we are right now thinking about.
2 We've talked about, there has been a lot of talk
3 about risk-based accreditation, so perhaps
4 contracting with a firm that does that kind of
5 systems design, how do you design a risk-based
6 accreditation management program.

7 That would seem to make a lot of sense
8 in the context of the challenges that we have
9 talked about. You know, what we will have to do
10 is when October comes we're going to get a letter
11 from Congress saying how did you spend that \$3
12 million and show us how it related to
13 enforcement.

14 So everything that we are doing with
15 that incremental funding will support
16 enforcement. Does that make sense?

17 (Laughter)

18 DR. TUCKER: Sorry. You know, I end
19 that a lot and when I say "Does that make sense?"
20 it's usually is what I just said clear, so that's
21 different from do you agree with it.

22 MR. MORTENSEN: No, it's actually for

1 me --

2 DR. TUCKER: But sometimes I just
3 don't make sense.

4 MR. MORTENSEN: For me it's -- No, for
5 me it's not either of those things actually.

6 DR. TUCKER: Okay.

7 MR. MORTENSEN: For me it's --

8 DR. TUCKER: You've made me very aware
9 of how often I end a sentence like that.

10 MR. MORTENSEN: -- you know, for me to
11 -- I can follow, and I don't want to belabor the
12 point, I can follow a thread, I can follow a
13 concept, right, the thing that Scott was talking
14 about that you responded to is a concept.

15 I think the challenge that the Board
16 faces, I certainly feel it as a Board member, is
17 seeing the threads in the hole. It's like
18 organic farming and organic eating to me is a
19 fabric, it's like a woven fabric.

20 And it's hard for me to see the whole
21 fabric when we are parsing things out into the
22 individual strands and then not frequently enough

1 coming back and assessing the fabric, what is the
2 integrity of the fabric, where is the fabric
3 weak, you know, and is the plan that we have
4 collectively in the organic community, and NOP
5 being part of that, is the plan articulated
6 clearly enough that we agree that, you know,
7 we're using the right fiber, the pattern of the
8 strands is right, the integrity of their strength
9 and whatever is correct.

10 So that's where when you say does that
11 make sense for me your thread made sense, seeing
12 the hole wasn't making sense to me because I am
13 struggling to see the hole.

14 I am not meaning to bog us down here,
15 I know we have a lot of work to do, but that's
16 kind of where I am coming from when I am thinking
17 about what's the broad plan and then we see the
18 threads in the plan. Thank you.

19 DR. TUCKER: Can I make one final
20 quick comment on that?

21 MR. RICE: Sure.

22 DR. TUCKER: Yes, I love the metaphor

1 of the fabric. Right now we have a rug that has
2 some very significant coffee stains and some very
3 significant holes, and so we are investing where
4 we believe we can have the greatest impact in a
5 way that makes sense given -- and this
6 discussion, we've been talking about
7 qualifications obviously back to 2011, that's not
8 a new topic.

9 CBP, that seems very, very clear. So
10 we are really putting our investment where we are
11 absolutely sure it can have the greatest impact
12 based on everything we know.

13 I agree about that need for the
14 greater strategic plan in terms of moving
15 forward. We are in our final year of our
16 strategic plan, it was 2015, I think, through
17 '18, so we're going to need to do a new strategic
18 plan. I think that will lay out the fabric, the
19 broader fabric more clearly.

20 MR. MORTENSEN: Thank you, Jenny.

21 MR. RICE: Harriet, would you like to
22 crochet us into the next thread?

1 MS. BEHAR: I actually am a weaver and
2 for 15 years made my living selling woven
3 garments, so I know a lot about fabric, natural
4 dyes, spinning. You want to know any of that?

5 MR. RICE: Not right now.

6 (Laughter)

7 MS. BEHAR: So I had two comments.
8 One is it's an inspector qualification document
9 but we did build into their discussion as well of
10 the certification review team, so I just want to
11 make sure that we are not losing that even though
12 it's not in the title.

13 And speaking of threads and fabric, I
14 would also hope either in the future or at some
15 point that we don't forget the next step, which
16 are the auditors who work for the accreditation
17 system and that they need to be able to
18 understand what they are looking at when they are
19 doing the accreditation of the certifiers.

20 And so I am very interested in what
21 Jenny was talking about with the federal
22 government training. I have gone through quite a

1 bit of that as a technical service provider for
2 the NRCS, so I am familiar with it.

3 I felt the trainings were very
4 comprehensive, but I will say I did not find them
5 very nimble as far as ease of getting in, ease of
6 using, and so I like the idea.

7 I'm not sure, and maybe it's too late
8 or maybe we can't do it, but the possibility of
9 having an outside entity that could maybe take on
10 this training might eventually be more nimble
11 than working within the federal government and be
12 able to respond more quickly when something comes
13 up where we need some training right away.

14 I just -- I mean no offense to the
15 federal government but there are times that it
16 moves pretty slowly and Richard Matthews has
17 taught me those reasons why it moves slowly, but
18 in this area we may want to be thinking about
19 having a little bit more nimbleness and
20 responsiveness and that maybe the federal
21 government might not be the best use, or maybe we
22 would start with that and move to something

1 later.

2 MR. RICE: Ashley?

3 MS. SWAFFAR: So the certifier that I
4 work for has a really great online database of
5 webinars that they have hosted and I think that
6 is something similar to maybe what you are
7 talking about, Jenny, and I think as an inspector
8 I go and I reference those when I have questions
9 and I think that's very, very helpful to have
10 some type of database of like policy positions on
11 certain areas and things like that.

12 So I think that could be a good
13 option, especially for small certifiers that may
14 not have the staffing resources to create those
15 type of webinar housing type things.

16 I just want to touch on a couple other
17 things on this document. We talked about skills
18 and experience, and I think that's critical when
19 it comes to inspectors, you know.

20 I am a livestock inspector but I am
21 not -- I don't do dairies because I don't have
22 the experience and the skills to do that and I

1 don't think all livestock inspectors are
2 qualified to do a poultry inspection just based
3 on they may have experience like we put in here
4 with small flocks but they may not have
5 experience with commercial-sized flocks, you
6 know, going through a feed audit looking at
7 methionine, calculating those things, you know,
8 and then on the dairy side the dry matter intake.

9 I don't know how to do those
10 calculations and I don't want to, you know. So I
11 think those are critical pieces and in inspector
12 qualifications is even though someone is
13 qualified to do livestock they may not be
14 qualified to do all areas of livestock.

15 MR. RICE: Other comments? Harriet?

16 MS. BEHAR: I would just like to
17 recognize that there are many highly qualified
18 inspectors and reviewers out there. The point
19 that we see that there is room for improvement
20 does not mean that there aren't those out there
21 that are doing a really good job, too.

22 MR. RICE: Yes, and I would just add

1 with -- I appreciate you bringing up the reviewer
2 staff as equally as important.

3 I think sometimes there is a different
4 scene for good reason, but also in terms of those
5 reviewers are working in an environment where
6 they are generally more closely supervised and
7 have more hands-on training with existing staff
8 whereas most of the inspection staff we see are
9 in the field much more independent and are not
10 getting that sort of day-to-day peer-to-peer
11 experience that maybe the reviewers are, not to
12 say that it's not at all, but some of the
13 differences I also see. Sue?

14 MS. BAIRD: I appreciated the section
15 that you talked about apprenticeship and I think
16 that is critical that we -- and I appreciate IOIA
17 has now added that ability for the inspector to
18 do some apprenticeship.

19 I think it's critical, I think it's
20 something as an experienced, or at least I have a
21 little bit experience as an inspector, I've been
22 doing it quite awhile.

1 At my age I am a little bit ready to
2 turn loose of all the travel. I do about 200 a
3 year. I used to 300 and 400 a year. So I have
4 done a lot of inspections in my life.

5 I would love to take, and, in fact,
6 last year I did take three under my wing and so,
7 okay, replace me, you know. I feel like I'm so
8 good it's going to take three to replace me. No.

9 There is a critical need for
10 inspectors, but -- and it was a point I made to
11 Scott. I could go out and do the inspection and
12 cut the full inspection fee or I can go out and
13 do an apprenticeship and be expected to take
14 maybe one-third of that price.

15 And I feel like if I am going to be
16 out there traveling I need, I would like to get
17 the full price for the inspection fee. So I
18 think there needs to be a structured methodology
19 for the inspections to do apprenticeships.

20 I think it's critical. You go through
21 your initial training but without that eye to see
22 things perhaps, and that comes from just being

1 apprenticed, having somebody to take you under
2 the wing and show you all these things.

3 Just an observation as someone who has
4 tried to do apprenticeships.

5 MR. RICE: Thanks, Sue. Harriet?

6 MS. BEHAR: And just to speak to that,
7 as we mentioned yesterday there was also
8 different inspection models that can be used to
9 not just apprentice new inspectors but to bring
10 further, bring up the qualifications of existing
11 ones, and that could be kind of peer-to-peer, two
12 experienced inspectors do an inspection together,
13 or one watches the other, or there is tag teams
14 going on to make the more complicated inspections
15 take less time because one person is looking at
16 this, one person is looking at that, so there is
17 quite a few different models to get the job done.

18 And depending on the size and type of
19 operations sometimes just the single inspector
20 working there on their own may not be the best
21 model, so I think we need to kind of open our
22 eyes and be open at looking at other ways of

1 doing these things.

2 And one more thing, about the
3 qualifications of inspectors, it's not just
4 understanding the rules, but there is a lot of
5 skills.

6 There is interview skills, there is
7 writing skills, there is kind of connect-the-dots
8 kind of skills as a lot of times where someone
9 says something and it's not necessarily germane
10 to what you are talking about but it's a thread
11 that you want to follow, so there is those
12 investigative skills as well. MR.

13 RICE: Thanks, Harriet. Sue?

14 MS. BAIRD: Harriet is absolutely
15 right. It is -- Many times I say things and I
16 know what I mean when I say them but I am not
17 real good at perhaps conveying what I mean, and
18 that's writing skill, and so I love somebody
19 coming behind me and critiquing what I have
20 written.

21 That is a critical skill as an
22 inspector because we are the eyes out there and

1 if we do not have the skills to convey to the
2 reviewer and to the certifier what we actually
3 saw it does no good to write something.

4 So I agree with Harriet. You need
5 verbal skills, you need written skills, you need
6 investigating skills. It's one of the most
7 fascinating -- and I've done it for 20-something
8 years now.

9 I love doing inspections because you
10 never get bored. There are so many facets to
11 being an inspector if you are a good inspector
12 and we really critically need new, young people
13 coming in and taking over our jobs, or enhancing
14 our jobs or whatever. Don't take it away
15 completely.

16 MR. RICE: So lots of good discussion
17 and some ideas from the program on what that next
18 step looks like for them. In terms of our
19 recommendation it's, you know, somewhat purposely
20 general and with the suggestion that the program
21 use existing resources to shape the path that
22 they take and I think we have a lot of detail

1 that we have touched on here and I just wanted to
2 emphasize that it wasn't our intention to present
3 a fully-structured this is what the program
4 should do as far as establishing qualifications
5 or training or whatnot, but to just move this
6 forward as an indication of something that is
7 important to the community.

8 I feel like we are in a position that
9 we can move this recommendation and there is one
10 correction to the motion that we need to make if
11 we are ready to do so.

12 We did move to approve this in
13 subcommittee as a discussion document and --

14 MR. CHAPMAN: In subcommittee we
15 approved it as a proposal in word, but the
16 written document contained an error that called
17 it a discussion document.

18 MR. RICE: Right. Thank you.

19 MR. CHAPMAN: Do you want to make a
20 motion to --

21 MR. RICE: Yes. So I would make a
22 motion to -- where did my notes go here -- to

1 amend the motion that referenced it as a
2 discussion document and move it to a proposal.

3 MR. CHAPMAN: I have a motion, is
4 there a second?

5 (Simultaneous speaking)

6 MS. SWAFFAR: I'll second. We all
7 want to.

8 MR. CHAPMAN: Ashley. So I have a
9 motion by Scott and a second by Ashley to revise
10 the motion to say motion to approve the proposal
11 instead of discussion document.

12 It's already been changed on what's on
13 the screen here, but in the written packet it
14 says "discussion document." Any discussion on
15 this item, otherwise we'll move to a vote. Yes?

16 MS. BEHAR: I just -- As a possible
17 friendly amendment, or maybe it's not needed, to
18 just put in there that there will be continued
19 discussions with the NOSB on this because this
20 very clearly recommends the National Organic
21 Program do the development and we did want to
22 remain engaged.

1 So either on the record that we will
2 still be working with the National Organic
3 Program or put it in there in writing in the --

4 MR. CHAPMAN: Well we advise the
5 National Organic Program, we work with them on
6 all things, but --

7 MS. BEHAR: Okay, all right, just as
8 long as it's clear that we are not passing it off
9 because that was a lot of the concern, so I am
10 putting that on the record.

11 MR. CHAPMAN: Okay. So, no -- You're
12 not making a motion?

13 MS. BEHAR: As long as everyone agrees
14 that that's what this means then I am okay with
15 not changing it.

16 MR. CHAPMAN: All right. So I still
17 have a motion to amend to replace the words
18 "discussion document" with "proposal." It's
19 motioned and seconded.

20 A yes vote on this, this is a simple
21 majority since it's an amendment, a yes vote just
22 clarifies that we intended the words to say

1 "proposal" and the voting will start with Scott.

2 MR. RICE: Yes.

3 MS. BEHAR: Yes.

4 DR. SEITZ: Yes.

5 MR. MORTENSEN: Yes.

6 MR. ELA: Yes.

7 MR. BRADMAN: Yes.

8 MS. ROMERO-BRIONES: Yes.

9 MS. OAKLEY: Yes.

10 MS. BAIRD: Yes.

11 MR. BUIE: Yes.

12 MS. SWAFFAR: Yes.

13 MR. CHAPMAN: The Chair votes yes.

14 All right. Twelve yes, one absent, the motion
15 passes. We will now move on to the main motion.

16 So this is the motion to approve the
17 proposal which includes the recommendation -- The
18 subcommittee recommends that the National Organic
19 Program develop minimum qualifications and
20 training and continue to educate and continuing
21 education guidelines to ensure a professional and
22 competent inspector pool to meet the demands of

1 an ever-evolving complex organic supply chains.

2 These should include considerations of
3 the criteria included above in the discussion
4 area of the document. The subcommittee
5 encourages the program to use existing resources
6 in this area.

7 And without any further discussion on
8 this, the motion was made by Harriet and seconded
9 by Ashley and the voting will start with Harriet.
10 A yes vote is to approve the proposal.

11 MS. BEHAR: Yes.

12 DR. SEITZ: Yes.

13 MR. MORTENSEN: Yes.

14 MR. ELA: Yes.

15 MR. BRADMAN: Yes.

16 MS. ROMERO-BRIONES: Yes.

17 MS. OAKLEY: Yes.

18 MS. BAIRD: Yes.

19 MR. BUIE: Yes.

20 MS. SWAFFAR: Yes.

21 MR. RICE: Yes.

22 MR. CHAPMAN: The Chair votes yes.

1 Twelve yes, one absent, the motion passes.

2 Scott, back to you.

3 MR. RICE: Thanks, Tom. The next item
4 on our agenda is a proposal for eliminating the
5 incentive to convert native ecosystems into
6 organic crop production and I will turn that to
7 Harriet.

8 MS. BEHAR: Okay. So the National
9 Organic Program and numerous National Organic
10 Program policy documents, the NOSB
11 recommendations and principles, include a clear
12 bias towards the prediction of natural resources
13 present in our organic program, including the
14 physical hydrological and biological features of
15 the farm.

16 The bias towards ecological and
17 ecosystem preservation is also found within the
18 organic marketplace with consumer expectations
19 that organic farms and ranchers will be examples
20 of excellent land stewardship.

21 There is, however a requirement that
22 land cannot produce organic crops or livestock

1 until 36 months has passed between the
2 application of a prohibited substance and the
3 harvest of an organic crop using land that has
4 not had any prohibited substances applied to it
5 would then provide an immediate entry into the
6 organic marketplace for the production of organic
7 crops or livestock without any 3-year wait
8 period.

9 The lack of the 3-year transition
10 timeframe is an incentive to convert native
11 ecosystems, some with fragile or endangered
12 habitat to immediate agricultural production that
13 would carry the organic label.

14 Over the past three years the National
15 Organic Standards Board has received substantial
16 public comment describing loss of native
17 ecosystems when farmers have transitioned to
18 organic production, and I continue to hear about
19 this as well.

20 Many certification agencies around the
21 world have addressed this issue in their
22 standards by banning converted native ecosystems

1 that are now growing organic crops from using the
2 certified organic label at any time after this
3 conversion, so a complete ban.

4 These certifiers were listed in the
5 previous discussion document and proposal. The
6 National Organic Standards Board is not
7 suggesting an outright ban.

8 There may be issues such as the area
9 may have been converted by a different operator.
10 That should not keep the current operator from
11 choosing to use the environmentally beneficial
12 practices of organic production and then being
13 able to be rewarded with the use of the organic
14 label.

15 The NOSB feels the 10-year wait period
16 between a conversion of a natural ecosystem and
17 subsequent organic certification proposed in its
18 August 2017 proposal if all other requirements
19 are met is a strong incentive to convert precious
20 native ecosystems to organic production.

21 So we have suggested some regulatory
22 changes, a change to 205.200(a), "a site

1 supporting a native ecosystem cannot be certified
2 for organic production as provided under this
3 regulation for a period of ten years from the
4 date of conversion," and then we also gave a
5 definition which I will speak to after I say some
6 other things.

7 So I am going to summarize the public
8 comment, let me get to that area. Sorry, still
9 scrolling here. Okay, here we go. The
10 significant number and depth of comments on this
11 topic illustrates how important this issue is to
12 all stakeholders within the organic community.

13 The NOSB thanks the public for their
14 helpful input and engagement on this issue. I
15 was especially struck by the numerous farmer
16 commenters who stated how important this issue
17 was to them personally.

18 The lessening of bio-diversity on the
19 landscape can have long term negative impacts. I
20 even know of farmers in my region who have
21 cleared non-native areas to increase their field
22 sizes but then see the result of less birds

1 nesting and eating insects and rodents due to the
2 lack of purchase and habitat that had been
3 destroyed.

4 The organic farmer, as are all
5 farmers, are part of a larger ecosystem and
6 protection of bio-diversity is not just required
7 in our rule but essential for success on all of
8 our farms and for the future of a healthy and
9 productive planet.

10 These native areas are repositories of
11 precious plant, animal, bacterial, invertebrate,
12 and other life forms, and their destruction
13 should not be considered an acceptable method of
14 quickly bringing organic crops to the
15 marketplace.

16 While most commenters supported this
17 proposal either wholeheartedly with no changes or
18 with some reservations due to specific impacts,
19 the NOSB Subcommittee understands that continued
20 work would need to be done on this issue to bring
21 clarity through further guidance to foster
22 consistency in its implementation should the

1 proposal pass.

2 Examples of possible organic system
3 plant questions were included in this proposal to
4 aid certifiers and producers in the determination
5 if land would fall under the native ecosystem
6 oversight and to illustrate how this requirement
7 might be tracked in an organic system plan.

8 These were just examples and were not
9 suggested as regulatory language. The basic
10 requirement that land entering organic production
11 not have had prohibited substances for three
12 years previous to the harvest of the first
13 organic crop would not require on-ground physical
14 review of the farm beginning at this 3-year
15 period.

16 That's the way we do it now, the
17 farmer just puts in their organic system plan
18 what has happened for the three years previous to
19 their first organic certification.

20 We only require the inspector to be
21 present the year that the first organic crop is
22 going to be sold as organic. We also do not

1 anticipate organic inspectors visiting farms to
2 assess if native ecosystems are about to be
3 converted to agricultural production.

4 Instead, the questions within the
5 organic system plan, similar to the basic 3-year
6 requirement, could narrow down which small number
7 of operations would be subject to this native
8 ecosystem oversight.

9 The intention behind the term
10 "converted" is to change the native ecosystem, is
11 the change the native ecosystem has experienced
12 so that it is no longer containing the diversity
13 of plant and animal communities present, nor the
14 regenerative capacity to maintain these
15 communities which occurred through an intentional
16 human activity.

17 I know there was some questions about
18 what we meant by conversion. The subcommittee
19 also believes we have justified the addition of
20 this, the oversight of this subject to our
21 regulation under the Organic Food Production Act
22 in two previous discussion documents.

1 For both the integrity of the organic
2 label in the marketplace as well as the promotion
3 of ecological health and the maintenance and
4 improvement of the natural resources present on
5 the operation the work on this subject area is
6 justified.

7 Providing the tools both domestically
8 and internationally to help operators and
9 certifiers determine if a native ecosystem might
10 have been present on the land will be provided in
11 subsequent proposed guidance for the NOP.

12 Certifiers would only need to use
13 these tools if, based on a short list of organic
14 system planned questions, they are prompted to
15 search further.

16 Certifiers will be able to modify,
17 improve upon the questions provided in the
18 guidance in their own OSPs. The number, ease of
19 use, and information present in online tools,
20 government and non-profit websites, and
21 personnel, will continue to increase over time as
22 information becomes more easily accessible

1 through the internet.

2 Additionally, information describing
3 how to use the research tools to determine what
4 type of ecosystems were present on that land in
5 the past could be developed as well as helping
6 inspectors assess the diversity and regenerative
7 capacity of any remnants that might be present on
8 edges or on adjoining property of that native
9 ecosystem that had been converted.

10 Finding the line between a recovering
11 ecosystem that is functioning at a high level of
12 bio-diversity and regeneration as unaltered land
13 would also be the focus of this guidance.

14 There were significant comments from
15 a variety of regions stating that farmers need to
16 be able to access land close to their buildings
17 in order to facilitate grazing or add on to
18 production capabilities and the only land
19 available to them could be a native habitat.

20 We are also considering a description
21 of management of native ecosystems that would
22 allow grazing animals as long as this management

1 practice would meet the wild harvest definition
2 in our regulation.

3 These changes we are making to this
4 proposal below do, and I believe, address the
5 concerns of the farmers in the Carolinas and New
6 England that they would need to access some
7 regrowth areas to increase production on their
8 farms.

9 It is not the intention of this
10 proposal to cast a broad net and prevent any type
11 of non-agricultural land from being used for
12 agricultural production.

13 Instead, the intention is to
14 disincentivize the destruction of the
15 unfortunately very rare ecosystems left on our
16 planet that has led to loss of endemic plant and
17 animal species and the lessening of their
18 populations, as well as the accompanying increase
19 of invasive plant and animal species which then
20 further endanger the capabilities of those native
21 communities to survive and flourish.

22 We recognize that an operator can

1 destroy a native ecosystem and then farm it non-
2 organically with all of the associated use of
3 problematic materials and practices that are not
4 allowed in organic.

5 This will happen whether or not this
6 rule is adopted, but instead this proposal will
7 give pause to any operators who wish to quickly
8 enter the organic market and avoid that 3-year
9 transition on either their own or leased non-
10 organic land through the destruction of a
11 precious intact native ecosystem that has not had
12 the application of any prohibited materials.

13 The Certification, Accreditation &
14 Compliance Subcommittee has modified this
15 proposal which we believe addressed many of the
16 concerns expressed by the public, and Michelle
17 will put that up on the screen. Thank you.
18 That's your -- That's me. Okay, there it is.

19 In response to numerous public
20 requests it is unclear how the National Organic
21 Program could provide incentives through our
22 regulation to the conversion of non-organic land

1 to organic land other than perhaps developing
2 some targeted research priorities that would aid
3 farmers with that transition to organic.

4 It is also a good idea to obtain
5 information, there was a commenter through NAS
6 surveys, and we encourage our organic
7 stakeholders to make this request to the
8 appropriate federal agency.

9 In addition, we will continue to work
10 on the proposed guidance to go along with this
11 proposed rule, should it pass, which would
12 provide the information needed to assure the
13 organic community that this proposal is
14 implementable and provides the disincentive we
15 seek that results in the protection of those
16 precious ecosystems which the vast majority of
17 commenters stated was a necessary addition to
18 organic regulation.

19 So up on the screen you see the change
20 that we have removed. I don't know the best way
21 to do this. Read it? Well, I want to just make
22 it clear we have removed the words "and semi-

1 natural vegetation."

2 So now it reads "Native ecosystems can
3 be recognized in the field as retaining both
4 dominant and characteristic plant species as
5 described by established clarifications of
6 natural vegetation.

7 These will tend to be on lands that
8 have not been previously cultivated, cleared,
9 drained, or otherwise irrevocably altered.
10 However, they could include areas that have since
11 recovered expected plant species composition and
12 structure."

13 We have discussed this with the
14 National Organic Program. We do not feel this is
15 a substantive change and so we are moving forward
16 with this. I am finished. Thank you.

17 MR. RICE: Thank you, Harriet. Any
18 discussion?

19 MR. CHAPMAN: And just a point of
20 order, to make that change we will need an
21 amendment, a motion to amend.

22 MR. RICE: Do we have a motion to

1 amend?

2 MS. SWAFFAR: I would like to make the
3 motion to amend the definition of native
4 ecosystems to read as follows, "Native ecosystems
5 can be recognized in the field as retaining both
6 dominant and characteristic plant species as
7 described by established classifications of
8 natural vegetation.

9 These will tend to be on lands that
10 have not previously been cultivated, cleared,
11 drained, or otherwise irrevocably altered.
12 However, they could include the areas that have
13 recovered expected plant species composition and
14 structure."

15 MR. CHAPMAN: I have a motion. Is
16 there a second?

17 MR. MORTENSEN: I second.

18 MR. CHAPMAN: I have a motion and a
19 second. Is there any further discussion on the
20 motion?

21 (No audible response)

22 MR. CHAPMAN: Seeing none we will

1 proceed to a vote on the motion. So, again, this
2 is an amendment so it's a simple majority to
3 adopt this amendment.

4 A yes vote is to amend as shown on the
5 screen to strike the words that are crossed out
6 and revise the definition as read by Ashley. A
7 yes vote is to approve, a no vote is reject the
8 amendment, and the voting will start with Dan.

9 DR. SEITZ: Yes.

10 MR. MORTENSEN: Yes.

11 MR. ELA: Yes.

12 MR. BRADMAN: Yes.

13 MS. ROMERO-BRIONES: Recuse.

14 MS. OAKLEY: Yes.

15 MS. BAIRD: Yes.

16 MR. BUIE: Yes.

17 MS. SWAFFAR: Yes.

18 MR. RICE: Yes.

19 MS. BEHAR: Yes.

20 MR. CHAPMAN: The Chair votes yes.

21 Just a clarification, A-Dae, did you say you
22 abstained or you recused?

1 MS. ROMERO-BRIONES: Oh, abstained.

2 MR. CHAPMAN: Abstained?

3 MS. ROMERO-BRIONES: Yes.

4 MR. CHAPMAN: Okay. Eleven yes, one
5 absent, one abstained, the motion passes. Any
6 further discussion on the proposal? Scott's kind
7 of in charge of this piece.

8 MR. RICE: Discussion? Harriet?

9 MS. BEHAR: I just want to thank
10 everyone for remaining engaged on this issue and
11 for the work done by the National Organic
12 Standards Board in reaching consensus so we can
13 move forward. Thank you.

14 Well, I don't know if it's full
15 consensus, but we --

16 MR. RICE: We have Ashley and then
17 Emily.

18 MS. SWAFFAR: Yes. So I was kind of
19 a lot of the driver on making those changes
20 because I feel like that addresses a lot of the
21 concerns that we heard from several of the
22 growers that wanted to expand on land, so I feel

1 like, you know, this was a great compromise for
2 all parties involved in protecting our native
3 ecosystems.

4 And I just want to say that, you know,
5 through the guidance process or the rulemaking
6 process I would like to see a definition of
7 conversion clearly spelled out because I think
8 that's one thing that is just a little bit
9 missing from this and, you know, also stating
10 that grazing can occur on these lands.

11 As long as native ecosystems are still
12 maintained grazing can play a real factor in
13 making sure those ecosystems are sustainable. So
14 I just want to say, you know, with this amendment
15 I feel like we alleviated a lot of the concerns
16 that we heard from a lot of farmers. Thanks.

17 MR. RICE: Emily?

18 MS. OAKLEY: I can let others go
19 before me if they want to.

20 MR. RICE: Excuse me. Tom was next on
21 the stack.

22 MR. CHAPMAN: Yes. I mean I

1 appreciate -- It took us awhile to get this
2 right. I think this was the third time since
3 we've brought a discussion document or a proposal
4 forward and I think we got it right this time.

5 So I really appreciate all the hard
6 work that the subcommittee put into getting this
7 right and the comments from the public.

8 I do want to, you know, I do think
9 this is critical that this goes forward and I
10 hope the program can find a way to move this
11 forward after it leaves our hands.

12 I also want to make sure that we don't
13 miss some of the comments made by CCOF that this
14 is one way of addressing this issue but there is
15 other ways of addressing it through incentivizing
16 the conversion of conventional crop land and, you
17 know, that's an area that we should also keep
18 under consideration, especially as ideas are put
19 forward in that avenue.

20 MR. RICE: Let's see. I had put
21 myself in the stack there briefly to just touch
22 on -- I agree with the comments that have already

1 been made and just to emphasize the need for
2 guidance around this, especially when it comes to
3 the role of the certifier in determining the
4 status of a particular field or site.

5 I think guidance will be critical to
6 kind of fill in some of the detail and the
7 resources and other tools that we can use. Sue?

8 MS. BORENER: I grew up in the Ozark
9 Mountains, and I still love the Ozark Mountains.
10 And we have a lot of native forest in Arkansas
11 and Missouri.

12 Some of those have been we have
13 Missouri Pecan Growers Association, I don't know
14 if I can name names, that have taken native
15 pecans that have been they say planted by Indians
16 300 years ago, and they are harvesting native
17 pecans and selling them now all over the world.
18 They're a wonderful pecan.

19 But by doing that, over time not only
20 are the organic farmers doing it but also
21 conventional farmers because it's a very
22 lucrative crop. So those trees are going to be

1 used one way or the other. They're either going
2 to be sprayed or they're going to not be sprayed
3 and treated organically.

4 You would say that would be wild crop
5 harvesting except over time they have started
6 using, doing some cultivation underneath it,
7 putting alfalfas and other -- so now they're crop
8 lands instead of wild crop harvest.

9 We have a group down in southern
10 Missouri that have connected with the elders in
11 that area, and they do essential oils, ginseng
12 and Echinacea, and they're doing essential oils,
13 and they sell them over internet.

14 And you would say that's wild crop
15 harvesting. And it started out wild crop
16 harvesting, but at one point then they started
17 adding fertility products. So now it's crop
18 planning.

19 And essential oils are very expensive,
20 and so they either do it organically or somebody
21 does not. That's my concern. It's not that we
22 don't have love of biodiversity, we do. We're

1 connected with our Earth.

2 And I appreciate the changes that were
3 made. I think this does address some of that.

4 But I fear for those people who might lose their
5 certification or perhaps could not get certified.
6 Nevertheless, that being said, and I think valid
7 fears on my part, I think that we have to, as an
8 organic industry, make a statement that we have
9 to preserve our biodiversity.

10 MR. RICE: Thank you, Sue. Emily?

11 Oh, excuse me, Harriet.

12 MS. BEHAR: I would like Emily to get
13 the last word. I just wanted to tell Ashley and
14 Tom that the items that you mentioned were
15 mentioned in my summary and will be covered in
16 addition to wild harvest not just of grazing but
17 any wild harvest out there that meets our rule on
18 sustaining the resource would be allowed in the
19 native ecosystem.

20 So that will be part of the -- once
21 they change that ecosystem, then it would not.
22 But I'm just saying we're going to try to come

1 through to help find those lines and make it
2 easier for both operators and certifiers.

3 MR. RICE: If Emily still wants the
4 last word, we have Ashley. You want Dave? Dave?

5 MR. MORTENSEN: Yes, I also would like
6 to thank all the hard work that people on the
7 Board did listening to the stakeholders and then
8 working out an agreement. This is the first time
9 I've seen this kind of activity in the time I've
10 been on the Board, and I'm delighted to see it.

11 I'm delighted to see it for a number
12 of reasons, but when I'm not on the Board, my
13 research actually measures biodiversity in what
14 we call the agro-ecological matrix, or the
15 landscape.

16 And it's interesting, Silke's comment
17 about the 80/20 rule, that 20 percent of some
18 activity results in 80 percent of the benefit is
19 exactly what we see when we measure biodiversity
20 on the landscape.

21 It's the small slivers of natural
22 habitat that give rise to 80 percent of the

1 biodiversity, and that's not just for the
2 environment. That's for our farming activities.
3 We're measuring 160 pollinators in these slivers,
4 wild bees and Apis as well as natural enemies.

5 So I think it's just the perfect thing
6 that we should be moving forward. It stewards
7 the environment, and it stewards the ecology of
8 our agricultural production system.

9 MR. RICE: Ashley?

10 MS. SWAFFAR: Yeah, I forgot to
11 mention in my earlier comments I was the no vote
12 on this. And I just want to see justification
13 for changing my vote to a yes was these
14 amendments I feel like can alleviate a lot of my
15 concerns. So I just wanted to state that.

16 MR. RICE: Emily?

17 A-dae?

18 MS. ROMERO-BRIONES: This vote is
19 really hard for me because I am going to be the
20 no vote on this, and I just wanted to give pause
21 to why I'm going to vote no.

22 And part of it is I think biodiversity

1 is incredibly important. I feel like the
2 biodiversity standards or matrices that may be in
3 effect now don't necessarily encompass some
4 indigenous practices that are just now becoming
5 on the forefront of what we know as science and
6 they're just being researched.

7 For example, we have controlled burns
8 in the Yurok Nation in California where they do
9 do controlled burns of some natural species based
10 on generations and generations of knowledge. You
11 can't have an influx of endemic plants in a
12 certain area based on indigenous knowledge that
13 has yet to be documented scientifically.

14 In addition we have, aside from this
15 proposal or this recommendation will also affect
16 people trying to enter into the organic industry.
17 Right now we're in the political climate where we
18 have pipelines going through indigenous
19 communities.

20 We have the Dakota Pipeline, we have
21 the Keystone Pipeline, we have the Atlantic
22 Pipeline, and these are all pipelines that are

1 going through indigenous communities. And one of
2 the single rays of hope is that in Minnesota we
3 see mitigation plans that protect organic lands.

4 So it's a strong argument to avoid
5 lands that have been defeated in court -- so
6 there's tribal communities that are interested in
7 protecting their lands by entering the organic
8 industry.

9 And so, and again, tribal communities
10 are the second largest landholder in America.
11 They have over 100 million acres of land in this
12 country, 58 percent of those are in agricultural
13 titles or agricultural businesses.

14 And I don't feel we've had enough of
15 their voice in determining whether this is
16 beneficial to them. And also this will affect
17 international players in the organic industry.

18 And I feel like the international
19 agency or sovereign nations of both international
20 agencies and tribal agencies weren't clearly
21 articulated in making this recommendation. And
22 so these are some of the reasons I'm voting no.

1 MR. RICE: Thank you, A-dae. Sue?

2 MS. BAIRD: Thank you, A-dae. I
3 appreciate that. And I think it's something that
4 we need to consider, at least in the future, is
5 that we reach out to some of those voices that
6 perhaps would not normally be reached.

7 I truly fear that this will have the
8 opposite effect that we want it to have. I
9 really do. I think that we're going to increase
10 uses of chemicals that we don't, wouldn't have
11 without putting this period of ten years from
12 time of conversion to organic.

13 The only reason that I would vote, and
14 will vote yes is because if we don't, they're
15 going to say well organic don't even care about
16 biodiversity. I actually saw that on a slide
17 that was presented, which I suppose is the take-
18 home. If A-dae didn't vote for it, we don't care
19 about biodiversity. So thank you, A-dae.

20 MR. RICE: Emily?

21 MS. OAKLEY: I don't mean to have the
22 last word. Sorry, I don't mean that. So please,

1 others, speak after this. First, I wanted to
2 thank you, A-dae for that comment. And I'm in a
3 state with a very large number of indigenous
4 communities and tribes.

5 And to the point of burning, I just
6 also wanted to say that that is definitely a tool
7 that's used in Oklahoma for native prairie lands,
8 also by the Nature Conservancy and isn't seen to
9 be at odds with sustaining native ecosystems, and
10 in fact is incorporated in many cases as a tool
11 for trying to keep out invasive species and to
12 promote native species, and is seen as part of
13 that natural, integral part of the ecosystem.

14 And it's even done, although you have
15 referred to the Ozarks only in Missouri and
16 Arkansas, but Oklahoma has a sliver, and that's
17 where I am. And there has been burning done
18 there, as well in the forest lands to try to
19 maintain the native ecosystem and address
20 invasive species that might be creeping in.

21 So I do think it is an important tool
22 that many people recognize as being complementary

1 to maintaining native ecosystems. So I just
2 wanted to make sure that that was clear.

3 I wanted to say that even though we
4 had a lot of the rationale for this proposal in
5 previous discussion documents and proposals,
6 there's just one thing that I wanted to be sure
7 that we read into the record for this which is
8 205.200.

9 And I won't read the whole thing, but
10 the section that addresses must maintain or
11 improve the natural resources of the operation I
12 think is really critical. I think it could be
13 argued that that alone already addresses this
14 proposal.

15 And if you look at 205.2, terms
16 defined, natural resources of the operation, the
17 physical, hydrological, and biological features
18 of a production operation including soil, water,
19 wetlands, woodlands, and wildlife.

20 So I think when we are taking native
21 ecosystems and converting them directly into
22 organic production, we're already in violation of

1 the rules that we have before us.

2 I think that this compromise that
3 we've reached as a group is a really positive
4 one. I know it doesn't include everyone's
5 concerns, and I wished that it could. I also
6 think that A-dae is correct.

7 And I think there should be a broader
8 dialogue between the National Organic Program and
9 the USDA in general, and native communities. And
10 I know that's part of the regulatory framework
11 and I, you know, hope that that is always a good
12 dialogue that occurs through the rulemaking
13 process in general.

14 I think that as a farmer, I actually
15 was really naive and didn't realize the extent to
16 which this was happening. And when I first came
17 on this board and learned of the issue, I was
18 really upset and really glad to see that this
19 board was working on it.

20 As a consumer who buys everything
21 organically that I possibly can, meaning
22 basically everything, I also feel that I wear

1 both those roles as a farmer and a consumer.

2 And as someone who came to farming out
3 of a love for the environment, and seeing organic
4 agriculture as a means of complementing
5 environmental issues, I think that this issue is
6 critically important. I think we owe it to the
7 integrity of farmers who carry this label and
8 consumers who eat our food to put this forward.

9 And I hope, as Tom said, that the NOP
10 will be able to go forward with rulemaking on it
11 if we're able to pass this proposal today. So
12 thank you, Harriet, for that excellent summary,
13 and thank you to all the stakeholders in the room
14 who have worked very hard on this and have helped
15 us obtain this language that is hopefully
16 satisfactory to the vast majority of the
17 community, and for all the work that's gone in on
18 this issue for a number of years.

19 So I just wanted to say thank you and
20 hope that we can successfully pass this. Thank
21 you.

22 MR. RICE: Harriet and then Dan.

1 MS. BEHAR: I think in the guidance we
2 could address the burning, prescribed, controlled
3 burns of native prairies because they would, it's
4 not irrevocably changing them. If anything, they
5 are enhancing them.

6 So I think that the burning and having
7 a native prairie -- I shouldn't say, I don't have
8 a native prairie on my farm, but I am trying to
9 mimic that and have done numerous burns myself
10 and seen the benefits to that practice to
11 increasing the basically waking up the plant
12 species that have been held dormant for I don't
13 even know how long.

14 MR. RICE: Dan?

15 DR. SEITZ: I too appreciate A-dae's
16 comment, and I think it points actually to a
17 broader challenge that we have, and that's the
18 law of unintended consequences. And almost
19 inevitably something we do, no matter how well
20 meaning and how logical and thoughtful, it may
21 have an unintended consequence.

22 I think ironically, the unintended

1 consequence of the organic standards was to
2 create an incentive to develop native habitat.
3 And when you read through the regulations, it
4 talks about improving fertility of the soil and
5 so forth.

6 I think that the people who formulated
7 at were really aiming at the 99.9 percent of land
8 that's in conventional agricultural use as being
9 where we would hope to see organic methods
10 introduced. So that conversion of land from
11 conventional to organic I think is what was very
12 much intended.

13 So I feel comfortable with addressing,
14 with accepting this proposal to address what was
15 a major unintended consequence that people might
16 develop some of the most valuable, important
17 habitat out there at the expense of ecological
18 diversity.

19 But I think we have to remain very
20 mindful, and I think I've heard that from a
21 number of people, that this too could have an
22 unintended consequence. And if it does, we need

1 to stand ready to address that at the time that
2 that happens, and also to use the flexibility
3 within the language where we can if there seems
4 to be an unfair result that -- if there's an
5 unfair result from any change that this leads to.

6 MR. RICE: Steve?

7 MR. ELA: I think I would just like to
8 echo Emily's comment. I mean, coming from the
9 west where land isn't developed because water
10 isn't available, you don't just go out and break
11 out a new set of ground because it just doesn't
12 happen.

13 My eyes have been opened. I've lived
14 in the Midwest and seen those native ecosystems.
15 I think it's incredibly important to protect
16 them. And I completely respect A-dae's comments,
17 and I think we really do as a board, whether it's
18 indigenous peoples or it's small farmers that,
19 you know, don't really know what the NOSB does or
20 don't have access to.

21 And I think the webinar comments are
22 really important on that for people who can't

1 travel or don't have time. I think we do need to
2 continue to actively think as a board of how do
3 we engage those communities that don't have ready
4 access to our -- and public comment is readily
5 accessible but the system by which they engage is
6 not there.

7 So I think your comments are really
8 valid. But I do think this is an important topic
9 that we do need to address and, you know, I would
10 hope for a yes vote as well.

11 MR. RICE: All right, I think we are
12 ready to move forward. Okay, seeing no further
13 discussion we will move on to the vote. So the
14 vote will be to adopt this proposal that contains
15 the amendment to Section 205.2 to add the
16 definition for native ecosystems as it's
17 currently displayed on the screen.

18 It also contains a recommendation to
19 amend 205.200 and to add a Paragraph A that
20 states a site supporting native ecosystems cannot
21 be certified for organic production as provided
22 under this regulation for a period of ten years

1 from the date of conversion.

2 The motion was made by Harriet and
3 seconded by Emily. This requires a two thirds
4 vote. And a yes vote is to adopt the proposal
5 and the wording seen here as amended. The voting
6 will start with Dave.

7 MR. MORTENSEN: Yes.

8 MR. ELA: Yes.

9 MR. BRADMAN: Yes.

10 MS. ROMERO-BRIONES: No.

11 MS. OAKLEY: Yes.

12 MS. BAIRD: Yes.

13 MR. BUIE: Yes.

14 MS. SWAFFAR: Yes.

15 MR. RICE: Yes.

16 MS. BEHAR: Yes.

17 DR. SEITZ: Yes.

18 MR. CHAPMAN: Chair votes yes.

19 Eleven yes, one no, one absent. The
20 motion passes.

21 MR. RICE: Thanks, Tom. That

22 concludes our work this session on the CACS

1 Subcommittee, and I turn it back to you.

2 MR. CHAPMAN: Thank you. We will now
3 take a quick break. It's 9:50, we will reconvene
4 in ten minutes at 10 o'clock. We are now in
5 recess.

6 (Whereupon, the above-entitled matter
7 went off the record at 9:52 a.m. and resumed at
8 10:12 a.m.)

9 MR. CHAPMAN: If people can get
10 seated, we will come back into session. I see
11 all the Members present, with the exception of
12 Lisa. So we do have a quorum. If members of the
13 public could take their conversations outside, we
14 are coming back to order. And I think Paul had a
15 comment he wanted to make.

16 DR. LEWIS: Right. Thank you, Tom.
17 I just wanted to follow-up on Dave's very helpful
18 comment. The USDA has an Office of Tribal
19 Relations. And part of their responsibility is
20 engaging with the Tribal community but also in
21 terms of consultation between their office and
22 the Department on any regulatory activities.

1 So I wanted to at least let you know
2 about that activity. And one thing that we're
3 constantly asked in terms of are there any topics
4 we want to share with them as part of a
5 consultation.

6 So I applaud you in terms of kind of
7 raising this issue. And this is something that
8 we can, that you and I can kind of talk about
9 engagement in over time.

10 MR. CHAPMAN: And that's a step in the
11 regulatory review process, right? So if this
12 went through rulemaking, consultation with the
13 office is mandatory.

14 DR. LEWIS: Correct. Right. The
15 consultation is required.

16 MR. CHAPMAN: Okay. So as printed on
17 the agenda, up next would be the beginning of the
18 day, it would be 8:30 in the morning. And we
19 would be starting with Handling. As our Handling
20 Chair is still feeling a bit ill, she will be
21 joining us shortly.

22 But unless there's an objection from

1 the Board we will reorder the agenda and start
2 with Crops. Any objection? Seeing none, we will
3 reorder the agenda by consensus. And Crops is up
4 now. And I will hand it over to Steve Ela, the
5 Crops Chair.

6 MR. ELA: Thanks, Tom. I think we'll
7 jump right into sunsets. We have a number of
8 sunsets. And we also have two proposals that we
9 will vote on today and discuss.

10 Just as Ashley mentioned yesterday, a
11 couple of these, several of these sunset reviews
12 are early reviews. And so if they were to be
13 voted to be removed in the fall they would still
14 sunset on the original sunset date. So same kind
15 of disclaimer that Ashley pointed out.

16 With that, I think we'll just jump
17 right into sunset reviews. And, Devon, do you
18 want to --

19 MR. PATTILLO: Thank you. We will
20 start with Section 205.601(a). That's algicide,
21 disinfectants, and sanitizer, including
22 irrigation system cleaning systems. One

1 alcohols. And two listings here, one ethanol,
2 and isopropanol. Thanks.

3 MR. ELA: Jesse.

4 MR. BUIE: Okay. On the ethanol,
5 agricultural uses of ethanol include the
6 disinfection of production tools and surfaces,
7 topical disinfection, and plant regulation,
8 include ripening.

9 Both fermentation and chemical
10 synthesis procedures are used in the commercial
11 production of ethanol for the preparation of
12 disinfectant solutions, spirits, and industrial
13 sources.

14 Ethanol is readily biodegradable in
15 air, soil, and water. According to the US EPA,
16 ethanol is practically non-toxic, based on acute
17 oral and inhalation toxicity tests, as well as
18 primary eye and dermal irritation. There were no
19 public comments April 17 through 19 or in person.
20 Are there any questions?

21 MR. ELA: Is there any discussion?

22 All right. We will move on to the next item.

1 Devon.

2 MR. PATTILLO: Next up in the same
3 section is algicide, disinfectants, and
4 sanitizer, including irrigation system cleaning
5 systems. We have Paragraph 8, sodium carbonate
6 peroxyhydrate.

7 Federal law restricts the use of this
8 substance in food crop production to approved
9 food uses identified on the product label.

10 Thanks.

11 MR. ELA: Emily.

12 MR. BUIE: Okay. Isopropanol is used
13 for a variety of industrial --

14 MR. ELA: So, Jesse, I think we lumped
15 the two alcohols together, did we not? I'm
16 sorry. I was --

17 MR. PATTILLO: Sorry about that. Yes,
18 we did lump the two together.

19 MR. ELA: Yes. So --

20 MR. PATTILLO: Going back.

21 MR. ELA: Do you have anything to add,
22 Jesse, given that we --

1 MR. BUIE: No.

2 MR. ELA: -- put those two together.

3 MR. BUIE: Not at this time.

4 MR. ELA: I'm sorry. It wasn't clear
5 on that. Okay. Emily.

6 MS. OAKLEY: Thank you. So this
7 product, sodium carbonate peroxyhydrate, is used
8 as an algicide in rice fields, ponds, ditches,
9 and irrigation lines.

10 It was added to the National List in
11 2007 with the hope that growers would use it as
12 an alternative to more problematic materials,
13 such as copper and chlorine.

14 The material is produced by drying
15 hydrogen peroxide in the presence of sodium
16 carbonate. It rapidly dissolves in water, and
17 disassociates into hydrogen peroxide and sodium
18 carbonate. It decomposes to leave only water,
19 oxygen, and soda ash.

20 As part of its most recent review, the
21 lead on this, who was I believe Zea at the time,
22 said that, did some additional research. And a

1 2007 report of the California Rice Research Board
2 studied the efficacy of this material, and found
3 it did not work well enough to recommend it for
4 rice paddies.

5 I did do a brief search on the
6 California pesticide use report database
7 regarding this material, just for their most
8 recent data set of 2016. And it is being used in
9 a number of counties on rice.

10 It's impossible to tell from that
11 database if those are organic or conventional
12 producers. But it is a tool that is being used
13 at least by some.

14 Probably the biggest stakeholder that
15 would have a producer using it for rice among our
16 community would be CCOF, or other certifying
17 growers in California.

18 And I think we'll look to the future
19 material in the fall to determine if organic rice
20 growers are using this, and a great deal. But it
21 is being used, as a number of stakeholders
22 commented, in irrigation cleaning.

1 So although it might have been added
2 to the list initially for rice, or ideally as a
3 rice material, it has become incorporated for
4 other purposes as well. And it is listed under
5 those purposes.

6 So there was, you know, a variety of
7 comments to this. Some telling us that they
8 didn't have producers using it. And then a
9 number telling us that they did have producers,
10 and who they were.

11 There were some organic dairy
12 producers that requested this material stay on,
13 but didn't tell us how they were using it.

14 We did put forth some questions,
15 trying to identify if growers are using it on
16 rice systems and, if so, describing its efficacy.
17 We didn't really get that yet. So it would be
18 great if we could get that for the fall meeting.

19 Although at this point I'm not sure
20 that would affect our action on this material.
21 Because it is being used by people for one of its
22 listed purposes, which is irrigation cleaning.

1 Are there any questions about this? Or
2 discussion? All right. Yes.

3 MR. ELA: Harriet, and then Dave.

4 MS. BEHAR: Do you know any brand name
5 products that contain this material?

6 MS. OAKLEY: Oh, yes. Is it,
7 GreenCleanPRO, perhaps? It's a biosafe product,
8 I believe. And yes, I would have to, I could
9 look up the product name if we need to.

10 But that's, if you look under the
11 pesticide use report database, under the
12 chemical, you will also get a listing of the
13 products that incorporate that chemical.

14 MR. ELA: Dave.

15 MR. MORTENSEN: Emily, it strikes me
16 that it's possible that use in irrigation
17 equipment could be bigger than even use in rice.
18 I'm just guessing. So that might be, could be
19 helpful from the community to hear if that's the
20 case. Or just, it's, I could imagine that might
21 be the case.

22 MS. OAKLEY: I think it also just

1 speaks to a bigger issue, which is that if we
2 allow a material for a specific use, but it has a
3 listing that includes multiple uses, we have to
4 expect that it will be incorporated for those
5 other uses as well.

6 And stakeholders will then become
7 dependent on that material. Or if not dependent,
8 at least accustomed to using it. So, you know,
9 if people are wanting something, for example,
10 strictly for rice. Then that needs to be more
11 specifically described.

12 If not, and I don't know, you know,
13 what the Board's thinking was at that time, then,
14 you know, I don't, we can't apply that scrutiny
15 post facto.

16 MR. ELA: Other comments, discussion?
17 All right. We'll move on to the next. Devon.

18 MR. PATTILLO: Next up are two
19 listings for newspaper or other recycled paper
20 without glossy or colored inks. They're listed
21 at 205.601(b)(ii), mulches, and 205.601(c) as
22 compost feed stocks.

1 MR. ELA: Thanks. Harriet.

2 MS. BEHAR: Thank you. During the
3 last sunset review the National Organic Standards
4 Board indicated that they would like a technical
5 report for the review of this material. And it
6 did come through. We discussed it I believe two
7 meetings ago.

8 And the question was, were there more
9 benign colored inks or glossy materials that were
10 put on the paper that would maybe necessitate
11 changing the annotation and possibly maybe
12 reviewing, removing one or the other or both.

13 We did review this when the technical
14 review came through. It was kind of nice to see
15 a technical review, even though it was the sunset
16 material. But it had been, what, 15 years I
17 think since there had been a technical review.

18 And we received it the summer of 2017.
19 We reviewed it. We discussed it in public, in
20 front of the public here, two meetings ago, I
21 think.

22 Even though there's some movement

1 towards the use of less toxic color inks in
2 newspaper, it is difficult to almost impossible
3 to determine when those inks are actually present
4 in the newspaper and -- versus which ones are the
5 more problematic colored inks.

6 There's also no methodology in place
7 to separate if someone is getting recycled
8 newspaper that would have, these are the more
9 benign inks, and these are the less benign inks.

10 And so we decided in previous
11 discussion and in subcommittee that we were not
12 going to change the annotation. I know we don't
13 change annotations at sunset. But we didn't
14 change the annotation in between sunsets either.

15 We asked two questions. Does it
16 perform an essential function? Is it used
17 regularly? The public commenters, there was
18 quite a few. And most, actually all, approved
19 the continued listing with the current
20 annotation. These included certifiers, grower
21 groups, and individual growers.

22 Some noted that there's not a lot of

1 use of this material in their region but felt it
2 should remain to allow those who are currently
3 using it to continue that use.

4 There were no comments that stated it
5 was difficult for producers to meet the
6 annotation. With the recent TR we also agreed on
7 the subcommittee that the annotation should
8 remain.

9 And one certifier noted that newspaper
10 at times ends up in manure that's being cleaned
11 out of a livestock barn. And it may end up on
12 organic land.

13 MR. ELA: Comments, discussion from
14 the Board? Harriet.

15 MS. BEHAR: I believe I will be asking
16 the Crops Subcommittee, who, if they decide they
17 would like to, will be asking the NOP to work
18 with us on possibly looking at adding the pots to
19 -- as an annotation. Or just to, or we're
20 waiting for a petition from the public to include
21 the, those paper pots, and try to deal with this
22 somehow.

1 Because there was quite a few
2 comments, while not necessarily germane to this
3 specific sunset material, we did hear from the
4 public on those paper pots. And so, I didn't
5 want that issue to get lost. And it seemed like
6 this was the place to bring it up.

7 MR. ELA: Tom.

8 MR. CHAPMAN: And it would seem to me
9 that the proper procedure would be to bring it
10 forward in a petition, given that we just had a
11 recent TR on a similar substance. I would
12 imagine that it's a substance that we could
13 review very quickly.

14 But the petitioning process is how
15 items get added to the National List. And I
16 highly encourage someone to petition the
17 substance if its need as high as it's been
18 stated.

19 MR. ELA: I would echo that. I think
20 that would be the cleanest, most straightforward
21 one that could -- so, and I agree with Tom. I
22 think it probably would be a fairly

1 straightforward petition.

2 I also want to say that from my own
3 perspective, I know as we got the TR, and we were
4 looking about the colored inks, I think there
5 were a few comments of how ubiquitous colored
6 newsprint is now. And that in some ways why we
7 were hoping to expand the annotation.

8 There may be some indications that
9 it's in -- that because colored inks are used so
10 widely, that it's difficult to sort. And so,
11 we're not, it's not entirely clear if, when
12 newspaper is being used if it actually is without
13 colored inks.

14 And so, I think that becomes a -- it's
15 a little more problematic, especially for
16 certifiers, to verify that the annotation is
17 being met. That's just my own observation.

18 So, I'm comfortable with the way it.
19 But I think we need to be aware that the industry
20 has changed in many ways. So, Harriet, do you
21 have --

22 MS. BEHAR: Yes. No one made that

1 comment. There was no certifier or operator who
2 commented that they could not meet the
3 annotation. And -- but there were numerous that
4 commented that the annotation should remain.

5 MR. ELA: Anybody else? All right.

6 With that we'll move on.

7 MR. PATTILLO: Thanks. Moving on to
8 Section 205.601(b), that's herbicides, weed
9 barriers, as applicable. Paragraph 2, mulches,
10 (ii) plastic mulch and covers, petroleum based
11 other than ployvinyl chloride, PVC.

12 MR. ELA: Harriet.

13 MS. BEHAR: Sorry. There were
14 numerous comments that these plastic mulches and
15 coverings are an important part of organic
16 production for weed control, for moisture
17 management, for shade cloth, and coverings on
18 greenhouses, high tunnels, low tunnels, and other
19 season extension activities.

20 I would like to talk a little bit
21 about the burning of the plastic. This was one
22 of the questions that we asked, about burning of

1 the plastic. And many noted that this is already
2 banned under the Federal Clean Air Act, as well
3 as, I know, some state and local authorities also
4 review that.

5 However, I have heard from some
6 certifiers that there is concern that there is
7 little to no enforcement of this burning ban on
8 organic farms, or any farms.

9 And that they would support this going
10 on our work agenda to add to the annotation at
11 some point, this burning. So that if it was
12 added to the organic regulation it would then
13 become a question on an organic system plan that
14 all certifiers would review. And would be asked
15 and verified that this was not occurring on
16 organic farms, and would lead to the enforcement.

