

UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

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WEBINAR

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TUESDAY
APRIL 16, 2019

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The National Organic Standards Board
conducted a webinar at 1:00 p.m., Harriet Behar,
Chair, presiding.

PRESENT

HARRIET BEHAR, Chair
STEVE ELA, Vice Chair
SCOTT RICE, Secretary
JESSE BUIE
SUE BAIRD
ASA BRADMAN
TOM CHAPMAN
LISA DE LIMA
RICK GREENWOOD
DAVE MORTENSEN

EMILY OAKLEY

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR

NATIONAL ORGANIC PROGRAM STAFF

PAUL LEWIS, Director, Standards Division

MICHELLE ARSENAULT, Advisory Committee
Specialist

DEVON PATTILLO, Materials Specialist, Standards
Division

MATT PAVONE, Policy Analyst, Standards Division

CLARISSA MATTHEWS, National List Manager

ALSO PRESENT

JULIA BARTON, Ohio Ecological Food and Farm
Association

COLEHOUR BONDERA, Kanalani Ohana Farm

ROLAND CARGILL, Product Registration Specialist,
Fair Product Inc.

BILLY CARTER, Carter Farms

DAVE CHAPMAN, Real Organic Project, Organic
Farmers Association

JENNIFER DANIELS, Windy Creek Farms

NICOLE DEHNE, Certification Director, Vermont
Organic Farmers

KATHERINE DIMATTEO, Wolf, DiMatteo + Associates

LINLEY DIXON, Real Organic Project

STEVEN ETKA, Policy Director, National Organic
Coalition

RAY FRIZZELL, Full Measure Industries

JAYDEE HANSON, Policy Director, Center for
Food Safety

JANE ISELEY, Iseley Farms

KELLY KERSTON, Senior Livestock Certification
Specialist, CCOF

JENNIE LANDRY, DSM Nutritional Products

AMALIE LIPSTREU, Policy Director, Ohio
Ecological Food and Farm Association

PEYTON MCDANIEL, Hickory Meadows Organics

DANA PERLS, Senior Food and Technology
Campaigner, Friends of the Earth

AMBER POOL, Senior Farm Certification
Specialist, CCOF

MICHAEL SLIGH, Citizen

JESSICA SHADE, The Organic Center

ALEX WATKINS, Alex Watkins Farm

BILL WOLF, Wolf, DiMatteo + Associates

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

2 (1:00 p.m.)

3 MS. ARSENAULT: Hi, everyone. Welcome.

4 This is Michelle from the National Organic
5 Program. We're going to get started now. I have
6 top of the hour here.

7 Just a reminder, if you are not
8 speaking -- and actually only the Board Chair and
9 a couple of other NOP staff members will be
10 speaking -- in the next few minutes, please put
11 yourself on mute.

12 The background noise is kind of a
13 challenge sometimes, and we've heard people
14 yelling at their dog or their kids. And unless
15 you want the group to hear that, it's best to put
16 yourself on mute.

17 So welcome. It's the first webinar
18 for the April 2019 NOSB meeting. We have a
19 webinar today for three hours and then the
20 remainder of it will be Thursday. The schedule's
21 not full on Thursday, so we'll be about an hour
22 to an hour and a half on Thursday, if you're

1 going to join us then as well.

2 So first of all, we've going to have
3 Paul Lewis, the Standards Division from NOP,
4 officially open the meeting. And then I'll run
5 through a little bit of housekeeping and the run
6 of show for today. And you'll hear from both me
7 and Harriet during that period.

8 So here's Paul.

9 MR. LEWIS: Thank you, Michelle. And
10 good afternoon or good morning, depending on
11 where you are timewise. I'd like to welcome NOSB
12 members and the public to today's National
13 Organics Standards Board public comment webinar.

14 I appreciate NOSB members for
15 participation on this call and for all your hard
16 work and energy and thought serving on the Board.

17 This webinar provides the opportunity
18 to the public to offer comments to the Board as
19 part of the NOSB's upcoming public face-to-face
20 meeting scheduled for October 24th to 26th in
21 Seattle, Washington. Please consult the NOP
22 website for further information about the face-

1 to-face meeting.

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

6 I look forward to hearing comments
7 from the public to assist the NOSB in preparing
8 the recommendations to the USDA in response to
9 NOSB work agenda items.

10 I also want to thank my colleagues,
11 the National Organic Program, in the Standards
12 Division, for all their help behind the scenes to
13 bring today's teleconference to a success.

14 I'd like to close by turning to
15 Harriet, chair to the board. And Harriet, again,
16 thank you for chairing this webinar. We, again,
17 appreciate all your efforts and your leadership
18 on the Board. Thank you.

19 MS. BEHAR: Thank you, Paul. Hello,
20 everyone. I'm going to just do a little bit of
21 housekeeping here. All the phone lines will be
22 open unless we start to get a lot of background

1 noise, and then we'll have to mute everyone. But
2 that, then, does take quite a bit of time to
3 unmute each individual person.

4 If your phone does not have a mute
5 button, you can press Star 6 to mute yourself,
6 and then Star 7 to unmute.

7 So first a reminder, you had to have
8 pre-registered in order to comment on this
9 webinar. And I, the NOC chair, Harriet Behar,
10 will announce ahead of time who is going to be
11 the next two commenters on deck as well the
12 previous -- the person who will speak next to
13 just give you a heads-up on when you'll be coming
14 on.

15 There's also going to be a timer.
16 Michelle, do you want to let people hear that
17 buzzer so they know when their three minutes is
18 up?

19 MS. ARSENAULT: Indeed. I'm going to
20 --

21 MS. BEHAR: Okay, thank you, Michelle,
22 for the --

1 MS. ARSENAULT: Sorry. It'll ring a
2 second time. And sometimes it's hard to hear on
3 the phone, but hopefully everyone could hear that
4 fairly clearly.

5 MS. BEHAR: Okay. And when you hear
6 that noise please wrap up your comments because
7 you've reached the end of your three minutes.

8 Board members, if you have a question,
9 you can raise your hand, I believe, or write in -
10 - put it in a question box. And if, for some
11 reason, you can't do either, you can just say you
12 have a question. I will ask for questions after
13 each speaker.

14 Also, just so everyone knows that this
15 webinar is being recorded and then will be
16 transcribed and will be part of the official
17 record for the Spring 2019 NOSB meeting.

18 I want to thank everyone, also, for
19 taking the time out of their busy day to make a
20 comment. This is one of the strengths of the
21 National Organic Program, is all of the
22 engagement we receive from the public.

1 And, I believe, for any of you that
2 are long-time commenters and for first-time
3 commenters, be assured that we, on the National
4 Organic Standards Board do listen to your
5 comments and take them into account when we are
6 making decisions that we know affect your
7 livelihood as well as your lifestyle of promoting
8 organic agriculture and the consumption of
9 organic food and fiber.

10 So, if for some reason, I miss
11 someone, they're not on the line, I will try at
12 the end to call them again. So, of course, if
13 you're not on the line, you won't know that. But
14 I will try if someone fell off the line or
15 whatever to, at the very end, keep track of who
16 did not fit in their spot and give them a chance
17 at the very end.

18 So, with that, Michelle, I believe
19 that we can start. Billy Carter is our first
20 commentator.

21 MS. ARSENAULT: Hey, Harriet? Hang on
22 one second. Just one other note for people on

1 the phone. We do have a transcriptionist who is
2 taking, transcribing the call. And to start that
3 off, I'm going to read roll call for the board
4 members so I can make sure --

5 MS. BEHAR: Oh, perfect.

6 MS. ARSENAULT: -- everyone's present.
7 So, all right. So, Harriet, I know you're here.
8 And for those who don't know, Harriet's the Chair
9 of the NOSB.

10 And, Steve Ela, are you on the line
11 with us?

12 MR. ELA: I am on the line.

13 MS. ARSENAULT: Great. Steve is Vice
14 Chair of the NOSB. And, Scott Rice? You're on
15 the line. Scott, you're muted. Let me unmute
16 you. Scott -- oh, two of us unmuted you, which
17 canceled each other out. There we go. There we
18 go. Scott, you're going to be able to talk now.
19 Scott's the Secretary of the NOSB.

20 MR. RICE: I am present.

21 MS. ARSENAULT: Scott, if you're
22 talking, I actually can't hear you. But I see

1 you.

2 MR. RICE: Can you hear me now?

3 MS. ARSENAULT: There we go. Gotcha,
4 excellent. Okay.

5 MR. RICE: Present.

6 MS. ARSENAULT: Sue Baird -- thanks.
7 Sue Baird?

8 MS. BAIRD: Yes, I'm here on my cell
9 phone. I couldn't get access to the Internet,
10 but I have my phone.

11 MS. ARSENAULT: Okay. That's fine.
12 I can hear you. Asa Bradman?

13 MR. BRADMAN: Yes.

14 MS. ARSENAULT: Hi, Asa. We can hear
15 you.

16 MR. BRADMAN: Hi.

17 MS. ARSENAULT: Jesse Buie?

18 MR. BUIE: Present.

19 MS. ARSENAULT: Gotcha. Thank you,
20 sir. Tom Chapman?

21 MR. CHAPMAN: Present.

22 MS. ARSENAULT: Thank you. Lisa De

1 Lima?

2 MS. DE LIMA: Here.

3 MS. ARSENAULT: Hi, Lisa. Rick

4 Greenwood? Rick, I see you now on the --

5 MR. GREENWOOD: Yes.

6 MS. ARSENAULT: -- on the list.

7 MR. GREENWOOD: I'm here.

8 MS. ARSENAULT: Thank you. Emily

9 Oakley?

10 MS. OAKLEY: Present.

11 MS. ARSENAULT: Hi, Emily.

12 MS. OAKLEY: Hi.

13 MS. ARSENAULT: A-dae Briones?

14 MS. ROMERO-BRIONES: Present.

15 MS. ARSENAULT: Hi, A-dae. Dan Seitz?

16 MR. SEITZ: Present.

17 MS. ARSENAULT: Great. Thank you.

18 And Ashley Swaffar?

19 MS. SWAFFAR: I'm here.

20 MS. ARSENAULT: Hi, Ashley. Dave

21 Mortensen will be with us. He's going to join a

22 little bit late. He had a faculty meeting. So

1 he'll be on the line with us.

2 All right, so, and for those who don't
3 know, we are currently at 14 NOSB members. We
4 had a member resign when he got a new position
5 and had a time conflict. So for this upcoming
6 meeting in Seattle we'll have 14 NOSB members as
7 well as for the fall meeting in 2019, we'll be a
8 14-member board.

9 All right, Harriet, all yours.

10 MS. BEHAR: Okay. Thank you. Yes, I
11 had forgotten the roll call. That's an important
12 thing.

13 Okay, so we will start with our first
14 commenter, and Michelle does have your phone
15 numbers, hopefully, so if, for some reason,
16 you're on mute, she will try to unmute you.

17 So the first person is Billy Carter
18 with Peyton McDaniel and Jennifer Daniels
19 following. So, Billy, are you there?

20 MR. CARTER: Yes, ma'am. I -- yes,
21 ma'am, I am.

22 MS. BEHAR: Okay.

1 MS. ARSENAULT: So, Harriet, if I --
2 can I just interrupt one more moment? If you are
3 on the line with us, to keep background noise
4 down, we'd appreciate it if you could self-mute
5 yourself. That will be really helpful. Thank
6 you.

7 MS. BEHAR: So, to start --

8 MS. ARSENAULT: Also, one other
9 reminder for people. If you put us on a hold you
10 usually subject us to muzak, if you're calling
11 from a business. So please don't put us on hold.
12 All right, thank you.

13 MS. BEHAR: Okay. And I think we're
14 now ready for Billy.

15 MR. CARTER: Okay. Thank you. So
16 thank you all for your time and, obviously, for
17 the commitment that you made to serve on this
18 NOSB.

19 And my name is Billy Carter. I'm an
20 organic farmer in Eagle Springs, North Carolina.
21 And on our farm we grow tobacco, sweet potatoes,
22 field corn and small grain organically.

1 Our first parcels were certified in
2 1998, but I have farmed since 1983. And we
3 currently have over 1,300 acres certified as
4 organic, of which 220 was dedicated to organic
5 tobacco in 2019.

6 My comments pertain to using fatty
7 alcohols to control suckers in tobacco. So in
8 order to grow and get yields of high quality
9 desirable tobacco, you have to remove the blooms
10 and also the suckers or axillary buds that
11 develop once that flower has been removed. And
12 fatty alcohols allow us to effectively deal with
13 controlling sucker growth.

14 And, of course, effectively
15 controlling sucker growth allows for reductions
16 in pests as well as more efficient use of
17 fertilizers. And, obviously, both of those are
18 desirable outcomes in any organic system plant.

19 And without the fatty alcohol, it
20 would be very difficult for us to produce more
21 than just a very small quantity of organic
22 tobacco, if any at all. And in the past, I have

1 used both soy bean and mineral oil as sucker
2 control materials.

3 And both of those materials have
4 proved really grossly inadequate in their sucker
5 control as well as involving many hours of vast
6 and grueling work for my employees to apply by
7 hand.

8 So we have to go to -- yields better
9 quality tobacco with the fatty alcohol. And it
10 does remove the workers from what is inherently a
11 dangerous job because of the great length of time
12 that was involved to apply those materials in the
13 hottest part of summer -- because it was all done
14 by hand.

15 And while we would still have some
16 organic production if we no longer had fatty
17 alcohols to use, I'm relatively certain that the
18 number of certified acres on our farm would be
19 drastically reduced.

20 Organic tobacco projection is with
21 time very great generator of approved growth and
22 that income on our farm. And I'm really proud of

1 the improvements in the health of our soil and
2 our farm and our ability that we've seen improve
3 because of our commitment to organic production.

4 And so today, I'd like to make two
5 requests. And I request that USDA grant a
6 temporary allowance for fatty alcohols until the
7 NOSB has a chance to review it, until that's
8 complete.

9 And also I'd like to request that NOSB
10 and USDA add fatty alcohols to the national list
11 of allowed substances. So, again, thank you for
12 your time and commitment to the work of this
13 board and for considering my comments today. And
14 I'm finished. Thank you.

15 MS. BEHAR: Well, okay, well stay
16 there, Billy. Are there any comments from the
17 Board? Or questions?

18 MR. PATTILLO: This is Devon. Do we
19 want --

20 MS. BEHAR: Okay.

21 MR. PATTILLO: -- NOP to comment on
22 that, on this at this time? Ms. President?

1 MS. BEHAR: Well, I'm not sure. I
2 think what you want to know is -- I believe that
3 there is an allowance for the use of fatty
4 alcohols if you have currently been using them
5 for this clock year. Billy, are you aware of
6 that?