17 Many noted that there needs to be
18 movement to the biodegradable mulches. That
19 there is a significant impact of land filling. I
20 think we all are aware of that, of plastic
21 mulches and covers. We're not even talking about
22 silage bags or bagged hay bales that I believe

1 are used ubiquitously around the country.

2 But we have gone through that, and
3 we're still waiting for the research to give us
4 the information we need to then approach the
5 National Organic Program with possible changes to
6 their policy on the amount of biologically based
7 ingredients in those mulches.

8 Certifiers also answered the question
9 about the woven plastic landscape cloths that are
10 then allowed to remain in place over numerous
11 seasons. This is a plastic mulch. But that they
12 do monitor the possible degradation of it. And
13 that once it is seen on inspection to be
14 degrading, they then tell the operator that it
15 must be removed.

16 One advocacy group stated that they
17 had concern about the solarization that occurs
18 under black plastic especially. That it kills
19 off beneficial soil biology, especially when it's
20 in continual use on the land for numbers of
21 years.

22 But as I said, there was strong

1 support for relisting among many commenters for
2 this material as listed. Although, as I said,
3 many also urged at the same time for further
4 research to find an acceptable biodegradable
5 mulch to convince the NLP to modify their
6 guidance.

7 There is some compelling information
8 -- oh, sorry. Some compelled us, as the NOSB, to
9 find a way to address the issue of landfilling.
10 I do know, at least in my region, I don't know in
11 others.

12 But there is -- are a few different
13 companies that are working on the recycling of
14 plastic, but not usually the mulches. But you
15 can usually recycle the coverings of high
16 tunnels, and the silage bags, and the wrap bales.

17 In my region there's a company that
18 will leave a dumpster on your property. And you
19 can, and then you fill it up. And actually a
20 variety of farmers can even use it. And then
21 they periodically come and get it. And you, and
22 the farmer doesn't pay anything. So, that's in

1 Wisconsin, and I believe they also operate in
2 Iowa.

3 But that's not everywhere. So, I
4 don't think that we should take this off the
5 list. Although there were some commenters that
6 said that the producers should stick with organic
7 mulches, such as hay or straw.

8 Or there should be a commercial
9 availability clause that only use of plastic
10 mulches when the organic mulches cannot meet
11 their function. That's it. Oh, and just two,
12 someone commented that shade cloths were also
13 important.

14 MR. ELA: Comments, discussion from
15 the Committee?

16 MR. BRADMAN: I just want to echo that
17 summary in a sense. Because I think it raises a
18 lot of concerns among the Board. And I know I
19 have a growing discomfort with the enormous
20 amount of plastic waste from plastic mulches. We
21 see this in California a lot.

22 There are similar programs in

1 California where high tunnel and other materials
2 that aren't contacting the ground are recycled.
3 But the problem with the material touching the
4 ground is that often you have soil and other
5 contaminants that makes it difficult to recycle.

6 Also, when we think about burning,
7 there's a new company in California, there's also
8 one in England, that are trying to develop
9 pyrolysis devices to basically convert plastics
10 into fuels, by vaporizing them and re-condensing
11 diesel or other fractions into fuel.

12 And I think pyrolysis in some
13 environments has been controversial, particularly
14 as a way of handling municipal waste. But when
15 we think about burning, and limiting burning, we
16 should make sure we're clear on whether we want
17 to include pyrolysis in that, which is not
18 combustion. But it is a very, you know, it's a
19 conversion process. And some people consider it
20 a form of incineration. So, it's something to
21 consider.

22 And I think plastic is just a growing

1 issue, with all the new information about plastic
2 waste, and marine plastics, and also impacts on
3 terrestrial and freshwater ecosystems.

4 MR. ELA: Scott.

5 MR. RICE: Just another thought on the
6 burning annotation. As much as, you know, I
7 don't think any of us wants to see plastic
8 burned, if there -- I question using the organic
9 regulation as an enforcement tool for regulations
10 that are already in existence. And just
11 something to think about as we think about
12 annotations in general.

13 MR. ELA: Harriet.

14 MS. BEHAR: Is the pyrolysis type
15 burning something that would be done on farm? Or
16 is that taken somewhere else?

17 MR. BRADMAN: Probably somewhere else.
18 But this company wants to build small units. So
19 there can be kind of smaller, local processing
20 facilities. One issue they have though with the
21 mulches is that if there's soil on them there can
22 be sulfur that impacts -- that they need an

1 additional cleaning step in any emissions. But
2 so, there's some of the same issues with
3 recycling. But they want to build small,
4 portable units that could be done on farm
5 potentially.

6 MR. ELA: Emily.

7 MS. OAKLEY: Scott, I had a similar
8 thought that perhaps the way to address this is
9 to ensure that certifiers across the board are
10 making sure that producers aren't burning. And
11 making that part of the annual question and
12 review. How are producers disposing of this
13 material?

14 And I personally have been on a farm
15 while it's been burning. So, it is certainly, as
16 we've heard from public testimony, a problem.
17 And we should make sure that organic producers
18 are following the law that's already out there.

19 MR. ELA: Ashley.

20 MS. SWAFFAR: Yes. I just wanted to
21 say, this material, I use this on my farm. And
22 it's critically important for me to control weeds

1 in my tomatoes.

2 As an inspector I'm gone for four to
3 five days a week. And there's no way I can weed
4 everything. So, I just want to advocate that for
5 me, landscape fabrics are critically important.

6 MR. ELA: Harriet.

7 MS. BEHAR: The organic regulation
8 mandates the maintenance and improvement of the
9 natural resources, which includes the air. And
10 the burning of plastics releases dioxin, a very
11 serious carcinogen.

12 And I think that even though it's not
13 necessarily -- it is covered by other
14 regulations, I think you could probably find
15 other parts of our regulation, that it's also
16 covered in other places.

17 So -- and I think that many times
18 growers would burn plastic just out of ignorance.
19 That they don't realize the issue. Because I've
20 said this to them.

21 And I've said, you know, you've got,
22 you're burning right next to where your calves

1 are, you know. You're like giving them dioxin.
2 This is not a good idea. And they go, really?
3 And I say, yes.

4 So, we can discuss this in the crops
5 subcommittee. But there was quite a few just
6 comments on it. And universal agreement that
7 organic farmers should not be burning plastic.

8 MR. ELA: Asa.

9 MR. BRADMAN: Just one last, not to
10 belabor the point. But I've also been on farms
11 in Chile and other areas where there was a lot of
12 plastic burning going on, both ground mulches and
13 greenhouse covers, and stuff like that. So, it
14 may not be burned in the U.S., but it's
15 definitely burned around the world.

16 MR. ELA: I just would like to say in
17 adding to that, I think that international point
18 is a good one. And I also think, I mean, we hear
19 talk about how it's just acted on in the hedge
20 row, which, I mean, at least landfills have
21 environmental policies in effect.

22 I mean, they may be landfill, but

1 they're supposed to be monitoring leaching and
2 this and that. And just piling it out in the
3 hedge row, I personally don't feel that that's a
4 great disposal mechanism.

5 So I think adding a question at least
6 that kind of puts all of us that use it -- I use
7 it -- on the spot as what we do with it is
8 probably valid.

9 And I also would like to say I think
10 we had one public comment, you were talking about
11 the research area, from the researchers
12 themselves saying they had a lot of the data but
13 they hadn't had a chance to compile it yet.

14 And so just at least for the public,
15 I think it's important to know that we're hearing
16 the need for biodegradable mulches. We recognize
17 the issues with the NOP. But we really would
18 like to see that research come out and some of
19 the European research as well so that we can make
20 not a knee-jerk reaction, but an informed
21 reaction based on actual data.

22 So, we're not ignoring people, but

1 we're kind of waiting for some of this longer
2 term research to come out so we can be informed.
3 Emily?

4 MS. OAKLEY: I was going to echo and
5 appreciate Asa's comment. And I was going to
6 essentially say what you said, too, that in
7 addition to burning, we have on farm disposal,
8 which surely can't be compliant either. So maybe
9 we include an annotation that does address
10 burning and disposal.

11 MR. ELA: Anything else? I think we
12 hit here that woven versus non-woven should be
13 treated similarly. And I will just say on our
14 farm where we have used woven fabric multi-year
15 then where we were doing soil studies, the
16 comment that it does affect the soil structure
17 and biology is very valid.

18 It was very clear -- we have clay loam
19 soils, but it was very clear how hard it was to
20 take soil samples under fabric because, you know,
21 you're basically not adding organic matter. So I
22 would echo that from a personal experience.

1 Nonetheless, it is a very important
2 tool for some people, and I recognize that as
3 well. Any other comments on this? Devon.

4 MR. PATTILLO: Moving on to two
5 listings for aqueous potassium silicate. Both
6 carry the annotation of silica used in the
7 manufacture of potassium silicate. It must be
8 sourced from naturally occurring sand. And these
9 are listed at 205.601(e) as insecticides,
10 including acaricides or mite control in
11 205.601(i) as plant disease control.

12 MR. ELA: Dave.

13 MR. MORTENSEN: Yes. So aqueous
14 potassium silicate is synthesized by combining
15 high purity silica sand and potassium carbonate
16 at very high temperatures. The resulting fused
17 material is crushed into very fine powder that is
18 then suspended in water.

19 And it's a crystalline tetrahedron
20 formed structure that is sprayed onto plants or
21 applied to the soil for the purpose of insect,
22 mite entities management in veg crops for almost

1 exclusively -- well, veg and fruit crops.

2 Formulations of aqueous potassium
3 silicate then once on the plant or in the soil
4 are, as far as we could tell, and we did a fair
5 amount of reading of the technical report and
6 published literature on this, taken up and
7 incorporated in the boundary cells of both the
8 roots and the leaves so that it actually
9 represents a kind of a physical barrier to
10 feeding or to disease when the inoculant hits the
11 leaf or root, that that early phase of disease
12 development is suppressed.

13 We have quite a history to reflect
14 back on this compound. We had a technical review
15 from 2014. The crop subcommittee looked at this
16 in 2007, during which time there was a split vote
17 on the re-listing of it.

18 Some of the concerns that we had on
19 the crop subcommittee this go around that are
20 reflected in the questions, the six questions
21 that we had listed to solicit some feedback on
22 these, some have to do with human health effects.

1 There is data in the technical report
2 that indicates that the compound can -- does have
3 dermal irritation, result in dermal irritation.
4 And I'm sure if it results in dermal irritation,
5 any oral inhalation would also not be favorable.

6 We also were unclear on the extent to
7 which this is used. And this was also a problem
8 the last time the subcommittee looked at it for
9 re-listing and hence the questions about use.

10 Are we using it? If so, under what conditions?

11 And do we have alternatives, et cetera, et
12 cetera.

13 We got 14 comments back on this.

14 About half of them indicated that certifying
15 organizations hadn't reviewed any uses, quote,
16 unquote. That was about half of the comments.

17 We also had comments, and I would say
18 just kind of in a generic sense, like we use it
19 for insect, disease and mite control. Those
20 comments were coming from western sources,
21 California, the Pacific Northwest and for
22 vegetable and fruit plant production.

1 And I would say they tended to be on
2 the generic side. So it would be really helpful
3 if we could get more specific data than that or
4 more specific case study accounts of where it's
5 actually deemed used and to what extent it's
6 being used.

7 I would say the middle and eastern
8 part of the country, the comments coming back
9 were that we haven't seen it. We haven't seen it
10 in any plans or that kind of thing.

11 We also had a detailed comment from
12 Beyond Pesticides that opposed the re-listing due
13 to the skin irritation, due to potential effects
14 on nutrient uptick by the plants affecting the
15 roots and questioning the essentiality of the
16 compound.

17 And so that's the current status of
18 that one. Steve.

19 MR. ELA: Comments, discussion?

20 MR. BRADMAN: I just have one comment,
21 which we mentioned in our subcommittee
22 discussions. And I know I'm a little

1 uncomfortable with this material because it's
2 essentially acting as a systemic pesticide.

3 And even though I think the mechanism
4 is probably fairly benign, I just have some
5 concerns or philosophical issues with the idea
6 of, you know, systemically altering the plant by
7 absorbing the material into it as opposed to
8 creating a barrier or other kind of pest control.

9 MR. MORTENSEN: And Asa, as you know
10 from our many discussions, or number of
11 discussions about this, I share that concern.
12 And it also just raises the question that we
13 don't have the data, really, to assess this, you
14 know, what happens.

15 And the Beyond Pesticides group raised
16 this question as well, you know, what happens
17 when we ingest these tetrahedron as part of the
18 fruit or vegetable? So I also share that
19 concern.

20 MR. ELA: Anybody else? I think I
21 would just echo what Dave said of the
22 stakeholders that specific comments, this is

1 obviously, if you read through the record, is not
2 a material that has achieved consensus on the
3 board. And so it's somewhat controversial.

4 So I think those that are using it
5 probably, it would be great to hear from
6 specifics on how it's being used and why there
7 aren't other alternatives to help justify why it
8 should or should not stay on the list so.

9 And if there's nothing else --

10 MR. MORTENSEN: Steve, could I just
11 add one more point. With some of the things that
12 we've been reviewing for the crops subcommittee
13 things, including our proposals that we're going
14 to vote on, several commenters have raised the
15 point that you really need to have efficacy data,
16 performance data in side-by-side trials where,
17 you know, you're comparing it to the standard
18 practice or to the natural alternative.

19 And I would say right now we don't
20 have that kind of information on this compound.
21 And we would certainly welcome seeing it if it's
22 out there. We've been looking for it, and we

1 would welcome seeing it.

2 MR. ELA: All right. Anything else?
3 Emily, under the bill.

4 MS. OAKLEY: Sorry.

5 MR. ELA: That's fine.

6 MS. OAKLEY: I just actually want to
7 echo what you said, Dave. And I think that
8 that's a bigger research priority that the
9 materials subcommittee should add, if possible,
10 under crops.

11 Because, you know, I think we're
12 comparing so many materials in somewhat of a
13 vacuum. And I think if we could see more trials
14 and data on the efficacy of the proposed
15 materials before us with other organic methods
16 that are currently approved, that would make a
17 big difference in our deliberations.

18 MR. MORTENSEN: And, Emily, I couldn't
19 agree more. And the other thing that we talked
20 about yesterday is the importance of context. So
21 if we have insight only about grapes in a high
22 rainfall, high humidity area, and we're trying to

1 evaluate something for spinach in the Pacific
2 Northwest where it's dry and drip irrigated, it's
3 very difficult to, like, infer across that vast
4 space.

5 MR. ELA: And I just reiterate, I
6 think what you said, too, it's not just efficacy,
7 but efficacy in comparison with other organic
8 materials would be very useful. It's not
9 absolute, but it would be nice so.

10 All right. We will move on to the
11 next material. Devon.

12 MR. PATTILLO: Thanks, Steve. Next up
13 are three listings for elemental sulfur. They
14 appear at 205.601(e)(5) as an insecticide,
15 205.601(i)(10) as plant disease control and
16 Section 205.601(j)(2) as a plant and for soil
17 amendment. We have a recently completed
18 technical report on this from 2018.

19 MR. ELA: Asa.

20 MR. BRADMAN: Okay. So sulfur, I
21 think, is going to be hard. There's a lot of
22 discussion here. There's three uses we're

1 talking about here as an insecticide or
2 acaricide, disease control, mainly fungal disease
3 control and as a soil amendment.

4 I think as a soil amendment the use is
5 very clear, and there's not too many issues with
6 that because it's a plant nutrient and that use
7 is really distinguished from use as a pesticide.

8 In California, sulfur, and probably
9 even worldwide, is probably the most heavily used
10 pesticide and has been used for centuries and
11 ages. Some people call it the oldest pesticide.

12 And it has a long use in many
13 settings, both in conventional and organic and is
14 important for organic. It is certainly very
15 clear from the public comments both written and
16 some of the testimony we heard over the week.

17 You know, I counted in the various
18 comments thousands of users, probably at a least
19 a couple thousand, that reported using sulfur for
20 one of these three uses with really a big
21 emphasis on its importance for managing soil
22 fertility and high alkaline and also sulfur

1 deficient regions, but also as or more
2 importantly for pest control.

3 So I think there's a lot of interest
4 in this compound. And it's also clearly
5 important and many would say absolutely
6 essential. It also has potential impacts,
7 especially, I think, on human health.

8 Sulfur is a natural part of the
9 environment. It is part of normal human and
10 other biology. It's an important component of
11 the world we live in. That said, when using
12 agriculture, there's definitely potential impacts
13 on health.

14 There's a new technical report that
15 came out just, I think, it was posted in the last
16 week. And I encourage everyone to read that. I
17 think it's a pretty good review and reflects that
18 there are, you know, known effects in terms of
19 impact on farm workers, ocular, respiratory and
20 usually dermatitis.

21 In fact, it's one of the biggest
22 causes of occupational related pesticide

1 illnesses in agriculture. Of course, most of
2 that use is in conventional settings. There's
3 very little data that narrows it down to organic.

4 And then in my group we've done some
5 work on sulfur related to respiratory functioning
6 kids living near fields where it was used. And I
7 want to explain that a little bit too because
8 there were some public comments about it and also
9 written comments.

10 In our study, it's not just really one
11 study. We looked at three outcomes. So we
12 looked at sulfur use up to several kilometers
13 away from where young children lived. And then
14 we looked at the relationship of that sulfur use
15 in the past year to a number of respiratory
16 related outcomes.

17 One analysis, which you could almost
18 look at as one study, looked at symptoms. So
19 reported symptoms by the mother about cough and
20 wheeze and things like that. Then another part
21 of the study looked at whether there was any
22 relationship between nearby sulfur use and

1 reported use of asthma related medications. So I
2 could get out my inhaler here. But, you know,
3 people who are using either a steroid or
4 albuterol or other respiratory medicines.

5 And then a third piece of the study,
6 which is standalone analysis, was we actually
7 measured lung function in the kids. So in this
8 case we're looking at nearby sulfur use and
9 whether there was a relationship between less
10 lung capacity, so your ability to breath out air
11 in a second or a full breath.

12 And in all cases, there were
13 significant positive relationships between higher
14 sulfur use and poor respiratory outcomes in all
15 three categories. And that's also consistent
16 with case studies that have been reported and
17 animal studies.

18 And so it has -- our study, you can
19 look at it as one study. But really it's three
20 separate analyses using one population, but it's
21 also consistent with the animal literature and
22 case reported literature for farm workers.

1 So there is some internal consistency.
2 I'm kind of just responding to the critique that
3 this is one study. And it's true. It would be
4 good to look at this in other populations,
5 although there's really no one else doing this
6 and no other place to actually look at those
7 kinds of outcomes.

8 I've thought about ways to study this.
9 And I do have some ideas, but not with the
10 granularity that we were able to do it.

11 So one of the limitations to a lot of
12 the case reports and occupational illness reports
13 that have been published is that they're
14 relatively old. And there are newer and better
15 application methods that probably reduce
16 exposure. And there was some discussion of that
17 yesterday with the use of sulfur, for example, in
18 grape and strawberry production.

19 In our discussions in the
20 subcommittee, you know, one thing we considered
21 was whether there could be likely higher
22 exposures due to using it as a dust versus a

1 wettable solution.

2 And OMRI provided good information
3 about a number of products that they approve and
4 including both dust and wettable formulations.
5 And, you know, there's been a series of comments
6 back, just to give the briefest summary. A lot
7 of vineyard growers are very emphatic that they
8 still need dust applications.

9 We heard yesterday in terms of
10 strawberry production that it's very important to
11 use the dust to access the whole plant. And also
12 that wettable solutions don't work or are
13 potentially damaging at different life stages.

14 However, I do kind of anecdotally have
15 some information from growers, several ag
16 commissioners in California, that using a
17 wettable, say, versus a dust formulation could
18 potentially reduce exposures.

19 But I do admit and say that our study
20 didn't really look to distinguish between, you
21 know, application method. And I think there's a
22 need for more information on this.

1 Another point that came up by Juan
2 Hidalgo, the ag commissioner in Santa Cruz
3 County, and I've spoken with at least five other
4 ag commissioners on this. And this was
5 highlighted in comments and also yesterday about
6 new laws in California regulating pesticide use
7 in their schools and child care facilities. And
8 I apologize to some because our work bears some
9 responsibility for that rule.

10 But that rule is really designed to
11 prevent acute exposures whereas we're trying to
12 look at chronic use and outcomes in children.
13 And these are subtle outcomes in children in lung
14 function, not acute illnesses that would result
15 in a visit to a hospital or something like that.

16 So I know that was kind of a long,
17 perhaps not too top level summary of what's going
18 on with sulfur. But with that said, it is one of
19 the most important materials used in organic
20 agriculture, and I think warrants a lot of
21 evaluation and consideration.

22 MR. ELA: Comments, discussion from

1 the Board. Harriet?

2 MS. BEHAR: We did have someone
3 comment that there is a mined version which would
4 then be considered an unnatural sulfur versus
5 this listing, which is a synthetic. I wonder if
6 you have any thoughts on that.

7 MR. BRADMAN: Well, in terms of, you
8 know, what I know about soil fertility and things
9 like that, I don't think there would be a
10 difference. I don't think there would be a
11 difference on potential health or other
12 environmental implications.

13 From, you know, a regulatory point of
14 view, I can imagine that there could be a
15 difference in terms of the way we list things.

16 But, certainly, going back to the very
17 beginning, most of the sulfur we use now is
18 recovered from combustion or other petroleum,
19 fossil fuel consumption as kind of a cleaning
20 step in limiting air emissions. But I don't
21 think the environmental and public health or
22 other health issues would be mitigated by a

1 natural source.

2 MR. ELA: Emily.

3 MS. OAKLEY: I appreciate that
4 comment. I also think it would be helpful if the
5 public comments or who made the statement that
6 there were adequate amounts of naturally mined
7 sulfur could provide us with some more
8 information to that effect because right now we
9 have that as a listing as a synthetic so it would
10 be great to get more data on that.

11 MR. ELA: Dave.

12 MR. MORTENSEN: Asa, I haven't done a
13 deep dive on the public comments on this. And I
14 was just curious on the questions some of the
15 first three have to do with human exposure,
16 worker exposure, you know, what mitigating steps
17 are being taken. Was there much helpful feedback
18 to those questions?

19 MR. BRADMAN: Yes. There were some
20 comments, and they were kind of a little over the
21 -- they ranged from some problems to no problems.
22 Many users said that they had had no problems

1 with workers or with family. And then some did
2 talk about problems with ocular irritation.

3 You know, I have one quote here from
4 Jacobs Farms that they really found it difficult
5 to keep the dust, in particular, to keep out of
6 eyes and sore throat and things like that. In
7 their case, shifting to a wettable sulfur
8 eliminated the problem.

9 And then, of course, you know, many
10 comments on the need to use appropriate personal
11 protective equipment. And that, of course, has
12 to be part of any, you know, pesticide use
13 program and, you know, ensuring compliance with
14 the worker protection standards.

15 MR. ELA: A-dae.

16 MS. ROMERO-BRIONES: I just wanted to
17 remind the Board that we have this also in
18 livestock that we talked about last fall.

19 MR. ELA: That is correct. And I
20 would just throw my own two cents in that I know
21 in the committee we talk a lot about wettable
22 versus dustable, or dust forms. And I think

1 within the committee we thought, yes, the dust
2 form had been pretty well -- not many people were
3 using it because none of us were aware of it.

4 And I was surprised by the public
5 comments, especially in California, I think,
6 really is where it came down to how much it was
7 actually used. And I think, you know, with
8 vineyards, there is no doubt when you mix sulfur
9 with water it gets heavy.

10 So I was struck by those concerns and
11 comments. It surprised me. There again, this is
12 where public comment was really informative as to
13 use patterns and informed the committee of, you
14 know, I think, pretty important information.

15 MR. BRADMAN: Yes. I agree with that.
16 And to highlight some of those comments, there
17 were some vineyard growers who didn't use any
18 irrigation water. And they didn't have a water
19 source.

20 And others talked about having
21 invested a lot of money in application equipment.
22 And that is a significant investment and an

1 important part of their operation. And any
2 changes would have big implications on that
3 investment.

4 MR. ELA: And I would also say we use
5 a lot of sulfur on our farm. And there is no
6 doubt that the personal protective equipment is
7 important. I know what it's like to have sulfur
8 in my eyes. And it's not a very comfortable
9 feeling. So I think that, you know, using it
10 appropriately is very important.

11 So any other comments from the Board?
12 Discussion? All right. Devon.

13 MR. PATTILLO: Thanks. Moving on to
14 lime sulfur. This is listed under Section
15 205.601(e) as insecticides, including acaricide
16 and mite control. That's paragraph 6, lime
17 sulfur, including calcium polysulfide. It's also
18 listed at Section 205.601(i) as plant disease
19 control.

20 MR. ELA: Thanks. All right. This is
21 my own material. And just like elemental sulfur,
22 it's another old, old, old material that's been

1 used for a long time.

2 In the public comments, there were a
3 number of comments in favor of lime sulfur for a
4 wide variety of uses, control fungal and
5 bacterial diseases as well as for various
6 insects.

7 You know, it certainly has widespread
8 and historical use across many crops and regions.
9 You know, there was no doubt in the public
10 comments of its essentiality for many operations
11 and certainly it comes with its own set of
12 potentially adverse effects on human health.

13 You know, amidst all the very
14 widespread positive comments, there was, you
15 know, a couple notes again, the personal
16 protective equipment and then, you know, noting
17 that the available literature suggests that large
18 volume releases of lime sulfur will adversely
19 affect the viability and reproduction of non-
20 target microorganisms, including beneficial soil
21 bacteria and fungi.

22 It's highly probable that some non-

1 target plants, insects and mites will be impacted
2 by lime sulfur treatments. So it is a broad
3 spectrum material in the sense that it has wide
4 applicability, but it also is widely used in
5 organic agriculture.

6 And I think we certainly had comments
7 from foam fruit growers in terms of fire blight
8 with the removal of streptomycin, tetramycin from
9 the list that along with proper lime sulfur was
10 an integral part of the fire blight control as
11 well.

12 We could go on and on about its uses.
13 But I think that's a pretty top level summary.
14 Does the Board have any discussion, comments on
15 it? All right. We'll move on.

16 MR. PATTILLO: Next up is sucrose
17 octanoate esters, which is listed at Section
18 205.601(e) as insecticides, including acaricide
19 or mite control at paragraph (10) sucrose
20 octanoate esters in accordance with approved
21 labeling.

22 MR. ELA: Sue.

1 MS. BAIRD: Yes. Sucrose octanoate
2 esters, SOEs, are listed as an insecticide. They
3 belong to the organic chemical family of sucrose
4 fatty esters. They are manufactured from
5 sucrose, table salt, sugar and octanoate acid
6 ester, which is commonly found in plants and
7 animals.

8 They are a surfactant and their mode
9 of action is to dissolve the waxy protective
10 coating of the targeted, pest, which causes the
11 pest to dry out and die.

12 And this mode of action is different
13 than most of the other commonly used pest control
14 materials, which are allowed for organic systems.
15 Its mode of action makes it most useful against
16 soft bodied insects, such as mites, thrips, white
17 flies, et cetera.

18 It's an effective adult miticide,
19 which can be used in all plant growth stages.
20 It's not found to be harmful to fish. It's not
21 considered to be a hazard to bees, and it's not
22 phytotoxic.

1 There were very few comments on the
2 use of SOEs. But there were a few that said, no,
3 we don't really know. We don't use SOEs.

4 There were four positive public
5 comments that stated it was an effective tool
6 used in rotation because it does use a different
7 mode of action than other pesticides. There were
8 no negative comments.

9 MR. ELA: Comments, discussion from
10 the Board? All right. We'll move on. Devon?

11 MR. PATTILLO: Moving on to Section
12 205.601(I) as plant disease control, paragraph
13 (4), hydrated lime.

14 MR. ELA: Dave.

15 MR. MORTENSEN: Yes. So hydrated lime
16 is used as a foliar application in combination
17 with copper sulfate to form a Bordeaux mix or
18 Bordeaux mixture. Its principal use is for
19 managing and preventing mildews and other
20 pathogenic fungi on a range of fruits.

21 Predominantly, it's a synthetic
22 substance that's produced by mining limestone and

1 heating it and going through a series of
2 processes in those steps.

3 It's widely used. And we had really
4 -- we had 27 comments on this. And I would say
5 most all of the comments were supportive of re-
6 listing and raised a few questions about concerns
7 about its use.

8 One of the environmental issues that
9 we discussed in the subcommittee were actually
10 more to do with the synthesis of the actual
11 mining process and the kind of dust problem with
12 inhalation that Asa was talking about. But this
13 would be actually during the mining operation
14 itself so.

15 But in any case, I think the general
16 take on this one is that, you know, it's very
17 widely used. It's very important. And, you
18 know, there aren't red flags that we're seeing
19 that we would be concerned about.

20 MR. ELA: Comments, discussion? All
21 right. Devon?

22 MR. PATTILLO: Next up is Section

1 205.601(j) is plant or soil amendments, paragraph
2 (7), liquid fish products can be pH adjusted with
3 sulfuric, citric or phosphoric acid. The amount
4 of acid used shall not exceed the minimum needed
5 to lower the pH to 3.5. Thanks.

6 MR. ELA: And this is one I know we
7 had a lot of public comment on. Asa?

8 MR. BRADMAN: Yes. I thought this one
9 was going to be easy. So, okay, sorry.

10 So liquid products, I commonly know
11 them as fish emulsion, as we know are widely used
12 as fertilizers. And they're quite heavily used
13 in production of organic crops as I've come to
14 realize.

15 They're basically made by chopping up
16 fish products often byproducts and then they can
17 be enzymatically digested and stabilized with an
18 acid, usually phosphoric or sometimes sulfuric or
19 other acids, although I think that most often
20 it's phosphoric acid. And for that reason,
21 they're considered as synthetic because there's
22 some processing and with the use of these acids.

1 There are some production techniques
2 that bypass the synthetic acid and use
3 fermentation processes to produce lactic acid and
4 to stabilize it and with kind of an end goal of
5 not having the pH level, the final pH level below
6 3.5. Or, in some cases, although there seems to
7 be some variability in that, not having the
8 material ever go below pH 3.5 during the
9 manufacturing process.

10 As kind of a top level summary,
11 there's a lot of very wide use and support for
12 liquid fish products and continuing use of them.

13 You know, I'd say support was almost
14 universal. There were some concerns raised by
15 Beyond Pesticides and, I think, one other about
16 the use of synthetic acid, particularly in the
17 manufacture and stabilizing in that there's kind
18 of a dependence on this material in lieu of other
19 sources of fertility. Overall, on the farmers'
20 side, there was really a lot of support for these
21 materials.

22 One of the discussions that came up in

1 our subcommittee was questions about
2 sustainability and whether similar to what's gone
3 on with other marine materials, there was use of
4 wild harvested material and what are the
5 potential impacts on marine resources? And are
6 we essentially nutrients out of the ocean or
7 other places with potentially adverse impacts on
8 the environment? And there's been surprisingly
9 little work done on this for liquid fish
10 products.

11 OMRI provided a summary which was
12 really very helpful. Thank you. They have 110
13 OMRI listed fish fertilizer products, not all of
14 which are liquid. And I might mention here that
15 when we're talking about fish meals, which are
16 not considered synthetic, those don't, of course,
17 go through the same review process with the
18 national list.

19 But of their 110 materials, 70 were
20 derived exclusively from wild sources. About two
21 were exclusively from farm services. Thirty-
22 eight were derived from a combination of wild

1 farmed and unknown sources.

2 Of the 70, there were 39, close to 40,
3 that were derived exclusively from waste from
4 processing wild market fish. So if you're, you
5 know, fishing for salmon or tuna and there's
6 waste material from that, then they were using
7 that as the source material. But then they note
8 here that 30 -- and this is a quote, what they
9 provided, 30 are derived exclusively from whole
10 fish, solely harvested for fertilizer. Species
11 include, and there's a number of species listed,
12 sardines, menhaden, some others I'm not familiar
13 with.

14 It also mentions tuna, salmon,
15 finfish, skate and other unknown species. It's
16 hard for me to imagine that people are catching
17 salmon to make fertilizer without using it as a
18 human food source.

19 But this information, I think,
20 provides some preliminary info in that there are
21 manufacturers who are using wild harvested fish
22 solely as a source for fertilizer and that this

1 potentially raises issues similar to the
2 challenges we're facing right now with marine
3 algae and those other marine fertilizer sources.

4 There were some of the questions we
5 asked -- I feel like I'm talking too long.

6 Sorry.

7 I'm not going to go into the pH
8 issues. But we wanted to ask about whether we
9 would consider some sort of annotation or
10 limitation related to the use of -- limiting the
11 use of wild fish, harvesting wild fish solely for
12 fertilizer purposes.

13 And there was some general support for
14 that. Crop Valley supported that. Let's see,
15 Center for Food Safety also, you know, raised
16 some concerns about depleting or degrading marine
17 environments. There was one note that really
18 after this review process, if we're considering
19 an annotation, we really need to dig deep into
20 this issue.

21 Another recommendation also is that if
22 we do consider limiting use of wild fish that

1 there would be an exception for invasive species
2 or other species that are causing problems where
3 there may be attempts to eliminate these
4 populations to actually encourage the native
5 populations. And that if we're going to exclude
6 potentially wild fish, we should be careful how
7 we frame it. So I think that's the key issues.

8 MR. ELA: Okay. Discussions from the
9 committee? Emily.

10 MS. OAKLEY: Before joining the NOSB,
11 I definitely was one of those farmers that didn't
12 really follow this process in-depth and just sort
13 of trust that the materials that are on the list
14 reflect some of the values that I have.

15 And so I was extremely surprised to
16 learn that there were fish harvested exclusively
17 for the use of fertilizer because as a farmer, I
18 often used fish emulsion. And I'm really proud
19 of that thinking I'm using this, you know,
20 resource that's sort of a recycled byproduct.
21 And I know there are other farmers who share that
22 same assumption.

1 So I think it's definitely worth
2 exploring and asking that we can get the
3 potential for an annotation put on our work
4 agenda to explore the option of an annotation
5 that would restrict use to byproduct or invasive
6 species catching, but eliminate wild bull fish
7 harvested exclusively for the use of fertilizer.

8 MR. ELA: Sue.

9 MS. BAIRD: Yes, we have in the
10 Missouri River an invasive Asian carp that has
11 come in. It came in by way of the Missouri --
12 I'm reading it -- Missouri flooding prior to
13 2009.

14 It has taken over the whole ecosystem.
15 And the Missouri Department of Conservation has
16 partnered with different people to remove, and it
17 says 47,000 Asian carp.

18 I know that Missouri Department of
19 Agriculture and Rural Economic Development has
20 actually funded someone to put in a plant to
21 render these and make fish emulsion. So that
22 would be considered wild, but absolutely invasive

1 and something we do need to consider. And I'm
2 glad to hear that.

3 MR. ELA: Harriet and Dave.

4 MS. BEHAR: There was discussion about
5 confusion, about at what point the 3.5 pH needed
6 to be maintained. I'm just wondering if we were
7 going to be trying to address that or would the
8 program address that just to help the
9 manufacturers with that issue.

10 MR. ELA: Yes. That's a good
11 question. I talked with Devon and I haven't had
12 a chance to talk to Paul. But I think we need to
13 find out from the program that was from
14 certifiers asking questions from the program.
15 And so we need to find out what the program needs
16 to proceed with that. And we'll have
17 conversations on that.

18 But I think I would want to the say to
19 the public that the information submitted was
20 really helpful in understanding a lot of this
21 issue. So we'll come up with how to proceed, you
22 know, after this.

1 MS. BEHAR: And for the manufacturers,
2 just so they understand that they're doing the
3 right thing and that they are maintaining the
4 correct documentation for the materials review
5 organization so the product can continue to be
6 used in organic production.

7 MR. ELA: Yes. Dave.

8 MR. MORTENSEN: Just very quickly, it
9 seems to me another thing that we need to look at
10 kind of carefully is by catch. Because I've been
11 out where they'll bring in their dip net catches,
12 and they sort by what they can commercially sell
13 and they catch a lot of stuff that they don't
14 sell.

15 And so the same would be true for the
16 carp. If you do some sort of netting for carp,
17 you catch other things in the Great Lakes and the
18 river systems that you don't want to catch.

19 So I think this point that, I think,
20 Dan made about unintended consequences we should
21 look at very closely so that we're not
22 encouraging folks to actually have a lot of

1 bycatch or something like that or be sloppy with
2 it.

3 MR. ELA: Yes. And I just want to be
4 clear, Sunset review separate from potential
5 annotation issues. And the annotation issue
6 actually isn't on our work agenda, but we're
7 considering whether that should be or not. But
8 really, so I think it's a valid discussion. But
9 this is also a Sunset review discussion as well.

10 Any other comments from the Board? A-
11 dae.

12 MS. ROMERO-BRIONES: Yes. So this is
13 a hot topic for indigenous communities. We have
14 current Supreme Court cases about the management
15 of fish in the Pacific Northwest. There is a
16 slew of Atlantic salmon, genetically modified
17 salmon, that have been released into the Pacific
18 Ocean. So I think this is a very important
19 topic, and I hope I can get tribal input on this
20 specifically.

21 MR. ELA: That would be great. Thank
22 you.

1 MR. BRADMAN: And thank you for
2 bringing that up. And there was also one comment
3 about concern about GE fish being used for
4 production.

5 I know in Florida there's a new plant
6 going in to produce genetically engineered
7 salmon. And it's going to be a growing source
8 potentially of waste byproducts that somebody may
9 want to put into a fertilizer.

10 MR. ELA: Anything else? All right.
11 Devon.

12 MR. PATTILLO: Thanks, Steve. Next up
13 is Section 205.601(j) as plant or soil
14 amendments, paragraph (10), sulfurous acid for
15 on-farm generation of substance utilizing 99
16 percent purity elemental sulfur per paragraph
17 (j)(2) of this section.

18 MR. ELA: And this is my material as
19 well. Yes, basically very briefly used on farm
20 sulfur burners, directly injected into the water
21 to adjust pH. There were public comments
22 basically pretty much completely in favor of it

1 with a couple question marks.

2 There were several comments that the
3 materials only associated with over-irrigated or
4 degraded soils so that for that reason it should
5 not be allowed.

6 And other comments saying that, kind
7 of refuting that, but just saying that, you know,
8 these were alkaline soils that, you know,
9 actually the sulfuric acid does make nutrient
10 availability.

11 And one of the comments was in the
12 Western United States, many waters and soils have
13 naturally elevated pH. And the common practice
14 of applying elemental sulfur isn't always
15 effective as it's limited to soil applications.

16 So many fresh vegetable crops are pH
17 sensitive. And one of the few effective ways to
18 keep the pH optimal is to control the bicarbonate
19 levels in the irrigation water.

20 So comments on both sides there, but
21 the majority of comments saying that it was
22 needed.

1 There was one comment that the
2 potential adverse effects have not been evaluated
3 by the NOSB and the technical review raises the
4 question of environmental impacts of sulfurous
5 acid, particularly on soil microorganisms.

6 I know we had one comment, I believe
7 it was -- I'm not sure if it was CCOF that it's
8 limited to on-farm use and whether it could be
9 moved between farms. But I think we would need
10 more information on that before that would become
11 a consideration.

12 I know, and again in my area, there
13 are a number of growers that use it on marginally
14 -- I mean, we have alkaline soils around 7.88 and
15 it's a night and day difference of how the crops
16 respond with a very small addition of sulfur.

17 But any comments from the Board on
18 this? All right. Moving on.

19 MR. PATTILLO: Section 205.601(k), as
20 plant growth regulators, ethylene gas for
21 regulation of pineapple flowering. Thanks.

22 MR. ELA: Emily.

1 MS. OAKLEY: Thank you. This product
2 is used to induce uniform flowering in pineapples
3 and is applied 7 to 15 months after planting.
4 Application can be repeated two to three times
5 after the initial application.

6 It's made from hydrocarbon feed
7 stocks, such as natural gas, liquids or crude
8 oil. This was a really controversial issue in
9 2015 in the fall meeting. And we received a
10 number of comments from stakeholders that wrote
11 in at that time to express the essentiality of
12 this product for commercial viability of the
13 organic pineapple industry, particularly in Costa
14 Rica.

15 There was some concern raised by some
16 stakeholders that this material doesn't actually
17 fall under an OFPA criteria because it's being
18 used for economic purposes. It's not a
19 production material that the plant will flower.
20 It just won't flower uniformly without this
21 material.

22 However, it's been on the list for so

1 long that an entire industry has grown up around
2 the use of this material, which makes it a very
3 challenging and fraught discussion.

4 I think if it were to be looked at
5 today under that expectation of use solely for
6 economic purposes, I think it might get a
7 different degree of scrutiny at least from me,
8 but I also think it's very difficult to pull out
9 the rug from an industry.

10 So those are my takes on the public
11 comments. But we did receive a wide amount of
12 comment both from large, medium and somewhat
13 smaller scale producers. And those came from
14 large corporations all the way down to
15 cooperative producers.

16 Do people have comments or questions
17 about this material?

18 MR. ELA: Harriet.

19 MS. BEHAR: I sat through the last
20 Sunset in the gallery. And it is somewhat
21 controversial because it is kind of a flowering
22 aid. And I felt that many of the comments this

1 time from the smaller producers that it was not
2 just for the production of large scale
3 monocultures. That it really did aid in the
4 producers having enough pineapple at one time to
5 justify shipping the product or getting a truck
6 there to pick it up.

7 And so I see its necessity from a crop
8 production angle to allow for the commercial
9 production of this crop of any size.

10 MS. OAKLEY: Yes, thank you, Harriet.
11 That is the question that we asked in our review
12 because it was asked in the previous review and
13 addressed by the TR. Does the use of this
14 treatment disproportionately affect any
15 particular size scale of operation or
16 disadvantage smaller scale producers?

17 And, you know, much of the public
18 comment is not coming from the smaller scale
19 producer who doesn't use it. So it's a little
20 bit difficult to get that feedback. But I think
21 it's probably likely true that most of those
22 growers not using this product are selling for a

1 local market and are not trying to induce
2 flowering and are able to harvest as the plants
3 become ripe.

4 But, yes, I don't think that we have
5 any evidence also that alternatives are being
6 used. We were given quite a bit of information
7 that ice or other methods, smoke, are not
8 adequate and are not commercially used and do not
9 produce the same uniform results.

10 MR. ELA: Other comments? Anybody
11 else? All right. Devon.

12 MR. PATTILLO: Next up is Section
13 205.601(o) as production aids, microcrystalline
14 cheesewax for use in log grown mushroom
15 production. It must be made without either
16 ethylene-propylene co-polymer or synthetic
17 colors.

18 MR. ELA: Sue?

19 MS. BAIRD: Microcrystalline wax is a
20 type of wax that is derived from the refining of
21 heavy petroleum distillates during the petroleum
22 refining process.

1 It's recovered from crude oil through
2 a series of filtrations solidifying insolvent
3 extraction steps.

4 The byproduct is then de-oiled at a
5 wax refinery, which results in the components of
6 cheesewax.

7 All the solvents in the process is
8 recovered, with none remaining in the final
9 product. The microcrystalline wax is used by
10 shiitake mushroom producers. It's placed over
11 the mushroom inoculated spawn hole to seal the
12 plug hole in the log. The original petition
13 stated there is no contact with the growing
14 mushroom at any time.

15 This time we had 10 public comments
16 received. And most of those commenters stated
17 that their constituents were not using
18 microcrystalline cheesewax.

19 They stated that most of the
20 commercial whatever scale, but commercial
21 shiitake mushroom production is no longer done
22 using whole logs. Instead, the mushrooms are

1 produced in sawdust and wood shavings, intimating
2 that there was no need for the microcrystalline
3 wax.

4 Others commented that there's a
5 natural soy based wax available now and again
6 stated the substance is no longer needed.

7 Nevertheless, we did see some comments
8 that stated that smaller family shiitake mushroom
9 growers are still growing the mushroom on whole
10 logs, and they are still using the
11 microcrystalline cheesewax.

12 In fact, I know, again, two producers
13 in the Ozark Mountains that do grow shiitake on
14 oak log, branches and things, and they still do
15 use the microcrystalline cheesewax.

16 One commenter did ask that the Sunset
17 process involve some testing to determine whether
18 you identified the contaminants in the wax
19 actually are transferred to the mushrooms or not.
20 But then they continued their comment to say that
21 it was their guess that after two years it was no
22 longer a risk at all, if there was a risk at all

1 so.

2 MR. ELA: Comments. Harriet.

3 MS. BEHAR: So I did not do a
4 scientific study. I only have anecdotal
5 experience with this. And even though the
6 technical review stated that it's biodegradable,
7 I have seen it remain -- I've been to shiitake
8 mushroom commercial operations where the logs are
9 stacked out in the woods, under trees, in the
10 open, wildlife can come around. And then after
11 they're done fruiting, the logs are just left
12 there to decompose.

13 MS. BAIRD: Sure.

14 MS. BEHAR: And then there's still all
15 these little plugs of wax everywhere. And
16 although, again, I don't see any scientific
17 studies, but I just wondering about effects on
18 birds and other wildlife. We do have an issue
19 with plastic. And paraffin, you know, is a
20 paraffin petroleum based product negatively
21 affecting wildlife as they ingest it.

22 So again, it's just anecdotal. I

1 don't, you know, the TR said it was
2 biodegradable, but that's not what I saw. And
3 this was microcrystalline cheesewax, I would
4 guess, at least five years out in the elements
5 because it takes a couple years for it to fruit.
6 And these were just about the way decomposed logs
7 look and yet the little piles of cheesewax.

8 So I really would like to hear more
9 from the public on how necessary this is. I
10 think it is somewhat of an environmental -- I
11 don't know if you would say the word contaminant,
12 but a concern because it is being used out in our
13 forests where wildlife could choose to wonder
14 maybe it's a little egg or who knows what they
15 want to eat.

16 But we do have sound tech evidence
17 that plastic has been hurting wildlife where they
18 can ingest it. So I hope the public -- I mean, I
19 would like to see it come off the list,
20 especially if it's not needed. But I don't want
21 to take it away from people who are using it and
22 if it's kind of minimal. But I do have that

1 concern although it's not really supported by
2 anybody's science.

3 MS. BAIRD: Thank you. And we did ask
4 that question, and we got no answers to it, no
5 responses to that question. I did find it
6 interesting that commenters did say that this new
7 natural soy based wax is now available. And I
8 think that needs to be a valid consideration as
9 we do consider this to be listed back on again.

10 MR. ELA: Emily.

11 MS. OAKLEY: Yes. I think this
12 harkens back to what Dave was talking about in
13 terms of communities that may not always follow
14 our proceedings. And being in the same region as
15 Sue, I know growers that are growing shiitakes on
16 whole logs.

17 I don't know the extent of their use
18 of this product, but it is very hard to reach out
19 to smaller scale growers. They are not tuned in
20 to many of the organizations, even represented
21 here, and may not be members of them. They may
22 not even know what's fully going on.

1 I mean, that's something that we have
2 to consider when we talk about substances that
3 they use. They're not represented by large
4 organizations. So just putting that out there.

5 MS. BAIRD: That's absolutely right.

6 MR. ELA: Other comments. All right.
7 Devon.

8 MR. PATTILLO: Moving to Section
9 205.602, non-synthetic substances prohibited for
10 use in organic crop production. Paragraph (e),
11 potassium chloride must be derived from a mined
12 source and applied in a manner that minimizes
13 chloride accumulation in the soil.

14 MR. ELA: And this was material I
15 think Francis had and now Harriet has.

16 MS. BEHAR: I think Joelle had it.
17 Well, potassium is required for human health in
18 plants as well as a microorganisms.

19 While potassium is found in many
20 soils, it may not be naturally high enough in
21 enough concentration or may not be present, but
22 may be present but may be in a bound format

1 rendering it unavailable.

2 The public comments. One certifier
3 noted that another source of potassium, potassium
4 sulfate, at times may be difficult to find in a
5 form without a prohibited dust suppressant and
6 asked us to please put this item on our work
7 agenda to look at potassium sulfate, which is the
8 more benign form of potassium. But because there
9 is these dust suppressants that are synthetic
10 that are not on the national list, then the
11 farmers have to use the potassium chloride
12 instead.

13 There was also concern that maybe not
14 all material review organizations and certifiers
15 are going into the same detail on a review for
16 potassium sulfate. And I see the certifier is
17 not here right now who put this in.

18 I have gotten phone calls from farmers
19 and suppliers of potassium sulfate about this
20 issue. But the reason why I'm talking about it
21 is because it then pushes people to the potassium
22 chloride, which is technically on the prohibited

1 list unless they meet this extra annotation.

2 So just another thing, Steve, to put
3 on the possible discussion on the work agenda for
4 the crop subcommittee.

5 Okay. CCOF did mention that 49
6 producers were using or have potassium chloride
7 on their organic system plan. And that
8 compliance to the annotation is verified at the
9 inspection but no specifics were given on how
10 this verification is done, although we did ask in
11 oral public comment and they said that they were
12 doing testing.

13 There was strong support by the public
14 to release this material with the current
15 annotation as written. That's it.

16 MR. ELA: Comments from the Board?
17 All right. That finishes the Sunset materials,
18 and we will move into petitions, excuse me. And
19 the first one is polyoxin D zinc salt. Devon, do
20 you want to read it in and then we'll allow
21 discussion and such?

22 MR. PATTILLO: Polyoxin D zinc salt

1 has been petitioned for use as a synthetic
2 fungicide for organic crop production.

3 The petition was submitted by Kaken
4 Pharmaceutical Company Limited in May 2016 with
5 addendums provided in 2017 and 2018.

6 This substance was previously
7 petitioned in 2012. In support of the NOSB's
8 review of the latest petition, an unlimited scope
9 technical report was obtained in 2017 to
10 supplement a 2012 technical report on the
11 substance.

12 MR. ELA: All right. Discussion on
13 the petition. And as you can see, the vote to
14 list it, we did vote to classify it as a
15 synthetic and the vote to list it was 3 to 1, so
16 it was not a unanimous vote. Comments,
17 discussion?

18 MR. PATTILLO: Who was the lead --

19 MR. ELA: Oh, I'm sorry, Jesse. Yes,
20 you should -- excuse me.

21 MR. BUIE: Just let me say a few
22 comments about it.

1 MR. ELA: Yes. No, please. I'm
2 sorry.

3 MR. BUIE: Polyoxin D zinc is such
4 exciting, I know how it is. Polyoxin D zinc salt
5 is categorized as a biofungicide or biochemical
6 pesticide. While the polyoxin D might be
7 considered as a non-synthetic, the addition of
8 the zinc salt makes it synthetic.

9 The zinc salt makes the product more
10 useful by lessening its water solubility and
11 prevents the product from washing off the
12 application area. In other words, it enables it
13 to stay in place and increases the effectiveness
14 of this particular product.

15 The petitioner has made it clear that
16 there are few to no alternatives for some fungal
17 diseases on various species of plants such as
18 cotton ball disease on cranberries, black rot,
19 downy mildew, powdery mildew, bunch rot on
20 grapes, mummy berries on blueberries and on and
21 on.

22 While this material is of low toxicity

1 than some of the other products used in similar
2 treatments, the crops committee expressed various
3 concerns regarding the essentiality of this
4 particular compound.

5 During the April 2013 NOSB meeting,
6 the Board was unable to list polyoxin D. And at
7 that time it was based on non-essential and there
8 were concerns over the broad spectrum mode of
9 action as well as environmental concerns for soil
10 bacteria, fungi and overall environmental health.

11 But the TR review of polyoxin D that
12 on December 17 states that there is very low
13 acute toxicity to humans by oral, dermal or
14 inhalation routes, and it did not demonstrate
15 mutagenic potential.

16 And this TR goes on further to state
17 on lines 218 and 230 that in general low toxicity
18 was observed for polyoxin D zinc salt in all
19 investigations.

20 There was much public comment on this
21 particular substance. Ninety-three percent in
22 favor. The dissenting comments were based on

1 essentiality, adherence with the criteria and
2 cellular, the effect on cellular organisms.

3 So what I want to do now is just kind
4 of basically summarize the public comments that
5 were received.

6 Public comments received from polyoxin
7 D zinc salt show the substance being utilized by
8 conventional farmers across the entire U.S.

9 It is presently being utilized in the
10 Eastern U.S. where the climate is humid as an
11 alternative to copper and sulfur.

12 For example, the Eastern organic grape
13 growers need help to control black rot. Polyoxin
14 D would be an alternative to copper fungicide
15 where copper accumulation in the soil is of
16 concern.

17 If we go to the Western U.S., polyoxin
18 D zinc salt, according to Washington State
19 University, has good efficacy against the causal
20 agent of gray mold in several crops.

21 And gray mold constitutes the number
22 one threat to pear and it's the second threat to

1 apple fruit. In Wisconsin, the community states
2 that cranberries are produced on approximately
3 21,000 acres and that the cultural control
4 methods are not very effective there.

5 The approval of polyoxin D zinc salt
6 according to this commentator may encourage
7 farmers to consider organic production because
8 the price of cranberries are very low now and
9 normally the price of organic cranberries are
10 higher. And they feel that this may be a means
11 by which to encourage more growers to convert to
12 organic.

13 The public comments I feel pretty well
14 demonstrated the essentiality of polyoxin D and
15 also it showed how the efficacy also of polyoxin
16 D. Are there any questions?

17 MR. ELA: Jesse, I want to apologize
18 for not letting you go first. My humble
19 apologies for my mistake. Harriet.

20 MS. BEHAR: I'm on the crop
21 subcommittee and at first we really wondered
22 about the necessity of this product and looked

1 back at the previous National Organic Standards
2 Board decision that it was not essential.

3 However, in the public comment the
4 wide ranging need for this product to me became
5 quite clear and the use across so many regions
6 and so many types of crops.

7 And I was especially struck by the
8 cranberries. I am from Wisconsin, and we are the
9 largest producer of cranberries in the United
10 States. And I have visited numerous organic
11 cranberry operations, and I know they struggle
12 with not having sufficient control as well as not
13 being able to meet market demand.

14 And so cranberries are coming in from
15 Canada to meet the organic demand while the
16 conventional cranberry growers don't have the
17 tools they need to convert to organic.

18 So I feel like we have been answered
19 in our question about its essentiality. And I
20 think that we've been shown that it is.

21 MR. ELA: Tom.

22 MR. CHAPMAN: I agree with what was

1 said by Jesse and Harriet that producers clearly
2 made the case of the essentiality of this
3 substance.

4 I also would just want to point out to
5 everyone that this shows cases where, you know,
6 when we review a substance and the burden of
7 proof is not met against the OFPA criteria, the
8 substance can come back before the Board with
9 sufficient criteria.

10 The first time we rejected it. It was
11 not clear that it was essential. You know, the
12 petitioner went back and got the appropriate
13 evidence that it is essential and came back. And
14 that's really the appropriate way to approve
15 substances here.

16 So I know there's often the critique
17 that it's hard to get substances on the national
18 list and some of that burden is in providing
19 sufficient evidence to meet the criteria. And
20 this is a good example of that happening in the
21 right way.

22 MR. ELA: Thanks, Tom. Emily.

1 MS. OAKLEY: Thanks, Tom. Another one
2 of the criteria that I believe is mentioned in
3 the original review is its effect on soil. And I
4 do want to note that we had a very long time to
5 wait for this technical review. And it was a
6 supplemental technical review.

7 It was over 14 months. And by the
8 time it was returned, there was also a certain
9 amount of urgency to get it on our docket and to
10 review the material so that it could go forward
11 at a meeting.

12 I do feel that there is a limitation
13 to the supplemental, technical review that is
14 pretty significant. And that is that it relies
15 on the petitioner's own studies of the effects on
16 soil and on insects.

17 And I know that that might be a
18 difficult thing to overcome, but I think it's
19 also inherent of importance that technical
20 reviews look beyond the petitioner's submitted
21 information to help us make those determinations.

22 So I also have experience personally.

1 Tens of thousands of dollars of loss from
2 botrytis in strawberries. And it is a very
3 difficult, you know, issue to deal with.

4 And I understand the need that growers
5 are expressing and the desire for this material.
6 But at the same time, I don't feel fully
7 satisfied in my understanding of third-party or
8 fully unbiased review of the effects on soil. So
9 I just wanted to express that.

10 MR. ELA: Dan.

11 DR. SEITZ: So I do think this is a
12 tougher decision than maybe some of my fellow
13 Board members feel.

14 I definitely understand that there's
15 a problem with growing quite a multiplicity of
16 crops in different environments and so forth.

17 And I have to, you know, first make a
18 confession. It probably would have taken a good
19 20 hours or so to really do the research on this
20 substance to do it justice. The petition itself
21 was 747 pages long. And I would say that's a
22 truly jumbo petition.

1 But, you know, in trying to go through
2 it, it also seemed to me that Emily's observation
3 is correct that a lot of the science, if not all
4 of it that was cited, really was based on
5 industry funded studies.

6 And that always does raise a question
7 of conflict of interest. And even editors of the
8 New England Journal of Medicine and the British
9 Journal of Medicine have raised issues with
10 medical studies where things are industry funded.

11 That's not to say that such studies
12 would not be acceptable, would not have good
13 results. But it's really helpful to know that
14 there are potentially some studies out there that
15 were funded by other sources.