7 MR. CARTER: Yes, ma'am. And,
8 fortunately, we had inventory less than the
9 previous year, so we're in good shape for this
10 year. Our interpretation of it was, if you did
11 not have inventory going into this year, that you
12 did not have the opportunity to utilize it in
13 2019.

14 Certainly, after we've used up that
15 inventory, we were concerned that we would not
16 have the opportunity going forward, after this
17 current year. So we were aware that we did have
18 some relief, if you were in the right position,
19 for this year.

20 MS. BEHAR: Okay. I don't know if
21 Paul wants to make a comment, if he would be able
22 to purchase more for the year?

1 MR. LEWIS: Yes -- sure, so we'll be
2 talking more about the fatty alcohols this year
3 at the full board meeting. And Dr. Tucker, the
4 deputy administrator of NOP, will be talking more
5 about that at the full board meeting.

6 MS. BEHAR: So we'll have an answer
7 somewhat next week.

8 MR. LEWIS: Right.

9 MS. BEHAR: So, Billy, anybody else
10 have any questions?

11 MS. OAKLEY: Harriet, this is Emily.
12 I have a question.

13 MS. BEHAR: Okay.

14 MS. OAKLEY: Thank you. And, Billy,
15 can I ask why manual removal is not an option?
16 If you could elaborate more on that. Is it
17 mainly an issue of time constraint and worker
18 exposure?

19 MR. CARTER: Well, actually, we
20 already do some hand removal anyway. But the
21 issue was is that there was no way that you could
22 keep up with -- it is a timing thing. It's a

1 worker exposure thing.

2 And it's also a limitation in terms of
3 the quantity that you could grow. It's severely
4 limiting because to really effectively control it
5 by hand removal, that's a job that really needs
6 to be done, at the minimum, once a week for about
7 an eight-week period of time.

8 And it's just -- it's very onerous.
9 It's very difficult on your health. In fact,
10 just anecdotally, I had one of my best workers,
11 you know, many years ago, before we had fatty
12 alcohols, simply say, you know, he just -- if
13 this is the only work I had for him he'd just
14 have to do something else. I mean, it's just --
15 it's very difficult work for a long period of
16 time.

17 MS. OAKLEY: Thank you.

18 MR. CARTER: You're welcome.

19 MS. BEHAR: Any other questions from
20 the Board?

21 MR. BRADMAN: Yes, I have a quick
22 question. You mentioned exposure, I think you

1 mentioned heat exposure. Are there other
2 exposures that are a concern?

3 MR. CARTER: Well, of course there's
4 always risk --

5 COURT REPORTER: Could the speaker
6 identify themselves?

7 MR. CARTER: -- in tobacco sickness,
8 which is, you know, basically, if you, you know,
9 if you're in a situation where you're either so
10 hot that you sweat, that your body absorbs the
11 nicotine or if you're working with tobacco.

12 And where, the answer to that is, you
13 know, is to be in protective garb whenever it is
14 wet, and not to be in the field when it's
15 exceedingly hot. And whenever you start
16 eliminating those time periods, it really does
17 make it difficult to be able to hand sucker.

18 So, yes, we're very concerned of our
19 employees. Now, granted, tobacco sickness is not
20 something that this routinely happens, but you
21 have to be aware of the circumstances that does
22 cause it and be prepared for it.

1 And, having experience myself, I was
2 working and all a few times. You know, it's --
3 you're not going to die, but you think you will
4 just because it'll make so nauseated. But, yes,
5 certainly, we are concerned about our employees
6 whenever we think about, when they're -- the
7 amount of time they have to be in the field.
8 Mainly, they're removing suckers.

9 COURT REPORTER: This is the --

10 MR. BRADMAN: Thank you.

11 COURT REPORTER: -- Court Reporter.

12 MS. BEHAR: What was that?

13 COURT REPORTER: Hi. Sorry, this is
14 Court Reporter. Would the speakers mind
15 identifying themselves?

16 MS. BEHAR: Oh -- thank you for that.
17 That was Billy Carter, with Carter Farms.

18 COURT REPORTER: And --

19 MR. BRADMAN: And who asked the
20 question, that was Asa Bradman.

21 COURT REPORTER: Okay, thank you. If
22 they could continue to identify themselves,

1 everybody that has a question during the course
2 of the meeting, that would be helpful.

3 MS. BEHAR: Thank you. Okay, Billy.
4 Anyone else on the Board? I do have a few
5 questions. I'm wondering, how many times do you
6 spray the tobacco during the season with the
7 fatty alcohol?

8 MR. CARTER: It's usually four to five
9 times.

10 MS. BEHAR: Okay. Can you explain how
11 tobacco fits into your crop rotation?

12 MR. CARTER: Yes, ma'am. So
13 traditionally, we've been on a three-year
14 rotation. We're starting to gravitate toward a
15 four-year rotation because of additional
16 certified land.

17 So we're sort of working three from
18 the left. But generally we have sweet potatoes
19 that proceed tobacco in that crop rotation. In
20 between those, between the sweet potatoes and
21 tobacco, will be a winter cover crop, usually
22 cereal or -- but does not include a legume

1 because, tobacco, we have to be careful about the
2 nitrogen fertility.

3 After the tobacco, we'll have a cereal
4 grain crop, and it'd typically be followed by
5 summer cover crop with a legume producer and some
6 type of cereal grain, and that'll lead back into
7 sweet potatoes.

8 And then we have a sort a different
9 rotation where we work through some field corn.
10 And of course, we also work small grain, and some
11 of that small grain is for harvest. But it's
12 typically cereal rye on their farm, where we are
13 using for our small grain, not only for cover
14 crop but for harvest.

15 MS. BEHAR: And then are you aware if
16 your buyer of your tobacco then sells that as a
17 certified organic product, are there certified
18 organic cigarettes or other, whatever they claim?

19 MR. CARTER: Yes. Yes, ma'am. Yes,
20 ma'am. They are marketed as a certified organic
21 product. And their facility is, to the best of
22 my knowledge, where we sell our tobacco and where

1 they process, they manufacture, there's processed
2 tobacco.

3 And then the manufacturer, their
4 cigarettes is all certified. And the product is
5 noted as organic tobacco whenever it's sold to
6 the cigarette folks, yes, ma'am.

7 MS. BEHAR: Okay. Well, I don't --
8 are there any other questions from the Board.

9 MR. CHAPMAN: This is Tom. I had a
10 follow-up question.

11 MS. BEHAR: Okay.

12 MR. CHAPMAN: Billy, does your crop
13 rotation impact your need to use fatty alcohols?

14 MR. CARTER: Could you restate that
15 question, I think you wanted to ask me? I'm
16 sorry.

17 MR. CHAPMAN: Yes. Yes, we had a
18 question about your crop rotation. I'm just
19 curious, does that have any impact at all on your
20 need for fatty alcohols in the tobacco
21 production?

22 MR. CARTER: Well, I was -- no, yes,

1 I get your question now. Not that I'm aware of.
2 We, see tobacco's actually an interesting crop in
3 terms of you need the proper real amount of
4 fertility to grow a good crop, at least so that
5 they have a process of nitrogen deprivation in
6 order for it to ripen correctly if it's the right
7 type of tobacco. This is not true of other types
8 of other tobacco.

9 The type we grow does require that.
10 And because of that, we have to be careful about
11 how much the nitrogen's present before that crop,
12 so we do not put a million in our cover crop in
13 the winter before tobacco, whereas we do with our
14 field corn in that sort of rotation than ran.

15 Basically we try not to, because of
16 our long history of growing tobacco and
17 understanding our soil, you know, we try to be
18 careful about the nitrogen present in that
19 rotation so that we don't have excess sucker
20 growth that requires the use of more hand labor
21 and/or fatty alcohols to try to control the
22 suckers.

1 So we're mindful of how we've
2 approached the fertility of that crop. And
3 that's one of the reasons that we don't want a
4 lot of sucker growth, because the sucker growth
5 actually takes nitrogen away from the tobacco too
6 quickly and makes it ripen too quickly.

7 And it requires more fertility up
8 front whenever you're contemplating that you
9 might have more suckers to contend with if you
10 don't control them in order not to have that cost
11 lead to fertility. Sorry, a big complaint for
12 some sort.

13 MR. FREEMAN: Harriet, this is this
14 is Nick Freeman. I have a question for Billy.
15 Is there an increasing demand for organic
16 tobacco? Do you see that, since you're selling?
17 Are more people interested in it, in growing it?

18 MR. CARTER: Well, you just -- are
19 more people interested in growing it? Well,
20 there's primarily one new entity that utilizes
21 organic tobacco on a commercial scale in the U.S.

22 And their domestic business is

1 increasing. They sold their international brands
2 a few years back and that impacted the overall
3 quantity of organic tobacco that was being grown
4 or just utilized.

5 But domestic consumption's actually
6 increasing, so we were on a graphic grade page,
7 we plateaued, declined some and we seem to be
8 plateauing again at that level.

9 MR. FREEDMAN: Thanks.

10 MS. BEHAR: Okay, just so you know,
11 only the NOSB is allowed to ask questions. Are
12 we done with the board members asking questions?
13 Okay, we're going to move on to -- thank you,
14 Billy, for being patient with all of our
15 questions. Next is --

16 MR. CARTER: No, I thank you.

17 MS. BEHAR: Peyton McDaniel is next
18 with Jennifer Daniels and Jane Iseley on deck.

19 MS. ARSENAULT: Hey, Peyton, if I can
20 just interrupt you for one moment. This is
21 Michelle from NOP. We're getting a little
22 background noise from unmuted lines, so if you're

1 not talking, please mute yourself. Thank you.

2 MS. BEHAR: Okay, Peyton, I believe
3 we're ready for you.

4 MR. MCDANIEL: All right, I'm just
5 going to kind of follow up on what Billy had to
6 say. So my name is Peyton McDaniel. I'm from
7 Eastern North Carolina. I grow about 50 acres of
8 organic tobacco. I grow a mixture of sweet
9 potatoes, corn, soybeans, cabbage and winter
10 squash over the remaining 600 acres.

11 I've been growing organic tobacco for
12 over ten years now, and it's the most important
13 crop in my operation. Fatty alcohols are
14 essential to the production of organic tobacco.
15 They can free us of unwanted suckers which
16 improve yield and quality, ultimately sustaining
17 our crops.

18 Again, during this trial, there are
19 different products and none have offered the
20 effectiveness and economic feasibility that fatty
21 alcohols do. Pulling suckers is not a viable
22 option because of time it takes as well as the

1 increased risk for workers as far as tobacco
2 sickness.

3 If we're not allowed to use fatty
4 alcohols again for organic tobacco, we're not --
5 it won't allow me to grow the crop because of
6 increased costs associated with that. And also,
7 giving other countries producing organic tobacco
8 and the upper hand.

9 They can produce it at a much lower
10 cost and they have the ability to take over our
11 market because our products are too expensive to
12 produce and the companies, they can't afford the
13 process.

14 I ask the USDA to grant temporary
15 allowance for fatty alcohols until the Standard
16 Board review is complete and also I ask that USDA
17 and NOP add fatty alcohols to the list of allowed
18 substances. Thank you.

19 MS. BEHAR: Okay, thank you. Anyone
20 on the Board have a question? Okay, I have a
21 question. Peyton, have you been using fatty
22 alcohols so far, and how many years?

1 MR. MCDANIEL: Yes, I've been using it
2 now for the last, oh, I would say, seven or eight
3 years, as -- a big part of what he did. And so,
4 yes, it's been great, and I hope that we can
5 somehow continue to make this thing work.

6 And I know that, like you said, with
7 Billy, that we had the ability to use it this
8 year if we previously purchased it, and we do
9 have a lot of inventory for this year.

10 MS. BEHAR: Okay, any other
11 questions?

12 MS. OAKLEY: Hi, this is Emily, just
13 a point and reminder. I do wonder if people
14 could state their name and affiliations before
15 they speak.

16 MS. BEHAR: Okay. So, thanks. Okay,
17 so we're going to Jennifer Daniels. So she's
18 with Windy Creeks Farms. And on deck is Jane
19 Iseley and Alex Watkins. Jennifer, go ahead.

20 MS. DANIELS: Okay. As you just
21 stated, my name is Jennifer Daniels, and we
22 operate or have about a 250-acre organic farm

1 that operates under Windy Creek. And we are
2 located in eastern North Carolina as well, in
3 Sampson county.

4 And thank you for having me or
5 allowing us to be able to share our comments on
6 this because it is important to our livelihood.
7 I am following what Billy and Peyton have already
8 said.

9 The use of fatty alcohols in our
10 operation is of primary importance. The main
11 reason of that is because tobacco, typically
12 the organic tobacco brings us in triple the
13 revenue that our small grains bring in.

14 We do typically grow about 40 acres of
15 organic tobacco out of the 250. We grow some
16 sweet potatoes and then we have the grains, wheat
17 and soybeans. And every year we have, we're
18 trying to add a little more produce. And the
19 last two years, we've grown organic pickling
20 cucumbers. And this year we're actually trying
21 to grow some organic jalapeno peppers.

22 So with all of that in mind, the main

1 reason we need this fatty alcohol support is to
2 help reduce our labor and time in the field to
3 remove these suckers. We need to be able to do
4 that because those suckers actually attract
5 pests, the way the aphids there, which also
6 damage our tobacco.

7 And if the suckers remain in there,
8 the energy goes to feeding those instead of the
9 leaf, which is where we actually, you know, make
10 our money, is harvesting that leaf.

11 So without the sucker control, it's
12 going to damage our yield and our quality of our
13 tobacco, so, therefore, it takes affects our
14 margin of profit.

15 And in our operation, the labor, hand
16 labor, does actually go in with the crop rotation
17 and it can inhibit it, the more time that we have
18 to stay on top of it and suckling.

19 Because we typically do the cucumbers
20 that start off in June, and then we'll -- well,
21 where we're just in peppers, the whole time we're
22 growing tobacco, it's harvesting our cucumbers

1 and our peppers as well.

2 And managing that labor, so you have
3 time to do all of those things makes a
4 difference. And I personally love the fact that
5 we're feeding people organic food, you know, so
6 that organic tobacco it actually sustains our
7 farms as far as the overhead with equipment and
8 the cost of land rent.

9 There are a lot of conventional
10 farmers. The organic community is growing in our
11 area, but land rent is, in my opinion, it is high
12 and a big portion of our cost. So the use of
13 fatty alcohols helps make our tobacco more
14 productive as far as claimed income.