16 And, again, I didn't have the time to
17 go through carefully, check every citation to
18 make sure that that's the case.

19 A couple of other things. A lot of
20 the comments, I think it's important not to base
21 our decision on just if there are tons of
22 comments in one direction and relatively few

1 comments in another direction. I think we all
2 have seen situations where you can get people to
3 lobby on your behalf. So it's very just
4 important for us to make sure that we make the
5 decision on the right basis.

6 A lot of the letters that came in from
7 academic departments were, at least from my read
8 of them, simply assertions that this will be
9 beneficial. It will help these different growers
10 in different regions be more successful, lead to
11 conversion of land to organic. I'm all for more
12 land to be converted.

13 So I'm not saying those again are poor
14 points to make, but they were of an assertion
15 type of comment. A lot of comments came from
16 grower associations that included both
17 conventional and organic growers.

18 And so you don't know how strong the
19 commitment is, necessarily, to the organic side
20 or the understanding there. It may be that
21 people are looking on the conventional side and
22 saying, God, that solves a problem. Why don't we

1 use it over here without necessarily
2 understanding that it's a whole different system
3 approach to making the organic process work.

4 And then as Emily said, and this also
5 was evident to me, there is a question of whether
6 there is harmful effects on beneficial fungi in
7 terms of its use.

8 So I'm very interested in hearing
9 other people's points. Yes. I'm interested in
10 continuing to hear people's points of view on
11 this. But I do feel that there are some
12 questions that make this a more subtle decision.

13 And then just a general question. I
14 may have looked at the older TR. You were saying
15 that TR just came out and somehow that -- okay, I
16 actually, somehow that slipped by me and I only
17 saw the older one.

18 And in that older TR, it was indicated
19 that this wasn't approved in other countries in
20 Europe or whatever. And I don't know if that
21 situation has changed, but it would be
22 interesting, at least for me to know, if this is

1 something that other organic standards have
2 adopted as being useful and consistent with their
3 organic standards.

4 MR. BUIE: And I think at this point
5 it hasn't been approved. But like in Japan,
6 conventionally, it's been used for over 40 years,
7 but organically.

8 MR. CHAPMAN: Did we receive comments
9 from the public about other studies available
10 that were not included in the TR?

11 MS. OAKLEY: Oh, Jesse, sorry.

12 MR. BUIE: There are other university
13 studies that were included. I just didn't --

14 MR. CHAPMAN: I mean, so the TR had --
15 there was a series of studies. There's now a
16 critique around the funding of the studies that
17 were completed. I'm curious to know, did we
18 receive comments from the public around other
19 studies that weren't included in the technical
20 review?

21 So, I mean, I think that -- I see
22 heads shaking no. So, I mean, we have to base

1 our decisions on the totality of the evidence
2 present.

3 And, yes, I agree. I prefer studies
4 that aren't funded by industry as well. However,
5 in the lack of other information and the mounting
6 evidence in the previous reviews by this own
7 Board, I think it's quite clear that this is a
8 substance that meets the criteria as listed in
9 OFPA.

10 MR. ELA: Dave.

11 MR. MORTENSEN: Yes. I think on any of
12 these petitions and proposals, Dan, we all are
13 conflicted to one extent or another. So I don't
14 think any one Board member is more or less
15 conflicted. None of them are clean. And it's
16 kind of wading through the gray area to determine
17 what influences each of our perspectives.

18 The question, and I'm not going to
19 make light of it, but the question or the comment
20 that this compact could influence fungal
21 communities, so too does tillage profoundly
22 influence fungal communities. So the very nature

1 of farming influences fungal communities
2 profoundly.

3 I mean tillage undoes fungal
4 communities in severe ways. So, and again, I'm
5 not making light of any of these comments. But
6 taken together, the problem with the disease was
7 laid out I thought in a compelling way for lots
8 of different crop species, particularly in the
9 West.

10 And I think coming on the heels from
11 me personally on the very painful hydroponic
12 debate and vote, you know, folks growing in soil
13 have challenges like this that folks growing
14 hydroponically under plastic don't have or have
15 much less pressure to deal with.

16 And so I think those are the sorts of
17 things that were influencing my thinking as was
18 the fact that it's a natural product from a
19 microbially produced compound that's altered at
20 the end of the synthesis process.

21 MR. ELA: Thanks, Dave. Emily.

22 MS. OAKLEY: Yes, I agree. I mean, I

1 think that there are a lot of nuances. And I
2 think I have expressed in our discussions my
3 conflicts for myself with the substance. What
4 makes it synthetic is the zinc salt and yet it is
5 a synthetic because of that.

6 I think that certainly the argument
7 that it could reduce the use of more toxic
8 products is a very compelling one.

9 I still feel that we can't ignore the
10 fact that we got comments from universities, as
11 Dan was stating, but they weren't supplemented
12 by, and here's a link to my study and the
13 published results as a result of it that indicate
14 that I have, you know, grounds for the basis of
15 my assessment.

16 The petitioner himself or itself
17 acknowledges that it can kill beneficial soil
18 fungi. And you're right tillage absolutely does
19 as well. But I don't think we want to increase
20 the ways in which we're affecting soil fungi.

21 But I think that this is a very
22 nuanced and very complicated topic. I don't

1 think there's a clear right way or wrong way.
2 And I don't think that if we wrote differing
3 opinions that isn't of itself a bad thing either.
4 I think it just reflects our differing views and
5 interpretations of this product.

6 MR. ELA: Harriet.

7 MS. BEHAR: We all know that the
8 climate is changing, and we have a lot of extreme
9 weather events. At least I know where I live,
10 you know, where we used to get an inch rain, it
11 will be a four inch rain.

12 And so I think the fungal issues are
13 magnified in that type of situation and
14 environment. So I almost hear, like a cry of
15 help me from the organic producers out there to
16 deal with the issues that they have that really,
17 I think, are becoming more extreme due to the
18 extreme weather that we have.

19 MR. ELA: Ashley.

20 MS. SWAFFAR: Yes, I just want to say
21 that I am going to vote in favor of this based on
22 essentiality from a lot of farmers that we heard

1 that was simply overwhelming comments that they
2 sent in.

3 It was across multiple, you know,
4 berries and cranberries, different things, or
5 blueberries. You know, it's not just a one crop
6 issue. It's across many, and I feel like they're
7 asking for a tool. And, you know, that we can
8 give them this tool for their tool box then.

9 MR. ELA: And I'll throw in a comment
10 to kind of help my comments off this chair. But
11 I tend to agree, I mean, I was probably pretty
12 negative on this actually is initially thinking
13 it's just another synthetic.

14 And in reading the public comments to
15 where I think, you know, I mean you brought up
16 the hydroponic discussion of expanding organics.
17 But I think what I read was in these wet climates
18 where there are fungal diseases, where there are
19 no other tools at this point, there are no other
20 alternatives.

21 Sulfur doesn't work. Lime sulfur
22 doesn't work. That this could give some of these

1 growers a tool to expand organic production into
2 wetter climates. And I think, you know, it's one
3 of those that it isn't a synthetic, but it's a
4 fermentation product. So I like that.

5 You know, Emily and I have talked
6 about, you know, here's the fence and we may come
7 down just barely on either side of the fence
8 post. But I do see it. I thought the public
9 comments really swayed my opinion as to the
10 essentiality in that it could be a very useful
11 tool for a subset of growers that do not have
12 those tools right now.

13 Sue, you had a --

14 MS. BAIRD: I'm just reiterating the
15 same thing. The amount of public comment that
16 was asking for it swayed me to vote yes. And,
17 you know, we have a lot of great wine production
18 in Missouri. You guys might be surprised about
19 that, but we do.

20 And the comment has been for years we
21 can't grow grapes for wines in Missouri because
22 of fungal diseases. Maybe I'll get to have an

1 organic wine in Missouri.

2 MR. ELA: Emily.

3 MS. OAKLEY: I do think that Ashley's
4 point that this covers a broad range of potential
5 crops is an important one. But it raises the
6 level of scrutiny even higher because it means
7 that it's potential application and adoption
8 could be very high as well and cover, as Jesse
9 stated, a wide geographic range and crop range.
10 Not to try to, you know, sway you one way or the
11 other, but just to note that I do think it brings
12 our level of analysis to another playing field.

13 And, I mean, of everybody at the
14 table, I probably grow the most array of crops
15 that this product is applicable for. So I just
16 want to put that out there, too.

17 MR. ELA: Tom and then Scott.

18 MR. CHAPMAN: Yes. And I agree with
19 that, but that's also its strength. And the
20 strength of that allows for more sourcing and
21 production of crops in the U.S. We heard from
22 American growers.

1 So if we want to get our blueberries
2 from Washington State instead of from Chile or
3 other origins, this is the tool that can help
4 increase that. And that is another tool that
5 helps reduce the fraud issues we're dealing with.

6 MR. ELA: Scott.

7 MR. RICE: Yes. I wanted to just
8 remind also that when we look at growing
9 practices, we look first before an operation is
10 using any sort of material, we're looking at
11 preventive and cultural practices.

12 And it's not just a blanket, here's
13 your toolbox and your shelf, grab whatever. You
14 know, we're looking for what's been implemented
15 and true effort at controlling disease before we
16 just reach for a material.

17 And that said, you know, I think
18 somebody mentioned earlier that it's dry in
19 Washington. Well, in parts of Washington, but in
20 many other areas, it's quite wet. And we have a
21 lot of issues with fungal diseases and down
22 through Oregon and California as we've heard. So

1 I think this is an important tool for those
2 folks.

3 MR. ELA: Anything else before we --
4 Paul.

5 MR. LEWIS: Yes. Just one remark.
6 It's interesting the discussion that occurs in
7 terms of the availability of data and the data
8 that was provided generated by the submitter and
9 balancing that with the comments.

10 And what's interesting in terms of the
11 comments that came in from the university
12 community, from faculty that may have experiences
13 with the product that, I think, some of the
14 limitations they may have experienced, but maybe
15 haven't conducted field trials.

16 So, I mean, I'll just kind of -- it's
17 interesting kind of how do you balance
18 information that's available, that's privately
19 funded, as opposed to research and extension plan
20 pathologists and others. You know, the
21 experience of material, but how do you kind of
22 weigh that? So that's something to think about,

1 positive and negative.

2 MR. ELA: Yes. I think that's always
3 a challenge. There's limited resources as the
4 NOP knows that conduct research. So that is an
5 issue. Dave.

6 MR. MORTENSEN: Very quickly, I
7 totally endorse Emily's comment earlier that, you
8 know, we really need to have more of these kinds
9 of trials conducted. We don't have them being
10 conducted.

11 And frankly, the Langara University
12 has quite a cottage industry of these trials
13 being conducted with synthetic pesticides all the
14 time.

15 I think the problem is we don't have
16 enough outreach applied researchers with an
17 interest in organic production and that's why we
18 don't have the trials, honestly.

19 MR. ELA: And I tend to echo, you
20 know, Emily's comment on that and as a specialty
21 crops grower, too, where we deal with -- I mean,
22 and we have a dry climate so we're darn lucky.

1 But I see back east, you know, the continued
2 comments from growers that it's really hard to be
3 an organic grower.

4 And I generally don't like adding
5 materials to the list, but this is one that
6 swayed me. Anything else before we take the
7 vote? Tom.

8 MR. CHAPMAN: Okay. So we have two
9 motions before us. The first is a classification
10 motion. So this is a motion to classify polyoxin
11 D zinc salt as a synthetic substance. The motion
12 was made by Jesse and seconded by Emily.

13 This is not the motion to list. This
14 is purely the motion to classify it as synthetic.
15 A yes vote is to classify it. A no vote does not
16 classify the substance. And the voting will
17 start with -- I'm sorry. I'm on the wrong
18 material. I hear you, but I need to get to the
19 Excel sheet. We'll start with Steve.

20 MR. ELA: Yes.

21 MR. BRADMAN: Yes.

22 MS. DE LIMA: Yes.

1 MS. ROMERO-BRIONES: Yes.

2 MS. OAKLEY: Yes.

3 MS. BAIRD: Yes.

4 MR. BUIE: Yes.

5 MS. SWAFFAR: Yes.

6 MR. RICE: Yes.

7 MS. BEHAR: Yes.

8 DR. SEITZ: Yes.

9 MR. MORTENSEN: Yes.

10 MR. CHAPMAN: Chair votes yes.

11 Thirteen yes, the motion passes.

12 The next motion is the listing motion.

13 So this is the motion to recommend that this item

14 be placed on the national list. It reads motion

15 to add polyoxin D zinc salt as petitioned to

16 205.601(i). Is that right? I don't have my

17 glasses on. Did I get that right? Yes, (i), all

18 right. There we go.

19 The motion was made by Jesse, seconded

20 by Sue. So this is a motion to list. A yes vote

21 is to recommend the listing of this substance.

22 And the voting starts with Asa.

1 MR. BRADMAN: Yes.

2 MS. DE LIMA: Yes.

3 MS. ROMERO-BRIONES: Yes.

4 MS. OAKLEY: No.

5 MS. BAIRD: Yes.

6 MR. BUIE: Yes.

7 MS. SWAFFAR: Yes.

8 MR. RICE: Yes.

9 MS. BEHAR: Yes.

10 DR. SEITZ: Abstain.

11 MR. MORTENSEN: Yes.

12 MR. ELA: Yes. How does the chair

13 vote, Tom?

14 MR. CHAPMAN: Chair votes yes. I
15 wrote it down. Eleven yes, one no, one abstain,
16 the motion passes.

17 MR. ELA: All right. Moving on to our
18 other petition, Devon, for sulfur.

19 MR. PATTILLO: Synthetic sulfur has
20 been petitioned for use as slug and snail bait or
21 molluscicide for organic crop production. The
22 petition was submitted by OR-CAL Incorporated in

1 May 2017. A 2018 technical report on elemental
2 sulfur is available on the NOP website. Thanks.

3 MR. ELA: This time I will try and get
4 this right. Asa.

5 MR. BRADMAN: So this petition is to
6 add sulfur as a molluscicide -- I just lost my
7 notes here. Sorry. To add sulfur as a
8 molluscicide -- sorry. To add sulfur as a
9 molluscicide under 205.601. Currently, we've had
10 a lot of discussion about sulfur so far, and it's
11 approved for plant disease and as an acaricide
12 and miticide.

13 The formulation here would be to
14 produce a pelleted form that would be used in
15 plants, row crops, other settings, potentially in
16 garden settings, to attract and kill snails and
17 slugs.

18 This petition -- there's a few, I
19 think, discussion items here, and I'll review
20 them for you and perhaps we can then dig deeper
21 in how we want to move ahead.

22 But in terms of support, we've had

1 support from the OWPC and the Organic Trade
2 Association and then on the other side NOC and
3 Beyond Pesticides have objected to this.

4 And I think they raised some important
5 points and concerns about this. We also have
6 this issue of efficacy studies. The efficacy
7 studies that were reported with the petition were
8 supported by the petitioner. We don't have
9 independent efficacy studies.

10 This does not have the level of
11 attention that even polyoxin D is. So I'm sure
12 there's no one else out there in the world doing
13 efficacy studies.

14 Another point to make, and there was
15 a phrase I included in this proposal, that noted
16 that in the petition they did not specify a
17 specific mechanism of toxicity. And there may be
18 some mechanisms that are similar to what may
19 happen in livestock in terms of digestion and the
20 production of sulfuric acids or other sulfur
21 related gasses that may be toxic.

22 And, you know, I think there's an

1 interesting issue there in terms of do we need to
2 have that for this proposal to be accepted?

3 Sulfur, when I was looking at this
4 proposal, sulfur is already on the list. It's
5 widely used. We've just reviewed a lot of issues
6 related to it.

7 And interestingly, the new technical
8 report on sulfur that was just posted in the last
9 week notes that there's actually not a defined
10 mechanism toxicity for sulfur, even for fungus.

11 So we have a situation where we have
12 this material that has low acute mammalian and
13 other toxicity, but we're actually not exactly
14 sure how it works in a few different settings.

15 When we're reviewing this petition and
16 the need for molluscicides, one thing that was
17 noted was that there is increasing interest in no
18 till agriculture, particularly in organic. And
19 there's a lot of challenges with that. And that
20 implementing no till practices provides a more
21 stable environment for snails and slugs to build
22 up in population and that new tools to control

1 that are potentially very beneficial.

2 We do have ferric phosphate, Sluggo,
3 which is manufactured in Europe as currently an
4 organically approved material. And this would
5 essentially complement it.

6 And one thing I want to emphasize here
7 is that NOC raised some concerns about approving
8 a new material. We're not approving a new
9 material here. We approving a different use of
10 an existing material on the list.

11 And the application method might be a
12 little different because it's a pellet. I think
13 the use of it raises similar issues to other
14 sulfur uses in terms of potential exposures to
15 workers and the community. But it doesn't -- I
16 think those uses are separate, though, from the
17 fact that we already have existing uses of this
18 material. I don't think this would add a new
19 hazard based on the use of it.

20 I guess the last thing to mention is
21 that the only people who really commented on this
22 were organizations and advocacy groups or

1 nonprofits. There were no actual, other than
2 petitioner, there were no gardeners or farmers or
3 no other commenters on this. Thanks.

4 MR. ELA: All right. Questions,
5 discussion. Emily.

6 MS. OAKLEY: Yes. So when we were
7 discussing this in subcommittee, it seemed like a
8 very straightforward material, as Asa said, given
9 the fact that it's already listed.

10 After reading the public comments, I
11 went back and looked a little bit further at the
12 petition. And they specifically referenced their
13 Appendix D in terms of its effectiveness and
14 compared against some other materials.

15 And it's basically effective a little
16 bit faster than what's currently listed under
17 ferric phosphate. And so I think, you know, it
18 does a question of essentiality and its necessity
19 as Asa has brought forth.

20 And then we also weigh that against
21 the fact that it's already a material that's
22 listed for use. And as someone on our

1 subcommittee said, they could just apply some
2 sulfur for soil purposes and also address slugs
3 in soil.

4 So, yes, I don't think it's as
5 straightforward as we initially considered it in
6 the subcommittee. But I'm also not certain that
7 it precludes our listing of this material.

8 MR. BRADMAN: I agree. I mean, one
9 difference, though, between, say, the other uses
10 is that it's formulated with the bait, so there's
11 an attractant in it. So it probably wouldn't be
12 used as just another soil application.

13 In the label they provide, actually we
14 don't know exactly what those inert bait
15 materials are, which, I think, is worth noting.
16 And if I do it again, I'll make sure that doesn't
17 slip by.

18 That said, if this were to be approved
19 by OMRI, of course, any of those materials would
20 have to be consistent with the inerts and other
21 live ingredients.

22 MR. ELA: Yes. And I think this comes

1 back to we're just approving the use of sulfur.
2 We're not approving the use of the product. So I
3 agree if it's not pure sulfur, then it would have
4 to go through another review process before it
5 was actually allowed.

6 Dave, did you have?

7 MR. MORTENSEN: Yes. I was just
8 thinking, Asa, when I think one of the reasons
9 why we would not have heard from as many farmers
10 about this is that I think we're on the very
11 early part of the adoption curve on reduced and
12 no till organic.

13 Kind of last summer and this summer in
14 Pennsylvania there were on-farmer conducted
15 trials of various no till practices. And the
16 loss of corn plants and their poor yield was
17 something on the order of 40 to 50 percent from
18 slug damage.

19 So I know that, you know, there is
20 almost certainly a need, but it's probably a
21 smaller handful of folks that are experimenting
22 with this at this point.

1 MR. ELA: Other comments.

2 MS. ROMERO-BRIONES: With ties to
3 Hawaii, there is a current infestation of rat
4 lungworm disease that is pretty much devastating
5 a lot of the produce farmers, both on the Big
6 Island and Maui, I think, and this would be
7 pretty helpful to some of those farmers.

8 Something like 80 percent of the slugs
9 found in Hawaii have the disease. And so they're
10 kind of scrambling to figure out how to prevent
11 and control the incidences of rat ring lungworm.

12 MR. ELA: Tom.

13 MR. CHAPMAN: I just also want to
14 point out from my more historical and other
15 perspective that several of the commenters who
16 commented that sulfur as a molluscicide was not -
17 - that we have alternatives, like ferric acid,
18 also commented in the 2016 Sunset review of
19 ferric acid that ferric acid wasn't effective and
20 so we shouldn't re-list it. So just something to
21 keep in mind.

22 MR. ELA: I think my own take is it's

1 so widely listed, sulfur, anyhow. I mean, it's
2 soil amendments. It's an acaricide. It's a
3 fungal agent. It's almost -- I kind of have a
4 hard time saying no to it because it's like this
5 really isn't a different -- I mean if it's
6 formulated with a bait, it's different. But it's
7 really not another use of sulfur. And it's going
8 to be put on the soil.

9 So it's almost like we're -- to me in
10 some ways we're in the weeds on sulfur of
11 approving every potential use of something that
12 is just widely used. So, but, I still appreciate
13 that we're being specific, and we're making sure
14 uses are specific. And I think that's important.

15 You know, I can see growers going out
16 and using it regardless as a soil amendment. But
17 I would rather not see -- I think Scott mentioned
18 the other day you don't want growers to start
19 being creative. You want to just say use it or
20 don't. So I think that's important. Emily.

21 MS. OAKLEY: I also just wanted to say
22 that getting such a wide diversity of comments,

1 having such a diverse and broad stakeholder
2 community is so essential to organic integrity.

3 And I wholeheartedly appreciate, as
4 I've said before, commenters who try to comment
5 on most, if not every, material that we have
6 regardless of, you know, where they may fall on
7 the spectrum.

8 So it's essential that we have debate
9 over everything we do. And nothing is just a
10 simple decision. And I appreciate all your
11 points.

12 MR. ELA: Scott.

13 MR. RICE: Just in terms of using a
14 material for a use other than it's listed for,
15 that is something in the certification process
16 that we look at in an OSP, or organic system
17 plan, and how material is used in records at
18 inspections. So just to clarify.

19 MR. ELA: Anybody else? It's in your
20 court, Tom.

21 MR. CHAPMAN: All right. So this
22 comes to us as a motion to list. You will notice

1 there is no motion to classify. As has been
2 stated, this is listed elsewhere and has been
3 classified synthetic in the past. Therefore, it
4 is just a motion to list.

5 The motion is motion to add sulfur as
6 petitioned at 205.601(h) to the National List of
7 Allowed Substances and Prohibited Substances.
8 Motion by Asa and was seconded by Harriet. So a
9 yes vote is to adopt this motion as a
10 recommendation to list. The voting will start
11 with Lisa.

12 MS. DE LIMA: Yes.

13 MS. ROMERO-BRIONES: Yes.

14 MS. OAKLEY: Yes.

15 MS. BAIRD: Yes.

16 MR. BUIE: Yes.

17 MS. SWAFFAR: Yes.

18 MR. RICE: Yes.

19 MS. BEHAR: Yes.

20 DR. SEITZ: Yes.

21 MR. MORTENSEN: Yes.

22 MR. ELA: Yes.

1 MR. BRADMAN: Yes.

2 MR. CHAPMAN: Chair votes yes.

3 Thirteen yes, the motion passes.

4 MR. ELA: With that, I'd like to thank
5 the crop subcommittee. We have a pretty
6 extensive list of Sunsets, which makes it always
7 difficult to review petitions and other things
8 when many of our calls are occupied with just the
9 routine matters of what we have to cover. But
10 it's a great committee, and I think we have more
11 fun things to do that's coming up. So, Tom, I'll
12 turn it over to you.

13 MR. CHAPMAN: Thank you, Steve. And
14 a round of applause for Steve. This was his
15 first chairing of the meeting and really good
16 job, Steve. So I appreciate it.

17 (Applause.)

18 MR. CHAPMAN: All right. We'll take
19 a break for lunch and reconvene at 1:30. So you
20 have an hour and eight minutes. At that time,
21 we'll take up the handling subcommittee.

22 We are about an hour, maybe an hour

1 and a half, behind schedule. I do think we will
2 conclude around our published time of 3:45. But
3 we will probably be using the entire time today.
4 And with that, we will go into recess.

5 (Whereupon, the matter went off the
6 record at 12:23 p.m. and resumed at 1:32 p.m.)

7 MR. CHAPMAN: All right. It looks
8 like we're missing two members, but we do have a
9 quorum. So we will come back into session.

10 Lisa, are you ready? All right, we're
11 back into session and starting back up with the
12 handling subcommittee. And I will hand it over
13 to Lisa de Lima, the chair.

14 MS. DE LIMA: All right. So we're
15 going to start off with 2020 Sunset materials,
16 jump right into it starting with calcium
17 carbonate. Devon.

18 MR. PATTILLO: Thanks, Lisa. We'll
19 start with Section 205.605, which includes the
20 non-agricultural substances allowed as
21 ingredients in or on processed products labeled
22 as organic or made with organic.

1 The first five substances today appear
2 in Section A, non-synthetics allowed. And the
3 first substance is calcium carbonate. Thanks.

4 MS. DE LIMA: Scott.

5 MR. RICE: Thank you. Calcium
6 carbonate is widely used as a dietary supplement,
7 antacid, dough conditioner and acidity regulator
8 in wines. It is also used as a food stabilizer,
9 anticaking agents, gelling agents, glazing and
10 release agent, thickener, bulking agent and as a
11 nutritional fortification additive.

12 Notably, as pointed out in the
13 comments, it is used in soy cheese, yogurts and
14 beverages as a source of calcium and also as a
15 stabilizer.

16 We did receive a new TR for this in
17 January. This is material that has been in wide
18 use and is quite common in food processing.

19 A number of commenters expressed
20 continued support for the inclusion of this.

21 It's used in -- one moment -- excuse me. It's
22 manufacture is -- it's a fine white

1 microcrystalline mined powder, which is stable in
2 air, a mined mineral of at least 98 percent
3 purity that is then ground and screened.

4 In terms of environmental or health
5 issues, the mining and processing, as with any
6 mined material, can have negative impacts. The
7 inhalation of its dust may cause upper
8 respiratory irritation. However, with personal
9 protective equipment, one can avoid these issues.

10 Generally, all of our comments
11 expressed that this is still in use and quite
12 widespread.

13 MS. DE LIMA: Any discussion from the
14 Board? All right. Moving on. Devon.

15 MR. PATTILLO: We're still in Section
16 205.605(a). And the next substance is flavors.
17 It has an annotation of non-synthetic sources
18 only and must not be produced using synthetic
19 solvents and carrier systems or any artificial
20 preservative.

21 MS. DE LIMA: Tom.

22 MR. CHAPMAN: Natural flavors. These

1 natural flavors are derived from natural sources
2 and are compound substances derived from plants,
3 herbs, spices, botanicals and other substances.

4 They are typically used in very small
5 amounts in products that contain less than the
6 optimal amount of flavor necessary to give the
7 finished product the desired flavor profile.

8 Natural flavors are often proprietary
9 formulations developed specifically for their
10 intended purposes and functionality of that
11 finished product.

12 Flavorings, significant function must
13 be flavor rather than nutrition. And the FDA
14 defines a natural flavor in 21 CFR 101.22.

15 We heard from several interest groups
16 that encourage the adoption of the 2015 proposal
17 to change the annotation to apply commercial
18 availability to natural flavors.

19 There was support for further
20 requirements of organic flavor usage. Some
21 commented on the need that the flavoring
22 constituents in the flavor be organic. And we

1 also received some objections to the fact that
2 flavors were a categorical listing.

3 Several businesses and trade
4 associations commented on its use and
5 essentiality. In one of the surveys by one of
6 these associations responding manufacturers rated
7 flavors as a 9 or 10 on a scale of 1 to 10 of
8 essentiality, 10 being the most essential. And
9 in this they noted its critical essentiality.

10 Certifiers also reported a very wide
11 usage of flavors amongst their clients.

12 One retailer asked about further
13 restricting of flavors when their use is to
14 replace the natural source of foods advertised
15 flavor, stating that natural flavors should not
16 be allowed to be used as the only defining
17 sources of a food's advertised flavor.

18 And I just wanted to note that this is
19 already addressed and regulated by the FDA,
20 particularly under 21 CFR 101.22 and 21 CFR 102.5
21 that define characterizing flavors based on the
22 label, including words and pictures,

1 advertisement or consumer expectations.

2 If the characterizing flavors are not
3 present without the use of a natural flavor
4 ingredient, then the product would need to be
5 labeled as naturally or artificially flavored on
6 the front panel even when natural flavors were
7 used depending on formulation.

8 It should also be noted that flavors
9 are under early review as part of our efforts to
10 reorganize Sunset dates. Flavors are also part
11 of the proposed rule that came out in January.

12 So in compliance with our 2016
13 proposal to reorganize Sunsets, if the proposed
14 rule comes back as a final rule prior to the fall
15 meeting, then we will remove flavors from our
16 work agenda as the new rule will have effectively
17 reset the Sunset date. Questions?

18 MS. DE LIMA: All right. Seeing none,
19 we'll move on. Devon.

20 MR. PATTILLO: The next substance is
21 gellan gum. Thanks.

22 MS. DE LIMA: All right. So gellan gum

1 is a hydrocolloid and useful as a thickening and
2 gelling agent in food production, including
3 bakery fillings, confections, dairy products,
4 glazes and personal care items.

5 Typically the use of gellan gum is at
6 less than .5 percent of a finished product. Some
7 of the unique properties of gellan gum are that
8 it has a high viscosity at low concentrations and
9 forms thermoreversible gels.

10 In public comment, there were a number
11 of manufacturers who wrote in support of the
12 material with multiple of those stating that they
13 were using gellan gum as a carrageenan
14 replacement.

15 A couple different organizations and
16 interest groups requested that the CBI from the
17 original petition be disclosed and requested the
18 material be de-listed until that happens.

19 And one retailer commented that the
20 use of gellan and all other gums diminishes the
21 market for organics. Any questions? Asa.

22 MR. BRADMAN: Do you have a sense of

1 their essentiality and integrity?

2 MS. DE LIMA: Yes. I mean, at least
3 from my seat in the retailer's seat that it is
4 something that's used as a replacement for
5 carrageenan and CORC. It's used more and that
6 consumers are happy to see the carrageenan taken
7 out. And I haven't heard any concerns around the
8 gellan from a consumer perspective.

9 MR. CHAPMAN: Just a reminder to
10 members to speak into your microphone. It's
11 sometimes hard when you're talking to the person
12 next to you. But use the microphone so the
13 transcriptionist can get what's discussed on the
14 record.

15 MS. DE LIMA: Emily.

16 MS. OAKLEY: Yes. Thanks. I noted in
17 a couple of places this mention of confidential
18 business information that was previously allowed
19 and is now not. And I'm not sure how we can
20 address that. But I wanted to know if the
21 program had any thoughts on that? If all of that
22 is sort of, you know, in the past or if it's

1 something that could be looked at going forward?

2 Do you want me to explain that a
3 little bit better? Okay. There were some
4 comments that there were materials approved -- I
5 don't know who I'm directing this to. But when
6 confidential business information was allowed to
7 be kept and now that it's not, how do we address
8 those materials as they come up for Sunset? Am I
9 capturing that correctly?

10 MR. CHAPMAN: If I can try to field
11 the question, under the old petition policy,
12 petitioners could provide confidential business
13 information to the program, but it wasn't
14 provided onto the Board for review and
15 consideration. So the Board would make its
16 determinations based on whatever information was
17 available, not that.

18 The current policy is basically
19 because that was never used as part of the
20 Board's consideration, we just don't accept
21 confidential business information anymore.

22 So we would make our decisions based

1 on the same availability of information. It just
2 makes it quite clear that that information
3 provided -- there's just no need to provide it
4 given that we're not going to receive it. So we
5 just don't accept it in the first place.

6 Does that make sense? It was really
7 to clarify to petitioners that providing this
8 additional information, if you called it
9 confidential, it would not influence the outcome
10 of the criteria determinations.

11 MS. DE LIMA: All right. Next
12 material, Devon.

13 MR. PATTILLO: Thanks. We're still in
14 Section 205.605(a) and the next substance is
15 oxygen, oil-free grades.

16 MS. DE LIMA: According to public
17 comment, oxygen is used by wineries, breweries
18 and manufacturers of carbonated beverages. One
19 certifier reported that it's listed on 14 OSPs.
20 One winery commented that they use it for
21 microoxygenation, a process where oxygen is added
22 to red wine at a controlled rate and flowed to

1 stabilize color, improve astringency and aromatic
2 components of the final product.

3 One organization wrote in that it
4 should be de-listed unless it's use was shown in
5 the industry, which I think that was shown this
6 time around in the review process. Questions?
7 All right. Devon.

8 MR. PATTILLO: Thanks. The next
9 substance is potassium chloride, Section 605(a),
10 non-synthetics allowed.

11 MS. DE LIMA: A-dae. Is it okay if we
12 come back to A-dae as she looks for her notes and
13 then keep going down the list? Yes.

14 MR. PATTILLO: Okay. Well, moving to
15 substances that appear in Section 205.605(b),
16 which includes synthetics allowed as ingredients
17 in or on processed products labeled as organic or
18 made with organic. And the first substance is
19 alginates.

20 MS. DE LIMA: Steve.

21 MR. ELA: All right. So alginates, I
22 believe, if I have learned something at this

1 meeting is a hydrocolloid, and it kind of goes in
2 the whole gum category. It's widely used.

3 And the public comments for the
4 alginates are necessary for textures, melting
5 quality, et cetera. Everybody rated them as, you
6 know, pretty critical to their product.

7 I think the main issue with alginates
8 that we read kind of goes back to the marine
9 materials thing. I mean, one of the users of
10 alginates, you know, basically said that, you
11 know, these are harvested in a sustainable manner
12 without use of pesticides or other chemicals.

13 It's not expected to cause any harm to
14 the environment. It's aligned with organic
15 principles. And other commenters really came
16 back and said, you know, how do we -- I can't
17 think of the right word.

18 How do we actually know that's true?
19 You know, it's a great claim, but is that really
20 true? You know, I think National Organic
21 Coalition says, you know, they're opposed to the
22 categorical listing of alginates and want to see

1 it broken down by source and the specific allowed
2 species, which kind of goes back into the whole
3 marine materials issue.

4 So it's not so much an issue of the
5 use of the alginate itself, but a question as to
6 the source of the alginates.

7 MS. DE LIMA: Any discussion? All
8 right. Next up, Devon. We're going to go back
9 to --

10 MR. PATTILLO: Go back to --

11 MS. DE LIMA: -- potassium chloride.

12 MR. PATTILLO: Okay, 605(a), potassium
13 chloride.

14 MS. DE LIMA: A-dae.

15 MS. ROMERO-BRIONES: Potassium
16 chloride is generally used for two main purposes
17 in food products. The first is to provide
18 potassium enrichment to foods. The second is as
19 a salt replacement to reduce the sodium content
20 in foods.

21 We had several comments submitted and
22 in general, they were all in support of re-

1 listing.

2 MS. DE LIMA: Any discussion? All
3 right. Next up.

4 MR. PATTILLO: Going back to
5 205.605(b), synthetics allowed. And the
6 substance is calcium hydroxide.

7 MS. DE LIMA: A-dae.

8 MS. ROMERO-BRIONES: It is used as a
9 component of aluminum free baking powder to
10 clarify sugar from molasses and as a conditioner
11 for corn tortillas. And in general, we had
12 several comments about it. And they all were in
13 support of re-listing.

14 MS. DE LIMA: Any discussion? Next
15 up. Devon.

16 MR. PATTILLO: The next substance in
17 605(b), synthetics allowed is ethylene allowed
18 for post-harvest ripening of tropical fruit and
19 de-greening of citrus.

20 MS. DE LIMA: Asa.

21 MR. BRADMAN: We had the discussion of
22 ethylene related to crops and most of the

1 comments in the docket really are related to use
2 for crops, especially pineapples.

3 There were a few comments related to
4 the listed use in handling for post-harvest
5 ripening of tropical fruit and de-greening of
6 citrus. In general, there was pretty broad
7 support for it.

8 There were some objections from Beyond
9 Pesticides. There was a concern that we're using
10 a synthetic hormone or regulator on this
11 material.

12 Overall, it's used internationally but
13 under many different standards. And there's a
14 very, kind of, I think, helpful and interesting
15 discussion in the comments related to its use for
16 ripening bananas.

17 It seems like a very big use in the
18 U.S. in that it helps facilitate the organic
19 banana industry by having a method to uniformly
20 ripen them once they're docked here and then ship
21 them out.

22 So we've already talked about it with

1 respect to crops. I won't repeat some of that
2 information. So any discussion?

3 MS. DE LIMA: I have one comment. I
4 was happy to see Equal Exchange write in and talk
5 about the farmers that they work with. And we
6 actually had a couple of my buyers from my
7 produce department at MOM's go out there this
8 January to Ecuador and spend some time with the
9 farmers.

10 And so it is one of those materials
11 where people tend to think this is only for large
12 scale ag, not that that's relevant to the listing
13 of these materials. But in this case, they're
14 doing a lot of good work working with small
15 farmers and given the negative history of how our
16 country has dealt with those countries and
17 farmers down there, I think it's really important
18 that we're able to -- it's a very small portion
19 of the banana business, but it's really important
20 that we are able to grow that. Dave.

21 MR. MORTENSEN: Lisa and Asa and
22 subcommittee members, I was just curious. When

1 you go shopping, almost always where we are in
2 central PA, organic bananas are, like, a pale
3 yellow to green in color, and conventional
4 bananas are bright yellow. I mean, invariably at
5 least where we go shopping.

6 And I was curious, is that a -- does
7 anyone know is that a post-harvest issue where
8 the shelf life of organic bananas because of lack
9 of use of other pesticides prior to harvest needs
10 to be moved onto the shelves quicker than
11 conventional bananas that might sit longer?

12 MS. DE LIMA: I'm not sure. I can
13 find out for our next meeting.

14 MR. CHAPMAN: There was a chart in one
15 of the comments, the one from the Organic Produce
16 Wholesaler's Group that actually went through the
17 various ripening stages of bananas and talked
18 about displaying. I don't know either. Mike
19 Dale is still here. He might be a good resource
20 for you.

21 I imagine it might also just be
22 related to volume and the fact that, you know,

1 conventional bananas probably have much more
2 volume so you can get them to a higher stage of
3 ripeness and use it quicker where the organics
4 probably have a slower turn. But that's
5 speculation. I don't know for sure.

6 MS. DE LIMA: Steve.

7 MR. ELA: I would say like in our
8 small local store that's part of the Kroger
9 system, there's no difference. They look exactly
10 the same. And actually it's stunning to me
11 there's only 10 cents difference per pound. I
12 think that's where you never saw organic bananas
13 10 years ago. It's a pretty stunning turnaround.

14 MS. DE LIMA: I think a large part of
15 that reason is that the retailer is selling those
16 bananas at a loss because I put bananas in that
17 same category as baby food as being a gateway
18 organic food, you know, especially for mothers
19 and parents. And, you know, without that there,
20 we would have a much harder time getting those
21 new buyers, new consumers in the door.

22 MR. ELA: Thank you. Thanks.

1 MS. DE LIMA: All right. Next up,
2 Devon.

3 MR. PATTILLO: The next listing is for
4 glycerides, mono and di, for use only in drum
5 drying of food.

6 MS. DE LIMA: All right. So
7 glycerides are used in drum drying. They act as
8 an emulsifier and release agent. And when mixed
9 with food, they help prevent sticking during
10 processing and help to strip the food from the
11 cylinder walls once dried.

12 According to the 2015 TR, there may be
13 alternatives to drum drying, such as spray
14 drying, freeze drying and fluid bed dryers.

15 Although drum drying is said to be
16 preferred to potato flakes, the TR also suggested
17 that organic soy lecithin and gum arabic could
18 theoretically be used as alternatives. And the
19 Board asked for feedback on the use of possible
20 alternatives as proposed in the TR.

21 I didn't get a whole lot of comments.
22 So we did get one comment from a manufacturer

1 stating that potato flakes have unique water
2 absorption properties due to their surface area.
3 And for this reason, drum dried potato flakes are
4 preferred.

5 I did have one certifier and
6 organization support the removal because of
7 possible alternatives. But I believe those
8 statements were made based on the TR, at least
9 from the certifier. They clarified after public
10 comment that they didn't know of anyone actually
11 using alternatives. It was based on the TR.

12 Any discussion? All right. Devon,
13 next up.

14 MR. PATTILLO: Moving on to the next
15 substance, 605(b), synthetics allowed. The
16 listing is for magnesium stearate for use only in
17 agricultural products labeled as made with
18 organic. Specified ingredients are food groups
19 prohibited in agricultural products labeled as
20 organic.

21 MS. DE LIMA: Asa.

22 MR. BRADMAN: Magnesium stearate, as

1 Devon just mentioned, it's only allowed for use
2 in products labeled made with organic
3 ingredients. It's primarily used as a binding
4 agent and nutritional supplements and other
5 similar uses.

6 It's also involved a little bit in
7 some other processes related to adding
8 lubrication or flow for materials in some
9 manufacturing processes. But overall, the use is
10 actually very limited, and it has a small
11 constituency in terms of the International Food
12 Additives Council. Some CCOF members use it.

13 No one was opposed to it. And it
14 seems like a fairly straightforward small use
15 material that has very specific uses and does not
16 raise any real concerns.

17 MS. DE LIMA: Any discussion? Seeing
18 none, we'll move on. Devon.

19 MR. PATTILLO: The next listing for
20 205.605(b), phosphoric acid, the cleaning of food
21 contact surfaces and equipment only.

22 MS. DE LIMA: A-dae.

1 MS. ROMERO-BRIONES: So phosphoric
2 acid is used in cleaning operations to remove
3 encrusted surface matter, mineral scale found on
4 metal equipment, such as boilers and steam
5 producing equipment. And we've had several
6 written comments and all were in support of re-
7 listing.

8 MS. DE LIMA: Any discussion? All
9 right. We'll move on to the next one, Devon.

10 MR. PATTILLO: We're still in
11 205.605(b) and the next substance is potassium
12 carbonate.

13 MS. DE LIMA: Scott.

14 MR. RICE: Potassium carbonate is
15 commonly used in the Dutch alkali process for
16 processing cocoa and chocolate to reduce acidity.
17 And it's also used as a pH control leavening
18 agent boiler water additive, tenderizer in tripe,
19 and in soap production.

20 It's used in soft drinks and
21 confections. It uses a buffering agent in making
22 wine and mead to reduce acidity. During the last

1 Sunset review, public comment did not indicate
2 that it is widely used.

3 In this most recent round of comments,
4 we had one manufacturer note its use as a sodium
5 reduction agent in chips and an absence would
6 raise that sodium by 18 percent.

7 Another uses it in a protein bar,
8 another as a nutritional supplement. The
9 manufacture is a strongly alkaline white salt, a
10 major component of the mined salt potash. Thank
11 you.

12 MS. DE LIMA: Any discussion?

13 Seeing none, we'll move on. Devon?

14 MR. PATTILLO: The next substance is
15 sulfur dioxide for use only in wine labeled made
16 with organic grapes provided that total sulfite
17 concentration does not exceed 100 parts per
18 million.

19 MS. DE LIMA: Steve?

20 MR. ELA: A product near and dear to
21 my heart. Basically, exactly as Devon said, used
22 for wine-making, to stabilize wine so that they

1 reduce the spoilage, especially the white wines,
2 also certainly increase the shelf life of red
3 wines. Basically all the comments in favor of
4 it, although there are people that have sulfite
5 allergies, so that's the one drawback of it, but
6 it's labeled and as one commenter pointed out,
7 there is nothing in the organic regulations that
8 say it's against the law, or against the rules,
9 to put allergens in the food, as long as they're
10 noted. So, basically necessary to the production
11 of line and critical.

12 MS. DE LIMA: Any discussion? Tom?

13 MR. CHAPMAN: Was there any comment
14 about other, you know, other alcohol made from
15 other fruit other than grapes?

16 MR. ELA: Yes, we had heard through
17 the -- I guess it's not through the grapevine if
18 it's not wine -- through the apple tree that
19 there were other ciders and such that might be
20 wanting to use it. No comments that I saw, which
21 surprised me, because I actually thought there
22 might be some interest in that, so. And I could

1 have skimmed over one, but I didn't see any that
2 I saw.

3 MR. CHAPMAN: Yes, I didn't see
4 anything either.

5 MS. DE LIMA: All right, moving on.
6 Devon?

7 MR. PATTILLO: Okay, we're onto the
8 last substance in 205.605(b); the listing is for
9 xantham gum.

10 MS. DE LIMA: Okay, so xantham gum is
11 used in numerous food products, including but not
12 limited to baked goods, beverages, dairy
13 products, dressings, nutritional supplements,
14 frozen foods. The gum is used in a small
15 percentage in the finished product, again usually
16 below .5 percent by weight, and basically
17 disperses water giving a thickening and gelling
18 effect. It's also often used with other gums to
19 achieve desired viscosities and product
20 structures for firmness and water binding. It's
21 particularly effective in frozen and chilled
22 products, where it can impart thickness and has

1 freeze thaw production and stability during
2 processing.

3 The other gums it's commonly used with
4 are locust bean gum, guar and carrageenan. It's
5 also allowed for use in organics internationally,
6 Canada, EU, Japan and by IFOAM. It's also
7 available commercially to consumers to use for
8 bake at home, gluten free and other gluten free
9 recipes.

10 Public comment, there was a number of
11 public comment from organizations, certifiers and
12 manufacturers that were expressing support for
13 the material. One large certifier stated, of all
14 the gums it's the most commonly found in OSP's.
15 And another manufacturer mentioned they haven't
16 found an organic xantham gum and that other
17 organic gums don't have the same functionality in
18 their organic baked goods. One organization did
19 comment that it should be removed, unless it's
20 allowed only for essential uses, and the same
21 retailer commented that the use of gums in
22 general they believed diminished the market for

1 organics.

2 Any discussion?

3 You guys are so quiet. All right,
4 moving on.

5 MR. PATTILLO: We're now moving on to
6 Section 205.606, which includes non-organically
7 produced agricultural products allowed as
8 ingredients in processed products labeled as
9 organic. And the first listing is Paragraph E,
10 fructooligosaccharides.

11 MS. DE LIMA: Tom?

12 MR. CHAPMAN: Fructooligosaccharides,
13 otherwise known as FOS are added to foods as non-
14 digestible carbohydrates and selective energy
15 sources for species of probiotic bacteria gut.
16 It's also commonly used as a prebiotic fiber, as
17 a sweetening agent, as a binding agent, and as a
18 humectant. And it's found often in yogurts and
19 other dairy foods, infant foods, medical foods,
20 baked goods and beverages. There's two widely
21 used methods of producing fructooligosaccharides,
22 one derived from inulin and one derived from

1 sucrose. I can go into detail the manufacturing
2 if folks want, but it's listed out in our Sunset
3 Review. Back in 2015, we reviewed both of these
4 and determined them both to be agricultural. FOS
5 is not specifically listed on CODEX, EU, Japanese
6 organic or Canadian standards; however, non-
7 organic agricultural products are not listed on
8 the CODEX or Japanese organic standards.

9 Several interest groups objected to
10 the presence of FOS on international list,
11 stating that it's a highly processed ingredient
12 and questioned its usage and essentiality. We
13 also received some feedback from a certifier
14 about its agricultural status, stating that their
15 interpretation is that some of the methods of
16 manufacturing would place it on the non-
17 agricultural list. It didn't seem like there was
18 any new information, though, related to the
19 manufacturing process that would have changed the
20 determination we made in 2015, but we will be
21 going into depth on the comments and reevaluating
22 that as we bring this material through sunset.

1 Comments from manufacturers and
2 manufacturers via trade associations talked to
3 its essential usage as a prebiotic, particularly
4 in baby and infant foods and in kombucha
5 beverages. And no comments received on organic
6 sources of FOS and no additional, new information
7 was received related to whether it meets other
8 requirements for listing.

9 MS. DE LIMA: Emily?

10 MS. OAKLEY: So, handling is obviously
11 not my forte, but I did think it was interesting
12 to note the public comment that was in opposition
13 or expressed concern. Could you help me
14 understand some of the comments about the highly
15 refined nature of this product so that I can
16 better understand the perspective that they're
17 bringing?

18 MR. MORTENSEN: Yes, maybe Tom, so you
19 address both our questions, one is related to the
20 refinement; if you could give us the sense for
21 the proportion in that, roughly, that's insulin-
22 derived versus sucrose-derived. And the third

1 part of that is sugar beets are largely GMO these
2 days, and I was curious how that plays into the
3 thinking?

4 MR. CHAPMAN: So it's inulin, not
5 insulin, just to be precise. So there's -- yes,
6 the two primary methods are inulin-derived and
7 sucrose-derived. The inulin-derived method,
8 inulin is dietary fiber, it's found in several
9 products naturally, chicory, Jerusalem artichoke
10 and agave being the kind of primary commercial
11 sources for the product. And it's extracted from
12 those plants generally in a water extraction,
13 which is similar to how sugar is extracted from
14 cane or beets; it's basically crushed and
15 dissolved into water, and then that gets
16 evaporated and refined. And then it goes through
17 enzymatic hydrolysis that breaks the kind of
18 long-chain inulins into shorter chains and the
19 shorter chains are what's in FOS, longer chains
20 are what's in inulin. Both are used as food
21 ingredients. I would say overall the most
22 comparative method that's maybe more commonly

1 known to something like that is how you make a
2 malt syrup that's used in brewing or something;
3 you're doing an enzymatic conversion of fibers or
4 starches available in the product. That method
5 is kind of the more straightforward one; the one
6 that's a bit more complex is the sucrose-derived
7 method. And what inulin is, is it's a glucose
8 molecule with a chain of fructose molecules, and
9 it's that length of chain of fructose molecules
10 that determine whether or not something it's
11 inulin versus FOS. Inulin is basically the
12 overarching term and FOS is just the small-chain
13 sections of that product.

14 So the sucrose-derived one you take
15 sugar cane or beet sugar and you ferment it.
16 That fermenting culture needs to be suspended in
17 calcium alginate as an immobilizer. That
18 fermentation then hydrolyzes the sucrose
19 molecules into glucose and those fructose
20 molecule chains, sucrose is both glucose and
21 fructose to start with. And it creates that kind
22 of FOS complex of sugars. Then you filter it

1 either using filtration methods, enzyme
2 extraction or mixed culture fermentation to
3 create that FOS solution. So it's a very -- it's
4 a much more technical and complex process that I
5 don't know how to further compare to than like a
6 fermented product process.

7 Both of them can use pH to adjust as
8 well, and pH adjustments is using a lot of
9 products; this is one area where our definitions
10 aren't quite clear, we generally do not use pH
11 adjustments as being considered a chemical
12 change. That's something else that the pH is
13 used for buffering control.

14 Does that help explain anything?

15 MS. OAKLEY: That helps me, but I
16 don't know if that helps --

17 MR. CHAPMAN: Oh, sorry. So what were
18 you -- sorry --

19 MR. MORTENSEN: Yes, my question was
20 just if you could give us an idea of the
21 proportion of that FOS that arises from those two
22 methods.

1 MR. CHAPMAN: Yes.

2 MR. MORTENSEN: And then how do we
3 know that the sugar beets that are the source of
4 sugar are not GMO, Round-Up ready sugar beets?

5 MR. CHAPMAN: Okay. So the first one,
6 I don't really have a sense of which one's more
7 prominent or not; they're both quite readily
8 available. I believe there's three companies
9 that produce the inulin one because inulin
10 manufacturing from chicory at least requires a
11 bit of scale to make it work. The sucrose one
12 I'm aware of one manufacturer that's quite large,
13 but there's probably others as well that use it
14 during the same manufacturing method, but I don't
15 really know overall. They're both considered
16 readily available, though.

17 The second question is the
18 requirements for excluded methods apply to all
19 agricultural substances, organic or not, and that
20 would be applicable in this case as well. So
21 that requirement on applicability of excluded
22 methods applies to FOS.

1 MR. MORTENSEN: Okay thanks.

2 MS. DE LIMA: Harriet?

3 MS. BEHAR: I don't know if it's the
4 specific chicory, but chicory is also a plant
5 that can be genetically modified and is available
6 in the marketplace. I don't know if it's the
7 same one or not, but let me just say chicory is
8 also available as a genetically modified plant,
9 but I don't know if the chicory used in making
10 inulin is the same chicory that is used -- that
11 can be genetically modified. It's been around as
12 long as genetically modified soybeans and corn.

13 MR. CHAPMAN: Yes, but again, excluded
14 methods still apply to all 606 items.

15 MS. DE LIMA: Emily?

16 MS. OAKLEY: This is another possibly
17 ignorant question. So, are there forms that are
18 derived from non-GMO sugar beets, or how would a
19 certifier verify that? That seems pretty
20 challenging, but I don't know.

21 MR. CHAPMAN: I think it's the general
22 method used to verify most ingredients, which is

1 an affidavit that's very specific around how the
2 product is manufactured, being signed by the
3 manufacturer of that substance.

4 I don't believe agave and Jerusalem
5 artichoke are genetically modified, so sources
6 from those would potentially be, you know, by
7 their nature not that way. I am not aware of any
8 FOS products conventional organic from agave; the
9 structures of those molecules that agave produces
10 the inulin is just different and doesn't lend
11 itself to the shorter chains or stability in the
12 shorter chains. I believe there is Jerusalem
13 artichoke production out there, but I think it's
14 mostly based in China.

15 MS. DE LIMA: I'll just add that I
16 believe there are, at the last supplement
17 products for sale to consumers that are made from
18 chicory that are non-GMO.

19 MR. CHAPMAN: Yes, I do know chicory
20 non-GMO FOS and inulin is widely available.

21 MS. DE LIMA: All right, no more
22 discussion?

1 Devon?

2 MR. PATTILLO: Thanks. We're still on
3 Section 205.606 and the listing is Paragraph G
4 gums, water extracted only, arabic, guar, locust
5 bean, and carob bean.

6 MS. DE LIMA: All right, so all these
7 gums are extracted from endosperm of plants via
8 water processing and then they're dried and
9 milled. They're used in various food
10 applications due to their ability to modify the
11 viscosity of products through the binding of
12 water and the generation of gelling effects.
13 They're also thickening agents. Despite having
14 some similar characteristics, not all gums are
15 interchangeable due to the structure of the gums;
16 some behave differently at different
17 temperatures, different pH ranges, physical
18 agitation, et cetera. And these gums are allowed
19 for use in organics internationally in Canada,
20 EU, Japan and by IFOAM. A public comment
21 included manufacturers and associations in
22 support of these gums, with one manufacturer

1 noting that although they do source organic guar
2 and locust, they support retaining on the
3 national list as they don't know if the organic
4 supply of these gums is adequate. During public
5 comment, the public comment webinar, one
6 manufacturer said that they were able to get
7 organic gum arabic this year, but in the past
8 it's been inconsistent, given from geographically
9 where the gum is coming from. One organization
10 thought the board should investigate whether
11 there is gum arabic that could be certified as
12 wild-crafted organic and also look into the
13 availability of organic carob/locust bean gum.
14 And there were a couple organizations that
15 requested that the gums be listed individually so
16 that in the future organic supply could be taken
17 into account for those that are produced
18 organically, and that's something we will be
19 talking about in subcommittee.

20 Any questions, discussion?

21 All right, seeing none, we'll move on.

22 MR. PATTILLO: The next listing is

1 205.606(k), lecithin de-oiled.

2 MS. DE LIMA: A-dae?

3 MS. ROMERO-BRIONES: Lecithin is a
4 substance isolated as a gum following hydration
5 of solvent extracted soy, safflower or corn oils.
6 Lecithin has a wide range of food application
7 such as emulsification release properties,
8 wetting, dispersion and texturization. The major
9 applications for lecithin include margarine,
10 chocolates, instantizing powders, release grades
11 and baked goods. It is used as a natural
12 surfactant between oil and water systems as seen
13 in margarine products. Lecithin also helps
14 modify chocolates for better enrobing and reduces
15 crystallization of cocoa fat. As an instantizing
16 agent, lecithin reduces the hydration properties
17 of powder that would otherwise clump during
18 dispersion in water and milk products. And in
19 baking the lecithin provides multi-function
20 application for emulsifying the fat in water and
21 as an anti-staling agent by inhibiting starch
22 retrogradation. The Canadian organic standard

1 lecithin bleached form is allowed when unbleached
2 form is not suitable for organic sources only.

3 And in EU organic regulation the use of lecithin
4 as a fungicide listed in the section, Substances
5 of Tropical or Animal Origin for Plant
6 Protections, and as a food additive listed in
7 section Food Additives including carriers.

8 In 2009, the NOSB meeting, several
9 experts in lecithin industry provided
10 informational presentations describing the types
11 of lecithin available and the methods of
12 manufacture of each. It was explained that it is
13 the de-oiling process, not the bleaching process
14 that differentiates the types and functionality
15 of lecithin and dictates in which products they
16 could be used. In 2009, the NOSB reviewed the
17 arguments for and against the renewal of
18 lecithin. Those in favor of renewing pointed out
19 there was insufficient supply in an organic form,
20 specifically from raw materials other than soy.
21 We had several written comments and oral comments
22 about lecithin. In general the comments were in

1 favor of relisting; some of those noted that de-
2 oiled lecithin was being produced. CCOF
3 suggested that if we removed it, it would allow
4 companies to produce the ingredient, an organic
5 form of the ingredient. Beyond Pesticides also
6 noted that what was against the relisting because
7 of the hazards associated with its production and
8 the availability of organic lecithin. And I was
9 able to talk with Zea, who previously had this
10 material, and I think her perspective. So the
11 issue is whether there are enough forms of
12 organic de-oiled lecithin in form --- from
13 sources other than soy, and there seems to be not
14 enough forms derived from ingredients other than
15 soy.