15 I have asked when, about two years
16 ago, when we first got -- oh, I talked too much.
17 Anyway, wrapping up then, I sent an email to NC
18 State inquiring about what in the world we were
19 going to be able to use. And he has told me
20 there is not an effective -- anything else,
21 effectively, that we could use to be able to
22 replace that fatty alcohol.

1 MS. BEHAR: Okay, well, I thank you,
2 Jennifer. Any questions from the Board?

3 MR. ELA: Harriet, this is Steve Ela,
4 if I could ask a question.

5 MS. BEHAR: Okay.

6 MR. ELA: Given -- and I could have
7 asked this from the previous two speakers as
8 well, but given that, if you -- that you're able
9 to move -- it wouldn't matter if you used that
10 clause, if you had that on hand, if you use it
11 up, will this be a problem for you if the Board
12 doesn't act this in the fall, but you have to
13 carry it over to the spring, a year from now,
14 would that problem inhibit your ability to use
15 this -- you know, assuming we had approval of
16 that. But would it cause a problem, would that
17 be a delay or, in looking back to?

18 MS. DANIELS: I am concerned with the
19 amount that -- we do have some on hand, but it's
20 a narrow margin for what we'll need. So I am
21 definitely for the temporary allowance if that's
22 possible.

1 MS. BEHAR: Thank you, Steve. Anyone
2 else from the Board have a question? Okay, I
3 have one question. What type of insects are
4 attracted to the suckers and what materials do
5 you use to control them?

6 MS. DANIELS: The aphids, they just
7 suck -- anyway, they take the nutrients and
8 basically take the quality from the roots. And
9 basically we don't use anything against them.
10 Just the sooner you can get the flowers and the
11 suckers off, and that actually gets rid of the
12 problem.

13 MS. BEHAR: Okay, that was Harriet,
14 for the transcription. Okay, anyone else? Well,
15 thank you so much, Jennifer. You did a -- well,
16 the three of you and thank you for their
17 comments, have been very useful on that material.

18 So next up is Jane Iseley with Alex
19 Watkins and Steve Etko on deck. Jane?

20 MS. ISELEY: Yes, thank you. I
21 appreciate you all speaking with us today. This,
22 as we've indicated, this is sort of a do or die

1 project for those of us who grow organic. I've
2 been growing organic for about --

3 MS. ARSENAULT: Ms. Iseley, I'm sorry,
4 this is Michelle from the National Organic
5 program. Jane, could you just state your name
6 and affiliation, for the record? It's for the
7 transcriptionist that's on the phone with us, and
8 then you can start. And I haven't started your
9 timer yet. Thank you.

10 MS. ISELEY: Well, I'm short spoken,
11 so maybe I'll be fine.

12 MS. ARSENAULT: Okay.

13 MS. ISELEY: My name is Jane Iseley,
14 and I appreciate you all talking with us today.
15 I'm on a farm in Burlington, North Carolina. The
16 family's been here since 1790, and a good part of
17 that time we've been growing tobacco.

18 I started growing organic tobacco
19 maybe 22 or 23 years ago. I'm my grandfather's
20 only grandchild, and that's the reason I'm
21 farming now. We start with strawberries in the
22 spring and move into vegetables with a farm

1 market in the summer and then pumpkins in the
2 fall with hay rides and try to get as many people
3 to the farm and encourage the people to come out
4 so that we can build our agricultural base of
5 support.

6 We also have 150 head of beef cattle.
7 But what pays the bills for us and keeps us
8 farming is organic tobacco. It's -- you've
9 talked about the time involved in it. And I'm a
10 curiosity devil. I've done some work with it.

11 The nature of the plant is to
12 reproduce seeds, of course. And this is done
13 with a flower. And you break that, what's called
14 topping. And you break that top flower out. And
15 when that happens, that wakes up the plant, and
16 it wants to grow suckers. And each of --
17 approximately 22 leaves will grow on one plant.

18 And at that axis, each leaf produces
19 3 suckers. So that was the reason, when Billy
20 was saying that he had to spray four or five
21 times, that's what we're trying to do, is to get
22 those new suckers taken care of.

1 So that math adds up to that 20
2 leaves, and you've got three suckers per leaf.
3 So you're up to 60 suckers per plant and then we
4 have about 6000 plants per acre. We plant them
5 22 inches apart. So you're at 360 suckers that
6 you've got to deal with per acre.

7 Now we, as those -- we don't have as
8 much as we used to have. We only have 20 acres.
9 And so that equates to -- we've got 7.2 million
10 suckers to deal with. And you can imagine what
11 kind of labor that takes.

12 And when you get right down to it,
13 folks, as far as I'm concerned, if we lose this
14 opportunity to control the suckers, I'm out of
15 the tobacco business and basically out of
16 farming. There's no way that we can pay the
17 labor and make it all come out. Thank you.

18 MS. BEHAR: Thank you, Jane. Any
19 questions from the Board? I have a comment,
20 Jane. I live in Wisconsin, and we used to grow
21 quite a bit of tobacco in southern Wisconsin,
22 mostly for wrappers for the cigars and the

1 chewing tobacco. There is very little of that
2 anymore. The government bought out a lot of our
3 tobacco allotments.

4 So to understand the culture, the
5 entire tobacco in a region and that high-value
6 crop that many smaller family farms relied upon
7 to make the farming operation viable. So it may
8 not be in North Carolina, but Wisconsin has -- I
9 actually have a tractor on my farm that came from
10 a tobacco operation.

11 MS. ISELEY: It's probably a 140
12 offset motor?

13 MS. BEHAR: You got it.

14 MS. ISELEY: Yes, that was the
15 farmer's green. You had to be able to seed that
16 plant while you cultivated. In fact, I guess we
17 were one of the few farms left doing that. We --
18 I have three 140s. They're great tractors.

19 MS. BEHAR: Any other comments?

20 MR. ELA: Harriet, this is Steve Ela.
21 Jane, I'm going to ask you some questions that I
22 asked Jennifer.

1 If you -- if this product isn't
2 reviewed thoroughly and expediently, do you have
3 enough on-hand for another year at least or do
4 you just have enough supply for this year?

5 MS. ISELEY: I have enough for this
6 year, and barely enough for this year.

7 MS. ARSENAULT: Hi, everyone. This is
8 Michelle from NOP. We're hearing some background
9 conversations, so if you are not speaking, please
10 put yourself on mute. Thanks.

11 MS. ISELEY: Thank you, folks. We
12 appreciate your time. And I hope I get to farm
13 some more.

14 MS. BEHAR: Okay, thanks. Well, thank
15 you. Okay, next up is Alex Watkins and
16 Steve Etko after that and Amalie Lipstreu. And
17 please state your name and affiliation.

18 MR. WATKINS: My name is Alex Watkins.
19 I'm an organic farmer from Creedmoor, North
20 Carolina, and I am 48 years old. I want to thank
21 you all today for allowing me to speak.

22 I have 350 acres of organic land

1 certified. I'm a 4th generation tobacco farmer.
2 I grow 100 acres of organic tobacco and 125 of
3 organic wheat and 80 acres of soy bean.

4 I started in 2003 with 10 acres
5 organic tobacco. I increased it to 25 the next
6 year, and then I was sick. I really couldn't
7 plant any more. That was all I could actually
8 attend.

9 We couldn't keep up with our labor
10 costs and time needed to take care of it because
11 everything was done by hand. And we did reap some
12 soybeans and some mineral oil. Had a lot of
13 issues with it. And when fatty alcohols were
14 allowed, it really helped me to increase my
15 productions.

16 And I grew, and it also freed me up.
17 And I just want to say if you decide not to allow
18 the fatty alcohols, I think it would be -- it
19 would cut organic production and possibly in
20 North Carolina or, in my opinion, possibly by 75
21 percent.

22 And because of this, the wheat prices

1 and the soybean prices can't sustain us, and we
2 can't keep our land rent paid and land certified
3 because we can only make a small profit on the
4 small grain.

5 I went to planting wheat and soybeans
6 as rotational crop for tobacco, you know, to also
7 help me do my organic matter in the soil. And I
8 think this would probably be the end of farming
9 for me, at 49, if it was not considered next year
10 because I just couldn't go back, with the labor
11 costs and the fuel costs that we have now, to
12 sustain, to be able to farm.

13 I just want to thank you all today for
14 allowing me speak, and I would to ask all of you
15 on the Board to consider to allow the use of
16 fatty alcohols for us in the future. Thank you
17 so much.

18 MS. BEHAR: Any Questions from the
19 Board for Alex?

20 MS. OAKLEY: This is Emily Oakley. I
21 just wanted to make a comment, thanking all the
22 farmers for being on the webinar, and it's always

1 very helpful to hear directly from growers, so
2 thank you.

3 MR. ELA: Harriet, this is Steve Ela.

4 MS. BEHAR: Any other --

5 MR. ELA: I'll just ask you some
6 questions that I've actually asked the previous
7 two speakers. I asked, do you have -- how much
8 supply do you have? Do you have enough for this
9 year? And do you have enough for another year,
10 if you need it?

11 MR. WATKINS: Yes sir, I do have
12 enough for the upcoming 2019 year, yes.

13 MR. ELA: And what about 2020?

14 MR. WATKING: No. No, sir.

15 MR. ELA: Thank you.

16 MR. WATKINS: You're welcome.

17 MS. BEHAR: Okay, anyone else? Okay,
18 next up is Steve Etko and then Amalie Lipstreu --
19 she can tell me how to say her name -- and Julia
20 Barton. Please state your name and affiliation.

21 MR. ETKA: I'm Steve Etko, Policy
22 Director for the National Organic Coalition. And

1 I greatly appreciate NSOB and NOP efforts to seek
2 feedback about actions needed to address
3 organic fraud.

4 NSOB discussion documented addresses
5 a broad list of actions that NOP and Congress
6 should take to address fraud. Areas that should
7 be prioritized, in our view, include, one,
8 eliminating exclusions from certification for
9 uncertified handlers in the international supply
10 chain.

11 The 2018 Farm Bill gives NOP the core
12 authority and mandate to issue regulations to
13 take this action by December of 2019. And, two,
14 make improvements to the organic integrity
15 database because significant drops in data
16 collection, especially for organic acreage data,
17 greatly impeded the ability to deter fraud.

18 In addition to the newly appointed
19 enforcement authorities in the 2018 Farm Bill, we
20 are also hearing additional authorities that
21 maybe even by entity include staff sale authority
22 and authority to take action against fraud

1 involving operations that have surrendered their
2 organic certificates.

3 We should explore short term
4 administrative solutions to these problems, if
5 possible, because the next Farm Bill process will
6 not start until the year 2022. NOC's written
7 testimony includes a prioritized list of these
8 and other actions that should be taken to deter
9 fraud.

10 In additional, NOC members recently
11 met with staff from Customs and Border
12 Protection, the lead enforcement agency at the
13 U.S. ports of entry. We were alarmed to learn
14 the CBP has little advance information about
15 cargoes headed for U.S. ports of entry and that
16 additional legislation would be needed to require
17 manifests including those details.

18 We also learned that CBP has MOUs with
19 USDA that are not procedures used in handling
20 imported agricultural products. There's -- MOUs
21 should be updated to address procedures for
22 imported organic products, specifically --

1 particularly requires CBP to check organic
2 certificates at ports of entry.

3 Lastly, we have many domestic
4 enforcement problems as well, particularly in the
5 organic livestock and dairy sectors. And,
6 therefore, we think that we'd like to see NOP
7 issue a final origin of livestock rule that will
8 clarify the requirement for the transition of
9 dairy cows into organic, to take enforcement
10 action against bad actors in the dairy sector and
11 their certifying agents who have not -- who
12 are not following the access to pasture standards
13 and unlikely to reinstate the organic livestock
14 and culture practices rule to require greater
15 consistency in organic standards, particularly
16 with regard to providing true access to the
17 outdoors for poultry.

18 In closing, in recognition of the need
19 for NOP to have adequate resources to do this
20 work, NOC has advocated for and Congress has
21 provided increased funding over the last couple
22 of years, and NOC is continuing to seek

1 additional funding for NOP for 2020 as well.

2 Thank you.

3 MS. BEHAR: Thank you, Steve. Any
4 questions for Steve from the Board? Okay, thank
5 you, Steve. Next up is Amalie, and please state
6 your full name, so I can learn how to pronounce
7 your last name, and your affiliation.

8 MS. LIPSTREU: My name is Amalie
9 Lipstreu, and I'm the policy director for the
10 Ohio Ecological Food and Farm Association.

11 First OEFFA thanks the Board for
12 requesting the energy infrastructure on organic
13 farms be added to their work agenda.

14 While we understand there are a number
15 of pressing issues to be addressed, inclusion of
16 this issue will provide resources for farmers and
17 certifiers, help organic farmers keep their
18 certifications and foster consistent
19 implementation of how these issues are addressed.

20 Secondly, OEFFA appreciates the work
21 of the Board and the NOP to address the issue of
22 import fraud. OEFFA has provided detailed

1 organizational comments and you have the
2 opportunity to hear directly from many of our
3 farmers on the importance of this issue and I
4 would say their sense of urgency remains.

5 We request that rulemaking and process
6 improvements happen in the short term. Our
7 producers and the markets have little patience
8 for belabored politics.

9 We need rulemaking, and we need
10 discreet actions in the near term including
11 propose a rule requiring certification of
12 handlers who take possession of organic products
13 in unsealed containers, handlers who buy, sell or
14 broker product while taking possession as well as
15 handlers who manage private labels that have an
16 organic claim.

17 Do whatever it takes to get harmonized
18 tariff codes into aid before the end of this
19 year. The NOP should set up a meeting with
20 International Trade Commission in the coming
21 months to establish an ambitious goal for the
22 number of HT codes that can be completed by the

1 end of 2019 with at-risk commodities being
2 prioritized.

3 Recommend the USDA target specific
4 ports of entry for green commodities until
5 Customs and Border Protection has legislative
6 authority needed to gather detailed ship manifest
7 data that will allow for advanced tracking of
8 organic shipments into the U.S.

9 This will allow for the targeting of
10 staff and resources closest to these ports for
11 review of certification documents. Direct the
12 USDA to raise awareness of organic import fraud
13 agency wide and prioritize inspection of at-risk
14 commodities providing comprehensive oversight and
15 support that will ensure the NOP is successful in
16 their efforts.

17 And finally, the Board should
18 recommend the NOP pursue legislative stop sale
19 authority in addition to the authorities
20 previously mentioned, for Customs and Border
21 Protection.

22 We appreciate the work of the Board

1 and the opportunity to comment via webinar.

2 Thank you.

3 MS. BEHAR: Okay, any comments from
4 the Board, questions? Amalie, I have a question
5 about the energy infrastructure on organic farms.