16 MS. DE LIMA: Tom?

17 MR. CHAPMAN: Yes, and I would agree
18 with that last assessment that it's really no
19 longer about de-oiled versus the oiled; it's that
20 this is kind of the last listing that would allow
21 someone to use a non-allergenic based raw
22 material, so a sunflower or canola or something

1 other than soy. It is becoming more available,
2 but the availability in my experience has been
3 quite varied now, and I don't think the market is
4 quite there yet, although I think it's getting
5 very close. And I would think maybe on the next
6 round this would not be material that would need
7 to get re-added, but it's not quite there yet. I
8 know companies in the last year who had switched
9 to an organic, de-oiled version of sunflower and
10 then have switched back because of the
11 availability issues, so it's a still a little bit
12 difficult to get even though it's starting to
13 emerge out there. Clearly the demand signals and
14 companies are starting to manufacture it. It's
15 generally a byproduct of the oil industry, and
16 so, you know, it's in all the -- you make soil
17 oil or you make sunflower oil, and it's in all
18 the stuff that remains after you've refined it,
19 you extract the lecithin from some of that stuff.
20 So there's a lot of incentive for companies to
21 commercialize this because it increases their
22 profitability because they have less byproduct

1 that gets sold into feed. They have another
2 food-grade product that has quite a nice margin
3 on it for them to sell. There's a strong
4 incentive for people to do it. It's starting to
5 happen, it's just a matter of the supply becoming
6 regularly available.

7 MS. DE LIMA: Steve?

8 MR. ELA: Thank you, Tom. This is a
9 product I just can't get my head wrapped around.
10 You just clarified a lot of it in a nutshell, so
11 I appreciate that insight. That actually helps
12 my comfort level quite a bit.

13 MS. DE LIMA: All right, Devon?

14 MR. PATTILLO: The final listing under
15 review is Section 205.606(q), tragacanth gum.

16 MS. DE LIMA: So, this gum is prepared
17 from the sap of various species of legumes. It
18 can form gels and be used as a thickener and
19 emulsifier. It's effective at low pH and at many
20 temperatures and its stability at a low pH is one
21 of its distinguishing characteristics. The
22 percentage in final products is usually low,

1 below 1 percent, and this gum is allowed for use
2 in organics internationally in Canada, EU, Japan
3 and by IFOAM. In 2014, subcommittee was unable
4 to find evidence that tragacanth was available in
5 organic form and received testimony from a
6 certifier and producer who currently used the
7 non-organic form. This time around public
8 comment was limited; one organization did oppose
9 because of potential health effects that haven't
10 been taken into account, as well as the possible
11 impacts of non-organic production. As far as the
12 health effects, I would like to point out that in
13 the 2018 Gums TR they summarized the results of
14 the European Food Safety Authority Panel and food
15 additives and nutrient sources that are added to
16 food. Tragacanth gum was looked at and the panel
17 found no need for a numerical ADI, or acceptable
18 daily intake, and had no safety concerns for the
19 general population.

20 Any discussion?

21 All right, Steve, yes.

22 MR. ELA: So I know we've talked --

1 the gums are another big class, they're not lump
2 -- well, it's like sanitizers -- I mean, there's
3 this whole group of things that we can't really
4 determine essentiality because they seem to be
5 seemingly essential. You're more an expert than
6 I am by far -- it wouldn't be hard -- but I mean,
7 are you pretty comfortable that each of these --
8 I mean, the claim is that each of these has
9 specific uses, and it seems to me that's true.
10 Is that -- I mean, am I interpreting that
11 correctly and are you comfortable with that?

12 MS. DE LIMA: I mean, from my
13 perspective of looking at the products on the
14 shelf, yes. I feel that Tom might have more like
15 a technical-technical aspect.

16 MR. CHAPMAN: Yes, I mean, I know
17 we're always kind of skeptical of the testimony
18 of the manufacturer of these substances, but I do
19 think the information submitted by CP Kelco is
20 fairly accurate in the wide applications of uses
21 for gums and how some work in certain
22 applications and some don't; whether or not that

1 constitutes essentiality is, you know, a
2 different question. But they all do function
3 different from each other and in different
4 applications. And the reason why we did the gum
5 TR altogether was to get at the do they function
6 differently and then what circumstances would you
7 use one gum versus another gum.

8 MR. ELA: So I know we have another
9 gum petition that we'll be reviewing here -- I
10 don't know if it'll be next meeting -- but I'm
11 trying to wrap my head around how do we evaluate
12 yet another gum which may have unique properties,
13 you know, in reflection of all these other gums,
14 and I guess I'm kind of looking for advice. The
15 next one is my material and I'm not feeling real
16 comfortable. I mean, I can see you read the
17 petition and it's essential, and we don't need to
18 discuss that now, but I'm still trying to
19 struggle with how do we -- like the sanitizers,
20 how do we parse out -- do we rely on the
21 manufacturers to say this is truly unique?
22 Especially, like on a new one we can't rely on

1 users because it's not approved because they're
2 not using it yet.

3 MR. CHAPMAN: Yes, I mean, when you
4 look at it, effectivity in a manufacturing
5 situation is a little bit different than
6 effectivity in a farm situation because it's
7 quite simple to do the setup and to figure out
8 under what circumstances various, different
9 products function in different ways than organic
10 versus conventional experiences on that should be
11 fairly relevant to each other. So if a
12 conventional product has certain functionality,
13 that should apply in the organic application for
14 the most part. I think the chart that we've been
15 seeing multiple times, and I think there's one in
16 the TR as well around different application uses
17 is a good one to use, and then we can see how the
18 petition substance lines up against those, and if
19 it's redundant or if it has some unique
20 properties.

21 MS. DE LIMA: I mean, I'd also just
22 add that things have changed a lot since I

1 started in retail. So like 20 years ago I'd be
2 really excited when there was like a broker
3 brought in a new product because there wasn't a
4 lot of growth in organics. And now there's so
5 many products we have to turn stuff away, and I
6 think that's a good thing. I mean, because these
7 gums are used in tiny percentages, and if we're
8 not overall concerned from an environmental
9 aspect, if we're not seeing that any of these are
10 a health aspect, then I feel like we need that --
11 if that little percentage needs to be in there,
12 then that's growing the market for organic raw
13 agricultural commodities, I think that's a great
14 thing.

15 All right, I think that wraps it up
16 for sunsets. And next up we got a petition SDBS,
17 Devon?

18 MR. PATTILLO: Sodium dodecylbenzene
19 sulfonate, or SDBS has been petitioned for use as
20 an anti-microbial for use in treating fruits and
21 vegetables in the premises of organic food retail
22 establishments. The petition was submitted by

1 Ecolab Incorporated in October 2015; in support
2 of NOSB's review of this petition, a technical
3 report was obtained and published on NOP website
4 in May 2017. Thanks.

5 MS. DE LIMA: Scott?

6 MR. RICE: Thank you. This material,
7 sodium dodecylbenzene sulfonate, SDBS, as Devon
8 just mentioned has been petitioned by Ecolab for
9 use as one of two active ingredients, the second
10 being lactic acid in an anti-microbial
11 formulation. It is administered through a sink-
12 mounted system. SDBS is manufactured from linear
13 alkylbenzene sulfonates, LAS, produced from
14 linear alkylbenzenes, LAB. SDBS is the sodium
15 salt of LAS; its manufacturing process determines
16 its composition and specific application
17 performance level. The function is to reduce the
18 number of microorganisms in fruit and vegetable
19 processed water, and on the surface of those
20 vegetables and fruits. It's proposed use is on
21 raw and processed fruits and vegetables involving
22 a minimum 90-second immersion in the wash water,

1 followed by a draining step. As noted, we first
2 received this in October 2015, initially not
3 requesting a TR. The proposal was initially
4 reviewed at the 20 -- or, excuse me, the spring
5 2016 meeting -- referred back to the
6 subcommittee as the board felt we needed a
7 technical report to make a more informed decision
8 and answer some questions that we had.

9 The TR provided additional information
10 on the manufacture, alternatives to its use and
11 potential impact on human health and the
12 environment. Existing allowance in synthetic
13 alternatives to SDBS include electrolyzed water,
14 sodium and calcium hypochlorite and peroxyacetic
15 acid. Non-synthetic alternatives include organic
16 acids, including ascorbic, citric, lactic,
17 lactates, tartaric acid, malic acid, organic
18 vinegar, also refer to acetic acid. Those non-
19 synthetics also include essential oils,
20 grapefruit seed extract and egg white lysozyme.

21 It should be noted that commenters
22 expressed the natural organic acids in oils are

1 not effective due to their flavor impact on the
2 product as well as the quantity of those acids
3 that are necessary to be effective.

4 The subcommittee's review found that
5 while the material does not have significant
6 concerns regarding human health and exposure or
7 environmental impacts, the significant
8 environmental impact concerns there still exist a
9 number of alternatives available for use. The
10 subcommittee also recognized the importance of
11 having the ability to rotate among several
12 materials in an antimicrobial regime to reduce
13 incidence of resistance. And none lessened the
14 absence of significant public comment advocating
15 for the addition of SDBS to the national list and
16 the availability of alternatives. We did not see
17 it as essential to organic production.

18 In public comments, in both this and
19 the previous time that we reviewed this material
20 when it came before the board, we received few
21 comments expressing a need for it. The Organic
22 Trade Association noted, while it received

1 substantial feedback, it did not receive comments
2 expressing the need for this material,
3 highlighting the alternatives already available.
4 Beyond Pesticides noted that while it may be one
5 of the better alternatives, it is just not
6 essential at this time.

7 The Organic Produce Wholesalers
8 Coalition recognizes that sanitizers must clearly
9 be essential for food safety in order for their
10 use to be accepted by organic consumers,
11 particularly at the retail level. That
12 organization did not think that SDBS meets that
13 benchmark. Commenters pointed to existing
14 microbials as sufficient, and as noted just a
15 moment ago, sufficient at this time.

16 Finally, several commenters pointed to
17 the importance of the NOSB's work agenda item to
18 develop questions to assess the essentiality of
19 sanitizer antimicrobial materials, and some of
20 those commenters expressing preference for doing
21 so before adding additional materials.

22 Thank you.

1 MS. DE LIMA: Discussion?

2 Tom and then Steve?

3 MR. CHAPMAN: Yes. I mean, I was part
4 of -- there were some complaints heard at this
5 meeting this time about delays on the substances,
6 and that was -- you know, I was part of some of
7 those delays in an attempt to allow for
8 operations who may want to use this substance to
9 come forward and provide information on the
10 substance's essentiality or need and there's
11 really -- I think it was really demonstrated in
12 the public comment here today that that hurdle
13 has not been met yet on this substance. So I
14 just don't see it as meeting the OFPA criteria at
15 this time because of that. It's not to say in
16 the future they won't be able to get the
17 essentiality criteria and come back with a
18 repetition, but at this time that was clearly not
19 demonstrated by the public comment received.

20 MS. DE LIMA: Steve?

21 MR. ELA: Echo -- that really was, I
22 think, my basis as well. So.

1 MS. DE LIMA: Yes, and as a retailer,
2 at least for now, we have no intention or desire
3 to use it. Emily?

4 MS. OAKLEY: I'm just thankful that
5 we've gotten the sanitizer review on our work
6 agenda and look forward to seeing how that plays
7 out in the future sunset reviews and the material
8 reviews. So I think it will be helpful for us in
9 the future.

10 MR. CHAPMAN: Seeing no further
11 discussion, we will proceed to vote on this
12 petition.

13 So the first motion is a motion to
14 classify; the motion is to classify SDBS as
15 petitioned as non-agricultural and synthetic. So
16 again, this is just a notion to classify, not the
17 motion to list. The motion came from Scott and
18 was seconded by A-dae. A yes vote is to classify
19 as non-agricultural synthetic; a no vote is to
20 not classify this substance. The voting will
21 start with A-dae.

22 MS. ROMERO-BRIONES: Yes.

1 MS. OAKLEY: Yes.

2 MS. BAIRD: Yes.

3 MR. BUIE: Yes.

4 MS. SWAFFAR: Yes.

5 MR. RICE: Yes.

6 MS. BEHAR: Yes.

7 DR. SEITZ: Yes.

8 MR. MORTENSEN: Yes.

9 MR. ELA: Yes.

10 MR. BRADMAN: Yes.

11 MS. DE LIMA: Yes. Tom?

12 MR. CHAPMAN: The chair votes yes.

13 Thirteen yes, the motion passes. All right, the
14 next motion is the listing motion, so this is a
15 motion to add SDBS as petitioned to 205.605(b),
16 so this is the listing motion. Yes vote would
17 move this proposal forward as a recommendation to
18 list; the no vote is to reject the petition. The
19 motion was made by Joelle while she was still on
20 the board and seconded by Steve. And the voting
21 will start with Emily.

22 MS. OAKLEY: No.

1 MS. BAIRD: No.

2 MR. BUIE: No.

3 MS. SWAFFAR: No.

4 MR. RICE: No.

5 MS. BEHAR: No.

6 DR. SEITZ: No.

7 MR. MORTENSEN: No.

8 MR. ELA: No.

9 MR. BRADMAN: No.

10 MS. DE LIMA: No.

11 MS. ROMERO-BRIONES: No.

12 MR. CHAPMAN: The chair votes no.

13 Zero yes, thirteen no. The motion fails.

14 MS. DE LIMA: All right, next up and
15 our last item on the agenda is the proposal from
16 the Board for reclassification of magnesium
17 chloride. So the Handling Subcommittee is
18 proposing to change the classification of
19 magnesium chloride from a non-agricultural
20 synthetic substance to a non-agricultural non-
21 synthetic substance and move the substance from
22 205.605(b) to 205.605(a), the National List.

1 Additionally, we are proposing to remove the
2 annotation derived from seawater, since there are
3 multiple sources from which non-synthetic
4 magnesium chloride can be derived. During the
5 2015 Sunset Review, magnesium chloride was
6 recommended for the continued listing, but issues
7 related to classification were raised. The
8 Handling Subcommittee requested public comment
9 during the 2015 Sunset Review and comments were
10 generally in support of reclassification. So a
11 TR was requested and received in 2016, which did
12 indicate that magnesium chloride could be
13 produced both synthetically and non-synthetically
14 and that the annotation derived from seawater can
15 apply to both. During the 2017 Sunset Review,
16 information from the TR was incorporated into the
17 review, a series of questions were posed to the
18 public requesting feedback on the impact of
19 classification in regards to feasibility of
20 moving its listing and the sufficiency of supply
21 and functionality, and again comments from
22 organizations, certifiers and manufacturers were

1 supportive of the reclassification.

2 In response to this proposal posting,
3 all the public comment was in support of
4 reclassification. OMRI and others did suggest
5 that the proposal might be helpful to include
6 which processes are non-synthetic and allowed and
7 which are synthetic and prohibited based on the
8 TR. And if we heard in public comment from OMRI
9 and OTA that although that would be helpful, it
10 could be included in the proposal or included
11 during rulemaking.

12 That is everything. Any questions or
13 discussion from the board?

14 Emily?

15 MS. OAKLEY: Sorry, I sneezed at the
16 end of what you were saying and didn't totally
17 catch that, but I also read those comments and
18 was wondering if you -- what your reaction or
19 your response was, because I thought I heard you
20 just now repeat them, but I wasn't sure if I
21 might have sneezed when you commented on them.

22 MS. DE LIMA: So they were saying that

1 citings -- there were some examples in the
2 proposal, but we didn't list out every single
3 form that would be -- process that would deem it
4 synthetic and process that would deem it non-
5 synthetic. The suggestion was to include a few
6 of those specifically like in a chart so that
7 certifiers could refer to that, but then -- and
8 we heard during public comment that that would be
9 fine also to come through from the program during
10 rulemaking to help with that implementation.

11 Tom?

12 MR. CHAPMAN: Yes, I think coming
13 through the program during rulemaking is actually
14 the better place for it to come, so it's not
15 reason for me to not move forward on this at this
16 time.

17 MS. DE LIMA: Steve?

18 MR. ELA: I guess I have the question
19 on that; the program is that -- I mean, are you
20 comfortable with that, of letting those, listing
21 the process as come through rulemaking versus
22 from the NOSB? I mean, it makes more sense -- I

1 agree with Tom, but I also don't want to throw
2 this under labs and have to go, we can't do
3 anything on it because we don't know.

4 DR. LEWIS: Right. We'll be getting
5 comments to the rulemaking process and how it
6 works.

7 MR. CHAPMAN: And just to note the
8 decision tree that decides whether something's
9 synthetic or not synthetic is a NOP decision tree
10 that they've put out that are proposed guidance,
11 the guidance -- yes, it's their guidance.

12 MS. DE LIMA: It looks like we're
13 ready to vote. Tom?

14 MR. CHAPMAN: All right. So this is
15 a reclassification motion; the motion is to
16 remove the annotation that reads, derived from
17 seawater and to reclassify magnesium chloride as
18 non-synthetic and move its listing from 605(b) to
19 605(a). The motion was made by Lisa, seconded by
20 Steve, so a yes vote would be to adopt this and
21 recommend the reclassification and the removal of
22 the annotation. The voting will start with

1 Jesse.

2 MR. BUIE: Yes.

3 MS. SWAFFAR: Yes.

4 MR. RICE: Yes.

5 MS. BEHAR: Yes.

6 DR. SEITZ: Yes.

7 MR. MORTENSEN: Yes.

8 MR. ELA: Yes.

9 MR. BRADMAN: Yes.

10 MS. DE LIMA: Yes.

11 MS. ROMERO-BRIONES: Yes.

12 MS. OAKLEY: Yes.

13 MS. BAIRD: Yes.

14 MR. CHAPMAN: Chair votes yes.

15 Thirteen yes, the motion passes.

16 Sorry Sue, I think I skipped you. You
17 should have been the first to vote. My
18 apologies.

19 MS. DE LIMA: That concludes the
20 Handling Subcommittee portion. Tom?

21 MR. CHAPMAN: All right. Thank you,
22 Lisa. Up next we have the Materials Subcommittee

1 and Harriet Behar is chair. Harriet?

2 MS. BEHAR: Okay, we have one item as
3 a discussion document before the group. And I
4 guess I need to pull it up. This is a group
5 effort, Dan Seitz is the lead. And Dave
6 Mortensen and myself have been working with Dan
7 on the -- I'll get the exact title here because
8 we're trying to be very clear about what we're
9 talking about -- Protecting the Genetic Integrity
10 of Seed Grown on Organic Land -- so, Dan?

11 MR. SEITZ: So as Harriet mentioned,
12 this was a group project, but I do have to say
13 that Harriet did the lion's share of the work on
14 this discussion document. So thank you, Harriet,
15 for doing that. We're going to present this in
16 three pieces. Harriet's going to present the
17 discussion document, Dave then is going to talk
18 a little bit generally about some of the issues
19 associated with organic seed and protecting seed
20 from genetic contamination. I'll then summarize
21 some of the -- summarize the comments that we
22 received, and then we'll open up for some general

1 discussions. So, Harriet?

2 MS. BEHAR: So this is a subject that
3 we have, as many commenters pointed out, been
4 visiting and reviewing and discussing for many
5 years and through numerous discussion documents.
6 But some of those were not with this board, and
7 so we felt that we should have kind of an updated
8 discussion document and try to get some more
9 current information. Although, I will say that
10 many of the commenters just referred back to
11 their previous comments. So we -- in the
12 discussion document we've talked about the
13 relevant areas of the rule, why we're discussing
14 this contamination of the genetic makeup of the
15 seed used on organic land, and it's not about
16 cross-pollination just in a regular sense, but
17 the contamination of seed grown on organic land
18 by genetically modified pollen.

19 So we did ask a variety of questions
20 that seemed like we were leaning towards some
21 sort of threshold levels, or at least asking
22 about those, because that does seem to be where

1 the marketplace is heading on the crop side. So
2 the finished crop is typically tested, even
3 livestock feed, but definitely human food that
4 comes from crops that are at risk for genetic
5 contamination. This document is very focused on
6 seed; we didn't really want to head down the road
7 just yet on finished product. It's just about
8 seed because this is where it all starts. And
9 there are issues that when a farmer is planting
10 seed, especially for a specific market, we feel
11 and we wondered how the public felt, if there
12 should be transparency for them on what they're
13 getting. Because if you plant a seed with 5
14 percent genetic contamination, it will never get
15 less; it could get more, but it will never get
16 less. And if they're trying to get into a market
17 that is going to test it and require it to be a
18 half of 1 percent, and they're starting at 5
19 percent, they will never make that and they will
20 spend the whole growing season using their
21 fertility products, doing their cultivation and
22 mechanical and cultural practices and spend the

1 whole season, and then not be able to sell it
2 into that preferred market. So we felt it was
3 important to see how we can deal with that issue.

4 Now, on the organic side, the organic
5 seed producers, many of them are doing testing
6 and are -- because they understand that this is
7 an issue for their buyers. However, the vast
8 majority of the seed grown on organic land is not
9 organic seed. We have been trying to get more of
10 that -- more organic seed, so -- and the non-
11 organic seed producers are not doing the testing
12 and providing that transparency, where some of
13 the organic seed producers are. Not all, but
14 some are. So we asked five questions about
15 thresholds, about transparency, about testing and
16 sampling protocols, because if we did decide that
17 we wanted testing, we needed to make sure that it
18 would be consistent of what types of tests, what
19 types of sampling, who does the sampling, because
20 this is an issue where there could be false
21 information obtained if it isn't done
22 consistently and by someone who has the knowledge

1 and the infrastructure in the case of testing
2 labs to do it correctly.

3 Okay, and so Dan is now going to --
4 no, I'm sorry, Dave is now going to talk about
5 some of the issues with that contamination that
6 can happen.

7 MR. MORTENSEN: Thanks, Harriet. So
8 we're going to talk about some of the issues and
9 a process that we're envisioning stepping
10 through. And pardon me, but I am going to read
11 some of this just so that I remain on point. The
12 issue of maintaining genetic integrity of organic
13 and non-organic seed and planting stock grown on
14 organic land and sold in the organic marketplace
15 is complex but is manageable. And the NOSB has
16 put forth discussion documents on this subject in
17 2013, 2014, 2015, 2016 and 2017. Over the course
18 of the last several days, we've reflected on the
19 value of models where dimensions of a complex
20 problem similar to the one we're dealing with be
21 carefully reviewed and studied. So it is with
22 the Organic Seed Growers Trade Association

1 protecting organic seed integrity, the Organic
2 Farmer's Handbook to GE Avoidance and Testing
3 Published Guide, and other resources have also
4 proven to be very helpful for the three of us as
5 we scoped our approach. The published procedures
6 and guidelines for what, when and how the Non-GMO
7 Project test seed has been a helpful resource as
8 we've thought through this issue.

9 So, we're thinking that an approach
10 that we're pretty fired up about pursuing so that
11 we not have this be another document to add to
12 the list, so that way we will now have 2018 and
13 '19 and '20 is as follows: we're interested in
14 scoping, number one, scoping the integrity of at-
15 risk crops cultivated by organic farmers and
16 consumed by organic consumers. This work will
17 focus both on certified organic seed, as Harriet
18 said, but also on non-treated, conventionally
19 bred, non-GMO seed. To this end, it is our
20 intent to ask seed companies and entities that
21 work to ensure the integrity of farmer client's
22 seed, for example, entities like when I just used

1 two examples here and there are many, many that
2 were represented in our room over the past
3 several days, Organic Valley, Soil Tilth and
4 others, to share their data on genetic integrity
5 of out of the bag and into the planter box seed.
6 In other words, the seed that farmers are
7 purchasing to put into their fields for the
8 growing season. It's our opinion -- and I'm off
9 script -- it's our opinion that there's lots of
10 insight and lots of data that we could pull
11 together rather quickly.

12 And during the course of this
13 conversation the three of us have met with
14 several of these groups that are working with
15 farmers that have actually willingly shared
16 their data over breakfast over the last several
17 days. So I -- so this is really encouraging and
18 I think it will be really helpful for us to sort
19 of get our heads around the scope of the
20 integrity or lack thereof.

21 The second leg on the three-legged
22 stool is that we're interested in conducting work

1 to establish, quote, unquote, out of the bag and
2 into the planter box seed purity thresholds. We
3 are not intending here to set the thresholds;
4 rather, we're interested in scoping out what they
5 would like given what we learned in one, the
6 extent of the integrity problem. And here we see
7 there are several steps. First we would focus on
8 crops at risk, Point 1.

9 Second point, we'd be interested in
10 understanding much more deeply, than we do right
11 now, the procedures and costs of implementing
12 these procedures associated with seed purity
13 thresholds. Here again, we'll assess what is
14 currently being done to meet established
15 standards set by seed breeding companies and
16 farmers working to meet non-GMO thresholds.

17 Our work will focus on the genetic
18 testing methods used, as well as the sample
19 methods that would enable us to infer to fields
20 and farms more broadly, because we all have heard
21 that the sampling of any of this stuff for
22 detecting seed impurity or pesticide residues is

1 a statistical problem that we would like to be
2 able to infer broadly from.

3 We've learned a great deal about the
4 testing methods that are being used, Point 3 of
5 the second leg of the stool. From the work we've
6 conducted thus far we know the cost associated
7 with testing will depend on the detection limit
8 of the method and what it is we're testing for.
9 On the surface of it this may seem obvious. When
10 you dig a little deeper there's more than you
11 might expect, and certainly there was more than I
12 expected.

13 For example, a typical corn hybrid
14 planted in the United States today, and this is
15 conventional corn, has been modified to express
16 at least two and as many as four or five
17 genetically modified traits: glyphosate
18 resistance, 2,4-D resistance, Banvil resistance,
19 Bt resistance for this protein or that; each of
20 those are individual assertions.

21 And while one hybrid may have these GM
22 genetic events in their genome, they're not the

1 same four or five genetic events in each and
2 every corn hybrid; there could be different ones.
3 So the so-called, which we've heard about from
4 several public testimonies during the course of
5 these last several days, the so-called nine comb
6 test we've heard mentioned a number of times is a
7 test that's actually probing for all 9 possible
8 traits that exist in maize, but any one hybrid
9 might only have two or four or five of those.
10 And so the more of these traits you're looking
11 for, the more expensive the test becomes.

12 Okay, third leg of the stool; assess
13 methods currently being used by farmers to aid in
14 documenting the genetic integrity of their
15 planted and harvested seed. Here we're
16 interested to learn the sort of practices that
17 Jake Lewin spoke about on at least three
18 occasions during the course of the last three
19 days, advocating for, during the course of the
20 sessions, taking a sample of the seed that is
21 being planted and saving that seed in the event
22 that an integrity issue is found on the back-end

1 of the field season when the crop is harvested,
2 so that you would know how much of the problem
3 arose when you planted the seed and how much of
4 the problem arose from when pollination during
5 the course of the growing season or some grain
6 handling steps on the back-end of the growing
7 season heading off to the grain mill or depending
8 on the crop. At the same time, other farmer
9 support business entities require or work with
10 farmers on seed saving on the back-end of field
11 season where farmers collect and retain a
12 designated volume of seed after harvest.
13 Interestingly, we've spoken with several farmer
14 support entities -- and I don't know the right
15 terms for this -- Organic Valley I think is a
16 farmer support entity -- there are a number of
17 these that have ongoing testing on the order of
18 200 to 300 farms per summer -- I was kind of
19 blown away by this -- where they have farmers
20 grabbing, grab samples from their fields,
21 whatever's being harvested, saving it, and then
22 the farmer support entity has folks going around

1 collecting the samples, bringing them back to a
2 central place, testing the seed, and then sharing
3 that data back with the farmers both individually
4 and anonymously through group meetings to help
5 folks gauge how we're doing on genetic purity on
6 the back-end of the field season.

7 So it's our opinion that through these
8 three thrusts, which we believe a lot of this
9 data and insight is fairly, readily out there as
10 opposed to us thinking this is like a five-year
11 project where you have to go out and do a bunch
12 of things, but actually it's harvesting what we
13 know and learning from each other by our
14 willingness to share data that we believe we will
15 have a much clearer idea of how we're doing on
16 seed integrity and where the weak spots are to be
17 targeting. And that's what I had prepared to
18 say.

19 DR. SEITZ: So what Dave just
20 presented was just some of our brainstorming
21 around this, and obviously we're very open to
22 other ideas and so forth. And I just want to now

1 take a step back and just give a little bit of a
2 context in terms of the various comments. There
3 were a ton of comments -- I mean, it was I think
4 one of the more popular things to comment on in
5 the context of this meeting, and I tried to
6 abstract a number of the key points that were
7 made often across a number of commenters.

8 So the first one was, "Are you
9 kidding? Not another discussion document." I'm
10 paraphrasing, okay. One thing that was widely
11 suggested was that we really need a task force to
12 look at this, and that data is essential. As
13 Dave was saying, one of the things that in our
14 conversations we learned and we haven't looked
15 into this further, but there may be more data out
16 there than we thought at first, so there may be
17 good sources and we don't have to just start
18 collecting data from scratch so to speak. But
19 everyone said if you're going to set a threshold
20 or a seed testing requirement, you can't do that
21 in the absence of good information. So that was
22 absolutely clear and made across many comments.

1 And again, a task force was seen as a good way to
2 go about that.

3 A number of people said that from a
4 consumer standpoint there would be an expectation
5 that organic products would generally be grown as
6 organic seed. I think probably most consumers
7 don't know that conventional seed is used and all
8 the complexity around the use of seeds involves.
9 So not everyone was necessarily in favor of seed
10 testing, but those who were said that you should
11 set a threshold, that the threshold would have to
12 be done on a crop by crop basis, and you would
13 need a very good amount of reliable data to even
14 begin to set a threshold. The point was made
15 that even within the context of an otherwise
16 processed-based system, there can be a place for
17 testing, and that there are already the
18 regulations and they're referenced in the
19 discussion document that allow for periodic
20 testing. So it may be in that context you would
21 have it.

22 But I should say, there were people

1 who said, "Well, wait a minute; do we really want
2 to go down this testing route? It could prove to
3 be a very awkward situation for farmers, and
4 farmers are trying to do the right thing, and we
5 have a processed-based system." So another
6 approach to this could be that rather than going
7 the testing route, you would go the process-based
8 route, but with the idea of continuous
9 improvement, identifying best practices for
10 maintaining the integrity of seed and so forth.
11 So that is a potential, alternate route. Most
12 people said that if you do do testing you should
13 have an approved list of tests or an agreement on
14 how testing should go about. Something mentioned
15 there may be some good international testing
16 already on the question of handling testing;
17 though there was a comment that said if you try
18 to specify too carefully, you won't allow for
19 changes in the market in terms of what might be
20 developed in regards to testing.

21 A lot of people said that a natural
22 result of testing would be some sort of seed

1 labeling, but this may be not very practical; it
2 could be really tricky to do labeling of seeds.
3 And ironically, it may lessen the access to non-
4 organic seed, because some non-organic seed
5 producers may not even want to enter into a seed
6 testing protocol. And a piece of this is that
7 whatever is done, if we do something, it has to
8 be done very carefully because you can imagine a
9 range of unintended consequences. The last thing
10 you want to do is lessen the varieties of crops
11 that are available to farmers, the variety of
12 seeds, so you don't want to disincentivize the
13 use of organic seed.

14 It was suggested that if we do
15 something, it should be done initially as a pilot
16 project just to make sure that this is something
17 that's actually practical to do. Again, there
18 was a sense that there probably is good
19 information out there about best practices in
20 terms of seed management. There's a Federal Seed
21 Act that may come into play here that has certain
22 standards around labeling and such. Dave

1 mentioned the idea of farmers routinely
2 maintaining a sample of their seed as just one
3 way of looking into this that may be low effort,
4 low expense. A number of people said that, just
5 reminded us that this discussion document also
6 relates back to the Excluded Methods document and
7 just suggested that we need to complete work on
8 that document as well. Farmers should not be
9 responsible for testing seeds; this should be a
10 certifier responsibility. And people are
11 concerned about the cost and making sure that
12 especially farmers are not saddled with
13 significant costs. OTA had extensive comments on
14 ideas about how this might be approached and a
15 number of people endorsed their comments.

16 And finally, the broader question of
17 unintended genetic trespass was there, that
18 farmers ironically who are trying to just grow
19 their crops are often, as Dave mentioned, and I
20 think Harriet as well, that if there is
21 contamination in a crop that cannot be sold as
22 organic, someone may take a major loss at the end

1 of the season. And shouldn't there be something
2 like a super fund site or other way that farmers
3 could be reimbursed rather than bearing the cost
4 of that; obviously, that's not something that we
5 have involvement with, but the idea being that it
6 would be a helpful thing just generally from a
7 policy standpoint, a political standpoint to look
8 into how you can better portion responsibility to
9 cover losses.

10 And that's a number of the comments I
11 think; though, there was a lot more subtlety, a
12 lot of, again, very thoughtful, excellent
13 suggestions and comments that were made.

14 MS. BEHAR: So just in summary I would
15 say that the organic community really sees this
16 as an important issue, and it's not an easy one
17 to solve, but we will work on it in the Material
18 Subcommittee. But I leave it open now to anyone
19 who has comments.

20 Okay, Emily?

21 MS. OAKLEY: Okay, thank you guys for
22 continuing this work and for putting so much

1 thought and effort into it. So I have two
2 thoughts; one, I really like the notion of a
3 practice-based approach as opposed to a testing-
4 based approach because I think farmers who are
5 following all the best practices that are
6 prescribed in our system absolutely cannot be
7 penalized for conditions that are out of their
8 control. And I think that actually cuts across
9 many other areas of organic production as well.
10 But secondly, the issues of thresholds feels like
11 it may be something of a moving target as
12 contamination changes over time and as
13 technologies evolve over time, I was wondering
14 what you guys thought about that or if you've
15 discussed that?

16 MR. MORTENSEN: Yes, those are two
17 really well-reasoned thoughts. So we need to do
18 things clearly as a group, so I don't want to
19 lapse, but I just started to lapse into I think,
20 right? So there is a concern that I have, so I
21 will get to just about how I see it, that the
22 trespass issue -- and for me I'm thinking about

1 pesticide drift and unwanted pollen movement --
2 it's going to be hard, in my opinion, for folks
3 to take us seriously, us in the organic
4 community, about the problem if we can't
5 demonstrate that it exists in the first place.
6 That's how I think about it, so that's that.

7 I am not personally thinking it would
8 be desirable that everybody's running around
9 having to test their seeds every time they do
10 something. I do think when you buy seed, I
11 believe the system would clean itself up a lot if
12 when we bought seed we knew it was close to pure,
13 so that when we're starting we're like, okay,
14 it's on me now, it's on me and my neighbors. And
15 that's a challenge anyway, but at least I know
16 I'm starting clean. I think our farmers should
17 know that, I want to know I'm starting clean and
18 I'll do everything I can with my neighbors to
19 keep my stuff the way I want it to be, which is
20 free of these traits. So that's on that point,
21 Emily.

22 Over the last ten years I've been --

1 you guys have heard me say this, and I don't do
2 it to brag; I do it because I've been trying to
3 prevent a deregulation of these herbicide-
4 resistant crops because I think they just are
5 really bad for agriculture and they're bad for
6 organic farmers. And I would say that organic
7 farmers are not, in my opinion, being heard or
8 taken seriously when the big issue of the dicamba
9 problem, to take an example, comes up. I heard
10 last week from a lot of people at a meeting,
11 we'll solve the dicamba problem if all the rest
12 of the conventional farmers plant dicamba-
13 resistant soybeans. And I was sitting there
14 thinking, that's the last thing that organic
15 farmers would want.

16 Because as the proportion of acres
17 treated and the amount of anything used, whether
18 it's genetically modified crops and their pollen,
19 or it's pesticide drift, it's this whole thing
20 that Silke talked about; it's a probabilistic
21 world we live in and as we increase the amount of
22 stuff we do in our neighborhood, it increases the

1 probability that I get your problem. So I
2 believe, therefore, that we will work together to
3 scope the problem of farmers having the ability
4 to start clean and then we must continue as a
5 community to work on cleaning up the
6 neighborhood, so to speak. And I think that's
7 kind of what we're going to try to do.

8 And a task force I'm sure will be
9 helpful, but we also, I think we're also feeling
10 a certain sense of urgency, if there's data
11 there, if there's folks that are willing to share
12 the data and insight and knowledge, and our --
13 this community is so rich with knowledge and
14 insight and I'm hoping that that will happen.

15 My email inbox wasn't lighting up with
16 data files last night. We should send an
17 interest to collaborate and please communicate
18 with your colleagues, interest to collaborate on
19 seed purity going into the planter box, please
20 send your interest to collaborate with our
21 subcommittee to Michelle. We would love to hear
22 from you.

1 MS. BEHAR: And just quickly to --
2 there's a lot that is market-driven, that the
3 farmer no matter what they do, they could still
4 suffer the loss of market. So there is an urgency
5 in, if they are contracting -- I mean, some
6 contracts say if you don't deliver you have to go
7 buy something and fill this contract. So someone
8 could even get a double whammy where they've
9 grown the crop out, can't deliver at the
10 threshold level that was in their contract, and
11 then has to go out and try to buy an organic crop
12 at that threshold level. So while we would
13 prefer to stay process-based, we do have to
14 somehow think about the pressures of the real
15 world in the market.

16 And Sue had a question.

17 MS. BAIRD: Several observations, and
18 I'm pretty knowledgeable about this subject
19 because I do consulting for the Non-GMO Project,
20 for clients. MOA has actually implemented a non-
21 GMO verification program based on the same
22 criterias as the Non-GMO Project for our farmers

1 as they transition to organic. So I feel like I
2 have some -- a little bit of knowledge, anyway.

3 I'm wondering why we're targeting the
4 farmers to do the testing as opposed to the seed
5 companies. I know there are strict feed and seed
6 laws of what needs to be on a seed tag, and this
7 would be an additional tag, so it couldn't go on
8 the official tag itself, but it would seem to me
9 like it would make sense that the seed company
10 who's selling that seed would be the one doing
11 the testing instead of farmers.

12 DR. SEITZ: And Sue, just to say that
13 that was a comment, that why - the farmers
14 should not be bearing the brunt of that, so that
15 was out there.

16 MR. MORTENSEN: Yes, if we gave that
17 impression, I guess I would have been the one to
18 give that impression. That was not at all what
19 we were intending.

20 MS. BAIRD: So you're talking about
21 the seed process itself?

22 MR. MORTENSEN: Yes. No, we would

1 certainly not be expecting the farmer to pay for
2 a front-end test on their seed; they would have
3 the seed companies share that data with them.

4 MS. BAIRD: Right, okay.

5 MR. MORTENSEN: And this is what you're
6 starting with. Yes, and exactly how that's
7 shared, I don't know. We don't know yet. It's a
8 tag, it's something, but maybe it's a database,
9 you can look it up. But that would be provided by
10 the -- I think, Sue, maybe I gave that impression
11 when I said pull a seed sample and planting --

12 MS. BAIRD: No, I thought that you
13 said the farmer would be pulling the seed
14 samples.

15 MR. MORTENSEN: That would be a
16 fallback option if you had a problem on the back
17 end and you would just have that to know later if
18 you needed to test it.

19 MS. BAIRD: Thanks, Dave. And I think
20 that is a good practice because if something did
21 come up and you bought it with a certain
22 tolerance level and it exceeded that, then you've

1 got the samples, just like we do in processing or
2 anything else, you keep a sample of the end
3 product, so I think that's a great practice.

4 I just texted my administrator and I
5 said what is the cost for running testing corn
6 for the nine GMO traits? I said I'm in NOSB and
7 the question just came up, and I just got an
8 answer back that the cost is about \$20 to \$25.
9 It's not real prohibitive, but -- and in defense,
10 because I thought you were going to say the
11 farmer did bear that cost -- if you're selling to
12 a non-GMO market, then the farmer does have to
13 take a test. And if it's only \$20, \$25, that's
14 not a huge amount, it's not onerous to the
15 farmer. It's just one more expense the farmer
16 has to pay, but non-GMO farmers who sell their
17 crops at non-GMO markets don't get even close to
18 the same premium that an organic farmer does.
19 And they absorb that cost so they can sell their
20 seeds, or their grains. So I really appreciate
21 you guys tackling this; it is a huge issue.

22 One of my farmers when I was a

1 certifier -- and you know, I'm a storyteller.
2 I'm sorry; I always have to tell stories -- but
3 this farm had never been anything but organic.
4 The father raised it as organic, it had been in
5 generations of farmers, and the farmer always
6 bought organic seeds. Did his dead level. The
7 neighbor who was a chemical farmer hired - MFA,
8 it's just a - anyway, to go in and spray his
9 fields and the contractor who was running the rig
10 turned south instead of north or whatever, turned
11 the opposite direction of the way he was supposed
12 to turn and sprayed down John's field that had
13 never been anything but organic, used/bought
14 organic grain and I was amazed by the fact that
15 every four foot there was still soybeans
16 standing. So that is an indication of how
17 contaminated our organic seeds are.

18 So thank you, guys. Just an
19 observation. I'd love to have you guys on this.
20 It is something I really do a lot of work with.

21 MS. BEHAR: One other thing; the idea
22 of transparency on the seed tag on whatever level

1 without a threshold actually came from -- I did a
2 workshop at the Organic Seed Grower's Conference
3 in Oregon this year and a group of, I think about
4 35 or 40 seed producers really did not like the
5 idea of a strict threshold, but felt that
6 transparency was something that they were happy
7 to do and would go a long way towards trying to
8 build some of that database of what is the actual
9 contamination problem that we have. There was
10 also, I think, discussion too of perhaps looking
11 at one crop as a pilot crop and really focusing
12 on that to help us determine the issues before we
13 looked at the wider range of -- so we'll be
14 looking at that as well.

15 I'm trying -- so that'll be kind of on
16 our work agenda, so it's a big issue to put our
17 heads around, but from the farmer level all the
18 way to the consumer and everybody in between, we
19 absolutely need to look at this issue and figure
20 out a way to have some assurance in that whole
21 supply chain that we're doing everything we can
22 to be transparent and seek solutions.

1 MR. MORTENSEN: I guess there's one
2 other thing that's been running through -- excuse
3 me, Sue --

4 MS. BAIRD: Well, I just -- yes, I'm
5 sorry; I was just responding -- I think this is
6 akin to us being transparent about fraud.

7 MR. MORTENSEN: Yes.

8 MS. BAIRD: I mean, we're just trying
9 to be, up-front.

10 MR. MORTENSEN: Yes, another thing
11 that's occurred to me, so several folks in the
12 room - and some of whom have had to leave by
13 now, but -- served on the AC21, this was a
14 national committee that looked at the ability of
15 organic farmers and conventional farmers to co-
16 exist on the landscape, the so-called Coexistence
17 Task Force that I think went on for two or three
18 years. I think the way I see this, my view is
19 it's like a big experiment that's been unfolding
20 over the last number of years, and I think it
21 would be awesome if we could learn from where
22 we're making mistakes and correct them now and

1 take coexistence way more seriously before other
2 crops come online that are transformed like our
3 vegetables and fruits, and where we've got pollen
4 vectors like bees that fly miles in distance in a
5 day. I just think it'd be great if we could learn
6 now from what we know, what do we know, what
7 don't we know, and then we as a community of
8 practitioners will know where to focus our effort
9 on policy as we go forward.

10 MS. BEHAR: Any other -- A-dae?

11 MS. ROMERO-BRIONES: I think -- and
12 this issue has been on the forefront of
13 indigenous communities for a long time in the
14 protection of indigenous seeds. And I'm always
15 very cautious about data gathering, especially at
16 the level that we sit, and because we would be
17 gathering data publicly that would be shared
18 publicly. And from the indigenous experience
19 trying to protect seeds, conventional seed
20 companies are not always the most even-handed
21 when they're looking at market opportunities for
22 growth.

1 And so we should be very cautious
2 about protecting that information that farmers
3 may give us about seeds, and I don't know if
4 there is a process in which we could protect that
5 information, but any information we gather may be
6 information about the organic community, but it's
7 also information that can be used largely in the
8 market by conventional seed companies to focus
9 their efforts on expanding their markets into
10 this community.

11 MR. MORTENSEN: Good point. Thank
12 you, A-dae; that's very good point.

13 MS. BEHAR: Anyone else? Or
14 discussion? And of course, if anyone wants to
15 join with us and help, we welcome that.

16 That was the only item on the agenda
17 for the Materials Subcommittee.

18 MR. CHAPMAN: Thank you, Harriet. So
19 it's 3:22; we are going to very briefly recess,
20 and then we'll come back and look at the work
21 agenda. If the executive members could come back
22 here and join me before recess. So we will come

1 back, let's call it 3:35; that's like 13 minutes.
2 Let's do it promptly then and hopefully we can
3 end on time.

4 So we're in recess.

5 (Whereupon, the above-entitled matter
6 went off the record at 3:22 and resumed at 3:40
7 p.m.)

8 MR. CHAPMAN: All right, everybody, if
9 the members could take their seats. We're about
10 to get started. This will be really quick and
11 then we'll be done, and then conversations can
12 continue indefinitely.

13 I am not being heard. All right, do I
14 need to get my gavel?

15 If members of the public can please
16 quiet down. We're almost done. And if members
17 of the Board can please take their seats. This
18 includes Dave Mortensen, can you take your seat
19 please?

20 All right, we are back in session. We
21 have very little to go over still; we're just
22 going to review the active work agenda and we're

1 going to go a little bit differently than in the
2 past, so I am going to review where we're at on
3 various matters by type. So sunset petition, NOP
4 or NOSB requests that's being projected on the
5 screen right now; this is the same document
6 that's been edited down a little bit, but it's
7 the same document that we published on a periodic
8 basis on the website. And that will be updated
9 in the future.

10 It's meant to give the public and the
11 board just some transparency into what's coming
12 up. You'll see stuff classified as fall 2018,
13 spring 2019 or TBD, TBD means we don't know the
14 timing right now. And we'll discuss a couple of
15 items in a little bit more detail to give some
16 sense of where things are at.

17 I ask all of the committee chairs if
18 I skip over anything or if we need to provide a
19 little bit more detail as we're on your section,
20 please speak up and we will discuss that. So
21 right now I'm going to filter to sunset items.
22 So all the items that were reviewed at this

1 meeting will be going back to the subcommittees
2 so they can finalize their sunset reviews and all
3 of those materials will come back to the fall
4 2018 meeting for a vote. So all 41 of them right
5 there.

6 Any questions on the sunset materials
7 for 2018?

8 We have also added the 2019 sunset
9 materials to our work agenda and there are 54 of
10 those. The 29 sunset materials are - right now
11 we are determining TR requests for them in
12 preparation for the spring 2019 first sunset
13 review, preliminary sunset review, what we just
14 did today for 2018. So nothing on these will
15 come forward in the fall, but the subcommittees
16 are working on reviewing what areas that we need
17 more technical information on.

18 Is there any questions or any
19 statements from Board members? Okay, so that is
20 all of the sunset materials.

21 Up next we'll review petitions, and
22 there are several petitions that we're expecting

1 to come forward in the fall for votes; they
2 include -- and correct me if I say these wrong --
3 allyl isothiocyanate -- yes, close enough --
4 AITC, sodium citrate, natamycin -- those are all
5 crop materials and we're expecting the
6 subcommittee to be able to bring them forward as
7 proposals in the fall. On the Handling
8 Subcommittee, sodium chlorite for the generation
9 of chlorine dioxide gas, Japonese peppers,
10 Ethiopian peppers, and tamarind seed gum. We
11 expect to bring all of those forward in the fall
12 for a vote.

13 We also have several that we are
14 waiting for technical reviews, so our next step
15 on those would be to do a technical review
16 sufficiency determination, and those include
17 ammonium citrate for Crops, ammonium glycinate
18 for Crops, calcium acetate for Crops, silver
19 dihydrogen citrate for Handling, pullulan for
20 Handling, and oxalic acid for Livestock.

21 So these still may come forward in the
22 fall; it really matters on when we get the

1 technical review in hand and determine its
2 sufficiency. The earlier we get that, you may
3 see some of these turn to fall 2018; if they come
4 later after the fall 2018 cut-off, then they will
5 be at a later date. We also have collagen gel
6 for casings for Handling that we have just
7 received the petition, but we have not yet
8 determined sufficiency in the subcommittee, so
9 that's also an item that's TBD on its next steps.

10 Any questions on the status of
11 petitions?

12 This doesn't include any petitions,
13 just so people are clear, on substances that
14 haven't run through the NOP portion of the
15 petition process. So there may be some additional
16 petitions that are running through the process
17 that the NOP is still doing their work on, and as
18 those come through they will be added to our work
19 agenda to determine petition sufficiency.

20 All right, up next I'm going to look
21 really briefly at NOP requested work agenda
22 items, and these include the imports item that we

1 spent a lot of time on this meeting. Right now
2 we will be bringing something back in the fall,
3 not 75 proposals. We need to figure out which
4 areas we're going to focus on and then what form
5 we're going to bring those back in. So what we
6 can say now is that we will be bringing stuff
7 back in the fall, but based on subcommittee
8 discussions we'll determine what it is and in
9 what format, be it proposals, discussion
10 documents, or both. It will likely be both.

11 We also still have the packaging
12 substance for use in food handling including BPA,
13 and in that we're working to finalize a
14 discussion document, so we know that the next
15 action will be a discussion document, but we
16 haven't determined yet when we'll be bringing
17 that forward.

18 Up next is NOSB-initiated items; so
19 biodegradable, bio-based mulch is still there for
20 Crops, it's a TBD as we're waiting for additional
21 research information. We also have the
22 strengthening and clarifying requirements for

1 organic seed. We expect to bring a proposal, so
2 the next step would be for the subcommittee to
3 draft a proposal, but we are expecting to bring a
4 proposal in the fall on that item.

5 Nutrient vitamins and minerals,
6 annotation change, again that's with the Handling
7 Committee and we have not determined our next
8 steps on this item, so still at a TBD and we do
9 not expect to bring anything forward in the fall.

10 Marine materials -- this should be
11 discussion -- sorry, I was going back and forth
12 with the lead on this, whether it's going to be a
13 proposal or a discussion document, but it will be
14 a discussion document coming back in the fall on
15 this material. Just for clarity, we did combine
16 the Handling and Crops versions of these and we
17 put it together on the materials. Okay, but it
18 may focus in the future on just crops.

19 Protecting the genetic integrity of
20 seed grown on organic land, that was the
21 discussion that we just had. And the
22 subcommittee expects to bring that work back as a

1 proposal in the fall as well.

2 Contamination of farm inputs remains
3 on the agenda, and the next step would be a
4 discussion document, but we don't believe we'll
5 have a work product to bring back in the fall.

6 Excluded methods terminology remains
7 on the work agenda and we do expect to bring
8 forward a proposal in the fall.

9 And then sanitizers essentiality
10 criteria review was recently added to the
11 subcommittee and we're having discussions on what
12 products will be brought forward and on what
13 timeline.

14 Any questions, statements?

15 And we have other -- those were kind
16 of the two standing items, every fall we bring
17 forward the research priorities and we expect to
18 bring that forward at the fall for a vote as
19 well. And then we also have a standing review of
20 our Policies and Procedures Manual and we're
21 waiting to accumulate enough changes to justify
22 bringing that forward.

1 Dan, correct me if I'm wrong, but I
2 don't expect we're bringing anything forward in
3 the fall right now, on the PPM?

4 Yes, and that is it. So that is our
5 current active work agenda in its totality.
6 Again, look for updates on a periodic basis on
7 the NOP website. There are 121 active items on
8 our work agenda, so we are quite busy, although
9 the vast majority of those are substance reviews.

10 So any other questions on the work
11 agenda?

12 Yes?

13 MS. OAKLEY: The items that are not
14 high priority or active right now, including
15 inerts, I just wanted to ask the Program if there
16 is any potential for movement on this because we
17 have two people on our Board right now who are
18 very expert in this material or these materials,
19 and who have an active interest in taking the
20 time to work on it, and I was wondering if
21 there's any way that we could move that to a more
22 active position on the work agenda?

1 DR. LEWIS: Sure. So thanks, Emily.
2 I know that this is a topic that we've heard from
3 the Board and from the public commenters today
4 and previous meetings. There's only so much
5 resources that we have in our program in terms of
6 managing the activities that we have to focus on
7 now. Let me kind of have conversations back with
8 folks and think about this, but I want to at
9 least recognize in terms of something you brought
10 up and others here, over time.

11 MR. MORTENSEN: I wonder on that
12 subject, I'll just raise the question; I think
13 one of the steps was the bridging step of
14 identifying the EPA resource person or people
15 that we could just talk to and just say, let's
16 just get a conversation started. But, would that
17 be possible?

18 DR. LEWIS: Right. If I remember, I
19 think the Board previously had a presentation
20 from the skill leadership. I think maybe, Tom,
21 you were on the Board when that happened, but
22 there was a presentation by EPA on that. Again,

1 there is a person in EPA who we interact with all
2 the time; what you've been hearing overall during
3 the past several days from Jenny and the
4 secretary and others in terms of there's only so
5 many resources, you heard about the priorities
6 that the Department wants to move forward on, but
7 I appreciate in terms of you kind of sharing
8 that.

9 MR. CHAPMAN: We've passed a proposal
10 on how to move forward on inerts and it's really
11 in the Program's hands to take forward. It's not
12 like we need to provide more clarity and our
13 position is pretty clear, I think, in relation to
14 the skill list, but since that time there's been
15 -- it's again, one of those recommendations
16 that's kind of in their hands, and we had this
17 inert working group that NOSB members were a part
18 of just to ensure that the progress was going
19 forward. And that's the part that we're still at
20 right now.

21 Harriet?

22 MS. BEHAR: Well, for inerts we are

1 living with an obsolete listing and it is
2 somewhat damaging the innovation -- damaging the
3 innovation that input suppliers can do for
4 organic because there's this static list of
5 inerts and there could be new ones available, but
6 they technically couldn't use them.

7 And then I'd also like to bring up
8 just because -- in some things I can be a bulldog
9 -- and that is the field and greenhouse container
10 work. We did hear from numerous public
11 commenters, this is not strictly a hydroponic
12 issue and the use of containers has grown a lot
13 in organic agriculture without any oversight or
14 standard. And that was discussed at the NOC
15 meeting and numerous -- so just to reiterate that
16 -- I know that's not a priority for this
17 administration, but I would like to let the
18 administration know that at least some of us
19 still want this and there are numerous public
20 commenters that would like us to keep working on
21 that issue, too.

22 DR. TUCKER: Okay. Thank you,

1 Harriet. On this one I think, again I'll be -- I
2 said I'd be honest, so I'll be honest. I think
3 on this one, and I've said this to a number of
4 folks sort of offline so I'm okay with saying it
5 into the record; the container item, when we sort
6 of look at the history of the container item, it
7 really did evolve from the hydroponic source. So
8 I understand that it's not just directly related
9 to hydroponics, but the item on the work plan
10 itself really emerged from that discussion.

11 At this point in the game we do not
12 see bringing that back onto the work agenda in
13 the near term. We - you said that there were
14 questions about oversight. These folks are
15 certified and USDA supports their certification,
16 and so certifying agents are overseeing them.
17 Like all production practices, we look for
18 whether there are inconsistencies across
19 different operations and where there are
20 inconsistencies, if there is a need for
21 clarification either on the regulations or
22 through training, we will pursue that. But at

1 this point in time right now we do not see a need
2 to put that on the work agenda. I think right
3 now we need to let this issue rest for a bit.

4 MS. BEHAR: I'm not arguing that there
5 are certain parts, like the fertility inputs
6 they're using, but we don't have any standards
7 for artificial light, we don't have any standards
8 for recycling of pots and things like that --
9 recycling of pots and artificial light and there
10 are a few other issues, too, that have come up
11 that are specific to this method of production.

12 So right now our standard is mute and
13 we do have some inconsistency especially among
14 certifiers, some that will not certify operations
15 at all and others that will. And so there is
16 encouragement of certifier shopping and that sort
17 of thing. So I respect where the administration
18 stays, but I guess I will keep bringing it up as
19 well.

20 MR. CHAPMAN: Ashley?

21 DR. SEITZ: Actually, just a question
22 out of curiosity; when there is an area where

1 there aren't many standards and the Program is
2 seeing inconsistent enforcement, what's the --
3 how do you approach that?

4 DR. TUCKER: So working outside containers
5 for a moment in the more abstract, right. The way
6 that works is AIA, Accreditation International
7 Activities Division, there are a number of
8 auditors and they're doing most of the audits now
9 that they go out and do witness audits, they do
10 audits in the certifier shop, and then they come
11 back and they share experiences with each other,
12 and then over time we keep a list of areas where
13 we'll often start with training. So we keep a
14 running list of the topics that need to be
15 covered at the next certifier training, which
16 happens every February.