6 MS. LIPSTREU: Mm-hmm.

7 MS. BEHAR: I'm wondering, what do you
8 see this work agenda item resulting in? Would it
9 be like an instruction to certifiers on how to
10 work with operations that control --- they've
11 been told there'll be a pipeline or something
12 coming through the land and -- with that? Or
13 would that be a rule change? Or what are you
14 looking at?

15 MS. LIPSTREU: Well, what we're
16 hopeful to see, Harriet, is some guidance on
17 instructions to certifiers so that they have more
18 tools and resources in working with producers
19 that are facing this kind of infrastructure so
20 that they can do what they need to do to protect
21 their organic certification and stay in
22 production.

1 You know, we brought up the issue of
2 the organic agriculture impact mitigation plan
3 before, which is a tool that's been very
4 successfully, with the Federal Energy Regulatory
5 Commission, with pipeline companies, producers
6 and certifiers.

7 So I think, you know, some kind of
8 guidance or instruction that can provide tools
9 and consistency will be beneficial in the long
10 term.

11 MS. BEHAR: Thank you.

12 MS. LIPSTREU: Thank you.

13 MS. BEHAR: Any other comments from
14 the Board? Okay, next up is Julia Barton with
15 Michael Sligh and Amber Pool deck. Julia, please
16 state your name and affiliation.

17 MS. BARTON: Good afternoon. This is
18 Julia Barton with the Ohio Ecological Food and
19 Farm Association. Can you hear me okay?

20 MS. BEHAR: Yes.

21 MS. BARTON: Okay, thank you to the
22 Board for your service and for the opportunity to

1 offer public comment over the phone. We would
2 like to thank the Board, again, for its efforts
3 to add energy infrastructure impact on organic
4 farms to its work agenda.

5 We see some potential positive
6 outcomes of this topic being added to the work
7 agenda that could include a potential panel
8 discussion, maybe at the fall '19 NSOB meeting, a
9 discussion document that could help unpack the
10 issue.

11 And as Amalie and Harriet just
12 discussed, we'd love to see an assessment of the
13 utility and applicability of organic agricultural
14 impact mitigation planning for producers as well
15 as an eventual proposed guidance for instruction
16 for certifiers regarding how to work with farmers
17 that are faced with this infrastructure so that
18 certification can be maintained.

19 We urge the NOP, in the spirit of
20 consistency of enforcement, to support the NOSB
21 as it begins to engage with this issue. As you
22 know, farmers are faced with these challenges

1 even as we speak.

2 Further, OEFAA appreciates the NOSB
3 work to address the difficult of GE contamination
4 and its proposal and questions for the community
5 regarding genetic integrity transparency of seeds
6 grown on organic land.

7 In preparation for this semester's
8 comments, we held two calls with OEFFA grain
9 growers to gain feedback on this proposal. The
10 growers were very clear that the work and
11 financial burden concern them.

12 They feel strongly that the burden of
13 testing for organic seed should fall on seed
14 companies and that the level of contamination
15 should be provided to the farmer ahead of time so
16 that one knows what one is purchasing. It ought
17 to be printed clearly on the seed tag or invoice.

18 They also suggested that suppliers
19 stack one sample per lot, which would be far more
20 efficient and effective than analyzing data from
21 each individual grower across the country.

22 Regarding who ought to compile and

1 hear the data, OEFFA prefers that the NOP
2 subcontract with an entity to receive and
3 summarize this information for the public.
4 Perhaps, if just in groups within the community
5 even, which are used to this sort of data
6 gathering and analysis would be well-suited to
7 the task.

8 Most importantly, we must get started
9 with this work so that we can build from the
10 information gathered and address GE contamination
11 in seed across the Board.

12 We support the initial focus on corn,
13 on transparency and on data gathering to foster
14 the eventual development of special levels for
15 contamination. Given the current climate, we are
16 supportive of the recommendations for the NOP to
17 achieve this brand instruction to certifiers.

18 We appreciate your efforts, and we
19 urge for a re-movement of this proposal. We wish
20 you a productive meeting in Seattle, and thank
21 you again for your time and your service. Thank
22 you.

1 MS. BEHAR: Okay, any questions form
2 the Board?

3 MR. BRADMAN: This is Asa Bradman. I
4 have a question. You mentioned the organic
5 mitigation plan and protecting certification. Do
6 you of growers, farmers who have lost their
7 certification because of issues with energy
8 infrastructure? And can you give some specific
9 examples, just to make it more personal, if
10 possible?

11 MS. BARTON: Sure, be happy to. And
12 we have several specific examples that we'd be
13 happy to share if you'd like more information on
14 that, Asa.

15 One comes to mind, in particular,
16 however. We have a grower that's just a little
17 bit south of where I am today, in Apple Creek,
18 Ohio, which is kind of a hilly -- rolling, hilly
19 area, a lot of Amish and Mennonite producers in
20 that area.

21 And he had a pipeline come through his
22 farm, just two seasons ago. The challenge there

1 was not that he lost his entire certification of
2 the farm, but that he had to retransition the
3 area adjacent the pipeline because of the
4 materials that were used both in the pipeline's
5 construction and in the management of that area
6 thereafter.

7 So the company did not adhere to
8 organic production practices in terms of the --
9 after the pipeline went in and the way that they
10 annexed the land.

11 So he is currently in --
12 retransitioning the land near the pipeline. In
13 his case, it was particularly challenging because
14 he was managing an organic dairy herd during that
15 time and the herd had to cross the area where the
16 pipeline was located.

17 And he had to somehow make sure that
18 the herd was not grazing in that lane where the
19 pipeline, you know, it impacted, if you can
20 imagine, kind of a hundred-foot block where the
21 pipeline goes through, the edge of the lot, on
22 either end of the pipeline.

1 And he had to make sure that the cows
2 weren't grazing there. So working for OEFFA's
3 education staff, we were able to brainstorm ways
4 to mitigate that, but, you know, they were pretty
5 labor-intensive management strategies when the
6 cows have to be able to get up to the parlor and
7 access water in various ways, meaning being able
8 to access that lane freely.

9 So this is one example, but we have
10 several others we'd happy to provide to you if
11 you'd like to discuss it further.

12 MR. BRADMAN: Yes, thank you. That
13 was really informative. And something that might
14 be helpful, which is perhaps you could write up a
15 little report that just gives case studies and --

16 MS. BARTON: Sure.

17 MR. BRADMAN: -- even -- I think
18 that'll help guide the conversation and also
19 bring it down to a very concrete, personal level.
20 And that would be --

21 MS. BARTON: And I'd be really happy
22 to.

1 MR. BRADMAN: Thank you.

2 MS. BARTON: Sure. Thank you.

3 MS. OAKLEY: Harriet, this is Emily.

4 Could I ask a question of the --

5 MS. BEHAR: Go ahead, Emily.

6 MS. OAKLEY: Thank you. Could I ask
7 a question of the program to see if they have an
8 update on this work agenda item request?

9 MR. LEWIS: Thank you, Emily. This is
10 Paul. Yes, we have the work agenda item request.
11 It's still in review, in the clearance process
12 here. Obviously, the requests that come in
13 require different levels of review here in the
14 department.

15 So it's still in the review process.
16 I don't have anything more to update in terms of
17 timeline.

18 MS. OAKLEY: Thanks.

19 MS. BEHAR: Any other questions? I
20 had a question, Julia, on the genetic integrity
21 of organic seed. So I just want to get clear, it
22 sounded like your group of growers are supportive

1 of transparency. There was some concern if it
2 would make the seed cost more.