17 We also keep a list of topics for
18 potential webinars with certifiers and topics
19 where sometimes we just need to send out a
20 clarifying email. So that's really an ongoing
21 process. Audit reports are always reviewed by
22 somebody that didn't write the audit report, so

1 they're observing what are the non-compliances
2 and then we do a review of all non-compliances
3 every year to see what are the common problems
4 that are being -- and that frames the training
5 that we do.

6 DR. SEITZ: So would in some cases NOP
7 supply, you might say the missing details, so
8 there's a wide variety of practices and NOP says,
9 we see that we need a little bit more specificity
10 here in order to have consistency. Might that
11 happen through an NOP action issuing the guidance
12 or something?

13 DR. TUCKER: Yes, so sometimes -- so
14 we've mentioned before that guidance instructions
15 usually come through the Board first. There are
16 times where we have done instructions where it's
17 been out of that audit check process and not
18 necessarily out of a recommendation from the
19 Board, so I think both forms are important for
20 feedback to the Program on where stuff is needed.
21 We have to be very careful that we don't do
22 guidance or instructions that introduces new

1 requirements beyond the regulations, so that's
2 always a part where we have to keep an eye out.

3 MR. CHAPMAN: Ashley?

4 MS. SWAFFAR: I just want to mention
5 that I feel like we're going to get really bored
6 in Livestock. We have one thing, one petition,
7 so if anyone wants to petition anything, please
8 feel free. And I would like to remind the
9 program that we do not have apiculture or
10 aquaculture standards, and we are ready and
11 willing to work on those if you so wish for us
12 to.

13 MR. CHAPMAN: Great. Harriet?

14 MS. BEHAR: And I second that, and
15 especially in apiculture there's definitely a
16 great difference in standards and there are
17 certifiers certifying organic honey and organic
18 wax, beeswax, and organic pollen collected from
19 bees and the standards are very different. There
20 was a -- and I talked to Paul about this, and I
21 said, I am sitting here ready to help. I believe
22 it was pretty close to being done, and so it

1 would be nice to get a few more things over the
2 finish line.

3 MS. SWAFFAR: I just can't wait to
4 determine how we're going to do an identification
5 system on all those little bees out there.

6 DR. TUCKER: Apiculture was -- every
7 six months or so the OMB releases its regulatory
8 agenda. The spring regulatory agenda will be
9 coming out and it will list the administration's
10 priorities for the next six months.

11 MR. CHAPMAN: Okay, I think that's it.
12 And for all of you bored Livestock, we've got
13 like 75 questions in areas for imports, so if you
14 guys want to come over to CACS, we're again,
15 taking applicants.

16 MS. SWAFFAR: You already made me do
17 that.

18 MR. CHAPMAN: I know. The Chair does
19 strong-arm from time to time.

20 Okay, I think that concludes our
21 discussion of the work agenda and that is
22 bringing us near the end of our agenda. We have

1 no incoming members present, unfortunately, but
2 we will have them at the next meeting, so there
3 is no business there. We had no deferred
4 proposals or final votes to take, and so that
5 takes us to any other business or closing
6 remarks.

7 So at this time I just want to make
8 one quick announcement that the -- I'm going to
9 get it wrong -- the proposed changes to the
10 National List for livestock and handling that
11 were petitioned items at the fall 2017 meeting
12 were just published today. The announcement went
13 out, and so please look for that in your email or
14 on the website.

15 DR. LEWIS: There was a note that went
16 out in The Organic Insider, basically provides a
17 brief description of the two materials, that's
18 part of that proposed rule. So I encourage you
19 to look at that and provide comments on the
20 proposed rule.

21 MR. CHAPMAN: I do appreciate the
22 response time on these materials; clearly vastly

1 improved from some of the items that were
2 published in the January items. So clearly the
3 Program is expediting the review of these after
4 we do our work, and that is greatly appreciated.
5 So, thank you.

6 And with that, I don't think --

7 MR. MORTENSEN: Tom, I have one more
8 thought.

9 MR. CHAPMAN: Yes.

10 MR. MORTENSEN: I just wanted to thank
11 you guys, whoever was responsible for the panels.
12 I thought that was just really valuable and
13 really well done and really enriched not only the
14 whole process here, but as a Board member I
15 learned a great deal. And thank you to everybody
16 that put that together.

17 MR. CHAPMAN: Thank you, Dave. Yes,
18 it was definitely a team effort with everybody a
19 and a big thanks to Jenny who was very
20 instrumental in getting that on our agenda and
21 making it happen.

22 With that, I don't think people want

1 to hear anymore of me talking at all, so I am
2 going to hand it over to Ruihong for any closing
3 remarks.

4 Oh sorry. Sue, did you want to say
5 something?

6 MS. BAIRD: Yes, I gave you all
7 inaccurate information and I wanted to clarify; I
8 got a follow-up email and that was \$20 per comb,
9 per trait, so it would be \$180.

10 MR. CHAPMAN: Gotcha. Thank you.

11 MS. GUO: Thank you, Tom. First of
12 all, I'd like to thank you, Tom, for your great
13 leadership and facilitation to make this meeting
14 such a successful one. I haven't attended one
15 for a while and I feel that it's my great honor
16 and fortune to be here for the last three days to
17 work with you and witness how our process works.
18 Thank you, Board members, for your dedication and
19 commitment and you do have a lot of great
20 physical stamina, too. I really admire you. You
21 just demonstrate the passion and dedication.

22 Thank you to our audience

1 participants. Your numbers dwindled, but some of
2 you stayed with us. And it's good to have -- the
3 crowd makes this more fun.

4 And then lastly, thank you NOP staff,
5 Jenny and Paul, and especially Michelle. Thank
6 you so much.

7 (Applause.)

8 And everybody travel safely. So, the
9 meeting is adjourned. Oh, Tom, you say that.

10 MR. CHAPMAN: The meeting is adjourned.

11 Thank you, everybody.

12 (Applause.)

13 (Whereupon, the above-entitled matter
14 went off the record at 4:04 p.m.)

15

16

17

18

19

20

21

22

A

- A-** 136:10
A-Dae 1:18 54:21 62:17
65:1,2,18,19 66:2
68:6 119:15 200:11
200:12 202:14 203:7
210:22 227:2 242:18
242:21 279:10 280:12
A-dae's 70:15 72:16
a.m 1:9 4:2 75:7,8
abilities 6:21
ability 15:14 30:17
113:10 225:10 239:11
271:3 278:14
able 7:11 11:19 13:20
14:16 26:17 27:12
42:13 47:16 48:16
69:10,11 114:10
143:2 157:13 205:18
205:20 226:6 229:9
241:16 253:1 258:2
284:6
above-entitled 75:6
281:5 302:13
absence 5:19 212:5
239:14 262:21
absent 38:14 40:1 55:5
74:19
absolute 109:9
absolutely 15:10 18:5
25:11 33:14 111:5
133:22 149:5 167:18
262:22 268:6 277:19
absorb 275:19
absorbing 106:7
absorption 209:2
abstain 177:10,15
abstained 54:22 55:1,2
55:5
abstract 262:6 295:5
AC21 278:13
ACA 6:19
academic 7:6 162:7
acaricide 110:2 121:15
123:18 178:11 186:2
acaricides 102:10
accept 198:20 199:5
acceptable 44:13 93:4
161:12 232:17
accepted 180:2 240:10
accepting 71:14
access 13:8 21:11,13
48:16 49:6 72:20 73:4
115:11 265:3
accessible 47:22 73:5
accompanying 49:18
account 12:6,8 226:17
232:10
- accounts** 105:4
accreditation 3:3 8:17
9:1 18:18 19:4,16
22:3,6 26:16,19 50:13
295:6
accredited 5:14 8:21
accumulate 288:21
accumulation 149:13
155:15
accuracy 14:4
accurate 233:20
accustomed 84:8
acetate 284:18
acetic 238:18
achieve 214:19
achieved 8:16 107:2
acid 124:5 127:3,4,18
127:20 128:2,3,16
137:14 138:9 139:5
185:17,19,19 210:20
211:2 237:10 238:15
238:17,17,18 284:20
acidity 191:7 211:16,22
acids 127:19,22 179:20
238:16,22 239:2
acknowledges 167:17
acres 64:11 156:3
270:16
act 46:21 91:2 208:7
265:21
acted 99:19
acting 2:12 106:2
action 82:20 124:9,12
124:15 125:7 154:9
286:15 296:11
active 237:9 281:22
289:5,7,14,19,22
actively 73:2
activities 62:2 75:22
90:19 290:6 295:7
activity 46:16 61:9,18
76:2
actual 100:21 126:10
182:1 277:8
acute 78:16 116:11,14
154:13 180:12
add 29:22 48:17 73:15
73:19 79:21 91:10
107:11 108:9 176:15
178:6,7,8 181:18
188:5 224:15 235:22
243:15 255:11
added 30:17 80:10 82:1
88:15 91:12 199:21
216:13 232:15 283:8
285:18 288:10
addendums 152:5
adding 59:17 87:18
99:17 100:5 101:21
175:4 210:7 240:21
addition 46:19 51:9,17
60:16 63:14 101:7
139:16 153:7 239:15
additional 80:22 97:1
199:8 218:6 238:9
240:21 273:7 285:15
286:20
Additionally 48:2 245:1
additive 191:11 211:18
228:6
additives 210:12 228:7
232:15
address 49:4 60:3
66:19 70:2 71:14 72:1
73:9 93:9 97:8 101:9
134:7,8 183:2 197:20
198:7 218:19
addressed 41:21 50:15
142:13 194:19
addresses 55:20 67:10
67:13
addressing 57:14,15
71:13
adequate 118:6 143:8
226:4
adherence 155:1
ADI 232:17
adjoining 48:8
adjourned 302:9,10
adjust 137:21 221:7
adjusted 127:2
adjustments 221:8,11
administered 237:11
administration 292:17
292:18 294:17
administration's 298:9
administrator 2:12,16
275:4
admire 301:20
admit 115:19
adopt 54:3 73:14 74:4
188:9 248:20
adopted 50:6 164:2
adoption 171:7 184:11
193:16
adult 124:18
adverse 122:12 129:7
139:2
adversely 122:18
advertised 194:14,17
advertisement 195:1
advice 234:14
advise 37:4
advisory 2:10 14:3
advocacy 92:16 181:22
advocate 98:4
- advocating** 239:14
259:19
affect 63:15 64:16
82:20 101:16 122:19
142:14
affidavit 224:1
ag 115:15 116:2,4
205:12
agave 219:10 224:4,8,9
age 31:1
agencies 41:20 64:20
64:20
agency 17:18 51:8
64:19
agenda 4:10 40:4 76:17
77:1,3 91:10 133:4
136:6 150:7 151:3
195:16 240:17 242:6
244:15 277:16 280:16
280:21 281:22 283:9
285:19,21 288:3,7
289:5,8,11,22 293:12
294:2 298:8,8,21,22
300:20
agent 155:20 186:3
191:10,10 196:2
208:8 210:4 211:18
211:21 212:5 216:17
216:17 227:16,21
agents 191:9,9 225:13
293:16
ages 110:11
agitation 225:18
ago 58:16 85:7,20
207:13 236:1 240:15
agree 16:22 22:21 24:6
25:13 34:4 57:22
88:21 108:19 120:15
157:22 165:3 166:22
169:11 171:18 183:8
184:3 229:17 248:1
agreed 6:17 87:6
agreement 9:21 61:8
99:6 264:13
agrees 37:13
agricultural 2:13 41:12
46:3 49:12 62:8 64:12
64:13 71:8 78:5
209:17,19 216:7
217:4,7,14,17 222:19
236:13
agriculture 1:1 69:4
111:12 112:1 116:20
123:5 133:19 180:18
270:5 292:13
agro-ecological 61:14
ahead 178:21
AIA 295:6

- aid** 45:4 51:2 141:22
 142:3 259:13
aids 143:13
aiming 71:7
air 78:15 91:2 98:9
 113:10 117:20 192:2
AITC 284:4
akin 278:6
albuterol 113:4
alcohol 213:14
alcohols 78:1 79:15
alfalfas 59:7
algae 131:3
algicide 77:20 79:3
 80:8
alginate 202:5 220:17
alginates 200:19,21
 201:4,7,10,22 202:6
aligned 201:14
alkali 211:15
alkaline 110:22 138:8
 139:14 212:9
alkylbenzene 237:13
alkylbenzenes 237:14
allergens 213:9
allergies 213:5
alleviate 62:14
alleviated 56:15
allow 7:4 15:6 48:22
 84:2 87:2 142:8
 151:20 229:3,20
 241:7 263:19 264:18
allowance 238:12
allowed 50:4 60:18
 92:10 124:14 138:5
 184:5 188:7 190:20
 191:2 194:16 197:18
 198:6 200:10,16
 202:1 203:5,17,17
 209:15 210:1 215:5
 215:20 216:7 225:18
 228:1 232:1 246:6
allows 171:20
allyl 284:3
altered 52:9 53:11
 166:19
altering 106:6
alternate 264:11
alternative 80:12
 107:18 155:11,14
alternatives 104:11
 107:7 143:5 153:16
 169:20 185:17 208:13
 208:18,20 209:7,11
 238:10,13,15 239:9
 239:16 240:3,5
altogether 234:5
aluminum 203:9
- amazed** 276:14
amend 36:1 37:17
 52:21 53:1,3 54:4
 73:19
amended 74:5
amendment 36:17
 37:21 52:21 54:2,3,8
 56:14 73:15 109:17
 110:3,4 186:16
amendments 62:14
 127:1 137:14 186:2
America 64:10
American 171:22
amidst 122:13
ammonium 284:17,17
amount 92:6 94:20
 103:5 127:3 141:11
 159:9 170:15 193:6
 263:13 270:17,21
 275:14
amounts 118:6 193:5
AMS 12:2
analyses 113:20
analysis 112:17 113:6
 171:12
and/or 7:6
anecdotal 146:4,22
anecdotally 115:14
angle 142:8
animal 44:11 46:13
 49:17,19 113:17,21
 228:5
animals 48:22 124:7
annotation 85:11 86:12
 86:14,20 87:6,7,19
 89:7,16 90:3,4 91:10
 96:6 101:9 102:6
 131:9,19 133:3,4
 136:5,5 151:1,8,15
 192:17 193:17 245:2
 245:14 248:16,22
 287:6
annotations 86:13
 96:12
announcement 299:8
 299:12
annual 97:11
anonymously 261:4
answer 238:8 275:8
answered 92:8 157:18
answers 148:4
antacid 191:7
anti-microbial 236:20
 237:10
anti-staling 227:21
anticaking 191:9
anticipate 46:1
antimicrobial 239:12
- 240:19
Anybody 90:5 106:20
 143:10 187:19
anybody's 148:2
anymore 14:21 198:21
 301:1
anyway 17:1 269:15
 273:2 276:8
apiculture 297:9,15
 298:6
Apis 62:4
apologies 156:19
 249:18
apologize 116:8 156:17
appear 109:14 191:1
 200:15
Appendix 182:13
applaud 76:6
applause 189:14,17
 302:7,12
apple 156:1 213:18
applicability 123:4
 222:21
applicable 90:9 171:15
 222:20
applicants 298:15
application 41:2 50:12
 114:15 115:21 120:21
 125:16 140:4,5
 153:12 171:7 181:11
 183:12 227:6,20
 235:13,16 237:16
applications 115:8
 138:15 225:10 227:9
 233:20,22 234:4
applied 41:4 102:21
 140:3 149:12 174:16
applies 222:22
apply 84:14 183:1
 193:17 222:18 223:14
 235:13 245:15
applying 138:14
appreciate 30:1,16 57:1
 57:5 60:2 65:3 70:15
 101:5 118:3 186:12
 187:3,10 189:16
 231:11 275:20 291:7
 299:21
appreciated 30:14
 300:4
apprentice 32:9
apprenticed 32:1
apprenticeship 30:15
 30:18 31:13
apprenticeships 31:19
 32:4
approach 7:12 92:4
 163:3 255:5,9 264:6
- 268:3,4 295:3
approached 6:5 266:14
appropriate 51:8
 119:10 158:12,14
appropriately 121:10
appropriations 21:1
approval 156:5
approve 35:12 36:10
 38:16 39:10 54:7
 115:3 158:14
approved 35:15 79:8
 86:18 108:16 123:20
 163:19 164:5 178:11
 181:4 183:18 198:4
 235:1 264:13
approving 181:7,8,9
 184:1,2 186:11
approximately 156:2
April 1:7 78:19 154:5
aquaculture 297:10
aqueous 102:5,13
 103:2
arabic 208:17 225:4
 226:7,11
area 18:13 20:21 27:18
 39:4,6 42:8 43:8 47:5
 57:17 59:11 63:12
 100:11 108:22 139:12
 153:12 165:16 209:2
 221:9 294:22
areas 6:2 28:11 29:14
 43:21 44:10 49:7
 52:10 53:12 99:11
 172:20 251:13 268:9
 283:16 286:4 295:12
 298:13
argued 67:13
arguing 294:4
argument 64:4 167:6
arguments 228:17
arises 221:21
Arizona 1:9
Arkansas 58:10 66:16
aromatic 200:1
arose 260:3,4
array 171:14
ARSENAULT 2:10
artichoke 219:9 224:5
 224:13
articulated 24:5 64:21
artificial 192:19 294:7,9
artificially 195:5
Asa 1:13 99:8 106:9
 109:19 118:12 126:12
 127:7 176:22 178:4
 182:8,19 184:8 188:8
 196:21 203:20 205:21
 209:21

Asa's 101:5
ascorbic 238:16
ash 80:19
Ashley 1:20 28:2 36:8,9
 39:9 54:6 55:16 60:13
 61:4 62:9 77:10,15
 97:19 168:19 294:20
 297:3
Ashley's 171:3
Asian 133:10,17
aside 63:14
asked 20:2 76:3 86:15
 90:22 91:14 131:5
 142:11,12 150:6
 194:12 208:19 253:14
asking 87:15,17 133:2
 134:14 169:7 170:16
 251:21
aspect 233:15 236:9,10
assertion 162:14
assertions 162:8
 258:20
assess 46:2 48:6
 106:13 240:18 257:13
 259:12
assessing 24:1
assessment 167:15
 229:18
assigned 7:9
Associate 2:15
associated 50:2 138:3
 229:7 250:19 257:12
 258:6
Association 5:14,15
 58:13 179:2 239:22
 254:22
associations 162:16
 194:4,6 218:2 225:21
assumption 132:22
assurance 277:20
assure 51:12
asthma 113:1
astringency 200:1
at- 255:14
Atlantic 63:21 136:16
attached 10:16
attempt 241:7
attempts 132:3
attended 301:14
attention 179:11
attract 178:16
attractant 183:11
audible 53:21
audience 301:22
audit 29:6 295:21,22
 296:17
auditors 26:16 295:8
audits 6:7 8:17 295:8,9

295:10
August 42:18
authorities 91:3
authority 11:8 232:14
availability 94:9 138:10
 173:7 193:18 199:1
 226:13 229:8 230:2
 230:11 239:16
available 48:19 72:10
 122:17 145:5 148:7
 164:9 173:18 178:2
 198:17 215:7 220:4
 222:8,16 223:5,8
 224:20 228:11 230:1
 231:6 232:4 239:9
 240:3 265:11 292:5
avenue 57:19
avoid 50:8 64:4 192:9
Avoidance 255:2
awarded 17:5
aware 23:8 89:19 91:20
 120:3 222:12 224:7
awesome 278:21
awhile 30:22 57:1
awkward 264:3

B

baby 207:17 218:4
back 4:5,13 24:1 25:7
 40:2 75:1,10,14 79:20
 103:14 104:13 105:8
 115:6 117:16 148:9
 148:12 157:1 158:8
 158:12,13 175:1
 182:11 184:1 190:9
 190:11,11 195:14
 200:12 201:8,16
 202:2,8,10 203:4
 217:3 230:10 238:5
 241:17 251:10 261:1
 261:3 262:1 266:6
 274:16 275:8 280:20
 280:21 281:1,20
 283:1,3 286:2,5,7
 287:11,14,22 288:5
 290:7 293:12 295:11
back-end 259:22 260:6
 260:10 261:6
bacteria 122:21 154:10
 216:15
bacterial 44:11 122:5
bad 168:3 270:5,5
bag 256:5 257:1
bagged 91:22
bags 91:22 93:16
BAIRD 1:13 30:14
 33:14 38:10 39:18
 54:15 65:2 74:12

124:1 133:9 143:19
 146:13 148:3 149:5
 170:14 176:3 177:5
 188:15 243:2 244:1
 249:13 272:17 273:20
 274:4,12,19 278:4,8
 301:6
bait 177:20 183:10,14
 186:6
bake 215:8
baked 214:12 215:18
 216:20 227:11
bakery 196:3
baking 203:9 227:19
balance 173:17
balancing 173:9
bales 91:22 93:16
ball 153:18
ban 42:3,7 91:7
banana 204:19 205:19
bananas 204:16 206:2
 206:4,8,11,17 207:1
 207:12,16,16
banned 91:2
banning 41:22
Banvil 258:18
bar 212:7
barely 170:7
barn 87:11
barrier 103:9 106:8
barriers 90:9
base 161:20 164:22
based 25:12 29:2 47:13
 63:9,12 78:16 90:10
 92:6 100:21 145:5
 146:20 148:7 154:7
 154:22 161:4 168:21
 181:19 194:21 198:16
 198:22 209:8,11
 224:14 229:21 246:7
 268:4 272:21 286:7
basic 45:9 46:5
basically 68:22 70:11
 95:9 101:21 127:15
 137:19,22 155:4
 182:15 198:18 201:10
 212:21 213:3,10
 214:16 219:14 220:11
 299:16
basis 8:22 162:5 167:14
 241:22 263:12 282:8
 289:6
bean 215:4 225:5,5
 226:13
bear 275:11
bearing 267:3 273:14
bears 116:8
becoming 63:4 168:17

230:1 231:5
bed 208:14
bees 62:4 124:21 279:4
 297:19 298:5
beeswax 297:18
beet 220:15
beets 219:1,14 222:3,4
 223:18
beginning 15:22 45:14
 76:17 117:17
behalf 162:3
Behar 1:12 26:1,7 29:16
 32:6 36:16 37:7,13
 38:3 39:11 40:8 54:19
 55:9 60:12 70:1 74:16
 83:4 85:2 87:15 89:22
 90:13 96:14 98:7
 117:2 134:4 135:1
 141:19 146:3,14
 149:16 156:20 168:7
 176:7 177:9 188:19
 223:3 243:6 244:5
 249:5 250:1,2 251:2
 267:14 272:1 276:21
 279:10 280:13 291:22
 294:4 297:14
behave 225:16
belabor 23:11 99:10
believe 25:4 49:4 50:15
 80:21 83:8 85:6 87:15
 91:22 94:1 139:6
 159:2 200:22 209:7
 222:8 224:4,12,16
 261:8,14 269:11
 271:2 288:4 297:21
believed 215:22
believes 46:19
belong 124:3
benchmark 240:13
beneficial 42:11 64:16
 92:19 122:20 162:9
 163:6 167:17 181:1
benefit 61:18
benefits 70:10
benign 85:9 86:9,9
 106:4 150:8
berries 153:20 169:4
best 5:15 6:19 11:1
 19:10 27:21 32:20
 51:20 264:9 265:19
 268:5
better 114:14 198:3
 218:16 227:14 240:5
 247:14 267:8
beverages 191:14
 199:18 214:12 216:20
 218:5
beyond 105:12 106:15

128:15 159:20 179:3
204:8 229:5 240:4
297:1
bias 40:12,16
bicarbonate 138:18
big 15:2 19:3,4,5,9
108:17 110:20 121:2
185:5 204:17 233:1
270:8 277:16 278:19
300:19
bigger 83:17 84:1 108:8
biggest 21:22 81:14
111:21
bill 108:3
binding 210:3 214:20
216:17 225:11
bio-based 286:19
bio-diversity 43:18 44:6
48:12
biochemical 153:5
biodegradable 78:14
91:18 93:4 100:16
146:6 147:2 286:19
biodiversity 59:22 60:9
61:13,19 62:1,22 63:2
65:16,19
biofungicide 153:5
biological 40:14 67:17
biologically 92:6
biology 92:19 101:17
111:10
biosafe 83:7
birds 43:22 146:18
bit 4:7 11:15 27:1,19
30:21 31:1 56:8 76:20
90:20 112:7 142:20
143:6 182:11,16
198:3 210:6 220:6
222:11 230:11 231:12
235:5 250:18 262:1
273:2 282:1,6,15,19
294:3 296:9
black 92:18 153:18
155:13
blanket 172:12
bleached 228:1
bleaching 228:13
blight 123:7,10
blown 260:19
blueberries 153:20
169:5 172:1
board 1:3,8 2:10 12:1
14:3 20:1,9 23:15,16
41:15 42:6 55:12 61:7
61:10,12 68:17,19
72:17 73:2 77:1 81:1
85:4 87:14 94:18 97:9
107:3 117:1 119:17

121:11 123:14 125:10
136:10 139:17 151:16
154:6 157:2 158:8
160:13 165:7,14
192:14 198:14,15
208:19 226:10 238:6
239:20 243:20 244:16
246:13 251:6 281:17
282:11 283:19 289:17
290:3,19,21 296:15
296:19 300:14 301:18
Board's 84:13 198:20
bodied 124:16
body 6:10 8:21 18:16
bog 24:14
boiler 211:18
boilers 211:4
Bordeaux 125:17,18
bored 34:10 297:5
298:12
BORENER 58:8
botanicals 193:3
botrytis 160:2
bottom 15:17
bought 269:12 274:21
276:6
bound 149:22
boundary 103:7
box 169:8 256:5 257:2
271:19
BPA 286:12
BRADMAN 1:13 38:7
39:15 54:12 74:9
94:16 96:17 99:9
105:20 109:20 117:7
118:19 120:15 127:8
137:1 175:21 177:1
178:5 183:8 189:1
196:22 203:21 209:22
243:10 244:9 249:9
brag 270:2
brainstorming 261:20
branches 145:14
brand 83:4
break 72:10 75:3
189:19
breakfast 256:16
breaks 219:17
breath 113:10,11
bred 255:19
breeding 257:15
breweries 199:17
brewing 220:2
bridge 7:16
bridging 290:13
brief 81:5 299:17
briefest 115:6
briefly 57:21 137:19

280:19 285:21
bright 206:4
bring 32:9,10 44:20
88:6,9 135:11 217:22
284:6,11 286:5 287:1
287:3,9,22 288:5,7,16
288:18 292:7
bringing 9:13 30:1
44:14 137:2 218:17
261:1 286:2,6,16
288:22 289:2 293:12
294:18 298:22
brings 171:11
British 161:8
broad 24:17 49:10
123:2 154:8 171:4
187:1 204:6
broader 25:19 68:7
70:17 266:16
broadly 257:20 258:2
broken 202:1
broker 236:2
brought 5:11 57:3
169:15 182:19 236:3
288:12 290:9
Bruce 20:10
brunt 273:14
brushing 9:15
Bt 258:19
budget 20:3
buffering 211:21
221:13
BUIE 1:14 38:11 39:19
54:16 74:13 78:4
79:12 80:1,3 152:21
153:3 164:4,12 176:4
177:6 188:16 243:3
244:2 249:2
build 17:5 20:18 26:9
96:18 97:3 180:21
277:8
buildings 48:16
built 17:8
bulking 191:10
bull 133:6
bulldog 292:8
bunch 153:19 261:11
burden 8:9 158:6,18
burdensome 8:3
burn 98:18
burned 96:8 99:14,15
burners 137:20
burning 66:5,17 70:2,6
90:21,22 91:7,11 95:6
95:15,15 96:6,15
97:10,15 98:10,22
99:7,12 101:7,10
burns 63:7,9 70:3,9

business 197:18 198:6
198:12,21 205:19
260:9 299:3,5
businesses 64:13
194:3
busy 289:8
buy 269:10 272:7,11
buyers 205:6 207:21
253:7
buys 68:20
bycatch 136:1
bypass 128:2
byproduct 132:20
133:5 144:4 230:15
230:22
byproducts 127:16
137:8

C

C-O-N-T-E-N-T-S 3:1
CACS 3:3 4:12 15:10,18
74:22 298:14
calcium 121:17 190:16
191:3,5,14 203:6
220:17 238:14 284:18
calculating 29:7
calculations 29:10
California 63:8 81:1,6
81:17 94:21 95:1,7
104:21 110:8 115:16
116:6 120:5 172:22
call 61:14 110:11 281:1
called 35:16 199:8
calls 150:18 189:8
calves 98:22
Canada 157:15 215:6
225:19 232:2
Canadian 217:6 227:22
cane 219:14 220:15
canola 229:22
capabilities 48:18
49:20
capability 17:12
capable 7:18
capacity 6:21 8:6 46:14
48:7 113:10
capitalize 9:3
capturing 198:9
carbohydrates 216:14
carbonate 79:5 80:7,16
80:18 102:15 190:17
191:3,6 211:12,14
carbonated 199:18
carcinogen 98:11
care 65:15,18 116:7
196:4
careful 132:6 296:21
carefully 135:10 161:17

254:21 264:18 265:8
carob 225:5
carob/locust 226:13
Carolinas 49:5
carp 133:10,17 135:16
 135:16
carrageenan 196:13
 197:5,6 215:4
carrier 192:19
carriers 228:7
carry 8:9 41:13 69:7
 102:6
case 83:20,21 105:4
 113:8,16,22 114:12
 119:7 126:15 158:2
 161:18 205:13 222:20
 254:1
cases 66:10 113:12
 128:6 136:14 158:5
 296:6
casings 285:6
cast 49:10
catch 135:10,13,17,18
 246:17
catches 135:11
catching 130:16 133:6
categorical 194:2
 201:22
categories 113:15
categorized 153:5
category 201:2 207:17
causal 155:19
cause 192:7 201:13
causes 111:22 124:10
causing 132:2
caution 7:1 8:2
cautious 279:15 280:1
CBI 196:16
CBP 20:18 25:9
CCOF 57:13 81:16
 139:7 151:5 210:12
 229:2
cells 103:7
cellular 155:2,2
Center 131:15
central 206:2 261:2
cents 119:20 207:11
centuries 110:10
certain 13:9 14:18 15:1
 15:18 28:11 63:12
 159:8 183:6 233:21
 235:12 265:21 271:10
 274:21 294:5
certainly 13:8 23:16
 97:15 107:21 110:14
 117:16 122:7,11
 123:6 167:6 184:20
 213:2 258:11 274:1

certificates 20:19
certification 3:3 19:5
 26:10 41:20 42:17
 45:19 50:13 60:5
 187:15 293:15
certified 5:4 42:2 43:1
 60:5 73:21 226:11
 255:17 293:15
certifier 5:4 7:5 13:19
 16:13 17:7 28:3 34:2
 58:3 87:9 90:1 150:2
 150:16 199:19 209:5
 209:9 215:13 217:13
 223:19 232:6 266:10
 276:1 294:16 295:10
 295:15
certifiers 5:14 6:6 7:20
 9:1 12:5 26:19 28:13
 42:4 45:4 47:9,12,16
 61:2 86:20 89:16 91:6
 91:14 92:8 97:9
 134:14 150:14 194:10
 215:11 245:22 247:7
 294:14 295:18 297:17
certify 294:14
certifying 81:16 104:14
 293:16 297:17
cetera 104:11,12
 124:17 201:5 225:18
CFR 193:14 194:20,20
chain 220:8,9 277:21
chains 39:1 219:18,19
 219:19 220:20 224:11
 224:12
chair 1:11,12 38:13
 39:22 54:20 74:18
 76:20 77:5 169:10
 176:10 177:12,14
 189:2 190:13 243:12
 244:12 249:14 250:1
 298:18
chairing 189:15
Chairman 1:10
chairs 282:17
challenge 10:21 11:5
 23:15 70:17 174:3
 269:15
challenges 16:13 22:8
 131:2 166:13 180:19
challenging 141:3
 223:20
chance 100:13 134:12
change 42:22 46:10,11
 51:19 52:15,20 60:21
 72:5 86:12,13,14
 193:17 221:12 244:18
 287:6
changed 36:12 89:20

163:21 217:19 235:22
changes 42:22 44:17
 49:3 55:19 60:2 92:5
 121:2 264:19 268:12
 288:21 299:9
changing 37:15 62:13
 70:4 85:11 168:8
Chapman 1:10,11 4:3
 35:14,19 36:3,8 37:4
 37:11,16 38:13 39:22
 52:19 53:15,18,22
 54:20 55:2,4 56:22
 74:18 75:2,9 76:10,16
 88:8 157:22 164:8,14
 171:18 175:8 176:10
 177:14 185:13 187:21
 189:2,13,18 190:7
 192:22 197:9 198:10
 206:14 213:13 214:3
 216:12 219:4 221:17
 222:1,5 223:13,21
 224:19 229:17 233:16
 235:3 241:3 242:10
 243:12 244:12 247:12
 248:7,14 249:14,21
 280:18 281:8 291:9
 294:20 297:3,13
 298:11,18 299:21
 300:9,17 301:10
 302:10
characteristic 52:4
 53:6
characteristics 225:14
 231:21
characterizing 194:21
 195:2
charge 55:7
chart 206:14 235:14
 247:6
check 161:17 296:17
cheese 191:13
cheesewax 143:14
 144:6,18 145:11,15
 147:3,7
chemical 78:9 83:12,13
 124:3 221:11 276:7
chemicals 65:10
 201:12
chicory 219:9 222:10
 223:4,4,7,9,10 224:18
 224:19
child 116:7
children 112:13 116:12
 116:13
Chile 99:11 172:2
chilled 214:21
China 224:14
chips 212:5

chloride 90:11 149:11
 149:13 150:11,22
 151:6 200:9 202:11
 202:13,16 244:17,19
 245:4,5,12 248:17
chlorine 80:13 284:9
chlorite 284:8
chocolate 211:16
chocolates 227:10,14
choose 147:13
choosing 42:11
chopping 127:15
chronic 116:12
ciders 213:19
circumstances 234:6
 235:8
citation 161:17
cited 161:4
citings 247:1
citrate 284:4,17,19
citric 127:3 238:16
citrus 203:19 204:6
claim 201:19 233:8
clarification 54:21
 293:21
clarifications 52:5
clarified 209:9 231:10
clarifies 37:22
clarify 187:18 199:7
 203:10 301:7
clarifying 286:22
 295:20
clarity 44:21 287:15
 291:12
class 233:1
classification 175:9
 244:18 245:7,19
classifications 53:7
classified 188:3 282:12
classify 152:14 175:10
 175:14,15,16 188:1
 242:14,14,16,18,20
clause 94:9
clay 101:18
clean 91:2 165:15
 269:11,16,17 271:4
cleaned 87:10
cleanest 88:20
cleaning 77:22 79:4
 81:22 82:22 97:1
 117:19 210:20 211:2
 271:5
clear 9:12 22:20 25:9
 37:8 40:11 51:22 67:2
 80:4 89:11 95:16
 101:18,19 110:5,15
 136:4 153:15 157:5
 158:11 165:7 168:1

199:2 221:10 250:8
262:22 285:13 291:13
cleared 43:21 52:8
53:10
clearer 261:15
clearly 24:6 25:19
36:20 56:7 64:20
111:4 158:1 230:13
240:8 241:18 268:18
299:22 300:2
client's 255:21
clients 194:11 272:20
climate 63:17 155:10
168:8 174:22
climates 169:17 170:2
close 48:16 130:2 230:5
269:12 275:17 284:3
297:22
closely 30:6 135:21
closing 299:5 301:2
cloth 90:17
cloths 92:9 94:12
clump 227:17
co- 278:15
co-polymer 143:16
Coalition 201:21 240:8
coating 124:10
cocoa 211:16 227:15
code 21:16
CODEX 217:5,8
coexistence 278:16
279:1
coffee 25:2
collaborate 271:17,18
271:20
collagen 285:5
collapses 21:11
colleagues 271:18
collect 12:13 260:11
collected 297:18
collecting 261:1 262:18
collectively 24:4
color 86:1 200:1 206:3
colored 84:20 85:9 86:5
89:4,5,9,13
colors 143:17
comb 259:5 301:8
combination 125:16
129:22
combine 287:15
combining 102:14
combustion 95:18
117:18
come 4:5 6:5 9:20
60:22 75:10 85:6
93:21 100:18 101:2
127:13 133:11 134:21
146:10 147:19 158:8

170:6 190:9 198:8
200:12 241:9,17
247:9,14,21 265:21
274:21 279:2 280:20
280:21,22 283:3,15
284:1,21 285:3,18
294:10 295:10 296:15
298:14
comes 22:10 27:12
28:19 31:22 58:2
122:11 183:22 187:22
195:14 252:4 270:9
comfort 231:12
comfortable 71:13
89:18 121:8 233:7,11
234:16 247:20
coming 24:1,16 33:19
34:13 72:8 75:14
104:20 105:8 142:18
157:14 166:10 189:11
226:9 247:12 282:11
287:14 298:9
comment 9:2 24:20
41:16 43:8 61:16 66:2
70:16 72:8 73:4 75:15
75:18 90:1 100:10
101:5,16 105:11,20
117:3 118:4 120:12
127:7 137:2 139:1,6
141:12 142:18 145:20
151:11 154:20 157:3
162:15 165:19 169:9
170:15,20 174:7,20
187:4 196:10 199:17
205:3 208:22 209:10
212:1 213:13 215:10
215:11,19 218:12
225:20 226:5,5 232:8
239:14 241:12,19
245:8 246:3,8 247:8
262:4 264:17 273:13
commentator 156:6
commented 81:22 90:2
90:4 94:12 145:4
181:21 185:16,18
193:21 194:4 196:19
199:20 215:21 246:21
commenter 51:5
145:16 213:6
commenters 6:19 7:1
7:15,22 43:16 44:16
51:17 86:17 93:1 94:5
107:14 144:16 148:6
182:3 185:15 187:4
191:19 201:15 238:21
240:13,16,20 251:3
251:10 262:7 290:3
292:11,20

comments 4:16 6:15
26:7 29:15 43:10
48:14 57:7,13,22
62:11 72:16,21 73:7
78:19 82:7 84:16 87:4
87:13 88:2 89:5 90:14
94:14 99:6 102:3
104:13,16,17,20
105:8,19 106:22
110:15,18 112:8,9
115:5 116:5,22 118:5
118:13,20 119:10
120:5,11,16 121:11
122:2,3,10,14 123:6
123:14 125:1,5,8,9
126:4,5,20 136:10
137:21 138:2,6,11,20
138:21 139:17 140:10
141:11,16,22 143:10
144:15 145:7 146:2
149:6 150:2 151:16
152:16,22 154:22
155:4,6 156:13
161:20,22 162:1,15
164:8,18 166:5
167:10 169:1,10,14
170:9 173:9,11 175:2
182:10 185:1 186:22
191:13 192:10 198:4
201:3 202:21 203:12
204:1,3,15 206:15
208:21 211:6 212:3
213:3,20 217:21
218:1,5,14 228:21,21
228:22 239:18,21
240:1 245:9,21
246:17 248:5 250:21
251:11 262:2,3,22
266:13,15 267:10,13
267:19 299:19
commercial 78:10 94:8
140:12 142:8 144:20
144:20 146:8 193:17
219:10
commercial-sized 29:5
commercialize 230:21
commercially 135:12
143:8 215:7
commissioner 116:2
commissioners 115:16
116:4
commit 21:3
commitment 162:19
301:19
committee 14:17 94:15
119:21 120:1,13
132:9 154:2 189:10
278:14 282:17 287:7

commodities 236:13
common 7:14 138:13
191:18 296:3
commonly 124:6,13
127:10 211:15 215:3
215:14 216:16 219:22
communicate 271:17
communities 46:13,15
49:21 63:19 64:1,6,9
66:4 68:9 73:3 136:13
148:13 165:21,22
166:1,4 279:13
community 9:14,21
14:1 15:7 16:13 17:6
24:4 35:7 43:12 51:13
69:17 75:20 81:16
83:19 156:1 173:12
181:15 187:2 267:15
269:4 271:5,13 279:7
280:6,10
compact 165:20
companies 93:13 222:8
229:4 230:8,14,20
255:20 257:15 273:5
274:3 279:20 280:8
companion 17:21
company 93:17 95:7
96:18 152:4 273:9
comparative 219:22
compare 221:5
compared 182:14
comparing 107:17
108:12
comparison 109:7
compelled 93:8
compelling 93:7 166:7
167:8
compete 13:12
competency 17:19
competent 6:14 38:22
competently 5:10 7:13
compile 100:13
complaints 21:17,19
241:4
complement 181:5
complementary 66:22
complementing 69:4
complete 42:3 266:7
completed 5:13 13:9
109:17 164:17
completely 34:15 72:16
137:22
complex 5:7 7:12 39:1
220:6,22 221:4
254:15,19
complexity 263:8
compliance 3:3 12:10
21:10 50:14 119:13

151:8 195:12
compliant 101:8
complicated 32:14
 167:22
component 19:11
 111:10 203:9 212:10
components 144:5
 200:2
composition 52:11
 53:13 237:16
compost 84:22
compound 103:14
 104:2 105:16 107:20
 111:4 154:4 166:19
 193:2
comprehensive 27:4
compressed 16:7
compromise 56:1 68:2
concentration 149:21
 212:17
concentrations 196:8
concept 23:13,14
concepts 14:8
concern 9:6 37:9 59:21
 91:6 92:17 106:11,19
 137:3 140:15 147:12
 148:1 150:13 155:16
 204:9 218:13 268:20
concerned 126:19
 236:8 266:11
concerns 49:5 50:16
 55:21 56:15 62:15
 68:5 94:18 103:18
 106:5 120:10 126:6
 128:14 131:16 154:3
 154:8,9 179:5 181:7
 197:7 210:16 232:18
 239:6,8
conclude 190:2
concludes 74:22
 249:19 298:20
conditioner 191:7
 203:10
conditions 104:10
 268:7
conduct 174:4
conducted 173:15
 174:9,10,13 184:14
 258:6
conducting 256:22
confections 196:3
 211:21
Conference 277:2
confession 160:18
confidential 197:17
 198:6,12,21 199:9
conflict 161:7
conflicted 165:13,15

conflicts 167:3
confusion 134:5
Congress 22:11
connect-the-dots 33:7
connected 59:10 60:1
consensus 55:12,15
 77:3 107:2
consequence 70:21
 71:1,15,22
consequences 70:18
 135:20 265:9
Conservancy 66:8
Conservation 133:15
consider 7:5 20:5 65:4
 95:19,21 131:9,22
 134:1 148:9 149:2
 156:7
consideration 57:18
 116:21 139:11 148:8
 198:15,20
considerations 39:2
considered 44:13
 114:20 117:4 124:21
 127:21 129:16 133:22
 153:7 183:5 221:11
 222:15
considering 11:20
 20:21 48:20 131:18
 136:7
consistency 44:22
 114:1 296:10
consistent 8:18 113:15
 113:21 164:2 183:20
 253:18
consistently 253:22
constantly 76:3
constituency 210:11
constituents 144:17
 193:22
constitutes 155:21
 234:1
constrained 21:1
construct 12:8 14:7
consultation 75:21
 76:5,12,15
consulting 272:19
consumed 255:16
consumer 40:18 68:20
 69:1 195:1 197:8
 263:4 277:18
consumers 69:8 197:6
 207:21 215:7 224:17
 240:10 255:16 263:6
consumption 117:19
contact 5:3 144:13
 210:21
contacting 95:2
contain 83:5 193:5

contained 35:16
container 292:9 293:5,6
containers 292:12
 295:4
containing 46:12
contains 73:14,18
contaminant 147:11
contaminants 95:5
 145:18
contaminated 276:17
contamination 250:20
 251:14,17 252:5,14
 254:5 266:21 268:12
 277:9 288:2
content 14:2,4,5 202:19
context 22:8 108:20
 262:2,5 263:15,20
continual 92:20
continually 4:21
continue 9:13 38:20
 41:18 47:21 51:9 73:2
 87:3 135:5 271:4
 281:12
continued 36:18 44:19
 86:19 145:20 175:1
 191:20 245:6
continuing 6:12 38:20
 128:12 163:10 267:22
continuous 264:8
contract 12:17 15:8,12
 15:15,16 16:1,3 17:5
 272:7,10
contracted 10:18
contracting 14:14,22
 15:20 22:4 272:5
contractor 17:6 276:9
contracts 15:4 272:6
contractual 17:10
control 5:6,10 90:16
 97:22 102:10,11
 104:19 106:8 109:15
 110:2,3 111:2 121:16
 121:19 122:4 123:10
 123:19 124:13 125:12
 138:18 155:13 156:3
 157:12 180:22 185:11
 211:17 221:13 268:8
controlled 63:7,9 70:2
 199:22
controlling 172:15
controversial 95:13
 107:3 140:8 141:21
conventional 57:16
 58:21 71:8,11 81:11
 110:13 112:2 155:8
 157:16 162:17,21
 206:3,11 207:1 224:8
 235:10,12 258:15

263:7 270:12 278:15
 279:19 280:8
conventionally 164:6
 255:18
conversation 11:1
 256:13 290:16
conversations 75:13
 134:17 262:14 281:11
 290:7
conversion 42:3,16
 43:4 46:18 50:22 56:7
 57:16 65:12 71:10
 74:1 95:19 162:11
 220:3
convert 3:5 40:5 41:10
 42:19 95:9 156:11
 157:17
converted 41:22 42:9
 46:3,10 48:9 162:12
converting 67:21
convey 34:1
conveying 33:17
convince 93:5
cooperative 141:15
copper 80:13 125:17
 155:11,14,15
CORC 197:5
core 12:14
corn 184:16 203:11
 223:12 227:5 258:13
 258:15 259:2 275:5
corporations 141:14
correct 24:9 68:6 76:14
 119:19 135:4 161:3
 278:22 284:2 289:1
correction 35:10
correctly 198:9 233:11
 254:2
cost 8:11 258:6 266:11
 267:3 275:5,8,11,19
Costa 140:13
costs 257:11 266:13
cottage 174:12
cotton 153:18
cough 112:19
Council 210:12
counted 110:17
counties 81:9
countries 163:19
 205:16
country 64:12 92:1
 105:8 205:16
County 116:3
couple 4:21 10:15
 28:16 77:11 110:19
 122:15 138:1 147:5
 161:19 196:15 197:17
 205:6 226:14 282:14

course 11:3 112:1
119:9,11 129:16
183:19 254:17 256:12
259:4,18,19 260:5
280:14
court 12:12 64:5 136:14
187:20
cover 171:8 189:9
267:9
covered 60:15 98:13,16
295:15
coverings 90:15,17
93:15
covers 90:10 91:21
99:13 171:4
CP 233:19
cranberries 153:18
156:2,8,9 157:8,9,14
169:4
cranberry 157:11,16
create 13:20 15:12
28:14 71:2 221:3
creates 220:21
creating 106:8
creative 186:19
creeping 66:20
criteria 6:20 39:3
140:17 155:1 158:7,9
158:19 159:2 165:8
199:10 241:14,17
288:10
criteria 272:22
critical 28:18 29:11
30:16,19 31:9,20
33:21 57:9 58:5 67:12
194:9 201:6 213:11
critically 34:12 69:6
97:22 98:5
critique 114:2 158:16
164:16
critiquing 33:19
crochet 25:22
crop 3:6 40:6 41:3
45:13,21 57:16 58:22
59:4,7,8,14,15,17
79:8 103:15,19
131:14 142:7,9
149:10 151:4 152:2
156:20 166:8 169:5
171:9 177:21 189:5
252:1,2 260:1,8
263:12,12 266:21
272:9,11 277:11,11
284:5
crops 3:7 40:22 41:7
42:1 44:14 77:2,3,5
87:16 99:4 102:22
103:1 107:12 108:10

122:8 127:13 138:16
139:15 154:2 155:20
157:6 160:16 171:5
171:14,21 174:21
178:15 203:22 204:2
205:1 252:4 255:15
257:8 265:10 266:19
270:4,18 275:17
279:2 284:17,18,18
286:20 287:16,18
cross-pollination
251:16
crossed 54:5
crowd 302:3
crowdsourcing 14:1
crude 140:7 144:1
crushed 102:17 219:14
Cruz 116:2
cry 168:14
crystalline 102:19
crystallization 227:15
cultivated 52:8 53:10
255:15
cultivation 59:6 252:21
cultural 156:3 172:11
252:22
culture 220:16 221:2
curiosity 294:22
curious 118:14 164:17
205:22 206:6 219:2
current 42:10 86:19
105:17 136:14 151:14
185:3 198:18 251:9
289:5
currently 73:17 87:2
108:16 178:9 181:3
182:16 232:6 257:14
259:13
curve 184:11
cut 18:13 31:12
cut-off 285:4
cuts 268:8
cylinder 208:11

D

D 151:19,22 153:3,4,6
154:6,11,18 155:7,14
155:18 156:5,14,16
175:11 176:15 179:11
182:13
dae 136:11
daily 232:18
dairies 28:21
dairy 29:8 82:11 196:3
214:12 216:19
Dakota 63:20
Dale 206:19
damage 184:18

damaging 115:13 292:2
292:2
Dan 1:19 54:8 69:22
70:14 135:20 160:10
165:12 167:11 250:5
250:6,10 254:3 289:1
darn 174:22
dashboard 21:18
data 81:8 100:12,21
104:1 105:3 106:13
107:15,16 108:14
112:3 118:10 173:7,7
256:4,10,16 261:3,9
261:14 262:12,15,18
263:13 271:10,12,16
274:3 279:15,17
database 21:11,13 28:4
28:10 81:6,11 83:11
274:8 277:8
date 43:4 74:1 77:14
195:17 285:5
dates 195:10
Dave 1:16 18:6 61:4,4
74:6 83:3,14 102:12
106:21 108:7 118:11
125:14 134:3 135:7
148:12 165:10 166:21
174:5 184:6 205:20
250:5,17 254:4
261:19 262:13 265:22
266:19 274:19 281:18
300:17
Dave's 9:2 75:17
day 20:17 76:18 139:15
186:18 279:5
day-to-day 30:10
days 4:21 98:3 219:2
254:18 256:3,17
259:5,19 291:3
301:16
de 1:14 175:22 177:2
188:12 190:13,14
191:4 192:13,21
195:18,22 197:2,15
199:11,16 200:11,20
202:7,11,14 203:2,7
203:14,20 205:3
206:12 207:6,14
208:1,6 209:21
210:17,22 211:8,13
212:12,19 213:12
214:5,10 216:11
218:9 223:2,15
224:15,21 225:6
227:2 229:16 231:7
231:13,16 233:12
235:21 237:5 241:1
241:20 242:1 243:11

244:10,14 246:22
247:17 248:12 249:10
249:19
de- 229:1
de-greening 203:19
204:5
de-listed 196:18 200:4
de-oiled 144:4 227:1
229:12,19 230:9
de-oiling 228:13
dead 276:6
deadlines 16:5
deal 11:5,9 81:20 87:21
160:3 166:15 168:16
174:21 253:3 258:3
300:15
dealing 172:5 254:20
dealt 205:16
dear 212:20
debate 166:12 187:8
December 154:12
decide 87:16 253:16
decided 86:10
decides 248:8
decision 20:10 157:2
160:12 161:21 162:5
163:12 187:10 238:7
248:8,9
decision-making 19:10
decisions 20:3,12 21:7
165:1 198:22
decompose 146:12
decomposed 147:6
decomposes 80:18
dedication 301:18,21
deem 247:3,4
deemed 105:5
deep 118:13 131:19
deeper 178:20 258:10
deeply 18:14 257:10
defeated 64:5
defense 275:9
deferred 299:3
deficient 111:1
define 194:21
defined 67:16 180:9
defines 193:14
defining 194:16
definitely 66:6 99:15
111:12 132:11 133:1
160:14 252:3 297:15
300:18
definition 43:5 49:1
53:3 54:6 56:6 73:16
definitions 221:9
degradation 92:12
degraded 138:4
degrading 92:14

- 131:16
degree 141:7
delays 241:5,7
deliberations 108:17
delighted 61:10,11
deliver 272:6,9
demand 157:13,15
 230:13
demands 38:22
demonstrate 154:14
 269:5 301:21
demonstrated 156:14
 241:11,19
department 1:1 75:22
 133:15,18 205:7
 291:6
departments 162:7
depend 258:7
dependence 128:18
dependent 84:7,7
depending 32:18 195:7
 260:7
depleting 131:16
depth 43:10 217:21
Deputy 2:12,15
deregulation 270:3
derived 129:20,22
 130:3,9 143:20
 149:11 193:1,2
 216:22,22 218:22
 223:18 229:14 245:2
 245:4,14 248:16
dermal 78:18 104:3,3,4
 154:13
dermatitis 111:20
described 16:19 18:9
 52:5 53:7 84:11
describing 41:16 48:2
 82:16 228:10
description 48:20
 299:17
design 22:5,5
designated 2:17 260:12
designed 116:10
desirable 269:8
desire 160:5 242:2
desired 193:7 214:19
Despite 225:13
destroy 50:1
destroyed 44:3
destruction 44:12
 49:14 50:10
detail 34:22 58:6
 150:15 217:1 282:15
 282:19
detailed 105:11
details 296:7
detecting 257:22
detection 258:7
determination 45:4
 217:20 284:16
determinations 159:21
 198:16 199:10
determine 19:8 47:9
 48:3 81:19 86:3
 145:17 165:16 220:10
 233:4 277:12 285:1
 285:19 286:8 298:4
determined 217:4
 285:8 286:16 287:7
determines 237:15
determining 6:21 58:3
 64:15 283:11
devastating 185:4
develop 38:19 71:2,16
 95:8 240:18
developed 10:7 48:5
 72:9 193:9 264:20
developing 16:14 51:1
development 14:13
 36:21 103:12 133:19
devices 95:9
Devon 2:20 77:17 79:1
 84:17 102:3 109:11
 121:12 125:10 126:21
 134:11 137:11 143:11
 149:7 151:19 177:18
 190:17 192:14 195:19
 199:12 200:7 202:8
 203:15 208:2 209:12
 210:1,18 211:9
 212:13,21 214:6
 225:1 231:13 236:17
 237:7
di 208:4
dialogue 9:14,20 10:6
 17:9 68:8,12
dicamba 270:8,11
dicamba- 270:12
dictates 228:15
die 124:11
diesel 95:11
dietary 191:6 219:8
difference 108:17
 117:10,11,15 139:15
 183:9 207:9,11
 297:16
differences 30:13
different 11:14,15 12:8
 22:21 30:3 32:8,17
 42:9 93:12 115:13
 124:12 125:6 133:16
 141:7 160:16 162:9
 162:10 163:2 166:8
 169:4 180:14 181:9
 181:12 186:5,6
 196:15 204:13 224:10
 225:16,17 234:2,3,3
 235:5,8,9,16 259:2
 293:19 297:19
differentiates 228:14
differently 225:16
 234:6 282:1
differing 168:2,4
difficult 86:2 87:5 89:10
 95:5 109:3 119:4
 141:8 142:20 150:4
 159:18 160:3 189:7
 230:12
dig 131:19 178:20
 258:10
digest 4:15
digested 127:17
digestible 216:14
digestion 179:19
dihydrogen 284:19
dimension 18:3
dimensions 254:19
diminished 215:22
diminishes 196:20
dioxide 212:15 284:9
dioxin 98:10 99:1
dip 135:11
direct 16:19
directing 198:5
direction 161:22 162:1
 276:11
directive 18:1
directly 67:21 137:20
 293:8
Director 2:18
disadvantage 142:16
disassociates 80:17
disclaimer 77:15
disclosed 196:17
discomfort 94:19
discuss 10:5 77:9 99:4
 234:18 282:14,20
discussed 52:13 85:6
 85:19 126:9 197:13
 268:15 292:14
discussing 182:7 251:4
 251:13
discussion 5:18 10:2
 25:6 26:9 34:16 35:13
 35:17 36:2,11,14,14
 37:18 39:3,7 42:5
 46:22 52:18 53:19
 55:6,8 57:3 67:5
 73:13 78:21 83:2
 84:16 86:11 87:13
 94:14 105:19 109:22
 114:16 116:22 121:12
 123:14 125:9 126:20
 134:4 136:8,9 141:3
 151:3,21 152:12,17
 169:16 173:6 178:10
 178:19 182:5 192:13
 202:7 203:2,14,21
 204:15 205:2 209:12
 210:17 211:8 212:12
 213:12 216:2 224:22
 226:20 232:20 241:1
 242:11 246:13 250:3
 250:14,17 251:5,8,12
 254:16 262:9 263:19
 266:5 277:10 280:14
 286:9,14,15 287:11
 287:13,14,21 288:4
 293:10 298:21
discussions 4:20 36:19
 105:22 106:10,11
 114:19 128:22 132:8
 167:2 251:1 286:8
 288:11
disease 102:11 103:10
 103:11 104:19 109:15
 110:2,2 121:18
 125:12 153:18 166:6
 172:15 178:11 185:4
 185:9
diseases 122:5 153:17
 169:18 170:22 172:21
disincentive 51:14
disincentivize 49:14
 265:12
disinfectant 78:12
disinfectants 77:21
 79:3
disinfection 78:6,7
disperses 214:17
dispersion 227:8,18
displayed 73:17
displaying 206:18
disposal 100:4 101:7
 101:10
disposing 97:12
disproportionately
 142:14
dissenting 154:22
dissolve 124:9
dissolved 219:15
dissolves 80:16
distance 279:4
distillates 143:21
distinct 6:2
distinguish 115:20
distinguished 110:7
distinguishing 231:21
ditches 80:8
dive 118:13
diverse 187:1

diversity 46:12 48:6
71:18 186:22
divides 6:1
Division 2:19 21:10
295:7
docked 204:20
docket 159:9 204:1
document 5:15 6:20
26:8 28:17 35:13,16
35:17 36:2,11,14
37:18 39:4 42:5 57:3
250:3,14,17 251:8,12
252:5 255:11 262:9
263:19 266:5,6,8
282:5,7 286:14,15
287:13,14 288:4
documentation 135:4
documented 63:13
documenting 5:6
259:14
documents 40:10 46:22
67:5 251:5 254:16
286:10
dodecylbenzene
236:18 237:7
doing 13:16 22:14
26:19 29:21 30:22
33:1 34:9 58:19,20
59:6,12 101:15 114:5
135:2 151:12 179:12
205:14 220:3 240:20
250:15 252:21 253:5
253:11 261:5,15
273:10 277:21 285:17
295:8
dollars 18:20 160:1
domestically 47:7
dominant 52:4 53:6
door 207:21
dormant 70:12
double 272:8
doubt 120:8 121:6
122:9
dough 191:7
downy 153:19
Dr 2:12,15,18 10:15
14:18 17:2 19:19,22
22:18 23:2,6,8 24:19
24:22 38:4 39:12 54:9
70:15 74:17 75:16
76:14 160:11 176:8
177:10 188:20 243:7
244:6 248:4 249:6
261:19 273:12 290:1
290:18 292:22 294:21
295:4 296:6,13 298:6
299:15
draft 287:3

drafting 7:2
drained 52:9 53:11
draining 238:1
draw 6:10
drawback 213:5
dressings 214:13
drew 5:12
dried 208:11 209:3
225:8
drift 269:1 270:19
drinks 211:20
drip 109:2
driver 55:19
drum 208:4,7,13,15
209:3
dry 29:8 109:2 124:11
172:18 174:22
dryers 208:14
drying 80:14 208:5,7,13
208:14,14,15
due 44:1,18 105:12,13
114:22 168:17 209:2
225:10,15 239:1
dumpster 93:18
dust 114:22 115:4,8,11
115:17 119:5,22
120:1 126:11 150:5,9
192:7
dustable 119:22
Dutch 211:15
dwindled 302:1
dyes 26:4

E

e 149:10 216:9
earlier 9:2 62:11 172:18
174:7 285:2
early 16:5 77:12 103:11
184:11 195:9
ears 5:3
Earth 60:1
ease 27:5,5 47:18
easier 61:2
easily 47:22
east 1:9 175:1
eastern 105:7 155:10
155:12
easy 127:9 267:16
eat 69:8 147:15
eating 23:18 44:1
Echinacea 59:12
echo 10:3 72:8 88:19
94:16 101:4,22
106:21 108:7 174:19
241:21
Ecolab 237:1,8
ecological 40:16 47:3
71:17

ecology 62:7
economic 133:19
140:18 141:6
ecosystem 40:17 42:16
43:1 44:5 45:5 46:8
46:10,11 47:9 48:9,11
50:1,11 60:19,21
66:13,19 133:14
ecosystems 3:5 40:5
41:11,17,22 42:20
46:2 48:4,21 49:15
51:16 52:2 53:4,4
56:3,11,13 66:9 67:1
67:21 72:14 73:16,20
96:3
Ecuador 205:8
edges 48:8
edited 282:6
editors 161:7
educate 38:20
education 6:12 38:21
effect 63:3 65:8 99:21
118:8 155:2 159:3
214:18
effective 124:18 125:5
138:15,17 156:4
182:15 185:19 214:21
231:19 239:1,3
effectively 195:16
effectiveness 153:13
182:13
effectivity 235:4,6
effects 103:22 105:13
111:18 122:12 139:2
146:17 159:15 160:8
163:6 225:12 232:9
232:12
efficacy 81:2 82:16
107:15 108:14 109:6
109:7 155:19 156:15
179:6,6,9,13
effort 172:15 250:5
266:3 268:1 279:8
300:18
efforts 195:9 280:9
egg 147:14 238:20
eight 129:22 189:20
either 8:3 23:5 26:14
37:1 44:17 50:9 59:1
59:20 86:14 101:8
113:3 143:15 168:3
170:7 206:18 214:4
221:1 293:21
Ela 1:15 3:7 38:6 39:14
54:11 72:7 74:8 77:4
77:6 78:3,21 79:11,14
79:19,21 80:2,4 83:3
83:14 84:16 85:1
87:13 88:7,19 90:5,12
94:14 96:4,13 97:6,19
98:6 99:8,16 101:11
102:12 105:19 106:20
108:2,5 109:5,19
116:22 118:2,11
119:15,19 121:4,20
123:22 125:9,14
126:20 127:6 132:8
133:8 134:3,10 135:7
136:3,21 137:10,18
139:22 141:18 143:10
143:18 146:2 148:10
149:6,14 151:16
152:12,19 153:1
156:17 157:21 158:22
160:10 165:10 166:21
168:6,19 169:9 171:2
171:17 172:6 173:3
174:2,19 175:20
177:12,17 178:3
182:4 183:22 185:1
185:12,22 187:12,19
188:22 189:4 200:21
207:7,22 212:20
213:16 231:8 232:22
234:8 241:21 243:9
244:8 247:18 249:8
elders 59:10
electrolyzed 238:13
element 20:5 21:20
elemental 109:13
121:21 137:16 138:14
178:1
elements 147:4
elevated 138:13
Eleven 55:4 74:19
177:15
eliminate 132:3 133:6
eliminated 119:8
eliminating 3:5 40:4
email 271:15 295:20
299:13 301:8
emerge 230:13
emerged 293:10
Emily 1:17 10:2 55:17
56:17 60:10,12 61:3
62:16 65:20 74:3
79:11 80:5 83:15 97:6
101:3 108:3,18 118:2
132:9 139:22 148:10
158:22 163:4 166:21
170:5 171:2 175:12
182:5 186:20 197:15
218:9 223:15 242:3
243:21 246:14 267:20
269:21 290:1
Emily's 72:8 161:2

174:7,20
emissions 97:1 117:20
emphasis 110:21
emphasize 35:2 58:1
 181:6
emphatic 115:7
emulsification 227:7
emulsifier 208:8 231:19
emulsifying 227:20
emulsion 127:11
 132:18 133:21
enable 257:19
enables 153:12
encompass 63:3
encourage 11:17 51:6
 88:16 111:16 132:4
 156:6,11 193:16
 299:18
encouragement 294:16
encourages 39:5
encouraging 135:22
 256:17
encrusted 211:3
endanger 49:20
endangered 41:11
ended 10:21 17:14
endemic 49:16 63:11
endorse 174:7
endorsed 266:15
endosperm 225:7
ends 87:10
enemies 62:4
energy 216:14
enforcement 11:10
 21:10 22:13,16 91:7
 91:16 96:9 295:2
enforcing 11:4 18:2
engage 73:3,5
engaged 36:22 55:10
engagement 43:14 76:9
engaging 6:16 75:20
engineered 137:6
England 49:6 95:8
 161:8
enhancing 34:13 70:5
enormous 94:19
enriched 300:13
enrichment 202:18
enrobing 227:14
ensure 6:13 8:18 38:21
 97:9 255:21 291:18
ensuring 7:8 119:13
enter 50:8 63:16 265:5
entering 7:18 45:10
 64:7
entire 21:10 141:1
 155:8 190:3
entirely 10:8 89:11

entities 15:16 102:22
 255:20,22 260:9,14
entity 27:9 260:16,22
entry 41:5
environment 11:15
 30:5 62:2,7 69:3
 111:9 129:8 168:14
 180:21 201:14 238:12
environmental 69:5
 99:21 117:12,21
 126:8 139:4 147:10
 154:9,10 192:4 236:8
 239:7,8
environmentally 42:11
environments 95:13
 131:17 160:16
envisioning 254:9
enzymatic 219:17
 220:3
enzymatically 127:17
enzyme 221:1
EPA 78:15 290:14,22
 291:1
Equal 205:4
equally 30:2
equipment 83:17
 119:11 120:21 121:6
 122:16 192:9 210:21
 211:4,5
equipped 5:9
error 35:16
especially 28:13 43:15
 57:18 58:2 89:15
 92:18,19 111:7 120:5
 147:20 157:7 204:2
 207:18 213:1 234:22
 252:10 266:12 279:15
 294:13 297:15 302:5
essential 44:7 59:11,12
 59:19 86:16 111:6
 157:2 158:11,13
 187:2,8 194:8 215:20
 218:3 233:5 234:17
 238:19 239:17 240:6
 240:9 262:12
essentiality 105:15
 122:10 140:11 154:3
 155:1 156:14 157:19
 158:2 168:22 170:10
 182:18 194:5,8,9
 197:1 217:12 233:4
 234:1 240:18 241:10
 241:17 288:9
essentially 101:6 106:2
 129:6 181:5
establish 6:11 9:7
 257:1
established 52:5 53:7

257:14
establishing 8:2 35:4
establishments 236:22
ester 124:6
esters 123:17,20 124:2
 124:4
et 104:11,11 124:17
 201:5 225:18
ethanol 78:1,4,5,11,14
 78:16
Ethiopian 284:10
ethylene 139:20 203:17
 203:22
ethylene-propylene
 143:16
EU 215:6 217:5 225:20
 228:3 232:2
Europe 163:20 181:3
European 100:19
 232:14
evaluate 5:10 109:1
 234:11
evaluated 19:10 139:2
evaluation 6:4 116:21
evaporated 219:16
even-handed 279:20
event 259:21
events 168:9 258:22
 259:1
eventually 27:10
ever-evolving 39:1
everybody 13:4 15:7
 171:13 201:5 277:18
 281:8 300:15,18
 302:8,11
everybody's 269:8
everyone's 68:4
evidence 143:5 147:16
 158:13,19 165:1,6
 232:4
evident 163:5
evolve 268:13 293:7
exact 11:8 250:7
exactly 61:19 180:13
 183:14 207:9 212:21
 274:6
example 12:9 21:16
 63:7 84:9 114:17
 155:12 158:20 255:22
 258:13 270:9
examples 9:3 40:19
 45:2,8 247:1 256:1
exceed 127:4 212:17
exceeded 274:22
Excel 175:19
excellent 5:12 40:20
 69:12 267:12
exception 75:11 132:1

Exchange 205:4
excited 236:2
exciting 153:4
exclude 132:5
excluded 222:18,21
 223:13 266:6 288:6
exclusively 103:1
 129:20,21 130:3,9
 132:16 133:7
excuse 56:20 60:11
 151:18 152:20 191:21
 238:4 278:2
executive 14:2 280:21
exist 239:8 259:8
 278:16
existence 96:10
existing 6:10 8:18 9:1
 30:7 32:10 34:21 39:5
 181:10,17 238:12
 240:13
exists 269:5
expand 55:22 89:7
 170:1
expanding 169:16
 280:9
expect 84:4 258:11
 284:11 287:1,9 288:7
 288:17 289:2
expectation 9:19 141:5
 263:4
expectations 40:18
 195:1
expected 31:13 52:11
 53:13 201:13 258:12
expecting 274:1 283:22
 284:5 287:3
expects 287:22
expediting 300:3
expense 71:17 266:4
 275:15
expenses 8:14
expensive 8:3 59:19
 259:11
experience 6:3 7:5,6,10
 28:18,22 29:3,5 30:11
 30:21 101:22 146:5
 159:22 173:21 230:2
 279:18
experienced 30:20
 32:12 46:11 173:14
experiences 173:12
 235:10 295:11
experiment 278:19
experimenting 184:21
expert 233:5 289:18
experts 228:9
explain 112:7 198:2
 221:14

explained 228:12
explore 133:4
exploring 21:9 133:2
exposure 114:16
 118:15,16 239:6
exposures 114:22
 115:18 116:11 181:14
express 140:11 160:9
 258:15
expressed 8:1 9:6
 50:16 154:2 167:2
 191:19 192:11 218:13
 238:22
expressing 7:15 160:5
 215:12 239:21 240:2
 240:20
extend 21:5
extension 90:19 173:19
extensive 189:6 266:13
extent 68:15 104:6
 105:5 148:17 165:13
 257:6
external 18:16
extra 18:20 151:1
extract 230:19 238:20
extracted 219:11,13
 225:4,7 227:5
extraction 144:3 219:12
 221:2
extreme 168:8,17,18
extremely 132:15
eye 31:21 78:18 297:2
eyes 5:2 32:22 33:22
 72:13 119:6 121:8

F

fabric 23:19,19,21 24:1
 24:2,2 25:1,18,19
 26:3,13 101:14,20
fabrics 98:5
face-to-face 5:3
faces 23:16
facets 34:10
facilitate 7:20 17:9
 48:17 204:18
facilitation 301:13
facilities 96:20 116:7
facing 131:2
fact 31:5 66:10 111:21
 145:12 166:18 167:10
 181:17 182:9,21
 194:1 206:22 276:14
facto 84:15
factor 56:12
faculty 173:12
fails 244:13
fair 103:4
fairly 16:6 17:3 21:3

88:22 106:4 210:14
 233:20 235:11 261:9
fall 45:5 77:13 81:19
 82:18 119:18 140:9
 140:17 187:6 195:14
 282:12 283:3,15
 284:1,7,11,22 285:3,4
 286:2,7 287:4,9,14
 288:1,5,8,16,18 289:3
 299:11
fallback 274:16
false 253:20
familiar 27:2 130:12
family 119:1 124:3
 145:8
far 15:4 27:5 35:4 103:4
 178:10 232:11 233:6
 258:6
farm 40:15 45:14 50:1
 70:8 96:15 97:4,14,21
 101:7,14 111:19
 113:22 121:5 129:21
 137:19 235:6 276:3
 288:2
farmed 130:1
farmer 43:15 44:4 45:17
 68:14 69:1 93:22
 132:17 252:9 255:21
 260:8,13,16,22 272:3
 274:1,13 275:11,12
 275:15,15,18 276:5,7
 277:17
Farmer's 255:2
farmers 41:17 43:20
 44:5 48:15 49:5 51:3
 56:16 58:20,21 69:7
 72:18 93:20 99:7
 132:11,21 150:11,18
 155:8 156:7 168:22
 182:2 184:9 185:5,7
 205:5,9,15,17 255:15
 256:6,15 257:16
 259:13 260:10,11,19
 261:3 264:3,4 265:11
 266:1,8,12,18 267:2
 268:4 269:16 270:6,7
 270:12,15 271:3
 272:22 273:4,11,13
 275:16,22 276:5
 278:15,15 280:2
farmers' 128:19
farming 23:18 62:2 69:2
 166:1
farms 40:19 44:8 46:1
 49:8 91:8,8,16 99:10
 119:4 139:9 257:20
 260:18
fascinating 34:7

faster 182:16
fat 227:15,20
father 276:4
fatty 124:4
favor 122:3 137:22
 154:22 168:21 213:3
 228:18 229:1 263:9
favorable 104:5
FDA 193:13 194:19
fear 60:4 65:7
fears 60:7
feasibility 245:19
features 40:14 67:17
February 295:16
federal 2:17 12:7 26:21
 27:11,15,20 51:8 79:7
 91:2 265:20
fee 31:12,17
feed 29:6 84:22 140:6
 231:1 252:3 273:5
feedback 12:1 103:21
 118:17 142:20 208:19
 217:13 240:1 245:18
 296:20
feeding 103:10
feel 13:17 23:16 31:7,15
 35:8 52:14 55:20,22
 56:15 62:14 63:1
 64:14,18 68:22 71:13
 100:3 131:5 156:10
 156:13 157:18 159:12
 160:6,13 163:11
 167:9 169:6 233:14
 236:10 252:10 273:1
 297:5,8 301:15
feeling 4:8 76:20 121:9
 234:15 271:9
feels 11:13 42:15
 268:10
fellow 160:12
felt 27:3 87:1 141:22
 238:6 251:7 252:11
 253:2 277:5
fence 170:6,7
ferment 220:15
fermentation 78:9
 128:3 170:4 220:18
 221:2
fermented 221:6
fermenting 220:16
ferric 181:2 182:17
 185:17,19,19
fertility 59:17 71:4
 110:22 117:8 128:19
 252:21 294:5
fertilizer 129:13 130:10
 130:17,22 131:3,12
 132:17 133:7 137:9

fertilizers 127:12
fiber 24:7 216:16 219:8
fibers 220:3
field 7:18 30:9 43:21
 52:3 53:5 58:4 171:12
 173:15 198:10 260:1
 260:10 261:6 276:12
 292:9
fields 80:8 112:6 256:7
 257:19 260:20 276:9
figure 18:3 185:10
 235:7 277:19 286:3
files 271:16
fill 58:6 93:19 272:7
filling 91:19
fillings 196:3
filter 220:22 282:21
filtration 221:1
filtrations 144:2
final 9:17 24:19 25:15
 128:5 144:8 195:14
 200:2 231:14,22
 299:4
finalize 283:2 286:13
finally 240:16 266:16
find 27:4 57:10 61:1
 93:4,9 98:14 134:13
 134:15 148:5 150:4
 206:13 232:4
Finding 48:10
fine 102:17 108:5
 191:22 247:9
finfish 130:15
finish 298:2
finished 52:16 193:7,11
 196:6 214:15 252:2,7
finishes 151:17
fire 123:7,10
fired 255:10
firm 22:4
firmness 214:20
firms 13:13
first 4:9 45:12,19,21
 61:8 66:1 68:16
 118:15 151:19 156:18
 156:21 158:10 160:17
 172:9 175:9 189:15
 191:1,3 199:5 200:18
 202:17 216:9 222:5
 238:1 242:13 249:17
 257:7 262:8,16 269:5
 283:12 296:15 301:11
fiscal 16:4 21:5
fish 124:20 127:2,11,16
 128:12 129:9,13,15
 130:4,10,21 131:11
 131:11,22 132:6,16
 132:18 133:6,21

136:15 137:3
fishing 130:5
five 98:3 116:3 147:4
 191:1 253:14 258:16
 259:1,9
five-year 261:10
flags 126:18
flakes 208:16 209:1,3
flavor 193:6,7,13,14,20
 193:22 194:15,17
 195:3 239:1
flavored 195:5
flavoring 193:21
Flavorings 193:12
flavors 192:16,22 193:1
 193:8,18 194:2,7,11
 194:13,15,21 195:2,6
 195:8,10,15
flexibility 7:4 72:2
flies 124:17
flocks 29:4,5
flooding 133:12
Florida 137:5
flourish 49:21
flow 210:8
flowed 199:22
flower 140:19,20
flowering 139:21 140:2
 141:21 143:2
fluid 208:14
fly 279:4
foam 123:7
focus 48:13 255:17
 257:7,17 279:8 280:8
 286:4 287:18 290:6
focused 252:5
focusing 277:11
foliar 125:16
folks 12:9 13:9 135:22
 166:12,13 173:2
 184:21 217:2 260:22
 261:5 269:2 271:11
 278:11 290:8 293:4
 293:14
follow 23:11,12,12
 33:11 132:12 148:13
follow-up 75:17 301:8
followed 238:1
following 97:18 227:4
 268:5
follows 53:4 255:13
food 46:21 69:8 79:8,9
 130:18 131:15 191:8
 191:18 196:2 202:17
 207:17,18 208:5,9,10
 209:18 210:11,20
 213:9 214:11 219:20
 225:9 227:6 228:6,7

232:14,14,16 236:21
 240:9 252:3 286:12
food's 194:17
food-grade 231:2
foods 194:14 202:18,20
 214:14 216:13,19,19
 216:19 218:4
foot 276:15
force 262:11 263:1
 271:8 278:17
forefront 63:5 279:12
forest 58:10 66:18
forests 147:13
forget 26:15
forgot 62:10
form 95:20 120:2
 125:17 150:5,8
 178:14 228:1,2,19
 229:5,12 231:18
 232:5,7 247:3 286:4
formal 15:19
formalized 5:19
format 149:22 286:9
formed 102:20
forms 44:12 119:22
 196:9 223:17 229:11
 229:14 296:19
formulate 12:19
formulated 71:6 183:10
 186:6
formulation 115:17
 178:13 195:7 237:11
formulations 103:2
 115:4 193:9
forte 218:11
forth 5:11 71:5 82:14
 160:16 182:19 254:16
 261:22 264:10 287:11
fortification 191:11
fortune 301:16
forward 9:13 11:13 18:6
 25:15 35:6 52:15
 55:13 57:4,9,11,19
 62:6 69:8,10 73:12
 88:10 159:10 198:1
 241:9 242:6 243:17
 247:15 279:9 283:15
 284:1,6,11,21 286:17
 287:9 288:8,12,17,18
 288:22 289:2 291:6
 291:10,11,19
FOS 216:13 217:4,10
 218:6 219:19 220:11
 220:12,22 221:3,21
 222:22 224:8,20
fossil 117:19
foster 44:21
found 40:17 81:2 119:4

124:6,20 149:19
 185:9 211:3 215:14
 215:16 216:18 219:8
 232:17 239:4 259:22
four 98:2 125:4 168:11
 258:16 259:1,9
 276:15
fractions 95:11
fragile 41:11
frame 132:7
frames 296:4
framework 68:10
Francis 149:15
frankly 174:11
fraud 172:5 278:6
fraught 141:3
free 203:9 215:8,8
 269:20 297:8
freeze 208:14 215:1
frequently 23:22
fresh 138:16
freshwater 96:3
FRIDAY 1:7
friendly 36:17
front 85:20 195:6
front-end 274:2
frozen 214:14,21
fructooligosaccharid...
 216:10,12,21
fructose 220:8,9,19,21
fruit 103:1 104:22
 106:18 123:7 147:5
 156:1 203:18 204:5
 213:15 237:18
fruiting 146:11
fruits 125:20 236:20
 237:20,21 279:3
fuel 95:11 117:19
fuels 95:10
full 31:12,17 55:14
 113:11
fully 148:22 160:6,8
fully-structured 35:3
fun 189:11 302:3
function 86:16 94:11
 113:7 116:14 193:12
 234:2,5 235:9 237:17
functionality 193:10
 215:17 228:14 235:12
 245:21
functioning 48:11
 112:5
fund 267:2
funded 133:20 161:5,10
 161:15 165:4 173:19
funding 11:21 12:16
 20:11,18 21:3 22:15
 164:16

fungal 110:2 122:4
 153:16 165:20,22
 166:1,3 168:12
 169:18 170:22 172:21
 186:3
fungi 122:21 125:20
 154:10 163:6 167:18
 167:20
fungicide 152:2 155:14
 228:4
fungus 180:10
further 32:10 39:7
 44:21 47:15 49:20
 53:19 55:6 73:12 93:3
 154:16 182:11 193:19
 194:12 221:5 242:10
 262:15
fused 102:16
future 26:14 44:8 65:4
 81:18 226:16 241:16
 242:7,9 282:9 287:18

G

G 225:3
gallery 141:20
game 293:11
gap 7:16 13:15
garden 178:16
gardeners 182:2
garments 26:3
gas 139:20 140:7 284:9
gasses 179:21
gateway 207:17
gather 280:5
gathering 279:15,17
gauge 261:5
gavel 281:14
GE 137:3 255:2
gel 285:5
gellan 195:21,22 196:5
 196:7,13,20 197:8
gelling 191:9 196:2
 214:17 225:12
gels 196:9 231:18
general 8:8 34:20 68:9
 68:13 96:12 126:15
 131:13 154:17 163:13
 202:22 203:11 204:6
 215:22 223:21 228:22
 232:19 250:22
generally 30:6 175:4
 192:10 202:16 219:12
 221:10 230:15 245:10
 250:18 263:5 267:6
generated 173:8
generation 137:15
 225:12 284:8
generations 63:10,10

276:5
generic 104:18 105:2
genetic 250:9,20
 251:14 252:4,14
 254:12 256:4 257:17
 258:22 259:1,14
 261:5 266:17 287:19
genetically 136:16
 137:6 223:5,8,11,12
 224:5 251:18 258:17
 270:18
genome 258:22
geographic 171:9
geographically 226:8
germane 33:9 88:2
getting 10:19 14:1
 20:18 27:5 30:10 57:6
 86:7 142:5 186:22
 207:20 230:4 248:4
 252:13 300:20
ginseng 59:11
give 10:10 50:7 61:22
 62:20 92:3 115:6
 169:8,22 193:6
 218:20 221:20 262:1
 273:18 280:3 282:10
 282:15
given 25:5 79:22 88:10
 143:6 151:9 182:8
 199:4 205:15 226:8
 257:5
giving 99:1 214:17
glad 68:18 134:2
glasses 176:17
glazes 196:4
glazing 191:9
glossy 84:20 85:9
glucose 220:7,19,20
gluten 215:8,8
glycerides 208:4,7
glycinate 284:17
glyphosate 258:17
GM 258:21
GMO 219:1 222:4
 272:21 275:6
go 12:13 14:13 15:19
 28:8 31:11,12,20
 35:22 43:9 51:10
 56:18 69:10 72:10
 99:2 103:19 123:12
 128:8 129:17 131:7
 155:17 156:18 159:10
 161:1,17 176:18
 184:4 190:4 202:8,10
 205:7 206:1,5 217:1
 248:2 261:11 263:2
 264:2,7,14 272:6,11
 273:7 276:8 277:7

279:9 281:21 282:1
 295:9
goal 128:4
God 162:22
goes 57:9 154:16 201:1
 201:8 202:2 219:16
going 11:9 16:9,16
 18:20 22:10 25:17
 29:6 31:8,15 32:14
 43:7 45:22 58:22 59:1
 59:2 60:22 62:19,21
 63:18 64:1 65:9,15
 79:20 86:12 91:9
 99:12 101:4,5 107:13
 109:21 116:17 117:16
 126:1 127:9 131:7
 132:5 134:7 137:6,7
 148:22 150:15 165:18
 168:21 186:7,15
 190:15 198:1 199:4
 200:13 202:8 203:4
 217:21 250:15,16,17
 252:17 254:3,4,8,10
 260:22 262:19 264:6
 269:2 271:7,19
 275:10 280:19 281:22
 282:1,2,21 283:1
 285:20 286:4,5
 287:11,12 291:18
 297:5 298:4 299:8
 301:2
good 4:18 5:18 10:5
 11:6 18:17 28:12
 29:21 30:4 31:8 33:17
 34:3,11,16 51:4 68:11
 99:2,18 111:17 114:4
 115:2 134:10 155:19
 158:20 160:18 161:12
 189:15 205:14 206:19
 235:17 236:6 262:17
 262:21 263:1,13
 264:15 265:18 274:20
 280:11,12 302:2
goods 214:12 215:18
 216:20 227:11
Gotcha 301:10
gotten 11:21 150:18
 242:5
government 13:18
 15:15 16:4 26:22
 27:11,15,21 47:20
grab 172:13 260:20
grabbing 260:20
grades 199:15 227:10
grain 260:5,7 276:14
grains 275:20
granularity 114:10
grape 114:18 155:12

grapefruit 238:20
grapes 108:21 153:20
 170:21 212:16 213:15
grapevine 213:17
gray 155:20,21 165:16
grazing 48:17,22 56:10
 56:12 60:16
great 6:15 14:5 19:22
 28:4 56:1 81:20 82:18
 100:4 107:5 118:10
 135:17 136:21 170:17
 189:10 201:19 236:13
 258:3 275:3 279:5
 297:13,16 300:15
 301:12,15,19
greater 7:15 8:9 25:14
greatest 25:4,11
greatly 300:4
green 206:3
GreenCleanPRO 83:7
greenhouse 99:13
 292:9
greenhouses 90:18
grew 58:8
ground 72:11 95:2,4
 99:12 192:3
grounds 167:14
group 19:12 20:7 59:9
 68:3 92:16 106:15
 112:4 206:16 233:3
 250:3,4,12 261:4
 268:18 277:3 291:17
groups 86:21 181:22
 193:15 196:16 209:18
 217:9 256:14
grow 145:13 170:21
 171:14 205:20 266:18
grower 86:20 162:16
 174:21 175:3
Grower's 277:2
growers 55:22 58:13
 80:11 81:17,20 82:15
 86:21 98:18 115:7,15
 120:17 123:7 139:13
 142:22 145:9 148:15
 148:19 155:13 156:11
 157:16 160:4 162:9
 162:17 170:1,11
 171:22 175:2 186:15
 186:18 254:22
growing 42:1 94:19
 95:22 137:7 144:13
 145:9 148:15 160:15
 166:12,13 172:8
 236:12 252:20 256:8
 260:5,6
grown 141:1 143:14
 250:10 251:17 253:8

254:13 263:5 272:9
 287:20 292:12
growth 124:19 139:20
 236:4 279:22
guar 215:4 225:4 226:1
guess 145:21 147:4
 181:20 213:17 234:14
 247:18 250:4 273:17
 278:1 294:18
guessing 83:18
guidance 6:5 16:15
 44:21 47:11,18 48:13
 51:10 56:5 58:2,5
 70:1 93:6 248:10,11
 248:11 296:11,14,22
Guide 255:3
guidelines 6:12 10:7
 38:21 255:6
gum 195:21,22 196:5,7
 196:13 201:2 208:17
 214:9,10,14 215:4,16
 226:7,9,11,13 227:4
 231:15,16 232:1,16
 234:4,7,7,9,12 284:10
gums 196:20 214:18
 215:3,14,17,21 225:4
 225:7,14,15,18,22
 226:4,15 232:13
 233:1,21 234:13
 236:7
GUO 2:12 301:11
gut 216:15
guys 170:18 216:3
 267:21 268:14 270:1
 275:21 276:18,19
 298:14 300:11

H

habitat 41:12 44:2
 48:19 61:22 71:2,17
half 104:14,16 190:1
 252:18
hand 4:13 77:4 190:12
 285:1 301:2
Handbook 255:2
handful 184:21
handing 9:16
handling 76:19,19
 95:14 189:21 190:12
 204:4 218:10 244:17
 245:8 249:20 260:6
 264:16 284:7,19,20
 285:6 286:12 287:6
 287:16 299:10
hands 9:16 57:11
 291:11,16
hands-on 30:7
happen 50:5 72:12

179:19 231:5 254:6
271:14 296:11 300:21
happened 45:18 290:21
happening 68:16
158:20
happens 18:18 72:2
106:14,16 196:18
295:16
happy 197:6 205:4
277:6
hard 18:14 23:20 57:5
61:6 62:19 69:14
101:19 109:21 130:16
148:18 158:17 175:2
186:4 197:11 233:6
269:2
harder 207:20
harkens 148:12
harm 201:13
harmful 124:20 163:6
Harriet 1:12 18:7 25:21
29:15 32:5 33:13,14
34:4 39:8,9 40:7
52:17 55:8 60:11
69:12,22 74:2 83:3
85:1 87:14 89:20
90:12 96:13 98:6
117:1 134:3 141:18
142:10 146:2 149:15
156:19 158:1 168:6
188:8 223:2 250:1,1
250:11,13,14 251:1
254:7 255:17 266:20
280:18 291:21 293:1
297:13
Harriet's 250:16
harvest 41:3 45:12 49:1
59:8 60:16,17 143:2
206:9 260:12
harvested 129:4 130:10
130:21 132:16 133:7
201:11 259:15 260:1
260:21
harvesting 58:16 59:5
59:15,16 131:11
261:12
Hawaii 185:3,9
hay 91:22 94:7
hazard 124:21 181:19
hazards 229:7
head 231:9 234:11
252:6
heading 252:1 260:7
heads 164:22 256:19
277:17
health 8:12 47:3 103:22
111:7,13 117:11,21
117:22 122:12 149:17

154:10 192:4 232:9
232:12 236:10 238:11
239:6
healthy 44:8
hear 10:11 41:18 83:19
88:3 99:18 107:5
134:2 147:8 163:10
168:14 175:18 271:21
292:10 301:1
heard 4:21 55:21 56:16
71:20 91:5 97:16
110:16 115:9 168:22
171:21 172:22 184:9
193:15 197:7 213:16
241:4 246:8,19 247:8
257:20 259:3,6 270:1
270:7,9 281:13 290:2
291:5
hearing 100:15 163:8
291:2
heart 212:21
heating 126:1
heavily 110:9 127:12
heavy 120:9 143:21
hedge 99:19 100:3
heels 166:10
held 70:12
help 47:8 61:1 107:7
134:8 155:13 159:21
162:9 168:15 169:10
172:3 208:9,10
218:13 221:14 247:10
261:4 277:12 280:15
297:21
helped 69:14
helpful 8:15 14:13 28:9
43:14 75:17 83:19
105:2 118:4,17
129:12 134:20 161:13
185:7 204:14 242:8
246:5,9 255:4,7
256:18 267:6 271:9
helping 48:5
helps 172:5 204:18
221:15,16 227:13
231:11
herbicide- 270:3
herbicides 90:8
herbs 193:3
Hidalgo 116:2
high 21:17 48:11 88:17
90:18 93:15 95:1
102:15,16 108:21,22
110:22 149:20 171:8
196:8 289:14
higher 113:13 114:21
156:10 171:6 207:2
highlight 120:16

highlighted 116:5
highlighting 8:4 240:3
highly 5:9 29:17 88:16
122:22 217:11 218:14
hired 276:7
historical 122:8 185:14
history 103:13 205:15
293:6
hit 101:12
hits 103:10
holds 12:12
hole 23:17 24:12,13
144:11,12
holes 25:3
home 65:18 215:8
honest 293:2,2
honestly 174:18
honey 297:17
honor 301:15
hope 26:14 57:10 64:2
68:11 69:9,20 71:9
73:10 80:11 136:19
147:18
hopefully 69:15 281:2
hoping 89:7 271:14
hormone 204:10
hospital 116:15
host 8:13
hosted 28:5
hosting 11:14
hot 136:13
Hotel 1:9
hour 189:20,22,22
hours 160:19
housing 28:15
huge 275:14,21
human 46:16 103:22
111:7,9 118:15
122:12 130:18 149:17
238:11 239:6 252:3
humans 154:13
humble 156:18
humectant 216:18
humid 155:10
humidity 108:22
hurdle 241:12
hurting 147:17
hybrid 258:13,21 259:2
259:8
hydrated 125:13,15
hydration 227:4,16
hydrocarbon 140:6
hydrocolloid 196:1
201:1
hydrogen 80:15,17
hydrological 40:14
67:17
hydrolysis 219:17

hydrolyzes 220:18
hydroponic 166:11
169:16 292:11 293:7
hydroponically 166:14
hydroponics 293:9
hydroxide 203:6
hypochlorite 238:14

I

Ibach 20:13
ice 143:7
idea 13:22 17:11 19:18
27:6 51:4 99:2 106:5
221:20 261:15 264:8
266:1 267:5 276:21
277:5
ideally 82:2
ideas 11:6 21:8 34:17
57:18 114:9 261:22
266:14
identification 298:4
identified 79:9 145:18
identify 82:15
identifying 264:9
290:14
IFOAM 215:6 225:20
232:3
ignorance 98:18
ignorant 223:17
ignore 167:9
ignoring 100:22
ii 90:10
ill 76:20
illness 114:12
illnesses 112:1 116:14
illustrate 45:6
illustrates 43:11
imagine 83:20 88:12
117:14 130:16 206:21
265:8
immediate 41:5,12
immersion 237:22
immobilizer 220:17
impact 25:4,11 91:19
111:19 238:11 239:1
239:8 245:18
impacted 8:5 123:1
impacts 43:19 44:18
96:2,22 111:6,12
129:5,7 139:4 192:6
232:11 239:7
impart 214:22
implement 16:22
implementable 51:14
implementation 8:19
44:22 247:10
implemented 172:14
272:20

- implementing** 180:20
257:11
- implications** 117:12
121:2
- import** 4:15 20:19
- importance** 108:20
110:21 159:19 239:10
240:17
- important** 4:22 8:7 30:2
35:7 43:11,16 63:1
66:21 69:6 71:16
72:15,22 73:8 90:15
94:13 97:22 98:5
100:15 102:1 110:14
111:5,10 115:10
116:19 120:14 121:1
121:7,10 126:17
136:18 161:20 162:4
171:5 173:1 179:4
186:14,20 205:17,19
253:3 267:16 296:19
- importantly** 111:2
- imports** 285:22 298:13
- impossible** 81:10 86:2
- impression** 273:17,18
274:10
- improve** 47:17 67:11
200:1
- improved** 300:1
- improvement** 29:19
47:4 98:8 264:9
- improving** 71:4
- impurity** 257:22
- in-depth** 132:12
- in-field** 6:6
- inaccurate** 301:7
- inbox** 271:15
- incentive** 3:5 40:5
41:10 42:19 71:2
230:20 231:4
- incentives** 50:21
- incentivizing** 57:15
- inch** 168:10,11
- incidence** 239:13
- incidences** 185:11
- incineration** 95:20
- include** 39:2 40:11
52:10 53:12 68:4 78:5
78:8 87:20 95:17
101:9 130:11 227:9
238:13,15,19 246:5
247:5 284:2,16
285:12,22
- included** 39:3 45:3
86:20 162:16 164:10
164:13,19 179:15
225:21 246:10,10
- includes** 38:17 84:3
98:9 190:19 200:16
216:6 281:18
- including** 40:13 67:18
77:21 79:4 102:10
107:13 115:4 121:15
121:17 122:20 123:18
194:22 196:2 214:11
228:7 238:16 286:12
289:14
- inclusion** 191:20
- incoming** 299:1
- inconsistencies** 293:18
293:20
- inconsistency** 294:13
- inconsistent** 226:8
295:2
- incorporate** 83:13
- incorporated** 66:10
82:3 84:4 103:7
177:22 237:1 245:16
- increase** 43:21 47:21
49:7,18 65:9 167:19
172:4 213:2 270:21
- increases** 153:13
230:21 270:22
- increasing** 70:11
180:17
- incredibly** 63:1 72:15
- increment** 20:6
- incremental** 11:21
12:16 22:15
- indefinitely** 281:12
- independent** 7:19 8:8
30:9 179:9
- Indians** 58:15
- indicate** 167:13 212:1
245:12
- indicated** 85:4 104:14
163:18
- indicates** 104:2
- indication** 35:6 276:16
- indications** 89:8
- indigenous** 63:4,12,18
64:1 66:3 72:18
136:13 279:13,14,18
- individual** 23:22 86:21
258:20
- individually** 226:15
261:3
- induce** 140:2 143:1
- industrial** 78:12 79:13
- industry** 60:8 63:16
64:8,17 89:19 140:13
141:1,9 161:5,10
165:4 174:12 200:5
204:19 228:9 230:15
- inert** 183:14 291:17
- inerts** 183:20 289:15
291:10,22 292:5
- inevitably** 70:19
- infant** 216:19 218:4
- infer** 109:3 257:19
258:2
- infestation** 185:3
- inflexible** 7:3
- influence** 165:20,22
199:9
- influences** 165:17
166:1
- influencing** 166:17
- influx** 63:11
- info** 130:20
- information** 4:18 15:6
47:19,22 48:2 51:5,12
92:4 93:7 96:1 107:20
115:2,15,22 118:8
120:14 130:19 134:19
139:10 143:6 159:21
165:5 173:18 197:18
198:6,13,16,21 199:1
199:2,8 205:2 217:18
218:6 233:19 238:9
241:9 245:16 251:9
253:21 262:21 265:19
280:2,5,5,6,7 283:17
286:21 301:7
- informational** 228:10
- informative** 6:16
120:12
- informed** 100:20 101:2
120:13 238:7
- infrastructure** 254:1
- ingest** 106:17 146:21
147:18
- ingredient** 195:4
217:11 229:4,5
- ingredients** 92:7
183:21 190:21 200:16
209:18 210:3 216:8
219:21 223:22 229:14
237:9
- inhalation** 78:17 104:5
126:12 154:14 192:7
- inhaler** 113:2
- inherent** 159:19
- inhibiting** 227:21
- initial** 7:17 31:21 140:5
183:5 238:2,3 265:15
- initiatives** 20:20
- injected** 137:20
- inks** 84:20 85:9 86:1,3,5
86:9,9 89:4,9,13
- innovation** 292:2,3
- inoculant** 103:10
- inoculated** 144:11
- input** 9:20 14:1 19:14
43:14 136:19 292:3
- inputs** 288:2 294:5
- insect** 102:21 104:19
- insecticide** 109:14
110:1 124:2
- insecticides** 102:9
121:15 123:18
- insects** 44:1 122:6
123:1 124:16 159:16
- Insider** 299:16
- insight** 20:2 108:21
231:11 256:10 261:9
271:12,14
- insolvent** 144:2
- inspect** 6:22
- inspection** 8:17 29:2
30:8 31:11,12,17 32:8
32:12 92:13 151:9
- inspections** 31:4,19
32:14 34:9 187:18
- inspector** 3:4 4:20 5:2,8
6:14 7:18,19 26:8
28:7,20 29:11 30:17
30:21 32:19 33:22
34:11,11 38:22 45:20
98:2
- inspectors** 4:22 5:13
6:6 7:8 8:4,8,10 12:6
28:19 29:1,18 31:10
32:9,12 33:3 46:1
48:6
- instantizing** 227:10,15
- instruction** 16:15 17:22
- instructions** 296:14,16
296:22
- instrumental** 300:20
- insufficient** 228:19
- insulin** 219:5
- insulin-** 218:21
- insurance** 8:12,12,13
- intact** 50:11
- intake** 29:8 232:18
- integral** 66:13 123:10
- integrity** 5:1 24:2,8 47:1
69:7 187:2 197:1
250:9 254:12 255:1
255:14,21 256:4,20
257:6 259:14,22
261:16 264:10 287:19
- intended** 18:12 37:22
71:12 193:10
- intending** 257:3 273:19
- intent** 9:12 255:20
- intention** 35:2 46:9 49:9
49:13 242:2
- intentional** 46:15
- interact** 291:1

interchangeable 225:15
interest 20:17,17 111:3
 161:7 174:17 180:17
 193:15 196:16 213:22
 217:9 271:17,18,20
 289:19
interested 26:20 64:6
 163:8,9 255:13
 256:22 257:4,9
 259:16
interesting 18:6 61:16
 148:6 163:22 173:6
 173:10,17 180:1
 204:14 218:11
interestingly 180:7
 260:13
internal 114:1
international 5:13
 64:17,18,19 99:17
 210:11 217:10 264:15
 295:6
internationally 47:8
 204:12 215:5 225:19
 232:2
internet 48:1 59:13
interpretation 217:15
interpretations 168:5
interpreting 233:10
interview 33:6
intimating 145:1
introduced 71:10
introduces 296:22
inulin 216:22 219:4,8
 219:20 220:7,11,11
 222:9,9 223:10
 224:10,20
inulin-derived 219:6,7
inulins 219:18
invariably 206:4
invasive 49:19 66:11,20
 132:1 133:5,10,22
invertebrate 44:11
invest 21:15
invested 120:21
investigate 226:10
investigating 34:6
investigations 154:19
investigative 33:12
investing 25:3
investment 25:10
 120:22 121:3
involve 145:17
involved 12:9 56:2
 210:6
involvement 267:5
involves 263:8
involving 237:21

IOIA 30:16
Iowa 94:2
ironically 70:22 265:3
 266:18
irrevocably 52:9 53:11
 70:4
irrigated 109:2
irrigation 77:22 79:4
 80:9 81:22 82:22
 83:16 120:18 138:19
irritation 78:18 104:3,3
 104:4 105:13 119:2
 192:8
Island 185:6
ISO-19011 8:22
isolated 227:4
isopropanol 78:2 79:12
isothiocyanate 284:3
issue 41:21 43:11,14,16
 44:20 55:10 57:14
 68:17 69:5,18 76:7
 84:1 88:5 93:9 96:1
 96:20 98:19 131:20
 134:9,21 136:5 140:8
 146:18 150:20 160:3
 169:6 174:5 179:6
 180:1 201:7 202:3,4
 206:7 229:11 253:3,7
 253:20 254:12 255:8
 259:22 267:16 268:22
 270:8 275:21 277:16
 277:19 279:12 292:12
 292:21 294:3
issues 42:8 69:5 97:2
 100:17 106:5 110:5
 117:22 126:8 131:1,8
 132:7 136:5 161:9
 168:12,16 172:5,21
 180:5 181:13 192:5,9
 230:11 245:6 250:18
 252:9 254:5,8 268:10
 277:12 294:10
issuing 296:11
it'd 279:5
it'll 234:10
item 36:15 40:3 78:22
 150:6 176:13 240:17
 244:15 250:2 280:16
 285:9,22 287:4,8
 293:5,6,9
items 22:1 60:14 88:15
 178:19 196:4 223:14
 282:15,21,22 285:22
 286:18 288:16 289:7
 289:13 299:11 300:1
 300:2

J

j 137:17
Jacobs 119:4
Jake 259:17
January 191:17 195:11
 205:8 300:2
Japan 164:5 215:6
 225:20 232:2
Japanese 217:5,8
Japones 284:9
JENNIFER 2:15
Jenny 10:13 18:8 25:20
 26:21 28:7 291:3
 300:19 302:5
Jerusalem 219:9 224:4
 224:12
Jesse 1:14 78:3 79:14
 79:22 152:19 156:17
 158:1 164:11 171:8
 175:12 176:19 249:1
job 29:21 32:17 189:16
jobs 34:13,14
Joelle 149:16 243:19
John's 276:12
join 280:15,22
joining 4:7 76:21
 132:10
Journal 161:8,9
Juan 116:1
judge 18:14
jumbo 160:22
jump 77:7,16 190:16
justice 160:20
justification 62:12
justified 46:19 47:6
justify 107:7 142:5
 288:21

K

Kaken 152:3
keep 42:10 57:17 66:11
 119:5,5 138:18
 185:21 200:13 269:19
 275:2 292:20 294:18
 295:12,13,17 297:2
Kelco 233:19
kept 198:7
key 132:7 262:6
Keystone 63:21
kidding 262:9
kids 112:6 113:7
kill 167:17 178:16
kills 92:18
kilometers 112:12
kind 9:15 10:5 14:2
 15:2,5,12,13 17:11
 22:4 24:16 32:11,21
 33:7,8 55:6,18 58:6
 61:9 76:6,8 77:14

85:14 96:19 100:6
 101:1 103:9 104:18
 105:10 106:8 107:20
 114:2 115:14 116:16
 117:19 118:20 126:11
 128:4,10,17 135:10
 138:6 141:21 147:22
 155:3 165:16 169:10
 173:16,17,21 184:13
 185:10 186:3 201:1,8
 202:2 204:14 219:10
 219:17 220:5,21
 229:20 233:17 234:14
 251:7 260:18 271:7
 277:15 288:15 290:7
 291:7,16
kinds 114:7 174:8
knee-jerk 100:20
knew 269:12
know 11:16 12:10,22
 14:5 15:5,7 17:6,12
 17:13,16,18,21 18:13
 18:22 19:15 20:1,2,3
 21:2,18 22:9,18 23:10
 24:3,6,15 25:12 26:3
 26:4 28:19 29:6,7,9
 29:10 31:7 33:16
 34:19 43:20 46:17
 51:20 55:14 56:1,4,9
 56:14 57:8,17 58:13
 63:5 68:4,10,11 70:13
 72:19,19 73:9 76:1
 82:6 83:4 84:8,12,12
 84:14 86:12 89:3 91:3
 93:10,10 94:18 95:18
 96:6 98:21 99:1
 100:15 101:20 105:22
 106:6,9,14,16 107:17
 108:11 110:17 111:18
 113:2 114:20 115:5
 115:21 116:16 117:8
 117:8,13 118:16
 119:3,9,12,13,20
 120:7,14 121:7,9
 122:7,9,13,15,16
 125:3 126:16,18
 127:6,10,11 128:13
 130:5 131:15 132:19
 132:21 133:18 134:22
 137:5 138:7,8 139:6
 139:12 142:17 145:12
 146:19 147:1,11
 148:15,17,22 153:4
 157:11 158:5,11,16
 159:17 160:3,17
 161:1,13 162:18
 163:20,22 164:17
 166:12 167:14 168:7

168:9,10 169:3,5,7,15
 170:2,5,6,17 171:10
 172:14,17 173:20
 174:8,20 175:1
 179:22 182:17 183:14
 184:19,19 186:15
 187:6 197:20,22
 198:5 201:6,10,11,16
 201:18,19,20,21
 206:7,18,22 207:5,18
 207:19 209:10 213:14
 221:5,16 222:3,15
 223:3,6,9,20 224:6,19
 226:3 230:8,16
 232:22 233:16 234:1
 234:8,10,13 241:6
 248:3 258:6 260:2,14
 261:13 263:7 269:15
 269:17,17 273:5
 274:7,7,17 276:1
 279:6,6,7,8 280:3
 282:13 286:14 290:2
 292:16,18 298:18
knowledge 6:3 10:9
 63:10,12 253:22
 271:12,13 273:2
knowledgeable 272:18
known 111:18 216:13
 220:1
knows 147:14 174:4
kombucha 218:4
Kroger 207:8

L

LAB 237:14
label 41:13 42:2,14 47:2
 69:7 79:9 183:13
 194:22
labeled 190:21 195:5
 200:17 209:17,19
 210:2 212:15 213:6
 216:8
labeling 123:21 265:1,2
 265:22
labs 248:2 254:2
lack 41:9 44:2 165:5
 206:8 256:20
lactates 238:17
lactic 128:3 237:10
 238:16
laid 19:11 166:7
Lakes 135:17
land 40:20,22 41:3 45:5
 45:10 47:10 48:4,12
 48:16,18 49:11 50:10
 50:22 51:1 55:22
 57:16 64:11 71:7,10
 72:9 87:12 91:19

92:20 162:11,12
 250:10 251:15,17
 253:8 254:14 287:20
landfill 99:22
landfilling 93:9
landfills 99:20
landholder 64:10
lands 52:7 53:9 56:10
 59:8 64:3,5,7 66:7,18
landscape 43:19 61:15
 61:20 92:9 98:5
 278:16
Langara 174:11
language 45:9 69:15
 72:3
lapse 268:19,19
large 20:20 66:3 122:17
 141:12,14 142:2
 149:3 205:11 207:14
 215:13 222:12
largely 219:1 280:7
larger 44:5
largest 64:10 157:9
LAS 237:13,15
lastly 302:4
late 27:7
latest 152:8
Laughter 22:17 26:6
law 70:18 79:7 97:18
 213:8
laws 116:6 273:6
lay 25:18
lays 6:20
leaching 100:1
lead 80:21 91:16 152:18
 162:10 250:5 287:12
leadership 17:18 20:8
 20:10 290:20 301:13
leads 72:5
leaf 103:11
leaning 251:20
learn 132:16 259:16
 278:21 279:5
learned 68:17 200:22
 257:5 258:3 262:14
 300:15
learning 12:2,4,8,14
 17:15 261:13
leased 50:9
leave 80:18 93:18
 267:18 278:12
leavening 211:17
leaves 57:11 103:8
lecithin 208:17 227:1,3
 227:6,9,13,16,19
 228:1,3,9,11,15,18,22
 229:2,8,12 230:19
led 49:16

left 49:15 146:11
leg 256:21 258:5 259:12
legumes 231:17
lend 224:10
length 220:9
lessen 265:3,10
lessened 239:13
lessening 43:18 49:17
 153:10
let's 57:20 131:14 281:1
 281:2 290:15
letter 22:10
letters 162:6
letting 156:18 247:20
level 9:9 48:11 116:17
 123:13 128:5,5,10
 171:6,12 179:10
 231:12 237:17 240:11
 272:10,12 274:22
 276:6,22 277:17
 279:16
levels 138:19 251:21
Lewin 259:17
LEWIS 2:18 75:16
 76:14 173:5 248:4
 290:1,18 299:15
liability 8:12
licensed 8:6
licensing 7:22 8:14,21
 13:7
lieu 128:18
life 31:4 44:12 115:13
 206:8 213:2
light 165:19 166:5
 294:7,9
lighting 271:15
Lima 1:14 175:22 177:2
 188:12 190:13,14
 191:4 192:13,21
 195:18,22 197:2,15
 199:11,16 200:11,20
 202:7,11,14 203:2,7
 203:14,20 205:3
 206:12 207:6,14
 208:1,6 209:21
 210:17,22 211:8,13
 212:12,19 213:12
 214:5,10 216:11
 218:9 223:2,15
 224:15,21 225:6
 227:2 229:16 231:7
 231:13,16 233:12
 235:21 237:5 241:1
 241:20 242:1 243:11
 244:10,14 246:22
 247:17 248:12 249:10
 249:19
lime 121:14,16 122:3,18

123:2,9 125:13,15
 169:21
limestone 125:22
limit 258:7
limitation 131:10
 159:12
limitations 114:11
 173:14
limited 138:15 139:8
 152:4 174:3 210:10
 214:12 232:8
limiting 95:15 117:20
 131:10,22
line 15:17 48:10 213:11
 298:2
linear 237:12,14
lines 61:1 80:9 154:17
 235:18
link 167:12
lion's 250:13
liquid 127:2,10 128:12
 129:9,14
liquids 140:7
Lisa 1:14 4:7 75:12
 188:11 190:10,13,18
 205:21 248:19 249:22
list 4:17 47:13 80:10
 82:2 88:15 94:5 107:8
 117:15 123:9 129:18
 132:13 140:22 147:19
 150:10 151:1 152:14
 152:15 154:6 158:18
 175:5,13 176:14,20
 180:4 181:10 187:22
 188:4,6,10 189:6
 200:13 217:10,17
 226:3 239:15 242:17
 243:18 244:22 247:2
 255:12 264:13 291:14
 292:4 295:12,14,17
 298:9 299:10
listed 42:4 82:4,22
 84:20 93:2 102:9
 103:21 121:14,18
 123:17 124:2 129:13
 130:11 148:9 165:8
 182:9,16,22 186:1
 187:14 188:2 199:19
 204:4 217:2,5,7
 226:15 228:4,6
listening 17:7 61:7
listing 83:12 84:3 86:19
 117:5 118:9 126:6
 176:12,21 183:7
 194:2 201:22 203:1
 205:12 208:3 209:16
 210:19 211:7 214:8
 216:9 218:8 225:3

226:22 229:20 231:14
 243:14,16 245:6,20
 247:20 248:18 292:1
listings 78:1 84:19
 102:5 109:13
literature 103:6 113:21
 113:22 122:17
little 4:7 27:19 30:21
 31:1 56:8 89:15 90:20
 91:7 105:22 112:3,7
 118:20 129:9 142:19
 146:15 147:7,14
 181:12 182:11,15
 198:3 210:6 230:11
 235:5 236:11 250:18
 258:10 262:1 273:2
 281:21 282:1,6,15,19
 296:9 298:5
live 111:11 168:9
 183:21 270:21
lived 72:13 112:13
livestock 28:20 29:1,13
 29:14 40:22 41:7
 87:11 119:18 179:19
 252:3 284:20 297:6
 298:12 299:10
living 26:2 112:6 292:1
loam 101:18
lobby 162:3
local 91:3 96:19 143:1
 207:8
locust 215:4 225:4
 226:2
log 143:14 144:12
 145:14
logical 70:20
logs 144:22 145:10
 146:8,11 147:6
 148:16
long 21:19 37:8,13
 43:19 48:22 56:11
 70:13 110:12 116:16
 122:1 131:5 141:1
 159:4 160:21 213:9
 223:12 277:7 279:13
long-chain 219:18
longer 46:12 101:1
 144:21 145:6,22
 206:11 219:19 229:19
look 5:20 9:22 11:7
 19:1 67:15 81:18 83:9
 83:10 112:18 113:19
 114:4,6 115:20
 116:12 135:9,21
 147:7 150:7 159:20
 172:8,9 187:16 207:9
 226:12 235:4 242:6
 262:12 267:7 274:9

277:19 280:20 285:20
 289:6 293:6,17
 299:13,19
looked 103:15 104:8
 112:11,12,14,18,21
 141:4 156:22 163:14
 182:11 198:1 232:16
 262:14 277:13 278:14
looking 4:3 13:14 14:11
 17:13 21:20 26:18
 29:6 32:15,16,22
 87:18 89:4 107:22
 113:8 162:21 172:10
 172:14 180:3 233:13
 234:14 259:10 266:3
 277:10,14 279:21
looks 14:15 34:18
 190:7 200:12 248:12
loose 31:2
lose 60:4
losing 26:11
loss 41:16 49:16 160:1
 184:16 207:16 266:22
 272:4
losses 267:9
lost 88:5 178:6
lot 5:17,18 7:22 16:6
 18:10 22:2,7,19 24:15
 26:3 31:4 33:4,8
 34:22 37:9 55:19,20
 56:15,16 58:10 62:14
 67:4 86:22 94:18,21
 99:11 100:12 109:21
 111:3 114:11 115:6
 116:20 119:21 120:21
 121:5 127:7 128:11
 128:20 134:20 135:13
 135:22 161:3,19
 162:6,15 167:1 168:8
 168:22 170:17 172:21
 178:10 180:5,19
 185:5 205:14 208:21
 221:8 230:20 231:10
 235:22 236:4 261:8
 264:21 267:11,12
 269:11 270:10 272:2
 276:20 286:1 292:12
 301:19
lots 34:16 166:7 256:9
 256:10
love 10:11 24:22 31:5
 33:18 34:9 58:9 59:22
 69:3 271:21 276:19
low 21:17 90:18 153:22
 154:12,17 156:8
 180:12 196:8 231:19
 231:20,22 266:3,4
lower 127:5

lubrication 210:8
lucky 174:22
lucrative 58:22
lump 79:18 233:1
lumped 79:14
lunch 189:19
lung 113:7,10 116:13
lungworm 185:4,11
lysozyme 238:20

M

magnesium 209:16,22
 244:16,19 245:4,5,12
 248:17
magnified 168:13
main 38:15 201:7
 202:16
maintain 46:14 66:19
 67:10
maintained 56:12 134:6
maintaining 8:11 67:1
 135:3 254:12 264:10
 266:2
maintenance 47:3 98:8
maize 259:8
major 71:15 212:10
 227:8 266:22
majority 37:21 51:16
 54:2 69:16 138:21
 253:8 289:9
makeup 251:14
making 21:7 24:12
 37:12 49:3 55:19
 56:13 64:21 97:10,11
 163:3 166:5 186:13
 211:21 223:9 266:11
 278:22 300:21
malic 238:17
malt 220:2
mammalian 180:12
manageable 254:15
management 12:2,5
 17:16 22:6 48:21,22
 90:17 102:22 136:14
 265:20
managing 110:21
 125:19 290:6
mandates 98:8
mandatory 8:16 76:13
manner 149:12 201:11
Manual 288:20
manufacture 102:7
 128:17 191:22 212:9
 228:12 230:14 238:10
manufactured 124:4
 181:3 224:2 237:12
manufacturer 208:22
 212:4 215:15 222:12

224:3 225:22 226:6
 233:18
manufacturers 130:21
 134:9 135:1 194:6
 196:11 199:18 215:12
 218:1,2 225:21
 234:21 245:22
manufacturing 128:9
 210:9 217:1,16,19
 222:10,14 235:4
 237:15
manure 87:10
map 17:17,19
margarine 227:9,13
marginal 231:2
marginally 139:13
marine 96:2 129:3,5
 131:2,3,16 201:8
 202:3 287:10
market 13:16 50:8
 130:4 143:1 157:13
 196:21 215:22 230:3
 236:12 252:10,16
 253:2 264:19 272:4
 272:15 275:12 279:21
 280:8
market-driven 272:2
Marketing 2:14
marketplace 40:18 41:6
 44:15 47:2 223:6
 252:1 254:14
markets 275:17 280:9
marks 138:1
material 80:14 81:2,7
 81:19 82:3,12,20 83:5
 84:2,7 85:5,16 87:1
 88:3 93:2 95:3 97:13
 97:21 102:17 106:1,7
 107:2 109:11 121:21
 121:22 123:3 128:8
 128:18 129:4 130:6,7
 137:18 140:16,19,21
 141:2,17 149:14
 150:14 151:14 153:22
 159:10 160:5 172:10
 172:16 173:21 175:18
 180:12 181:4,8,9,10
 181:18 182:8,21
 183:7 187:5,14,17
 191:17 192:6 196:12
 196:18 199:12 204:11
 210:15 215:13 217:22
 229:10,22 230:6
 234:15 237:6 239:5
 239:19 240:2 242:7
 267:17 287:15 289:18
materials 2:20 50:3,12
 80:12 85:9 95:1 108:9

- 108:12,15 109:8
116:19 124:14 128:21
129:3,19 132:13
135:4 138:3 151:17
175:5 182:14 183:15
183:19 190:15 198:4
198:8 201:9 202:3
205:10,13 210:8
228:20 239:12 240:19
240:21 249:22 280:17
283:3,6,9,10,20 284:5
287:10,17 289:18
299:17,22
- matrices** 63:2
matrix 61:14
matter 29:8 70:19 75:6
101:21 190:5 211:3
231:5 272:3 281:5
302:13
matters 189:9 282:3
284:22
Matthews 27:16
Maui 185:6
mead 211:22
meals 129:15
mean 11:2 19:4 27:14
29:20 33:16,17 56:22
65:21,22 72:8 99:18
99:20,22 139:14
147:18 149:1 164:14
164:21,22 166:3,22
169:11,15 171:13
173:16 174:21 183:8
186:1,5 197:2 201:9
206:4 233:2,6,8,10,12
233:16 234:16 235:3
235:21 236:6 241:3
247:19,22 262:3
272:5 278:8
meaning 24:14 68:21
70:20
meaningful 19:14
means 37:14 69:4
156:10 171:6 282:13
meant 46:18 282:10
measure 18:21 61:19
measured 113:7
measures 61:13
measuring 62:3
mechanical 252:22
mechanism 100:4
106:3 179:17 180:10
mechanisms 179:18
medical 161:10 216:19
medications 113:1
Medicine 161:8,9
medicines 113:4
medium 141:12
- meet** 38:22 49:1 87:5
90:2 94:10 151:1
157:13,15 158:19
257:14,16
meeting 1:5 5:12 82:18
140:9 154:5 159:11
189:15 195:15 201:1
206:13 228:8 234:10
238:5 241:5,14 262:5
270:10 283:1,4 286:1
292:15 299:2,11
301:13 302:9,10
meetings 85:7,20 261:4
290:4
meets 60:17 165:8
218:7 240:12
melting 201:4
member 23:16 165:14
300:14
members 4:4 75:11,12
148:21 160:13 190:8
197:10 205:22 210:12
280:21 281:9,15,16
283:19 291:17 299:1
301:18
menhaden 130:12
mention 62:11 129:14
151:5 181:20 197:17
297:4
mentioned 6:11 20:15
20:16 32:7 60:14,15
77:10 105:21 159:2
172:18 186:17 210:1
215:15 237:8 250:11
259:6 264:14 266:1
266:19 296:14
mentions 130:14
mentorship 7:16
mentorships 7:6
merely 7:10
met 1:8 42:19 89:17
158:7 241:13 256:13
metal 211:4
metaphor 24:22
methionine 29:7
method 44:13 115:21
181:11 204:19 219:7
219:22 220:4,7
222:14 223:22 258:8
294:11
methodology 31:18
86:6
methods 71:9 108:15
114:15 143:7 156:4
216:21 217:15 219:6
221:1,22 222:18,22
223:14 228:11 257:18
257:19 258:4 259:13
- 266:6 288:6
MFA 276:7
Michelle 2:10 50:16
271:21 302:5
microbially 166:19
microbials 240:14
microcrystalline
143:13,19 144:9,18
145:2,11,15 147:3
192:1
microorganisms
122:20 139:5 149:18
237:18
microoxygenation
199:21
microphone 197:10,12
mid 21:2
middle 105:7
Midwest 72:14
Mike 206:18
mildew 153:19,19
mildews 125:19
miles 279:4
milk 227:18
mill 260:7
milled 225:9
million 22:12 64:11
212:18
mimic 70:9
mind 18:16 185:21
mindful 7:7 71:20
mined 117:3 118:6
149:11 192:1,2,6
212:10
mineral 192:2 211:3
minerals 287:5
minimal 147:22
minimizes 149:12
minimum 5:21 7:3
38:19 127:4 237:22
mining 125:22 126:11
126:13 192:5
Minnesota 64:2
minute 264:1
minutes 75:4 189:20
281:1
missing 4:9 56:9 190:8
296:7
Missouri 58:11,13
59:10 66:15 133:10
133:11,12,15,18
170:18,21 171:1
mistake 156:19
mistakes 278:22
mite 102:10,22 104:19
121:16 123:19
mites 123:1 124:16
miticide 124:18 178:12
- mitigated** 117:22
mitigating 118:16
mitigation 64:3
mix 120:8 125:17
mixed 208:8 221:2
mixture 125:18
MOA 272:20
mode 124:8,12,15
125:7 154:8
model 32:21
models 9:3 32:8,17
254:19
modified 50:14 136:16
223:5,8,11,12 224:5
251:18 258:15,17
270:18
modify 47:16 93:5
225:10 227:14
moisture 90:16
molasses 203:10
mold 155:20,21
molecule 220:8,20
molecules 220:8,9,19
224:9
molluscicide 177:21
178:6,8,9 185:16
molluscicides 180:16
MOM's 205:7
moment 191:21 240:15
295:5
money 16:3 20:6
120:21
monitor 92:12
monitoring 100:1
mono 208:4
monocultures 142:3
months 41:1 140:3
159:7 298:7,10
morning 4:8,19 12:11
76:18
morning's 4:10
Mortensen 1:16 18:8
22:22 23:4,7,10 25:20
38:5 39:13 53:17
54:10 61:5 74:7 83:15
102:13 106:9 107:10
108:18 118:12 125:15
135:8 165:11 174:6
176:9 177:11 184:7
188:21 205:21 218:18
221:19 222:2 223:1
243:8 244:7 249:7
250:6 254:7 268:16
273:16,22 274:5,15
278:1,7,10 280:11
281:18 290:11 300:7
300:10
mother 112:19

- mothers** 207:18
motion 35:10,20,22
 36:1,3,9,10,10 37:12
 37:17 38:14,15,16
 39:8 40:1 52:21,22
 53:3,15,18,20 54:1
 55:5 74:2,20 175:10
 175:10,11,13,14
 176:11,12,12,13,14
 176:19,20 177:16
 187:22 188:1,4,5,5,8
 188:9 189:3 242:13
 242:13,14,17,17
 243:13,14,14,15,16
 243:19 244:13 248:15
 248:15,19 249:15
motioned 37:19
motions 175:9
Mountains 58:9,9
 145:13
mounted 237:12
mounting 165:5
move 11:13 27:22 35:5
 35:9,12 36:2,15 38:15
 55:13 57:10 73:12,13
 78:22 84:17 90:6
 109:10 123:15 125:10
 151:18 178:21 195:19
 210:18 211:9 212:13
 226:21 243:17 244:21
 247:15 248:18 289:21
 291:6,10
moved 139:9 206:10
movement 85:22 91:18
 269:1 289:16
moves 27:16,17
moving 25:14 52:15
 62:6 90:7 102:4
 121:13 125:11 139:18
 149:8 177:17 192:14
 200:14 209:14 214:5
 216:4,5 245:20
 268:11
mulch 90:10 92:11 93:5
 286:19
mulches 84:21 90:9,14
 91:18,21 92:7 93:14
 94:7,10,10,20 96:21
 99:12 100:16
multi-function 227:19
multi-year 101:14
multiple 84:3 169:3
 196:12 235:15 245:3
multiplicity 160:15
mummy 153:20
municipal 95:14
mushroom 143:14
 144:10,11,14,21
 145:8,9 146:8
mushrooms 144:22
 145:19
mutagenic 154:15
mute 294:12
-
- N**
- naive** 68:15
name 58:14 83:4,9
names 58:14
narrow 17:3 21:3 46:6
narrows 112:3
NAS 51:5
natamycin 284:4
Nation 63:8
national 1:3 2:11,13,16
 2:19,20 36:20 37:2,5
 38:18 40:8,9 41:14
 42:6 50:20 52:14
 55:11 68:8 80:10 85:3
 88:15 92:5 129:18
 150:10 157:1 158:17
 176:14 188:6 201:20
 226:3 239:15 244:22
 278:14 299:10
nations 64:19
native 3:5 40:5 41:10
 41:16,22 42:20 43:1
 44:10 45:5 46:2,7,10
 46:11 47:9 48:8,19,21
 49:20 50:1,11 52:2
 53:3,4 56:2,11 58:10
 58:14,16 60:19 66:7,9
 66:12,19 67:1,20 68:9
 70:3,7,8 71:2 72:14
 73:16,20 132:4
natural 26:3 40:12
 42:16 47:4 52:1,6
 53:8 61:21 62:4 63:9
 66:13 67:11,16 98:9
 107:18 111:8 118:1
 140:7 145:5 148:7
 166:18 192:22 193:1
 193:1,8,14,18 194:14
 194:15 195:3,6
 227:11 238:22 264:21
naturally 102:8 118:6
 138:13 149:20 195:5
 219:9
nature 66:8 165:22
 218:15 224:7
near 112:6 212:20
 293:13 298:22
nearby 112:22 113:8
necessarily 9:4 13:12
 16:18 33:9 63:3 88:2
 98:13 162:19 163:1
 263:9 296:18
necessary 51:17 147:9
 193:6 201:4 213:10
 239:3
necessitate 85:10
necessity 142:7 156:22
 182:18
need 5:8 6:17 7:15 8:20
 14:6 21:15 25:13,17
 26:17 27:13 31:9,16
 32:21 34:4,5,5,12
 35:10 44:20 47:12
 48:15 49:6 52:20 58:1
 65:4 71:22 73:1,9
 83:9 88:17 89:19 92:4
 96:22 100:16 107:15
 115:8,22 119:10
 131:19 134:1,12,15
 135:9 139:9 145:2
 155:13 157:4,17
 160:4 174:8 175:18
 180:1,16 184:20
 193:21 195:4 199:3
 230:6 232:17 234:17
 236:10 239:21 240:2
 241:10 250:4 262:11
 263:13 266:7 268:17
 277:19 281:14 282:18
 283:16 286:3 291:12
 293:20 294:1,3
 295:14,19 296:9
needed 36:17 51:12
 127:4 134:5 138:22
 145:6 147:20 238:6
 253:17 274:18 296:20
needs 11:12 13:4 31:18
 84:10 91:17 134:15
 148:8 206:9 220:16
 236:11 273:6
negative 43:19 125:8
 169:12 174:1 192:6
 205:15
negatively 146:20
neighbor 276:7
neighborhood 270:22
 271:6
neighbors 269:14,18
nesting 44:1
net 49:10 135:11
netting 135:16
never 9:16 34:10
 198:19 207:12 252:14
 252:15,19 276:3,13
Nevertheless 60:6
 145:7
new 5:17 25:8,17 32:9
 34:12 49:5 72:11 95:7
 96:1 111:14 116:6
 137:5 148:6 161:8
 180:7,22 181:8,8,18
 191:16 195:16 207:21
 207:21 217:18 218:6
 234:22 236:3 292:5
 296:22
newer 114:14
newspaper 84:19 86:2
 86:4,8 87:9 89:12
newsprint 89:6
nice 85:14 109:9 231:2
 298:1
night 139:15 271:16
nimble 27:5,10
nimbleness 27:19
nine 259:5 275:6
Ninety-three 154:21
NLP 93:5
NOC 179:2 181:7
 292:14
non- 50:1,9 122:19,22
 216:13 217:6,16
 238:18 244:20 247:4
 253:10 265:3 272:20
non-agricultural 49:11
 190:20 242:15,19
 244:19,20
non-allergenic 229:21
non-compliance 12:11
non-compliances
 296:1,2
non-essential 154:7
non-GMO 223:18
 224:18,20 255:6,19
 257:16 272:19,22
 275:12,16,17
non-native 43:21
non-organic 50:22
 232:7,11 254:13
 265:4
non-organically 216:6
non-profit 47:20
non-synthetic 149:9
 153:7 192:17 238:15
 245:3 246:6 248:18
non-synthetically
 245:13
non-synthetics 191:2
 200:10
non-toxic 78:16
non-treated 255:18
non-woven 101:12
nonprofits 182:1
NOP 6:4 9:7 10:6,18,20
 18:19 24:4 47:11 69:9
 87:17 100:17 174:4
 178:2 237:3 248:9
 282:3 285:14,17,21
 289:7 296:6,8,11

302:4
normal 17:15 111:9
normally 65:6 156:9
north 276:10
Northwest 104:21
 109:2 136:15
NOSB 2:10 9:9 10:5
 36:19 40:10 42:15
 43:13 44:19 72:19
 93:8 132:10 139:3
 154:5 228:8,16
 247:22 254:15 275:6
 282:4 291:17
NOSB's 152:7 237:2
 240:17
NOSB-initiated 286:18
Notably 191:12
note 8:7 130:7 131:17
 159:4 171:11 194:18
 212:4 218:12 248:7
 299:15
noted 5:16 8:1 86:22
 87:9 91:1,17 150:3
 179:15 180:17 194:9
 195:8 197:16 213:10
 229:1,6 238:1,21
 239:22 240:4,14
notes 35:22 122:15
 178:7 180:9 200:12
notice 187:22
noting 7:3 122:16
 183:15 226:1
notion 242:16 268:2
novice 7:17
NRCS 27:2
nuanced 167:22
nuances 167:1
number 6:15 8:20 21:21
 43:10 46:6 47:18
 61:11 66:3 69:18
 71:21 77:7 81:9,21
 82:9 106:10 112:15
 115:3 122:3 130:11
 139:13 140:10 155:21
 191:19 196:10 215:10
 237:18 239:9 255:14
 259:6 260:16 262:6,7
 263:3 266:4,15
 267:10 278:20 293:3
 295:7
numbers 92:20 302:1
numerical 232:17
numerous 40:9 43:15
 50:19 70:9 90:3,14
 92:10 157:10 214:11
 251:5 292:10,15,19
nutrient 105:14 110:6
 138:9 232:15 287:5

nutrients 129:6
nutrition 193:13
nutritional 191:11
 210:4 212:8 214:13
nutshell 231:10

O

o'clock 75:4
O-F 3:1
oak 145:14
OAKLEY 1:17 10:3 38:9
 39:17 54:14 56:18
 65:21 74:11 80:6 83:6
 83:22 97:7 101:4
 108:4,6 118:3 132:10
 140:1 142:10 148:11
 159:1 164:11 166:22
 171:3 176:2 177:4
 182:6 186:21 188:14
 197:16 218:10 221:15
 223:16 242:4 243:1
 243:22 246:15 249:12
 267:21 289:13
objected 179:3 217:9
objection 76:22 77:2
objections 194:1 204:8
observation 32:3 89:17
 161:2 276:19
observations 272:17
observed 154:18
observing 296:1
obsolete 292:1
obtain 51:4 69:15
obtained 152:9 237:3
 253:21
obvious 258:9
obviously 20:6,13 25:7
 107:1 218:10 261:21
 267:4
occasions 259:18
occupational 111:22
 114:12
occupied 189:8
occur 10:6 56:10
occurred 46:15 278:11
occurring 91:15 102:8
occurs 68:12 92:17
 173:6
ocean 129:6 136:18
octanoate 123:17,20
 124:1,5
October 22:10 237:1
 238:2
ocular 111:19 119:2
odds 66:9
offense 27:14
offers 18:6
office 75:18,21 76:13

official 2:17 273:8
offline 293:4
OFPA 140:17 158:7
 165:9 241:14
oh 55:1 60:11 83:6 93:8
 94:11 152:19 164:11
 221:17 301:4 302:9
oil 140:8 144:1 227:12
 230:15,17,17
oil-free 199:15
oiled 229:2,19
oils 59:11,12,19 227:5
 238:19,22
okay 13:2 19:22 20:2
 23:6 31:7 37:7,11,14
 40:8 43:9 50:18 55:4
 73:12 76:16 78:4
 79:12 80:5 109:20
 127:9 132:8 151:5
 163:15 175:8 198:3
 200:11,14 202:12
 214:7,10 222:5 223:1
 250:2 254:3 259:12
 262:10 267:20,21
 269:13 274:4 283:19
 287:17 292:22 293:4
 298:11,20
Oklahoma 66:7,16
old 114:14 121:22,22
 121:22 198:11
older 163:14,17,18
oldest 110:11
OMB 298:7
OMRI 115:2 129:11,13
 183:19 246:4,8
on-farm 137:15 139:8
on-farmer 184:14
on-ground 45:13
once 14:20 17:4 60:20
 92:13 103:3 204:20
 208:11
one's 222:6
one-third 31:14
onerous 275:14
ones 32:11 86:4 259:2
 292:5
ongoing 14:16 260:17
 295:20
online 28:4 47:19 279:2
open 10:1 17:9 32:21
 32:22 146:10 250:22
 261:21 267:18
opened 72:13
operate 94:1
operation 5:5 47:5
 67:11,16,18 121:1
 126:13 142:15 172:9
operations 5:7 7:9,12

32:19 46:7 122:10
 146:8 157:11 211:2
 241:8 293:19 294:14
operator 42:9,10 49:22
 90:1 92:14
operators 47:8 50:7
 61:2
opinion 170:9 256:8,9
 261:7 269:2 270:7
opinions 168:3
opportunities 7:16
 279:21
opportunity 16:16
oppose 232:8
opposed 105:12 106:7
 173:19 201:21 210:13
 261:10 268:3 273:4
opposite 65:8 276:11
opposition 218:12
opt 8:13
optimal 138:18 193:6
option 28:13 133:4
 274:16
OR-CAL 177:22
oral 78:17 104:5 151:11
 154:13 228:21
order 19:7 20:18 48:17
 52:20 75:14 184:17
 240:9 260:17 296:10
Oregon 172:22 277:3
organic 1:3 2:11,13,16
 2:19,21 3:5 5:1,13
 12:4 20:18 23:18,18
 24:4 36:20 37:2,5
 38:18 39:1 40:6,9,9
 40:13,18,19,22 41:3,6
 41:6,13,15,18 42:1,2
 42:6,12,13,17,20 43:2
 43:12 44:4,14 45:2,7
 45:10,13,17,19,21,22
 46:1,5,21 47:1,13
 50:4,8,10,20 51:1,3,6
 51:13,18 52:14 55:11
 58:20 60:8 63:16 64:3
 64:7,17 65:12,15
 67:22 68:8 69:3 71:1
 71:9,11 73:21 81:11
 81:19 82:11 85:3
 87:12 90:15 91:8,12
 91:13,16 92:5 94:6,10
 96:8 97:17 98:7 99:7
 101:21 108:15 109:7
 110:13,14 112:3
 116:19 123:5 124:3
 124:14 127:13 135:6
 140:13 149:10 151:7
 152:2 155:12 156:7,9
 156:12 157:1,10,15

157:17 162:11,17,19
 163:3 164:1,3 168:15
 170:1 171:1 174:17
 175:3 177:21 179:1
 180:18 184:12 187:2
 187:16 190:22,22
 193:20,22 200:17,18
 201:14,20 204:18
 206:2,8,15 207:12,18
 208:17 209:18,20
 210:2 212:16 213:7
 215:16,17,18 216:9
 217:6,7,8 218:5
 222:19 224:8 226:1,3
 226:7,12,13,16
 227:22 228:2,3,19
 229:4,8,12 230:9
 232:5 235:9,13
 236:12,21 238:15,17
 238:22 239:17,21
 240:7,10 250:10,19
 251:15,17 253:4,4,8,9
 253:10,11,13 254:12
 254:14,14,22 255:1,1
 255:15,16,17 256:3
 260:15 263:5,6 265:4
 265:13 266:22 267:15
 268:9 269:3 270:6,6
 270:14 272:11 273:1
 275:18 276:3,4,6,13
 276:14,17 277:2
 278:15 280:6 287:1
 287:20 292:4,13
 297:17,17,18 299:16
organically 50:2 59:3
 59:20 68:21 164:7
 181:4 226:18
organics 169:16 196:21
 207:3 215:5 216:1
 225:19 232:2 236:4
organisms 155:2
organization 15:14
 21:14 135:5 200:3
 209:6 215:18 226:9
 232:8 240:12
organizations 104:15
 148:20 149:4 150:14
 181:22 196:15 215:11
 226:14 245:22
Origin 228:5
original 77:14 144:12
 159:3 196:17
origins 172:3
OSP 187:16
OSP's 215:14
OSPs 47:18 199:19
OTA 246:9 266:13
outcome 199:9

outcomes 112:11,16
 113:14 114:7 116:12
 116:13
outreach 174:16
outright 42:7
outside 27:9 75:13
 295:4
over-irrigated 138:3
overall 17:1 128:19
 154:10 204:12 210:9
 219:21 222:15 236:8
 291:2
overarching 220:12
overcome 159:18
overly 7:2
overseeing 293:16
oversight 45:6 46:8,20
 292:13 293:14
overwhelming 4:17
 169:1
owe 69:6
OWPC 179:1
oxalic 284:20
oxygen 80:19 199:15
 199:17,21
Ozark 58:8,9 145:13
Ozarks 66:15

P

P-R-O-C-E-E-D-I-N-G-S
 4:1
p.m 190:6,6 281:7
 302:14
PA 206:2
Pacific 104:21 109:1
 136:15,17
packaging 286:11
packet 36:13
paddies 81:4
Page 3:2
pages 160:21
painful 166:11
pale 206:2
panel 4:15 19:3 195:6
 232:14,16
panels 300:11
paper 84:19 85:10
 87:21 88:4
paraffin 146:19,20
paragraph 73:19 79:5
 90:9 121:16 123:19
 125:12 127:1 137:14
 137:16 149:10 216:9
 225:3
parallel 13:2,6
paraphrasing 262:10
pardon 254:10
parents 207:19

Park 1:9
parse 234:20
parsing 23:21
part 4:10 24:5 44:5 60:7
 60:20 62:22 66:12,13
 68:10 75:19 76:4
 80:20 90:15 97:11
 105:8 106:17 111:8,9
 112:20 119:12 121:1
 123:10 184:11 195:9
 195:10 198:19 207:8
 207:14 219:1 235:14
 241:3,6 291:17,19
 297:2 299:18
part-time 8:4
participants 302:1
participatory 9:8
particular 58:4 119:5
 142:15 153:14 154:4
 154:21
particularly 8:4 95:13
 128:16 139:5 140:13
 166:8 180:18 194:20
 214:21 218:3 240:11
parties 56:2
partnered 133:16
partnership 16:21
partnerships 11:18
parts 98:15 172:19
 212:17 294:5
party 16:17
pass 45:1 51:11 69:11
 69:20
passed 41:1 291:9
passes 38:15 40:1 55:5
 74:20 176:11 177:16
 189:3 243:13 249:15
passing 37:8
passion 301:21
path 14:14 34:21
pathogenic 125:20
pathologists 173:20
paths 12:9,14 13:6,10
pattern 24:7
patterns 120:13
PATTILLO 2:20 77:19
 79:2,17,20 84:18 90:7
 102:4 109:12 121:13
 123:16 125:11 126:22
 137:12 139:19 143:12
 149:8 151:22 152:18
 177:19 190:18 192:15
 195:20 199:13 200:8
 200:14 202:10,12
 203:4,16 208:3
 209:14 210:19 211:10
 212:14 214:7 216:5
 225:2 226:22 231:14

236:18
Paul 2:18 75:14 134:12
 173:4 297:20 302:5
pause 50:7 62:20
pay 93:22 274:1 275:16
pear 155:22
pecan 58:13,18
pecans 58:15,17
peer-to-peer 30:10
 32:11
pellet 181:12
pelleted 178:14
penalized 268:7
Pennsylvania 184:14
people 34:12 60:4 61:6
 63:16 66:22 71:6,15
 71:21 72:22 75:9
 82:21 84:9 95:19
 100:22 102:2 110:11
 113:3 120:2 130:16
 133:16 141:16 147:21
 150:21 162:2,21
 181:21 205:11 213:4
 231:4 263:3,22
 264:12,21 266:4,10
 266:15 270:10 285:13
 289:17 290:14 300:22
people's 163:9,10
peoples 72:18
peppers 284:9,10
percent 61:17,18,22
 64:12 71:7 137:16
 154:21 184:17 185:8
 192:2 196:6 212:6
 214:16 232:1 252:14
 252:18,19
percentage 214:15
 231:22 236:11
percentages 236:7
perfect 62:5
perform 86:16
performance 107:16
 237:17
period 17:3 41:8 42:15
 43:3 45:15 65:11
 73:22
periodic 263:19 282:7
 289:6
periodically 93:21
peroxide 80:15,17
peroxyacetic 238:14
peroxyhydrate 79:6
 80:7
person 20:11 32:15,16
 78:19 197:11 290:14
 291:1
personal 101:22 119:10
 121:6 122:15 192:8

196:4
personally 43:17 97:14
 100:3 159:22 166:11
 269:7
personnel 47:21
perspective 11:10 89:3
 185:15 197:8 218:16
 229:10 233:13
perspectives 165:17
pest 106:8 111:2
 124:10,11,13
pesticide 81:6 83:11
 106:2 110:7,10,11
 111:22 116:6 119:12
 153:6 257:22 269:1
 270:19
pesticides 105:12
 106:15 125:7 128:15
 174:13 179:3 201:12
 204:9 206:9 229:5
 240:4
petition 87:20 88:10,16
 89:1 144:12 152:3,8
 152:13 160:20,22
 177:18,22 178:5,18
 179:7,16 180:15
 182:12 196:17 198:11
 234:9,17 235:18
 236:16,22 237:2
 242:12 243:18 282:3
 285:7,15,19 297:6,7
petitioned 152:1,7
 176:15 177:20 188:6
 236:19 237:8 242:15
 243:15 299:11
petitioner 153:15
 158:12 167:16 179:8
 182:2
petitioner's 159:15,20
petitioners 198:12
 199:7
petitioning 88:14
petitions 151:18 165:12
 189:7 283:21,22
 285:11,12,16
petroleum 90:10
 117:18 143:21,21
 146:20
pH 127:2,5 128:5,5,8
 131:7 134:5 137:21
 138:13,16,18 211:17
 221:7,8,10,12 225:17
 231:19,20
Pharmaceutical 152:4
phase 12:17 15:9,20
 103:11
philosophical 106:5
phone 150:18

phosphate 181:2
 182:17
phosphoric 127:3,18
 127:20 210:20 211:1
phrase 18:10 179:15
physical 40:14 45:13
 67:17 103:9 225:17
 301:20
phytotoxic 124:22
pick 142:6
picture 19:10
pictures 194:22
piece 19:3,3,4,5 55:7
 113:5 265:6
pieces 19:2,6,7,12
 29:11 250:16
piles 147:7
piling 100:2
pilot 265:15 277:11
Pima 1:8
pineapple 139:21
 140:13 142:4
pineapples 140:2 204:2
Pipeline 63:20,21,22
pipelines 63:18,22
place 86:6 88:6 92:10
 114:6 153:13 199:5
 217:16 247:14 261:2
 263:16 269:5
placed 144:10 176:14
places 98:16 129:7
 197:17
plan 18:19,22 19:1,11
 19:13 20:12 24:3,5,17
 24:18 25:14,16,18
 45:7,17 46:5 91:13
 151:7 173:19 187:17
 293:9
planet 44:9 49:16
planned 47:14
planning 59:18
plans 64:3 105:10
plant 44:11 45:3 46:13
 49:16,19 52:4,11 53:6
 53:13 70:11 78:7
 102:11 103:3 104:22
 106:6 109:15,16
 110:6 115:11 121:18
 124:19 125:12 127:1
 133:20 137:5,13
 139:20 140:19 178:11
 223:4,8 228:5 252:13
 270:12
planted 58:15 258:14
 259:15,21 260:3
planter 256:5 257:2
 271:19
planting 140:3 252:9

254:13 274:11
plants 63:11 102:20
 105:14 123:1 124:6
 143:2 149:18 153:17
 178:15 184:16 193:2
 219:12 225:7
plastic 90:10,14,21
 91:1,20 92:9,11,18
 93:14 94:9,20,20
 95:22 96:1,7 98:18
 99:7,12 146:19
 147:17 166:14
plastics 95:9 96:2
 98:10
play 4:22 10:9 13:18
 56:12 265:21
players 64:17
playing 14:9 171:12
plays 219:2 242:6
please 65:22 150:6
 153:1 271:17,19
 281:15,17,19 282:20
 297:7 299:13
polyvinyl 90:11
plug 144:12
plugs 146:15
point 10:4 15:1,18 16:9
 23:12 26:15 29:18
 31:10 52:19 59:16
 66:5 82:19 91:11
 99:10,17 107:11,15
 116:1 117:13 134:5
 135:19 158:4 164:4
 169:19 171:4 179:14
 184:22 185:14 232:12
 254:11 257:8,9 258:4
 263:14 269:20 280:11
 280:12 293:11 294:1
pointed 8:20 77:15
 191:12 213:6 228:18
 240:13,16 251:3
pointing 8:21
points 5:6,10 70:16
 162:14 163:9,10
 179:5 187:11 262:6
policies 99:21 288:20
policy 28:10 40:10 92:6
 198:11,18 267:7
 279:9
political 63:17 267:7
pollen 251:18 269:1
 270:18 279:3 297:18
pollination 260:4
pollinators 62:3
polyoxin 151:19,22
 153:3,4,6 154:6,11,18
 155:6,13,17 156:5,14
 156:15 175:10 176:15

179:11
polysulfide 121:17
ponds 80:8
pool 5:9 6:14 38:22
poor 113:14 162:13
 184:16
popular 262:4
population 113:20
 180:22 232:19
populations 49:18
 114:4 132:4,5
portable 97:4
portion 205:18 249:20
 267:8 285:14
posed 245:17
position 35:8 289:22
 291:13
positions 28:10
positive 68:3 113:13
 122:14 125:4 174:1
possibility 27:8
possible 36:16 45:2
 83:16 92:5,12 108:9
 151:3 208:19 209:7
 232:10 259:7 290:17
possibly 68:21 85:11
 87:18 223:16
post 11:9 84:15 170:8
post-harvest 203:18
 204:4 206:7
posted 10:17 111:15
 180:8
posting 246:2
potash 212:10
potassium 102:5,7,14
 102:15 103:2 149:11
 149:17,19 150:3,3,7,8
 150:11,16,19,21
 151:6 200:9 202:11
 202:12,15,18 211:11
 211:14
potato 208:16 209:1,3
potential 105:13 111:6
 111:12 117:11 129:5
 133:3 136:4 139:2
 154:15 171:4,7
 181:14 186:11 232:9
 238:11 264:11 289:16
 295:18
potentially 8:5,15 97:5
 115:13,18 122:12
 129:7 131:1 132:6
 137:8 161:14 178:15
 181:1 224:6
pots 87:18,21 88:4
 294:8,9
poultry 29:2
pound 207:11

- powder** 102:17 192:1
 203:9 227:17
powders 227:10
powdery 153:19
PPM 289:3
practical 265:1,17
practically 78:16
practice 49:1 70:10
 107:18 138:13 274:20
 275:3
practice-based 268:3
practices 5:15 6:20
 11:1 42:12 50:3 63:4
 172:9,11 180:20
 184:15 252:22 259:16
 264:9 265:19 268:5
 293:17 296:8
practitioners 279:8
prairie 66:7 70:7,8
prairies 70:3
pre- 12:16
prebiotic 216:16 218:3
precious 42:19 44:11
 50:11 51:16
precise 219:5
precludes 183:7
prediction 40:12
Predominantly 125:21
prefer 165:3 272:13
preference 240:20
preferred 208:16 209:4
 253:2
preliminary 130:20
 283:13
premises 236:21
premium 275:18
preparation 78:11
 283:12
prepared 231:16
 261:17
prescribed 70:2 268:6
prescriptive 7:2
presence 80:15 217:10
present 1:11 2:9 35:2
 40:13 45:21 46:13
 47:4,10,19 48:4,7
 75:11 86:3 149:21,22
 165:2 195:3 250:15
 250:16 299:1
presentation 290:19,22
presentations 228:10
presented 65:17 261:20
presently 155:9
preservation 40:17
preservative 192:20
preserve 60:9
presiding 1:10
pressure 166:15
- pressures** 272:14
pretty 15:4 27:16
 111:17 120:2,14
 123:13 137:22 156:13
 159:14 169:11 185:4
 185:7 189:5 201:6
 204:6 207:13 223:19
 233:7 255:10 272:18
 291:13 297:22
prevent 9:8 49:10
 116:11 185:10 208:9
 270:3
preventing 125:19
preventive 172:11
prevents 153:11
previous 7:5 42:5 45:12
 45:18 46:22 67:5
 86:10 142:12 157:1
 165:6 239:19 251:11
 290:4
previously 52:8 53:10
 152:6 197:18 229:9
 290:19
price 31:14,17 156:8,9
primarily 210:3
primary 78:18 219:6,10
principal 125:18
principle 17:1
principles 40:11 201:15
printed 76:16
prior 133:12 195:14
 206:9
priorities 51:2 288:17
 291:5 298:10
priority 21:17,18 108:8
 289:14 292:16
private 11:17 13:12
privately 173:18
probabilistic 270:20
probability 271:1
probable 122:22
probably 14:10 21:14
 81:14 88:22 96:17
 98:14 100:8 106:4
 107:5 110:8,9,18
 114:15 142:21 160:18
 169:11 171:14 183:11
 184:20 190:3 207:1,4
 222:13 263:6 265:18
probing 259:7
probiotic 216:15
problem 95:3 97:16
 104:7 119:8 126:11
 160:15 162:22 166:6
 174:15 254:20 257:6
 258:1 260:2,4 269:4
 270:9,11 271:1,3
 274:16 277:9
- problematic** 50:3 80:12
 86:5 89:15
problems 118:21,21,22
 119:2 132:2 296:3
procedure 88:9
procedures 78:10
 255:5 257:11,12
 288:20
proceed 54:1 134:16,21
 242:11
proceedings 148:14
process 9:9 14:16 16:2
 19:16,16 56:5,6 68:13
 76:11 88:14 95:19
 126:11 128:9 129:17
 131:18 132:12 143:22
 144:7 145:17 163:3
 166:20 184:4 187:15
 199:21 200:6 211:15
 217:19 221:4,6
 228:13,13 237:15
 247:3,4,21 248:5
 254:9 273:21 280:4
 285:15,16 295:21
 296:17 300:14 301:17
process-based 264:7
 272:13
processed 190:21
 200:17 216:8 217:11
 237:19,21
processed-based
 263:16 264:5
processes 126:2 128:3
 210:7,9 246:6
processing 96:19
 127:22 130:4 191:18
 192:5 208:10 211:16
 215:2 225:8 275:1
produce 40:22 128:3
 137:6 143:9 178:14
 185:5 205:7 206:15
 222:9 229:4 240:7
produced 80:14 125:22
 145:1 156:2 166:19
 192:18 216:7 226:17
 229:2 237:13 245:13
producer 81:15 142:19
 157:9 232:6
producers 45:4 81:12
 82:8,9,12 87:5 94:6
 97:10,12,17 141:13
 141:15 142:1,4,16
 144:10 145:12 151:6
 158:1 168:15 253:5
 253:11,13 265:5
 277:4
produces 224:9
producing 211:5
- 216:21
product 16:21 79:9
 80:7 83:7,9 135:5
 140:1,12 142:5,22
 144:9 146:20 148:18
 153:9,11,14 156:22
 157:4 166:18 168:5
 170:4 171:15 173:13
 184:2 193:7,11 195:4
 196:6 200:2 201:6
 212:20 214:15,19
 218:15 219:11 220:4
 220:13 221:6 224:2
 231:2,9 235:12 236:3
 239:2 252:7 275:3
 288:5
production 3:6 40:6
 41:6,12,18 42:12,20
 43:2 45:10 46:3,21
 48:18 49:7,12 62:8
 67:18,22 73:21 78:6
 78:11 79:8 90:16
 104:22 114:18 115:10
 127:13 128:1 135:6
 137:4 140:19 142:2,8
 142:9 143:13,15
 144:21 149:10 152:2
 156:7 170:1,17
 171:21 174:17 177:21
 179:20 196:2 211:19
 213:10 215:1 224:13
 229:7 232:11 239:17
 268:9 293:17 294:11
productive 44:9
products 59:17 83:5,13
 115:3 127:2,10,16
 128:12 129:10,13
 154:1 167:8 190:21
 193:5 196:3 200:17
 202:17 209:17,19
 210:2 214:11,13,22
 216:7,8 217:7 219:9
 221:9 224:8,17
 225:11 227:13,18
 228:15 231:22 233:13
 235:9 236:5 252:21
 263:5 288:12
professional 6:13
 38:21
profile 193:7
profitability 230:22
profoundly 165:21
 166:2
program 2:11,13,16,19
 2:21 6:10 9:14 10:12
 12:2 13:7 22:6 34:17
 34:20 35:3 36:21 37:3
 37:5 38:19 39:5 40:9

- 40:10,13 50:21 52:14
57:10 68:8 92:5
119:13 134:8,13,14
134:15 197:21 198:13
247:9,13,19 272:21
289:15 290:5 295:1
296:20 297:9 300:3
- Program's** 291:11
programs 94:22
progress 18:22 291:18
prohibited 41:2,4 45:11
50:12 149:9 150:5,22
188:7 209:19 246:7
prohibitive 275:9
project 16:1 17:8
250:12 255:7 261:11
265:16 272:19,22
projected 282:4
projects 21:22
prominent 222:7
promote 66:12
promotion 47:2
prompted 47:14
promptly 281:2
proof 158:7
proper 88:9 123:9
properties 196:7 209:2
227:7,16 234:12
235:20
property 48:8 93:18
proportion 218:21
221:21 270:16
proposal 3:4,5,6 5:11
5:16 6:1,9 8:1 10:17
35:15 36:2,10 37:18
38:1,17 39:10 40:4
42:5,18 44:17 45:1,3
49:4,10 50:6,15 51:13
55:6 57:3 63:15 67:4
67:14 69:11 71:14
73:14 74:4 179:15
180:2,4 193:16
195:13 238:3 243:17
244:15 246:2,5,10
247:2 287:1,3,4,13
288:1,8 291:9
proposals 67:5 77:8
107:13 165:12 284:7
286:3,9 299:4
proposed 14:21 42:17
47:11 51:10,11
108:14 195:11,13
208:20 237:20 248:10
299:9,18,20
proposing 244:18
245:1
proprietary 193:8
protect 64:3 72:15
279:19 280:4
protecting 56:2 64:7
250:9,19 255:1 280:2
287:19
protection 44:6 51:15
119:14 279:14
Protections 228:6
protective 119:11 121:6
122:16 124:9 192:9
protein 212:7 258:19
protocol 265:6
protocols 253:16
proud 132:18
prove 264:2
proven 255:4
provide 13:15 19:13
41:5 50:21 51:12
118:7 183:13 198:12
199:3 202:17 241:9
282:18 291:12 299:19
provided 43:2 47:10,17
73:21 115:2 129:11
130:9 152:5 173:8
198:14 199:3 212:16
228:9 238:9 274:9
provider 27:1
provides 51:14 130:20
180:20 227:19 299:16
providing 12:22 13:13
13:18 17:12 47:7
158:18 199:7 253:12
public 11:17 41:16 43:7
43:13 50:16,19 57:7
73:4 75:13 78:19
85:19,20 86:17 87:20
88:4 97:16 100:10,14
110:15 112:8 117:21
118:5,13 120:4,12
122:2,9 125:4 127:7
134:19 137:21 141:10
142:17 144:15 147:9
147:18 150:2 151:11
151:13 154:20 155:4
155:6 156:13 157:3
164:9,18 169:14
170:8,15 182:10
196:10 199:16 201:3
209:9 212:1 215:10
215:11 218:12 225:20
226:4,5 232:7 239:14
239:18 241:12,19
245:8,18 246:3,8
247:8 252:11 259:4
281:15 282:10 290:3
292:10,19
publicly 12:18
publicly 279:17,18
published 103:6 114:13
167:13 190:2 237:3
255:3,5 282:7 299:12
300:2
pull 141:8 250:4 256:10
274:11
pulling 274:13
pullulan 284:19
purchase 44:2
purchasing 256:7
pure 184:3 269:12
purely 175:14
purity 102:15 137:16
192:3 257:2,12 261:5
271:19
purpose 102:21
purposely 34:19
purposes 82:4,5,22
131:12 140:18 141:6
183:2 193:10 202:16
pursue 293:22
pursuing 255:10
pushes 150:21
put 11:2 16:3 29:3
36:18 37:3 50:17 57:6
57:18,20 69:8 80:2
82:14 85:10 133:3,20
137:9 150:6,17 151:2
171:16 186:8 207:16
213:9 248:10 254:16
256:7 277:16 287:17
294:2 300:16
puts 45:17 100:6
putting 20:21 25:10
37:10 59:7 65:11
149:4 267:22
PVC 90:11
pyrolysis 95:9,12,17
96:14
-
- Q**
-
- qualification** 26:8
qualifications 3:4 4:20
5:20,21 6:2,11,18 7:2
7:3,4,7 9:22 13:5
17:14 25:7 29:12
32:10 33:3 35:4 38:19
qualified 5:9 29:2,13,14
29:17
quality 201:5
quantity 239:2
question 11:3 18:1,15
19:9 20:1 85:8 91:13
92:8 96:8 97:11 100:5
106:12,16 134:11
138:1 139:4 142:11
148:4,5 157:19 161:6
163:5,13 165:18,19
182:18 198:11 202:5
221:19 222:17 223:17
234:2 247:18 264:16
266:16 272:16 275:7
290:12 294:21
questioned 217:12
questioning 105:15
questions 28:8 45:3
46:4,17 47:14,17
78:20 82:14 83:1
86:15 90:22 103:20
103:20 104:9 118:14
118:18 126:6 129:1
131:4 134:14 141:16
156:16 163:12 182:4
195:17 196:21 200:6
218:19 226:20 238:8
240:18 245:17 246:12
251:19 253:14 283:6
283:18 285:10 288:14
289:10 293:14 298:13
quick 24:20 75:3
281:10 299:8
quicker 206:10 207:3
quickly 27:12 44:14
50:7 88:13 135:8
174:6 256:11 272:1
quiet 216:3 281:16
quite 26:22 30:22 32:17
86:18 88:1 99:5
103:13 127:12 143:6
157:5 160:15 165:7
172:20 174:12 191:18
192:11 199:2 221:10
222:7,12 230:3,4,7
231:2,12 235:7 289:8
quorum 4:5,11 75:12
190:9
quote 104:15 119:3
130:8 257:1
-
- R**
-
- rain** 168:10,11
rainfall 108:22
raise 19:9 161:6 210:16
212:6 290:12
raised 106:15 107:14
126:6 128:14 131:15
140:15 161:9 179:4
181:7 245:7 276:4
raises 18:15 94:17
106:12 131:1 139:3
171:5 181:13
raising 76:7
ranchers 40:19
range 125:20 171:4,9,9
227:6 265:9 277:13
ranged 118:21
ranges 225:17

- ranging** 157:4
rapidly 80:16
rare 49:15
rat 185:3,11
rate 199:22
rated 194:6 201:5
rationale 67:4
raw 228:20 229:21
 236:12 237:21
rays 64:2
re- 126:5 202:22 211:6
re-added 230:7
re-condensing 95:10
re-invent 9:4
re-list 185:20
re-listing 103:17 104:9
 105:12 203:13
re-visiting 11:16
reach 15:16 16:21 65:5
 148:18 172:16
reached 65:6 68:3
reaching 55:12
reaction 100:20,21
 246:18
read 51:21 53:4 54:6
 67:7,9 71:3 107:1
 111:16 151:20 162:7
 169:17 201:8 234:16
 246:17 254:10
readily 73:4 78:14
 222:7,16 261:9
reading 103:5 133:12
 169:14 182:10
reads 52:2 176:14
 248:16
ready 31:1 35:11 72:1
 73:3,12 190:10 222:4
 248:13 297:10,21
real 33:17 56:12 210:16
 234:15 272:14 275:9
realize 68:15 98:19
 127:14
really 9:11,18 11:6,12
 11:17 13:1,2 18:22
 21:15 25:10 28:4
 29:21 34:12 57:5
 62:19 65:9 67:12 68:3
 68:15,18,18 71:7
 72:17,19,22 73:7
 82:17 99:2 100:17
 105:2 106:13 107:15
 110:7,20 112:10
 113:19 114:5 115:20
 116:10 119:4 120:6
 120:12 125:3 126:3
 128:20 129:12 131:17
 131:19 132:12,18
 134:20 136:8 140:8
 142:3 147:8 148:1
 156:21 158:14 160:19
 161:4,13 168:16
 170:9 174:8 175:2
 181:21 186:5,7
 189:15 199:6 201:15
 201:19 204:1 205:17
 205:19 222:6,15
 229:18 233:3 236:2
 241:11,11,21 252:6
 256:17,18 262:11
 264:1 265:2 267:15
 268:2,17 270:5
 275:20 276:20 277:4
 277:11 281:10 284:22
 285:21 291:10 293:7
 293:10 295:20 297:5
 300:12,13,13 301:20
reason 30:4 65:13
 127:20 138:4 150:20
 207:15 209:3 234:4
 247:15
reasons 5:8 27:17
 61:12 64:22 184:8
receive 141:11 164:8
 164:18 191:16 199:4
 240:1
received 6:15 41:15
 85:18 140:9 144:16
 155:5,6 194:1 217:13
 218:5,7 232:5 238:2
 239:20,22 241:19
 245:11 250:22 285:7
recess 75:5 190:4
 280:19,22 281:4
recipes 215:9
reclassification 244:16
 245:10 246:1,4
 248:15,21
reclassify 248:17
recognition 5:19
recognize 29:17 49:22
 66:22 100:16 102:2
 290:9
recognized 52:3 53:5
 239:10
recognizes 240:8
recommend 81:3
 176:13,21 248:21
recommendation 34:19
 35:9 38:17 63:15
 64:21 73:18 131:21
 188:10 243:17 296:18
recommendations
 40:11 291:15
recommended 245:6
recommends 6:9 36:20
 38:18
reconvene 75:3 189:19
record 37:1,10 67:7
 75:7 107:1 190:6
 197:14 281:6 293:5
 302:14
records 187:17
recovered 52:11 53:13
 117:18 144:1,8
recovering 48:10
Recuse 54:13
recused 54:22
recycle 93:15 95:5
recycled 84:19 86:7
 95:2 132:20
recycling 93:13 97:3
 294:8,9
red 126:18 199:22
 213:2
reduce 114:15 115:18
 167:7 172:5 202:19
 211:16,22 213:1
 237:17 239:12
reduced 184:11
reduces 227:14,16
reduction 212:5
redundant 235:19
reevaluating 217:21
refer 238:18 247:7
reference 28:8
referenced 36:1 182:12
 263:18
referred 66:15 238:5
 251:10
refined 218:15 219:16
 230:18
refinement 218:20
refinery 144:5
refining 143:20,22
reflect 19:13 103:13
 132:14
reflected 103:20 254:18
reflection 234:13
reflects 111:17 168:4
refuting 138:7
regarding 81:7 154:3
 239:6
regardless 186:16
 187:6
regards 245:19 264:20
regeneration 48:12
regenerative 46:14
 48:6
regime 239:12
region 43:20 87:1 93:10
 93:17 148:14
regions 48:15 111:1
 122:8 157:5 162:10
registered 13:9
regrowth 49:7
regs 11:8
regular 251:16
regularity 21:12
regularly 86:17 231:6
regulated 16:17 194:19
regulating 116:6
regulation 43:3 46:21
 49:2 50:22 51:18
 73:22 78:7 91:12 96:9
 98:7,15 139:21 228:3
regulations 71:3 96:9
 98:14 213:7 263:18
 293:21 297:1
regulator 191:7 204:10
regulators 139:20
regulatory 42:21 45:9
 68:10 75:22 76:11
 117:13 298:7,8
reimbursed 267:3
reiterate 109:5 292:15
reiterating 170:14
reject 54:7 243:18
rejected 158:10
relate 9:10 11:7
related 22:12 111:22
 112:5,16 113:1
 131:10 179:21 180:6
 203:22 204:1,3,15
 206:22 210:7 217:18
 218:7,19 245:7 293:8
relates 266:6
relation 291:13
Relations 75:19
relationship 7:21
 112:14,22 113:9
relationships 113:13
relatively 114:14
 161:22
release 14:19,20 15:5
 151:14 191:10 208:8
 227:7,10
released 136:17
releases 98:10 122:18
 298:7
relevant 205:12 235:11
 251:13
reliable 263:13
relies 159:14
relisting 93:1 229:1,6
rely 234:20,22
remain 36:22 71:19
 87:2,8 90:4 92:10
 146:7 254:11
remaining 55:10 144:8
remains 230:18 288:2,6
remark 173:5
remarks 299:6 301:3

- remember** 290:18
remind 119:17 172:8 297:8
reminded 266:5
reminder 197:9
remnants 48:7
removal 123:8 209:6 248:21
remove 133:16 195:15 211:2 245:1 248:16
removed 51:20,22 77:13 92:15 215:19 229:3
removing 85:12
render 133:21
rendering 150:1
renewal 228:17
renewing 228:18
reorder 77:1,3
reorganize 195:10,13
repeat 205:1 246:20
repeated 140:4
repetition 241:18
replace 31:7,8 37:17 194:14
replacement 196:14 197:4 202:19
report 20:11 81:1,6 83:11 85:5 103:5 104:1 109:18 111:14 152:9,10 178:1 180:8 237:3 238:7 295:22
reported 110:19 112:19 113:1,16,22 179:7 194:10 199:19
reports 114:12,12 295:21
repositories 44:10
represented 148:20 149:3 256:2
represents 103:9
reproduction 122:19
request 15:6 51:7
requested 82:12 196:16 196:17 226:15 245:8 245:11 285:21
requesting 238:3 245:18
requests 50:20 282:4 283:11
require 45:13,20 252:17 260:9
required 44:6 76:15 149:17
requirement 40:21 45:6 45:10 46:6 222:21 262:20
requirements 8:17 9:8 12:19 42:18 193:20 218:8 222:18 286:22 297:1
requires 74:3 222:10
research 48:3 51:2 61:13 80:22 81:1 92:3 93:4 100:11,18,19 101:2 108:8 160:19 173:19 174:4 286:21 288:17
researched 63:6
researchers 100:11 174:16
reservations 44:18
reset 195:17
residues 257:22
resistance 239:13 258:18,18,18,19
resistant 270:4,13
resource 60:18 132:20 206:19 255:7 290:14
resources 13:19 28:14 34:21 39:5 40:12 47:4 58:7 67:11,16 98:9 129:5 174:3 255:3 290:5 291:5
respect 72:16 205:1 294:17
respiratory 111:19 112:5,15 113:4,14 192:8
respond 19:19 27:12 139:16
responded 23:14
responding 19:17 114:2 194:6 278:5
response 19:17 50:19 53:21 246:2,19 299:22
responses 148:5
responsibility 75:19 116:9 266:10 267:8
responsible 5:5 266:9 300:11
responsiveness 27:20
rest 270:11 294:3
restrict 133:5
restricting 194:13
restricts 79:7
result 43:22 72:4,5 104:3 116:14 167:13 264:22
resulting 102:16
results 8:16 51:15 61:18 104:4 143:9 144:5 161:13 167:13 232:13
resumed 75:7 190:6 281:6
retail 236:1,21 240:11
retailer 194:12 196:19 207:15 215:21 242:1
retailer's 197:3
retain 260:11
retaining 52:3 53:5 226:2
retrogradation 227:22
returned 159:8
review 26:10 45:14 76:11 80:20 85:3,5,13 85:14,15,17 88:13 91:4,14 97:12 103:14 111:17 129:17 131:18 135:4 136:4,9 139:3 142:11,12 146:6 150:14,15 152:8 154:11 158:6 159:3,5 159:6,10,13 160:8 164:20 178:19 184:4 185:18 189:7 195:9 198:14 200:6 212:1 217:3 231:15 237:2 239:4 242:5 245:5,9 245:15,17 281:22 282:2 283:13,13,21 284:15 285:1 288:10 288:19 296:2 300:3
reviewed 85:19 104:15 180:5 217:3 228:16 238:4 239:19 254:21 282:22 295:21
reviewer 30:1 34:2
reviewers 29:18 30:5 30:11
reviewing 85:12 107:12 180:15 234:9 251:4 283:16
reviews 77:11,12,17 159:20 165:6 242:7,8 283:2 284:14 289:9
revise 36:9 54:6
rewarded 42:13
Rica 140:14
rice 1:12 4:14 10:11 14:12 16:12 18:5 19:21 24:21 25:21 26:5 28:2 29:15,22 32:5 33:13 34:16 35:18,21 38:2 39:21 40:3 52:17,22 54:18 55:8,16 56:17,20 57:20 60:10 61:3 62:9 62:16 65:1,20 69:22 70:14 72:6 73:11 74:15,21 80:8 81:1,4 81:9,15,19 82:2,3,16 83:17 84:10 96:5 172:7 176:6 177:8 187:13 188:18 191:5 211:14 237:6 243:5 244:4 249:4
rich 271:13
Richard 27:16
rig 276:9
right 4:3,13 13:15 14:8 17:2 19:4 21:1,9,22 22:1 23:13 24:7,8 25:1 26:5 27:13 33:15 35:18 37:7,16 38:14 57:2,4,7 63:17 73:11 75:16 76:11,14 77:7 77:17 78:22 83:2 84:17 90:5 98:22 107:19 108:2 109:10 118:8 121:12,20 123:15 125:10 126:21 131:2 135:3 137:10 139:18 143:11 149:5 149:6 150:17 151:17 152:12 158:21 162:5 167:18 168:1 170:12 176:16,17,18 177:17 178:4 182:4 187:21 189:18 190:7,10,14 190:16 192:14 195:18 195:22 199:11 200:7 200:21 201:17 202:8 203:3 208:1,6 209:12 211:9 214:5 216:3 224:21 225:6 226:21 231:13 232:21 236:15 243:13 244:14 248:4 248:14 249:21 257:10 260:14 264:4 268:20 274:4 281:8,13,20 282:5,14,21 283:4,10 285:20 286:1 289:3 289:14,17 290:18 291:20 294:1,2,12 295:5
ring 185:11
ripe 143:3
ripen 204:20
ripeness 207:3
ripening 78:8 203:18 204:5,16 206:17
rise 61:22
risk 145:22,22 252:4 255:15 257:8
risk-based 22:3,5
river 133:10 135:18
road 17:14,17,19 252:6
rodents 44:1
role 4:22 13:18 58:3

roles 69:1
ROMERO-BRIONES
 1:18 38:8 39:16 54:13
 55:1,3 62:18 74:10
 119:16 136:12 176:1
 177:3 185:2 188:13
 202:15 203:8 211:1
 227:3 242:22 244:11
 249:11 279:11
room 4:4 29:19 69:13
 256:2 278:12
Rooms 1:8
root 103:11
roots 103:8 105:15
rot 153:18,19 155:13
rotate 239:11
rotation 125:6
roughly 218:21
round 189:14 212:3
 230:6
Round-Up 222:4
route 264:2,7,8,11
routes 154:14
routine 189:9
routinely 266:1
row 99:20 100:3 178:15
Ruihong 2:12 301:2
rule 14:21 44:7 50:6
 51:11 60:17 61:17
 116:9,10 195:11,14
 195:14,16 251:13
 299:18,20
rulemaking 14:20 56:5
 68:12 69:10 76:12
 246:11 247:10,13,21
 248:5
rules 33:4 68:1 213:8
run 21:10 285:14
running 21:14 269:8
 275:5 276:9 278:2
 285:16 295:14
Rural 133:19

S

Sabino 1:8
saddled 266:12
safe 6:17
safely 302:8
safety 131:15 232:14
 232:18 240:9
safflower 227:5
sale 224:17
salmon 130:5,14,17
 136:16,17 137:7
salt 124:5 151:19,22
 153:4,8,9 154:18
 155:7,18 156:5 167:4

175:11 176:15 202:19
 212:9,10 237:15
sample 12:13 257:18
 259:20 266:2 274:11
 275:2
samples 101:20 260:20
 261:1 274:14 275:1
sampling 12:12 253:16
 253:19,19 257:21
sand 102:8,15
sanitizer 77:21 79:4
 240:19 242:5
sanitizers 233:2 234:19
 240:8 288:9
Santa 116:2
sap 231:17
sardines 130:12
sat 141:19
satisfactory 69:16
satisfied 160:7
saving 259:21 260:10
 260:21
saw 34:3 65:16 147:2
 163:17 207:12 213:20
 214:2
sawdust 145:1
saying 22:11 60:22
 100:12 138:6,7,21
 162:13,22 163:14
 186:4 246:16,22
 262:13 293:4
says 33:9 36:14 133:17
 201:21 296:8
scale 7:8 141:13 142:2
 142:15,16,18 144:20
 148:19 194:7 205:12
 211:3 222:11
scene 30:4
schedule 190:1
schools 116:7
science 63:5 148:2
 161:3
scientific 146:4,16
scientifically 63:13
scope 7:8,11 152:8
 256:19 271:3
scoped 255:5
scoping 255:14,14
 257:4
Scott 1:12 4:13 23:13
 31:11 36:9 38:1 40:2
 96:4 97:7 171:17
 172:6 186:17 187:12
 191:4 211:13 237:5
 242:17
Scott's 55:6
scrambling 185:10
scratch 262:18

screen 36:13 50:17
 51:19 54:5 73:17
 282:5
screened 192:3
script 256:9
scrolling 43:9
scrutiny 84:14 141:7
 171:6
SDBS 236:16,19 237:7
 237:12,14 238:13
 239:15 240:12 242:14
 243:15
seal 144:11
search 47:15 81:5
season 90:19 252:20
 253:1 256:8 260:1,5,7
 260:11 261:6 267:1
seasons 92:11
seat 197:3,3 281:18
seated 75:10
seats 281:9,17
seawater 245:2,14
 248:17
second 36:4,6,9 53:16
 53:17,19 64:10
 113:11 155:22 202:18
 222:17 237:9 256:21
 257:9 258:5 297:14
seconded 37:19 39:8
 74:3 175:12 176:19
 188:8 242:18 243:20
 248:19
secondly 268:10
secretary 1:12 291:4
section 12:4 30:14
 67:10 73:15 77:20
 79:3 90:8 109:16
 121:14,18 123:17
 125:11 126:22 137:13
 137:17 139:19 143:12
 149:8 190:19 191:2
 192:15 199:14 200:9
 200:15 216:6 225:3
 228:4,7 231:15
 282:19
sections 220:13
sector 13:13
see 9:16 16:16 19:6
 23:20 24:13,17 29:19
 30:8,13 31:21 43:22
 51:19 56:6 57:20
 61:10,11,19 62:12
 64:3 68:18 71:9 75:10
 85:14 94:21 96:7
 100:18 108:13 131:14
 142:7 145:7 146:16
 147:19 150:16 152:13
 164:21 170:8 175:1

186:15,17 197:6
 201:22 205:4 214:1,3
 234:16 235:17 239:16
 241:14 253:3 257:6
 268:21 278:18 282:12
 285:3 293:12 294:1
 296:3,9
seed 238:20 250:10,19
 250:19 251:15,17
 252:6,8,10,13 253:5,8
 253:9,10,11,13
 254:13,22 255:1,7,17
 255:19,20,22 256:5,6
 257:2,12,15,22
 259:15,20,21 260:3
 260:10,12 261:2,16
 262:20 263:6,7,9
 264:10,22 265:4,4,5
 265:13,20,20 266:2
 269:10,12 271:19
 273:4,5,6,9,10,21
 274:2,3,11,13 276:22
 277:2,4 279:19 280:8
 284:10 287:1,20
seeds 263:8 265:2,12
 266:9 269:9 275:20
 276:6,17 279:14,19
 280:3
seeing 14:14 21:18
 23:17 24:11 53:22
 69:3 73:12 77:2
 107:21 108:1 126:18
 195:18 210:17 212:13
 226:21 235:15 236:9
 242:6,10 295:2
seek 51:15 277:22
seemingly 233:5
seen 61:9 66:8,12 70:10
 72:14 74:5 92:13
 105:9,9 146:7 162:2
 227:12 263:1
sees 267:15
Seitz 1:19 38:4 39:12
 54:9 70:15 74:17
 160:11 176:8 177:10
 188:20 243:7 244:6
 249:6 250:5,11
 261:19 273:12 294:21
 296:6
selective 216:14
sell 59:13 135:12,14
 231:3 253:1 275:16
 275:19
selling 26:2 58:17
 142:22 207:15 273:10
 275:11
semi- 51:22
send 271:16,20 295:19

- sense** 15:17 16:11,18
 18:4,10,11,15 19:8
 22:7,16,19 23:3 24:11
 24:11,12 25:5 94:17
 104:18 123:3 196:22
 199:6 218:20 222:6
 247:22 251:16 265:18
 271:10 273:9 282:16
sensitive 13:11 138:17
sent 169:2
sentence 23:9
separate 86:7 113:20
 136:4 181:16
September 15:22 16:5
series 115:5 126:1
 144:2 164:15 245:17
serious 98:11
seriously 269:3 270:8
 279:1
serve 13:16
served 278:13
serves 5:2
service 2:14 13:1 27:1
services 13:14 129:21
session 4:6 74:22
 75:10 190:9,11
 281:20
sessions 17:7,8 259:20
set 12:4 72:11 81:8
 122:11 257:3,15
 262:19 263:11,14
settings 110:13 112:2
 178:15,16 180:14
setup 235:7
severe 166:4
shade 90:17 94:12
shaking 164:22
shape 34:21
shaping 16:20
share 10:13 14:16 76:4
 106:11,18 132:21
 250:13 256:4 261:14
 271:11 274:3 295:11
shared 13:19 20:4,7,12
 256:15 274:7 279:17
sharing 11:22 261:2
 291:7
shavings 145:1
sheet 175:19
shelf 172:13 206:8
 213:2 233:14
shelves 206:10
shifting 119:7
shiitake 144:10,21
 145:8,13 146:7
shiitakes 148:15
ship 204:20
shipping 142:5
- shop** 295:10
shopping 206:1,5
 294:16
short 47:13
shorter 219:18,19
 224:11,12
shortly 76:21
show 22:12 32:2 155:7
showed 156:15
shown 54:4 157:20
 200:4,5
shows 158:5
side 29:8 105:2 128:20
 162:19,21 170:7
 179:2 252:1 253:4
side-by-side 107:16
sides 138:20
sign 12:6,7
signals 230:13
signed 20:8 21:2 224:2
significant 25:2,3 43:10
 48:14 91:19 113:13
 120:22 159:14 193:12
 239:5,7,14 266:13
silage 91:22 93:16
silica 102:6,15
silicate 102:5,7,14
 103:3
Silke 270:20
Silke's 61:16
silver 284:18
similar 28:6 46:5 88:11
 94:22 97:7 129:2
 131:1 154:1 179:18
 181:13 210:5 219:13
 225:14 254:20
similarly 101:13
simple 37:20 54:2
 187:10 235:7
simply 162:8 169:1
Simultaneous 36:5
single 32:19 64:2 247:2
sink- 237:11
sit 16:9 206:11 279:16
site 42:22 58:4 73:20
 267:2
sitting 19:12 270:13
 297:21
situation 163:21 168:13
 180:11 235:5,6 264:3
situations 162:2
six 103:20 298:7,10
size 7:9 32:18 142:9,15
sizes 43:22
skate 130:15
skeptical 233:17
sketch 13:21
skill 33:18,21 290:20
 291:14
- skills** 6:3 13:5 17:15
 28:17,22 33:5,6,7,8
 33:12 34:1,5,5,6
skimmed 214:1
skin 105:13
skip 282:18
skipped 249:16
slew 136:16
slide 65:16
slip 183:17
slipped 163:16
sliver 66:16
slivers 61:21 62:3
sloppy 136:1
slower 207:4
slowly 27:16,17
slug 177:20 184:18
Sluggo 181:2
slugs 178:17 180:21
 183:2 185:8
small 28:13 29:4 46:6
 61:21 72:18 96:18
 97:3 139:16 193:4
 205:14,18 207:8
 210:10,14 214:14
small-chain 220:12
smaller 21:21 96:19
 141:13 142:1,16,18
 145:8 148:19 184:21
smoke 143:7
snail 177:20
snails 178:16 180:21
sneezed 246:15,21
so-called 259:3,5
 278:16
soap 211:19
soda 80:19
sodium 79:5 80:7,15,17
 202:19 212:4,6
 236:18 237:7,14
 238:14 284:4,8
SOEs 124:2 125:2,3
soft 124:16 211:20
soil 67:18 71:4 78:15
 92:19 95:4 96:21
 101:15,16,20 102:21
 103:3 109:16 110:3,4
 110:21 117:8 122:20
 127:1 137:13 138:15
 139:5 149:13 154:9
 155:15 159:3,16
 160:8 166:12 167:17
 167:20 183:2,3,12
 186:2,8,16 230:16
 256:3
soils 101:19 138:4,8,12
 139:14 149:20
- solarization** 92:17
sold 45:22 231:1
 254:14 266:21
solely 130:10,22 131:11
 141:5
solicit 103:21
solidifying 144:2
solubility 153:10
solution 115:1 221:3
solutions 78:12 115:12
 277:22
solve 267:17 270:11
solvent 227:5
solvents 144:7 192:19
solves 162:22
somebody 12:10 32:1
 33:18 59:20 137:8
 172:18 295:22
something's 248:8
somewhat 34:19 107:3
 108:12 141:12,20
 147:10 292:2
sore 119:6
sorry 14:10 22:18 43:8
 65:22 79:16,17 80:4
 90:13 93:8 108:4
 127:9 131:6 152:19
 153:2 164:11 175:17
 178:7,8 221:17,18
 246:15 249:16 254:4
 276:2 278:5 287:11
 301:4
sort 5:20 10:22 11:5
 12:14 13:6,21,22 14:8
 14:22 16:19 18:13,16
 18:17 19:9 20:4 30:10
 89:10 131:9 132:12
 132:20 135:12,16
 172:10 197:22 251:21
 256:18 259:16 264:22
 293:4,5 294:16
sorts 166:16
sound 147:16
source 118:1 120:19
 130:7,18,22 137:7
 149:12 150:3 191:14
 194:14 202:1,6 222:3
 226:1 293:7
sourced 102:8
sources 78:13 104:20
 128:19 129:20 130:1
 131:3 161:15 192:17
 193:1 194:17 216:15
 218:6 219:11 224:5
 228:2 229:13 232:15
 245:3 262:17
sourcing 171:20
south 276:10

- southern** 59:9
sovereign 64:19
soy 145:5 148:7 191:13
 208:17 227:5 228:20
 229:13,15 230:1
soybeans 223:12
 270:13 276:15
space 109:4
spawn 144:11
speak 32:6 43:5 66:1
 197:10 262:18 271:6
 282:20
speaking 26:13 36:5
speaks 84:1
Specialist 2:11,20
specialty 174:20
species 49:17,19 52:4
 52:11 53:6,13 63:9
 66:11,12,20 70:12
 130:10,11,15 132:1,2
 133:6 153:17 166:8
 202:2 216:15 231:17
specific 44:18 84:2
 88:3 105:3,4 106:22
 179:17 186:13,14
 202:1 210:15 223:4
 224:1 233:9 237:16
 252:10 294:11
specifically 84:11
 136:20 182:12 193:9
 217:5 228:20 247:6
specificity 296:9
specifics 107:6 151:9
Specified 209:18
specify 179:16 264:18
spectrum 123:3 154:8
 187:7
speculation 207:5
spelled 56:7
spend 21:4 22:11 205:8
 252:20,22
spending 20:5,22
spent 286:1
spices 193:3
spinach 109:1
spinning 26:4
spirits 78:12
split 103:16
spoilage 213:1
spoke 20:13 259:17
spoken 116:3 260:13
spot 100:7
spots 261:16
spray 208:13 276:8
sprayed 59:2,2 102:20
 276:12
spring 1:5 5:11 238:4
 282:13 283:12 298:8
stability 215:1 224:11
 231:20
stabilize 128:4 200:1
 212:22
stabilized 127:17
stabilizer 191:8,15
stabilizing 21:16
 128:17
stable 180:21 192:1
stack 56:21 57:21
stacked 146:9
staff 2:9 8:10 30:2,7,8
 302:4
staffing 28:14
stage 12:18 207:2
stages 115:13 124:19
 206:17
stains 25:2
stakeholder 10:6 81:14
 187:1
stakeholders 43:12
 51:7 61:7 69:13 81:21
 84:6 106:22 140:10
 140:16
stamina 301:20
stand 72:1
standalone 113:6
standard 107:17 227:22
 292:14 294:12
standards 1:3 2:18 5:22
 41:15,22 42:6 55:12
 63:2 71:1 85:3 119:14
 157:1 164:1,3 204:13
 217:6,8 257:15
 265:22 294:6,7 295:1
 297:10,16,19
standing 276:16 288:16
 288:19
standpoint 263:4 267:7
 267:7
starch 227:21
starches 220:4
start 12:21,22 27:22
 38:1 39:9 54:8 74:6
 77:1,20 175:17,19
 186:18 188:10 190:15
 190:19 220:21 242:21
 243:21 248:22 262:17
 271:4 295:13
started 59:5,15,16
 236:1 268:19 281:10
 290:16
starting 4:12 76:19
 190:11,16 230:12,14
 231:4 252:18 269:13
 269:16,17 274:6
starts 176:22 252:8
state 62:15 66:3 91:3
 154:16 155:18 172:2
stated 43:16 51:17 87:4
 88:18 92:16 125:5
 144:13,16,19 145:6,8
 146:6 171:9 188:2
 215:13
statement 60:8 118:5
statements 209:8
 283:19 288:14
states 1:1 73:20 138:12
 154:12 156:1 157:10
 258:14
static 292:4
stating 48:15 56:9
 167:11 194:15 196:12
 209:1 217:11,14
statistical 258:1
status 58:4 105:17
 217:14 285:10
stay 82:12 107:8 153:13
 272:13
stayed 302:2
stays 294:18
steam 211:4
stearate 209:16,22
steering 15:14
step 18:18 19:10 26:15
 34:18 76:10 97:1
 117:20 238:1 262:1
 284:14 287:2 288:3
 290:13
stepping 254:9
steps 118:16 126:2
 144:3 257:7 260:6
 285:9 287:8 290:13
steroid 113:3
Steve 1:15 3:7 72:6
 77:4 105:18 107:10
 109:12 137:12 151:2
 175:19 189:13,14,16
 200:20 207:6 212:19
 231:7 232:21 241:2
 241:20 243:20 247:17
 248:20
stewards 62:6,7
stewardship 40:20
stick 94:6
sticking 208:9
stock 254:13
stocks 84:22 140:7
stool 256:22 258:5
 259:12
store 207:8
stories 276:2
storyteller 276:1
straightforward 88:20
 89:1 182:8 183:5
 210:14 220:5
strands 23:22 24:8
strategic 25:14,16,17
straw 94:7
strawberries 160:2
strawberry 114:18
 115:10
Street 1:9
strength 24:8 171:19
 171:20
strengthening 286:22
streptomycin 123:8
strict 273:5 277:5
strictly 84:10 292:11
strike 54:5
strikes 83:15
strip 208:10
strong 6:18 42:19 64:4
 92:22 151:13 162:18
 231:3
strong-arm 298:19
strongly 212:9
struck 43:15 120:10
 157:7
structure 52:12 53:14
 101:16 102:20 225:15
structured 31:18
structures 214:20
 224:9
struggle 157:11 234:19
struggling 24:13
studied 81:2 254:21
studies 101:15 113:16
 113:17 146:17 159:15
 161:5,10,11,14 164:9
 164:13,15,16,19
 165:3 179:6,7,9,13
study 105:4 112:10,11
 112:18,21 113:5,18
 113:19 114:3,8
 115:19 146:4 167:12
stuff 99:13 135:13
 230:18,19 236:5
 257:21 269:19 270:22
 282:12 286:6 296:20
stunning 207:10,13
subcommittee 3:3,7
 14:17 35:13,14 38:18
 39:4 44:19 46:18
 50:14 57:6 75:1 86:11
 87:7,16 99:5 103:15
 103:19 104:8 105:21
 107:12 108:9 114:20
 126:9 129:1 151:4
 156:21 182:7 183:1,6
 189:5,21 190:12
 205:22 226:19 232:3
 238:6 239:10 244:17
 245:8 249:20,22

267:18 271:21 280:17
 284:6,8 285:8 286:7
 287:2,22 288:11
subcommittee's 239:4
subcommittees 283:1
 283:15
subject 46:7,20 47:5
 251:2 254:16 272:18
 290:12
submitted 134:19 152:3
 159:20 177:22 202:21
 233:19 236:22
submitter 173:8
subsequent 42:17
 47:11
subset 170:11
substance 41:2 79:8
 88:11,12,17 125:22
 137:15 145:6 152:6
 152:11 154:21 155:7
 158:3,6,8 160:20
 165:8 167:3 175:11
 175:16 176:21 191:3
 192:16 195:20 199:14
 200:9,18 203:6,16
 209:15 211:11 212:14
 214:8 224:3 227:4
 235:18 241:8,13
 242:20 244:20,21,21
 286:12 289:9
substance's 241:10
substances 41:4 45:11
 149:2,9 158:15,17
 188:7,7 190:20 191:1
 193:2,3 200:15
 222:19 228:4 233:18
 241:5 285:13
substantial 41:15 240:1
substantive 52:15
subtle 116:13 163:12
subtlety 267:11
success 44:7
successful 162:10
 301:14
successfully 15:4
 69:20
sucrose 123:16,19
 124:1,3,5 217:1
 220:18,20 222:11
sucrose-derived
 218:22 219:7 220:6
 220:14
Sue 1:13 30:13 32:5
 33:13 58:7 60:10 65:1
 123:22 133:8 143:18
 148:15 170:13 176:20
 249:16 272:16 273:12
 274:10 278:3 301:4

suffer 272:4
sufficiency 245:20
 284:16 285:2,8,19
sufficient 157:12 158:9
 158:19 240:14,15
sugar 124:5 203:10
 219:1,13 220:15,15
 222:3,4,4 223:18
sugars 220:22
suggest 246:4
suggested 12:11 42:21
 45:9 208:16 229:3
 262:11 265:14 266:7
suggesting 42:7
suggestion 34:20 247:5
suggestions 267:13
suggests 122:17
suitable 228:2
sulfate 125:17 150:4,7
 150:16,19
sulfite 212:16 213:4
sulfonate 236:19 237:7
sulfonates 237:13
sulfur 96:22 109:13,20
 110:8,19,22 111:8
 112:5,12,14,22 113:8
 113:14 114:17 116:18
 117:4,17 118:7 119:7
 120:8 121:5,7,14,17
 121:21 122:3,18
 123:2,9 137:16,20
 138:14 139:16 155:11
 169:21,21 177:18,19
 178:2,6,7,8,10 179:20
 180:3,4,8,10 181:14
 183:2 184:1,3 185:16
 186:1,7,10 188:5
 212:15
sulfuric 127:3,18
 179:20
sulfurous 137:14 138:9
 139:4
summarize 43:7 155:4
 250:20,21
summarized 232:13
summary 60:15 69:12
 94:17 115:6 116:17
 123:13 128:10 129:11
 267:14
summer 85:18 184:13
 184:13 260:18
sunflower 229:22 230:9
 230:17
sunset 77:11,14,14,17
 85:3,15 86:13 88:3
 136:4,9 141:20
 145:16 151:17 185:18
 190:15 195:10,17

198:8 212:1 217:2,22
 242:7 245:5,9,15
 282:3,21 283:2,6,8,10
 283:12,13,20
sunsets 77:7,8 86:14
 189:6 195:13 236:16
super 267:2
supervised 30:6
supplement 152:10
 191:6 212:8 224:16
supplemental 159:6,13
supplemented 167:11
supplements 210:4
 214:13
suppliers 150:19 292:3
supply 39:1 226:4,16
 228:19 231:5 245:20
 277:21 296:7
support 22:15 91:9
 93:1 128:11,13,20
 131:13 151:13 152:7
 178:22 179:1 191:20
 193:19 196:11 202:22
 203:13 204:7 209:6
 211:6 215:12 225:22
 226:2 237:1 245:10
 246:3 260:9,14,16,22
supported 6:19 44:16
 131:14 148:1 179:8
supporting 7:22 43:1
 73:20
supportive 126:5 246:1
supports 293:15
suppose 65:17
supposed 100:1 276:11
suppressant 150:5
suppressants 150:9
suppressed 103:12
Supreme 136:14
sure 10:8 19:21 24:21
 25:11 26:11 27:7
 56:13 57:12 67:2,6
 82:19 95:16 97:10,17
 104:4 139:7 146:13
 161:18 162:4 179:11
 180:14 183:16 186:13
 197:19 206:12 207:5
 246:20 253:17 265:16
 266:11 271:8 290:1
surely 101:8
surface 209:2 211:3
 237:19 258:9
surfaces 78:6 210:21
surfactant 124:8
 227:12
surprised 120:4,11
 132:15 170:18 213:21
surprisingly 129:8

surveys 51:6 194:5
survive 49:21
suspended 102:18
 220:16
sustainability 129:2
sustainable 56:13
 201:11
sustaining 60:18 66:9
SWAFFAR 1:20 28:3
 36:6 38:12 39:20 53:2
 54:17 55:18 62:10
 74:14 97:20 168:20
 176:5 177:7 188:17
 243:4 244:3 249:3
 297:4 298:3,16
sway 171:10
swayed 170:9,16 175:6
sweetening 216:17
switched 230:8,10
symptoms 112:18,19
synthesis 78:10 126:10
 166:20
synthesized 102:14
synthetic 117:5 118:9
 125:21 127:21 128:2
 128:16 129:16 143:16
 150:9 152:1,15 153:8
 167:4,5 169:13 170:3
 174:13 175:11,14
 177:19 188:3 192:18
 204:10 238:12 242:15
 242:19 244:20,21
 246:7 247:4,5 248:9,9
synthetically 245:13
synthetics 200:16
 203:5,17 209:15
 238:19
syrup 220:2
system 7:22 8:2,18
 12:3,5,7 14:5 17:16
 17:21 26:17 45:2,7,17
 46:5 47:14 62:8 73:5
 77:22 79:4 91:13
 151:7 163:2 187:16
 207:9 237:12 263:16
 264:5 268:6 269:11
 298:5
systemic 106:2
systemically 106:6
systems 22:5 77:22
 79:5 82:16 124:14
 135:18 192:19 227:12

T

T-A-B-L-E 3:1
table 124:5 171:14
tackling 275:21
TACS 14:16

- tag** 32:13 273:6,7,8
274:8 276:22
- take** 27:9 31:5,6,8,13
32:1,15 34:14,22 75:3
75:13 94:4 101:20
126:16 147:21 175:6
185:22 189:18,21
220:14 262:1 266:22
269:3 270:9 275:13
279:1 281:9,17,18
291:11 299:4
- take-** 65:17
- taken** 58:14 96:16
103:6 118:17 133:14
160:18 166:6 197:6
226:16 232:10 270:8
- takes** 141:10 147:5
299:5
- talk** 12:17 14:19,21 15:1
15:3,10,11,18 16:8,14
17:4 22:2 76:8 90:20
99:19 119:2,21
134:12 149:2 205:4
229:9 250:17 254:4,8
290:15
- talked** 6:7 12:3 20:15
22:2,9 28:17 30:15
108:19 119:18 120:20
134:11 170:5 204:22
206:17 218:2 232:22
251:12 270:20 297:20
- talking** 19:2 23:13 25:6
26:21 28:7 33:10
91:21 100:10 110:1
126:12 129:15 131:5
148:12 150:20 197:11
226:19 250:9 273:20
301:1
- talks** 71:4
- tamarind** 284:10
- target** 122:20 123:1
268:11
- targeted** 51:2 124:10
- targeting** 261:17 273:3
- tartaric** 238:17
- task** 262:11 263:1 271:8
278:17
- taught** 27:17
- TBD** 282:13,13 285:9
286:20 287:8
- team** 26:10 300:18
- teams** 32:13
- tech** 147:16
- technical** 14:3 27:1
85:4,13,15,17 103:5
103:14 104:1 109:18
111:14 139:3 146:6
152:9,10 159:5,6,13
159:19 164:19 178:1
180:7 221:4 237:2
238:7 283:17 284:14
284:15 285:1
- technical-technical**
233:15
- technically** 150:22
292:6
- techniques** 128:1
- technologies** 268:13
- tell** 60:13 81:10 82:13
92:14 103:4 276:2
- telling** 82:7,9
- temperatures** 102:16
225:17 231:20
- ten** 43:3 65:11 73:22
75:4 269:22
- tend** 52:7 53:9 169:11
174:19 205:11
- tended** 105:1
- tenderizer** 211:18
- Tens** 160:1
- term** 43:19 46:9 101:2
220:12 293:13
- terminology** 288:6
- terms** 6:6 11:7 20:11
21:7 25:14 30:4 34:18
67:15 75:21 76:3,6
111:18 115:9 117:7
117:15 123:7 148:13
163:7 173:7,10
178:22 179:19 180:1
181:14 182:13 187:13
192:4 210:11 260:15
262:2 264:19 265:20
290:5,9 291:4,7
- terrestrial** 96:3
- test** 252:17 255:7 259:6
259:7,11 269:9 274:2
274:18 275:13
- tested** 252:2
- testimonies** 259:4
- testimony** 97:16 110:16
232:5 233:17
- testing** 12:12 145:17
151:12 253:5,11,15
253:17 254:1 255:2
257:18 258:4,7,8
260:17 261:2 262:20
263:10,17,20 264:2,7
264:12,14,15,16,20
264:22 265:6 266:9
273:4,11 275:5
- testing-** 268:3
- tests** 78:17 253:18
264:13
- tetrahedron** 102:19
106:17
- tetramycin** 123:8
- texted** 275:4
- textures** 201:4
- texturization** 227:8
- thank** 4:14 16:12 24:18
25:20 35:18 50:17
52:16,17 55:9,13
60:10 61:6 65:1,2,19
66:2 69:12,13,19,20
75:2,16 77:19 80:6
85:2 129:12 136:21
137:1 140:1 142:10
148:3 189:4,13 191:5
207:22 212:10 231:8
237:6 240:22 249:21
250:14 267:21 276:18
280:11,18 292:22
300:5,10,15,17
301:10,11,12,18,22
302:4,5,11
- thankful** 242:4
- thanks** 4:14 32:5 33:13
40:3 43:13 56:16
74:21 77:6 78:2 79:10
85:1 90:7 109:12
121:13,20 127:5
137:12 139:21 158:22
159:1 166:21 178:2
182:3 190:18 191:3
195:21 197:16 199:13
200:8 207:22 223:1
225:2 237:4 254:7
274:19 290:1 300:19
- thaw** 215:1
- theoretically** 208:18
- theory** 15:13 17:2
- thereof** 256:20
- thermoreversible** 196:9
- thickener** 191:10
231:18
- thickening** 196:1
214:17 225:13
- thickness** 214:22
- thing** 15:2 18:17 20:16
23:13 33:2 56:8 62:5
67:6,9 76:2 105:10
108:19 114:20 135:3
135:9 151:2 159:18
168:3 170:15 180:16
181:6,20 201:9 236:6
236:14 262:10 264:4
265:9 267:6 270:14
270:19 276:21 278:2
278:10 294:17 297:6
- things** 4:17 11:6,11,14
11:20 14:6,19 18:9
19:2 20:3 21:9 23:5
23:21 28:11,15,17
29:7 31:22 32:2 33:1
33:15 37:6 43:6
107:11,13 112:20
117:8,15 119:6
135:17 145:14 161:10
161:19 166:17 169:4
189:7,11 233:3
235:22 261:12 262:4
262:13 268:18 282:16
292:8 294:8 298:1
- think** 4:9 6:16 8:7 9:10
9:12,18,18 10:1,18,21
11:12,16 13:2,3 15:7
16:12 18:5,20 23:15
25:16,18 28:5,7,9,12
28:18 29:1,11 30:3,15
30:19,19 31:18,20
32:21 34:22 56:7 57:2
57:4,8 58:5 60:3,6,7
62:5,22 65:3,9 66:21
67:12,12,20 68:2,6,7
68:14 69:5,6 70:1,6
70:16,22 71:6,11,19
71:20 72:7,15,17,21
73:1,2,7,8,11 75:14
77:6,16 79:14 81:18
83:22 85:17,21 88:19
88:22 89:4,14,19
91:20 94:4,17 95:6,12
95:15,22 96:7,11,11
98:12,14,17 99:17,18
100:5,9,15 101:11
106:3,20 107:4 108:7
108:11,13 109:6,21
110:4 111:3,7,15,17
115:21 116:20 117:9
117:10,21 118:4
119:22 120:5,7,14
121:9 123:6,13
126:15 127:19 128:15
130:19 132:7 133:1
134:12,18 135:19,19
136:8,18 139:9 141:4
141:6,8 142:20 143:4
147:10 148:8,11
149:15,16 157:20
159:18 160:11 161:20
162:1 164:4,21 165:7
165:11,14 166:10,16
167:1,2,6,19,21 168:1
168:2,4,12,17 169:15
169:17 170:2 171:3
171:11 172:17 173:1
173:13,22 174:2,15
178:19 179:4,22
181:12,16,18 182:17
183:4,15,22 184:8,10
185:6,22 186:14,17

186:20 189:10 190:1
 200:5 201:7,17,20
 204:14 205:11,17
 207:12,14 218:11
 223:21 224:13 229:10
 230:3,4,5 233:19
 235:14,15 236:6,13
 236:15 240:12 241:11
 241:22 242:8 247:12
 249:16 256:18 260:15
 262:3 263:6 266:20
 267:11 268:4,8,19
 269:6,10,16 270:4
 271:6,9 272:14
 274:10,19 275:3
 277:3,10 278:5,17,18
 278:20 279:5,11
 290:8,12,19,20
 291:13 293:1,2 294:2
 296:19 298:11,20
 300:6,22
thinking 11:12 12:15
 13:22 22:1 24:16
 27:18 84:13 132:19
 166:17 169:12 184:8
 219:3 255:9 261:10
 268:22 269:7 270:14
third 57:2 113:5 218:22
 259:12
third-party 160:7
thirds 74:3
thirteen 176:11 189:3
 243:13 244:13 249:15
Thirty- 129:21
thoroughly 7:12
thought 14:7 20:13
 96:5 97:8 114:8 120:1
 127:8 166:7 170:8
 213:21 226:10 246:19
 255:8 262:16 268:1
 268:14 274:12 275:10
 300:8,12
thoughtful 70:20
 267:12
thoughts 10:10,13,16
 117:6 197:21 268:2
 268:17
thousand 110:19
thousands 110:18
 160:1
thread 7:14 23:12 24:11
 25:22 33:10
threads 23:17 24:18
 26:13
threat 155:22,22
three 31:6,8 41:14
 45:11,18 109:13,22
 110:20 112:11 113:15

113:19 118:15 140:4
 222:8 250:16 255:4
 256:13 259:17,18
 261:8 278:17 301:16
three-legged 256:21
threshold 251:21
 262:19 263:11,11,14
 272:10,12 277:1,5
thresholds 253:15
 257:2,3,13,16 268:10
thrips 124:16
throat 119:6
throw 119:20 169:9
 248:1
thrusts 261:8
ticket 21:22
ties 185:2
tight 21:6
till 180:18,20 184:12,15
tillage 165:21 166:3
 167:18
Tilth 256:3
time 10:5 17:3 21:1,4
 32:15 42:2 47:21 57:2
 57:4 58:19 59:5 61:8
 61:9 65:12 72:1 73:1
 76:9 80:3,21 84:13
 93:3 103:16 104:8
 122:1 140:11 142:1,4
 144:14,15 154:7
 158:10 159:4,8 160:6
 161:16 174:14 178:3
 186:4 189:20 190:2,3
 200:6 205:8 207:20
 232:7 239:19 240:6
 240:15 241:5,15,18
 247:16 260:8 268:12
 268:13 269:9 279:13
 281:3 286:1 289:20
 290:10 291:2,14
 294:1 295:12 298:19
 298:19 299:7,22
timeframe 16:7 41:10
timeframes 21:7
timeline 288:13
times 27:15 33:8,15
 87:10 98:17 140:4
 150:4 235:15 259:6
 296:16
timing 282:14
tiny 236:7
title 26:12 250:7
titles 64:13
today 69:11 77:9 141:5
 190:3 191:1 241:12
 258:14 283:14 290:3
 299:12
tolerance 274:22

Tom 1:9,11 4:14 40:3
 56:20 60:14 69:9
 74:21 75:16 77:6 88:7
 88:21 157:21 158:22
 159:1 171:17 175:7
 177:13 185:12 187:20
 189:11 192:21 213:12
 216:11 218:18 229:16
 231:8 233:14 241:2
 243:11 247:11 248:1
 248:13 249:20 290:20
 300:7 301:11,12
 302:9
tomatoes 98:1
ton 262:3
tons 161:21
tool 66:6,10,21 81:12
 96:9 102:2 125:5
 169:7,8,8 170:1,11
 172:3,4 173:1
toolbox 172:13
tools 47:7,13,19 48:3
 58:7 78:6 157:17
 169:19 170:12 180:22
top 116:17 123:13
 128:10
topic 5:17 11:12 25:8
 43:11 73:8 136:13,19
 167:22 290:2
topical 78:7
topics 76:3 295:14,17
 295:18
tortillas 203:11
total 212:16
totality 165:1 289:5
totally 9:10 174:7
 246:16
touch 28:16 57:21
touched 35:1
touching 95:3
tougher 160:12
toxic 86:1 167:7 179:21
toxicity 78:17 153:22
 154:13,17 179:17
 180:10,13
TR 87:6 88:11 89:3
 142:13 147:1 154:11
 154:16 163:14,15,18
 164:10,14 191:16
 208:12,16,20 209:8
 209:11 232:13 234:5
 235:16 238:3,9
 245:11,16 246:8
 283:11
tracked 45:7
trade 179:1 194:3 218:2
 239:22 254:22
tragacanth 231:15

232:4,16
trained 7:11
training 6:3,12 7:17
 13:1,3,10,13 14:2
 17:12,17,21 20:16
 26:22 27:10,13 30:7
 31:21 35:5 38:20
 293:22 295:13,15
 296:4
trainings 27:3
trait 301:9
traits 258:17 259:8,10
 269:20 275:6
transcriptionist 197:13
transferred 145:19
transformed 279:2
transition 41:9 50:9
 51:3 273:1
transitioned 41:17
transparency 252:12
 253:12,15 276:22
 277:6 282:11
transparent 277:22
 278:6
travel 31:2 73:1 302:8
traveling 31:16
treated 59:3 101:13
 270:17
treating 236:20
treatment 142:14
treatments 123:2 154:2
tree 213:18 248:8,9
trees 58:22 146:9
trespass 266:17 268:22
trials 107:16 108:13
 173:15 174:9,12,18
 184:15
tribal 64:6,9,20 75:18
 75:20 136:19
tribes 66:4
tricky 265:2
tried 32:4 262:5
tripe 211:18
tropical 203:18 204:5
 228:5
truck 142:5
true 114:3 135:15
 142:21 172:15 201:18
 201:20 233:9
truly 65:7 160:22
 234:21
trust 132:13
try 60:22 66:18 87:21
 171:10 178:3 187:4
 198:10 251:8 264:17
 271:7 272:11
trying 12:19 15:3 63:16
 66:11 70:8 82:15 95:8

108:22 116:11 134:7
 143:1 161:1 234:11
 234:18 250:8 252:16
 253:9 264:4 266:18
 270:2 277:7,15 278:8
 279:19
TUCKER 2:15 10:15
 14:18 17:2 19:19,22
 22:18 23:2,6,8 24:19
 24:22 292:22 295:4
 296:13 298:6
Tucson 1:9,9
tuna 130:5,14
tuned 148:19
tunnel 95:1
tunnels 90:18,18 93:16
turn 10:12 31:2 40:6
 75:1 189:12 207:4
 236:5 276:12 285:3
turnaround 207:13
turned 276:10,10
turning 4:19 9:7
Twelve 38:14 40:1
two 4:4 20:20 26:7
 32:11 46:22 74:3 77:8
 78:1 79:15,18 80:2
 84:18 85:6,20 86:15
 94:11 102:4 119:20
 129:20 140:4 145:12
 145:21 175:8 190:8
 202:16 216:20 219:6
 221:21 237:9 256:1
 258:16 259:9 268:1
 268:16 278:17 288:16
 289:17 299:17
type 7:9 28:10,15,15
 32:18 48:4 49:10
 96:14 143:20 162:15
 168:13 282:3
types 157:6 228:10,14
 253:18,19
typical 258:13
typically 193:4 196:5
 252:2

U

U.S. 99:14 155:8,10,17
 171:21 204:18
ubiquitous 89:5
ubiquitously 92:1
unable 154:6 232:3
unaltered 48:12
unanimous 152:16
unavailable 150:1
unbiased 160:8
unbleached 228:1
unclear 50:20 104:6
uncomfortable 106:1

underneath 59:6
understand 9:11 26:18
 135:2 160:4,14
 218:14,16 253:6
 293:8
understanding 9:21
 16:17 33:4 134:20
 160:7 162:20 163:2
 257:10
understands 21:14
 44:19
undoes 166:3
unfair 72:4,5
unfolding 278:19
unfortunately 49:15
 299:1
uniform 140:2 143:9
uniformly 140:20
 204:19
unintended 70:18,21
 70:22 71:15,22
 135:20 265:9 266:17
unique 196:7 209:1
 234:12,21 235:19
United 1:1 138:12 157:9
 258:14
units 96:18 97:4
universal 7:21 99:6
 128:14
universities 167:10
university 1:9 155:19
 164:12 173:11 174:11
unknown 130:1,15
unlimited 152:8
unnatural 117:4
unquote 104:16 257:1
unwanted 269:1
up-front 278:9
updated 251:7 282:8
updates 289:6
upholding 5:1
upper 192:7
upset 68:18
uptick 105:14
urged 7:1 93:3
urgency 159:9 271:10
 272:4
usage 193:20 194:11
 217:12 218:3
USDA 9:1 16:18 68:9
 75:18 293:15
use 13:5 15:11 27:21
 34:21 39:5 42:11,13
 47:12,19 48:3 50:2
 58:7 71:8 72:2 79:7
 80:11 81:6 83:11,16
 83:17 84:2 86:1 87:1
 87:3 92:20 93:20 94:9

97:21 100:6,6 104:9
 104:18 110:4,6,7,12
 112:2,12,14,22 113:1
 113:8,14 114:17
 115:11 116:6,12
 117:17 119:10,12
 120:13,17 121:4
 122:8 125:2,3,6,18
 126:7 127:22 128:2
 128:11,12,16 129:3
 131:10,11,22 132:17
 133:5,7 139:8,13
 141:2,5 142:13,19
 143:14 145:15 148:17
 149:3,10 150:11
 152:1 157:5 163:1,7
 167:7 177:20 181:9
 181:13,19 182:22
 184:1,2 186:7,11,19
 187:14 191:18 192:11
 194:4,13 195:3 196:5
 196:20 197:12 199:20
 200:4 201:12 202:5
 204:1,4,15,17 206:9
 207:3 208:4,19
 209:16 210:1,9,12,14
 212:4,15 213:20
 215:5,7,21 221:7,10
 222:13 225:19 228:3
 229:21 232:1 234:7
 235:17 236:19,20
 237:9,20 238:10
 239:9 240:10 241:8
 242:3 263:8 265:13
 286:12 292:6,12
used/bought 276:13
useful 4:16 13:1 109:8
 124:15 153:10 164:2
 170:10 196:1
users 110:18 118:22
 201:9 235:1
uses 65:10 78:5 79:9
 84:3,5 104:15 109:22
 110:20 122:4 123:12
 181:14,16,17 183:9
 186:14 210:5,15
 211:21 212:7 215:20
 233:9,20 235:16
usually 16:5 22:20
 93:14,15 111:20
 127:18 214:15 231:22
 296:15
utilized 155:7,9
utilizing 137:15

V

vacuum 108:13
valid 60:6 73:8 100:8

101:17 136:8 148:8
Valley 131:14 256:3
 260:15
valuable 71:16 300:12
value 254:19
values 132:14
vaporizing 95:10
variability 128:7
varied 230:3
varieties 265:10
variety 48:15 79:13
 82:6 93:20 122:4
 251:19 265:11 296:8
various 110:17 122:5
 153:17 154:2 184:15
 206:17 225:9 231:17
 235:8 262:2 282:3
vast 51:16 69:16 109:3
 253:7 289:9
vastly 299:22
vectors 279:4
veg 102:22 103:1
vegetable 104:22
 106:18 138:16 237:18
vegetables 236:21
 237:20,21 279:3
vegetation 52:1,6 53:8
vehicle 15:12
vehicles 8:12
verbal 34:5
verification 151:10
 272:21
verified 91:15 151:8
verify 89:16 223:19,22
verifying 5:5
version 117:3 230:9
versions 287:16
versus 86:4 101:12
 114:22 115:17 117:4
 119:22 218:22 220:11
 229:19 234:7 235:10
 247:21
vet 14:3 18:18
viability 122:19 140:12
Vice 1:12
view 117:14 163:10
 278:18
views 168:4
vinegar 238:18
vineyard 115:7 120:17
vineyards 120:8
violation 67:22
viscosities 214:19
viscosity 196:8 225:11
visit 116:15
visited 157:10
visiting 46:1 251:4
vitamins 287:5

voice 64:15
voices 65:5
volume 122:18 206:22
 207:2 260:12
vote 36:15 37:20,21
 39:10 54:1,4,7,7
 62:11,13,18,20,21
 65:13,14,18 73:10,13
 73:14 74:4,4 77:9
 103:16 107:14 152:13
 152:14,15,16 166:12
 168:21 170:16 175:7
 175:15,15 176:20
 177:13 188:9 242:11
 242:18,19 243:16,18
 248:13,20 249:17
 283:4 284:12 288:18
voted 77:13
votes 38:13 39:22
 54:20 74:18 176:10
 177:14 189:2 243:12
 244:12 249:14 284:1
 299:4
voting 38:1 39:9 54:8
 64:22 74:5 175:16
 176:22 188:10 242:20
 243:20 248:22

W

wading 165:16
wait 41:7 42:15 159:5
 264:1 298:3
waiting 87:20 92:3
 101:1 284:14 286:20
 288:21
waking 70:11
walls 208:11
want 9:11 10:3 16:8
 19:19 23:11 26:4,10
 27:18 28:16 29:10
 33:11 35:19 36:7,21
 51:21 55:9 56:4,14,19
 57:8,12 61:4 62:12
 65:8 76:4 77:18 88:5
 89:2 94:16 95:16 97:3
 98:4 108:6 112:7
 134:18 135:18 136:3
 137:9 147:15,20
 151:20 155:3 156:17
 158:4 159:4 167:19
 168:20 171:16 172:1
 178:21 181:6 185:13
 186:18,19 198:2
 201:22 217:2 241:8
 248:1 252:6 261:22
 264:1 265:5,10,12
 268:18 269:17,19
 270:15 290:8 292:19

297:4 298:14 299:7
 300:22 301:4
wanted 15:11 35:1
 55:22 60:13 62:15,20
 66:1,6 67:2,3,6 69:19
 75:15,17 76:1 97:20
 119:16 131:8 160:9
 172:7 186:21 194:18
 197:20 253:17 289:15
 300:10 301:7
wanting 13:12 16:15
 84:9 213:20
wants 61:3 96:7,18
 280:14 291:6 297:7
warrants 116:20
wash 237:22
washing 153:11
Washington 155:18
 172:2,19,19
wasn't 4:8 24:12 35:2
 80:4 163:19 185:19
 198:13 236:3 246:20
 271:15
waste 94:20 95:14 96:2
 130:3,6 137:8
watches 32:13
water 67:18 72:9 78:15
 80:16,18 102:18
 120:9,18,18 137:20
 138:19 153:10 209:1
 211:18 214:17,20
 219:12,15 225:4,8,12
 227:12,18,20 237:19
 237:22 238:13
waters 138:12
wax 143:19,20 144:5,9
 145:3,5,18 146:15
 148:7 297:18
waxy 124:9
way 11:18 14:22 18:6
 18:21 25:5 45:16
 51:20 57:10,14 59:1
 89:18 93:9 95:14 97:8
 98:3 117:15 133:11
 141:14 147:6 158:14
 158:21 166:7 168:1,1
 171:10 224:7 255:12
 263:1 266:3 267:2
 269:19 276:11 277:7
 277:18,20 278:18
 279:1 289:21 295:5
ways 11:14 32:22 57:15
 89:6,20 114:8 138:17
 166:4 167:20 186:10
 235:9
we'll 4:5 36:15 77:6,16
 81:18 84:17 90:6
 123:15 125:10 134:16

134:21 151:20 175:19
 189:18,21 190:18
 195:19 210:18 211:9
 212:13 226:21 234:9
 248:4 250:22 257:13
 270:11 277:13 280:20
 281:11 282:14 283:21
 286:8,16 288:4
 295:13
we're 9:15 11:15 16:9
 18:20 21:9 22:10 24:7
 25:17 59:22 60:22
 62:3 63:17 65:9 67:22
 69:11 76:2 87:19
 89:11 91:21 92:3
 95:16 100:15,22
 101:1 107:13 108:11
 108:22 109:22 113:8
 116:11 126:18 129:15
 131:2,18 132:5
 135:21 136:6 167:20
 172:5,10,14 174:22
 180:13,15 181:8
 184:1,2,10 186:9,10
 186:13,13 190:8,10
 190:14 192:15 199:4
 199:13 202:8 204:9
 205:18 211:10 214:7
 216:5 225:2 233:17
 236:7,9 248:12 250:8
 250:8,15 251:13
 254:8,9,20 255:9,10
 255:13 256:22 257:4
 258:8 259:15 261:5
 261:15,21 269:13,13
 271:7,9 273:3 277:21
 278:8,22 281:4,9,16
 281:21,22 282:2,19
 283:22 284:5 286:4,5
 286:13,20 288:11,20
 289:2 291:19 297:5
 298:4,14
we've 16:6 22:2 25:6
 57:3 64:14 68:3 97:16
 107:12,22 112:4
 157:20 172:22 178:9
 178:22 180:5 204:22
 211:5 232:22 235:14
 242:5 251:12 254:18
 255:8 258:3,5 259:3,6
 260:13 279:3 290:2
 291:9 296:14 298:12
weak 24:3 261:16
wear 68:22
weather 168:9,18
weaver 26:1
webinar 28:15 72:21
 226:5

webinars 28:5 295:18
website 178:2 237:3
 282:8 289:7 299:14
websites 47:20
Wednesday 20:14
weed 90:8,16 98:3
weeds 97:22 186:10
week 98:3 110:16
 111:16 180:9 270:10
weigh 173:22 182:20
weight 214:16
welcome 107:21 108:1
 280:15
well-reasoned 268:17
went 14:4 75:7 76:12
 158:12 182:11 190:5
 206:16 278:17 281:6
 299:12,15 302:14
weren't 64:20 164:19
 167:11
west 72:9 166:9
western 104:20 138:12
 155:17
wet 169:17 172:20
wetlands 67:19
wettable 115:1,4,12,17
 119:7,21
wetter 170:2
wetting 227:8
whammy 272:8
whatever's 260:21
whatnot 6:7 35:5
wheel 9:4
wheeze 112:20
white 124:16 191:22
 212:9 213:1 238:20
wholeheartedly 44:17
 187:3
Wholesaler's 206:16
Wholesalers 240:7
wide 122:4 123:3
 128:11 141:11 157:4
 171:9 186:22 191:17
 194:10 227:6 233:20
 296:8
widely 89:10 123:4
 126:3,17 127:11
 180:5 186:1,12 191:6
 201:2 212:2 216:20
 224:20 262:10
wider 277:13
widespread 122:7,14
 192:12
wild 49:1 59:4,8,14,15
 60:16,17 62:4 129:4
 129:20,22 130:4,21
 131:11,11,22 132:6
 133:6,22

wild-crafted 226:12
wildlife 67:19 146:10,18
 146:21 147:13,17
willing 271:11 297:11
willingfully 256:15
willingness 261:14
window 17:10 21:3
wine 170:17 171:1
 199:22 211:22 212:15
 212:22 213:18
wine-making 212:22
wineries 199:17
winery 199:20
wines 170:21 191:8
 213:1,3
wing 31:6 32:2
Wisconsin 94:1 156:1
 157:8
wish 50:7 297:11
wished 68:5
witness 295:9 301:17
wonder 117:5 147:13
 290:11
wondered 156:21
 252:11
wonderful 58:18
wondering 134:6
 146:17 246:18 268:13
 273:3 289:20
wood 145:1
woodlands 67:19
woods 146:9
word 35:15 60:13 61:4
 65:22 147:11 201:17
wording 74:5
words 37:17,22 51:22
 54:5 153:12 194:22
 256:6
work 5:12,18 6:10
 10:16,17 16:6 21:5
 24:15 26:16 28:4 37:5
 44:20 47:5 51:9 55:11
 57:6 61:6 69:17 74:22
 81:3 87:17 91:10
 112:5 115:12 116:8
 129:9 133:3 136:6
 150:6 151:3 163:3
 169:21,22 195:16
 205:5,14 222:11
 233:21 240:17 242:5
 250:13 255:16,21
 256:22 257:17 258:5
 260:9 266:7 267:17
 267:22 271:2,5
 276:20 277:16 280:20
 281:22 283:9 285:17
 285:18,21 287:22
 288:5,7 289:5,8,10,20

289:22 292:10 293:9
 293:12 294:2 297:11
 298:21 300:4 301:17
worked 69:14
worker 118:16 119:14
workers 111:19 113:22
 119:1 181:15
working 17:7 27:11
 30:5 32:20 37:2 61:8
 68:19 93:13 205:14
 250:6 256:14 257:16
 283:16 286:13 291:17
 292:20 295:4
works 180:14 248:6
 295:6 301:17
workshop 277:2
world 41:21 58:17
 99:15 111:11 179:12
 270:21 272:15
worldwide 110:9
worth 11:16 133:1
 183:15
wouldn't 65:10 183:11
 233:6
woven 23:19 26:2 92:9
 101:12,14
wrap 93:16 234:11
wrapped 231:9
wraps 236:15
write 12:10 16:10 34:3
 205:4 295:22
writing 33:7,18 37:3
written 33:20 34:5
 35:16 36:13 110:15
 112:9 151:15 211:6
 228:21
wrong 168:1 175:17
 284:2 289:1 299:9
wrote 140:10 168:2
 177:15 196:11 200:3

X

x 18:20
xantham 214:9,10
 215:16

Y

Yeah 62:10
year 21:2,6 25:15 31:3
 31:3,6 45:21 112:15
 226:7 230:8 277:3
 296:3
years 26:2 34:8 41:14
 43:3 45:12,18 58:16
 65:11 69:18 73:22
 85:16 92:21 145:21
 147:4,5 164:6 170:20
 207:13 236:1 251:5

269:22 278:18,20
yellow 206:3,4
yesterday 4:16 11:1
 19:3 20:16 32:7 77:10
 108:20 114:17 115:9
 116:5
yield 184:16
yogurts 191:13 216:18
young 34:12 112:13
Yurok 63:8

Z

Zea 80:21 229:9
Zero 244:13
zinc 151:19,22 153:3,4
 153:8,9 154:18 155:7
 155:18 156:5 167:4
 175:11 176:15

0

1

1 152:15 194:7 232:1
 252:18 257:8
1:30 189:19
1:32 190:6
10 75:4 123:19 137:14
 144:15 194:7,7,8
 207:11,13
10-year 42:15
10:12 75:8
100 64:11 212:17
101.22 193:14 194:20
102.5 194:20
110 129:12,19
12:23 190:6
121 289:7
13 281:1
14 104:13 159:7 199:19
15 26:2 85:16 140:3
160 62:3
17 78:19 154:12
18 25:17 212:6
180 301:9
19 78:19 255:13

2

2 90:9 137:17
2,4-D 258:18
20 61:17 160:19 236:1
 238:4 255:13 275:8
 275:13 301:8
20-something 34:7
200 31:2 260:18
2007 80:11 81:1 103:16
2009 133:13 228:8,16
2011 10:18 25:7
2012 152:7,10

2013 154:5 254:17
2014 103:15 232:3
 254:17
2015 25:16 140:9
 193:16 208:12 217:3
 217:20 237:1 238:2
 245:5,9 254:17
2016 81:8 152:4 185:18
 195:12 238:5 245:11
 254:17
2017 42:18 85:18 152:5
 152:9 178:1 237:4
 245:15 254:17 299:11
2018 1:5,7 109:18 152:5
 178:1 232:13 255:12
 282:12 283:4,7,14
 285:3,4
2019 282:13 283:8,12
2020 190:15
205.2 67:15 73:15
205.200 67:8 73:19
205.200(a) 42:22
205.601 178:9
205.601(a) 77:20
205.601(b) 90:8
205.601(b)(ii) 84:21
205.601(c) 84:21
205.601(e) 102:9
 121:15 123:18
205.601(e)(5) 109:14
205.601(h) 188:6
205.601(i) 102:11
 121:18 125:12 176:16
205.601(i)(10) 109:15
205.601(j) 127:1 137:13
205.601(j)(2) 109:16
205.601(k) 139:19
205.601(o) 143:13
205.602 149:9
205.605 190:19
205.605(a) 192:16
 199:14 244:22
205.605(b) 200:15
 203:5 210:20 211:11
 214:8 243:15 244:22
205.606 216:6 225:3
205.606(k) 227:1
205.606(q) 231:15
21 193:14 194:20,20
21,000 156:3
218 154:17
230 154:17
25 275:8,13
27 1:7 126:4
29 283:10
2nd 1:9

3

3 22:11 152:15 258:4
3-year 41:7,9 45:14
 46:5 50:8
3.5 127:5 128:6,8 134:5
3:22 280:19 281:6
3:35 281:1
3:40 281:6
3:45 190:2
30 130:8,9
300 31:3 58:16 260:18
35 277:4
36 41:1
39 130:2

4

4 3:4 125:13
4:04 302:14
40 3:6 130:2 164:6
 184:17 277:4
400 31:3
41 283:4
47,000 133:17
49 151:5

5

5 196:6 214:16 252:13
 252:18
50 184:17
54 283:9
58 64:12

6

6 121:16
605(a) 200:9 202:12
 248:19
605(b) 203:17 209:15
 248:18
606 223:14

7

7 127:2 140:3
7.88 139:14
70 129:19 130:2
747 160:21
75 286:3 298:13
77 3:7

8

8 79:5
8:30 1:9 76:18
8:31 4:2
80 61:18,22 185:8
80/20 61:17
880 1:9

9

9 194:7 259:7
9:50 75:3

9:52 75:7
90-second 237:22
98 192:2
99 137:15
99.9 71:7

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Spring 2018 Meeting

Before: National Organic Standards Board

Date: 04-27-2018

Place: Tucson, Arizona

was duly recorded and accurately transcribed under
my direction; further, that said transcript is a
true and accurate record of the proceedings.



Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701