3 But I think we have found that many of
4 the seed suppliers that sell, that are already
5 organic, they already do the testing, so I'm not
6 sure they'll be a greater cost.

7 But I'm just wondering if they
8 suffered at all by not knowing which is the
9 current atmosphere that they inform in, where
10 they buy a seed and they don't know what they're
11 planting.

12 MS. BARTON: Yes, Thank you, Harriet.
13 The growers that we spoke with about this issue -
14 - so OEFFA has a very active grain grower's
15 chapter, and I think you all heard several of
16 them in the fall, in the webinar, were able to
17 provide some comment.

18 We stay in close touch with them on
19 these issues that directly impact their work.
20 And they understand that the costs, specific
21 costs ultimately will alter the farmer. They're
22 aware of that.

1 They are concerned about that
2 additional cost, but more in terms of the time
3 that they would spend than they were in terms of
4 the cost of kind of the -- that's necessary for
5 the transparency. Because they recommended, like
6 I said in the comment there, let's think this
7 through and, from their perspective, be as
8 efficient as possible.

9 And they think that we've got a lot of
10 seed for the folks handling that feed, to take
11 the sample rather than for, say, a hundred
12 farmers, to apply for that lot and take a sample.
13 That was one recommendation they made.

14 They would appreciate knowing upfront
15 what they're paying for. So some of them already
16 buy some of the more pure varieties and pay a
17 premium for those. So they're aware of that
18 concept.

19 And I think Albert Lea is one of the
20 companies they noted that was providing a more
21 pure corn seed currently. And some of them are
22 already paying for that additional kind of

1 service that Albert Lea is providing in doing the
2 testing and providing that transparency.

3 So they were not opposed to that.
4 They just -- they want to see to it that as much
5 of the burden that can be placed doesn't all fall
6 to the farmer. They know they're going to be
7 paying more. They just would like us to be kind
8 of thoughtful and intentional about the profits,
9 that they don't have to do a whole bunch more
10 sample taking and record keeping on their end. So
11 --

12 MS. BEHAR: But we were kind of
13 talking about --

14 MS. BARTON: -- their positive about
15 the idea of moving forward. Yes, ma'am?

16 MS. BEHAR: Well, thank you. And I
17 also enjoyed your written comments on that
18 subject.

19 MS. BARTON: Thank you.

20 MS. BEHAR: Any other comments for
21 Julia? Okay, I'm going to move on to Michael --

22 MS. ARSENAULT: Hey, Harriet? Sorry,

1 this is Michelle. Michael, if you don't mind me
2 interrupting and stealing -- I won't take your
3 time, actually. I won't start the timer.

4 I just wanted to do a time check, let
5 folks know, you know, we're an hour in now to the
6 three-hour webinar. Thank you so much for
7 keeping the background noise to a minimum. I
8 appreciate it. It makes my job -- makes my blood
9 pressure stay down, so I appreciate it.

10 And also, just a reminder to keep
11 yourself self-muted if you are not talking.
12 Thanks, everyone. All right --

13 MS. BEHAR: Thank you, Michelle.

14 MS. ARSENAULT: -- Harriet, all yours
15 again.

16 MS. BEHAR: Okay, thank you. Next up
17 is Michael Sligh with Amber Pool and Nicole Dehne
18 on deck. And, Michael, please state your name
19 and affiliation.

20 MR. SLIGH: Michael Sligh, former NOSB
21 member. Thank you for your commitment to
22 ensuring organic integrity and trust in the USDA

1 label, which is at the heart of our success to
2 date.

3 I'm summarizing my written comments.
4 First, I would like to support the organic
5 tobacco farmers that you heard from earlier today
6 on their essential need for fatty alcohol use in
7 tobacco suckering.

8 It is urgent that this petition be
9 completed in time this year to allow clarity for
10 the 2020 farming season.

11 Secondly, I strongly support the NOSB
12 work on new genetic techniques, to continue to
13 move forward and that the existing
14 recommendations moved into guidance to certifying
15 operators as soon as possible. It's critical
16 that we remain proactive to avoid problems in our
17 market as we move forward.

18 And, thirdly, I want to bring up a
19 larger issue of consistency of our organic
20 conformity assessment system as well as our
21 enforcement and the need for ongoing peer review.

22 As we all know, the OFPA's promising

1 key goal was to develop a level playing field
2 where all operators would be held to the same
3 standard regardless of size, geography or
4 approved organic production or processing system.

5 I remain alarmed that we have yet to
6 deliver on this key goal in several important
7 ways. We continue to have a lack of consistency
8 across inspections, certifications and
9 accreditation as well as the interpretation of
10 regulations across our system for standards that
11 have been approved, especially for large scale
12 livestock systems.

13 Secondly, the allowance of production
14 systems for which there are no standards, which
15 would include broad categories of hydroponic and
16 container grown production systems which have not
17 --

18 MS. ARSENAULT: Michael, we just lost
19 you. I'm going to pause your time here.

20 MR. SLIGH: Hello? Hello? I'm here.

21 MS. ARSENAULT: All right, we just
22 lost you momentarily, so if you want to repeat

1 the last few words you said.

2 MR. SLIGH: Well, I'm not sure where
3 you lost me. I'm sorry that I was lost. It
4 won't be the first time.

5 I was speaking about production
6 systems for which there are no organic standards.
7 Particularly, my concerns around the allowance of
8 hydroponic and container grown production systems
9 which have not been approved and may not be
10 compliant with organic standards.

11 Thirdly, the urgent need to publish
12 the 2018 NOP Peer Review Findings and an urgent
13 need to conduct the 2019 Peer Review and strongly
14 urge that the focus be on these issues of
15 consistency.

16 I also strongly urge all stakeholders
17 to continue urging Congress and USDA to move
18 forward as quickly as possible on implementing
19 new Farm Bill enforcement regulations as every
20 day organic farmers continue to be harmed by
21 employing products that may not meet our strong
22 U.S. organic standards.

1 This is another example of this uneven
2 playing field that must be corrected. And then,
3 finally, I draw your attention to a
4 infographic which I have included in my written
5 comments as an illustration of how, if our
6 organic integrity and trust is eroded by
7 inconsistency and failure to comply, it all ties
8 together into this larger issue.

9 I strongly urge the NOSB to take up
10 these urgent issues. Thank you very much.

11 MS. BEHAR: Any questions for Michael?
12 Michael, I have a question. A case over time,
13 this, the peer review has been kind of a
14 continuous issue that the NOP has not been able
15 to kind of get a consistent flow of this where it
16 just happens every year and it's by the same
17 agency that oversees, so there's continuity.

18 What do you recommend that the NOP and
19 the NOSB could do to encourage this consistency
20 and improvement in a peer review?

21 MR. SLIGH: Well, first of all, it is
22 just as important as inspection and certification

1 and accreditation. It is the only tool that both
2 the NOSB and the NOP have to look at the overall
3 whole system.

4 And it is the intended by law and
5 regulation to happen on a regular basis, every
6 year, and that those findings will improve our
7 organic integrity and identify those places where
8 we either have gaps or inconsistencies.

9 My recommendation would be to attempt,
10 in all due diligence, to complete these peer
11 reviews within the allotted year and to get the
12 findings out so that that learning can be built
13 on in moving forward.

14 I have submitted this infographic to
15 show the importance of how inconsistency can lead
16 to greater chances of fraud and an unlevel
17 playing field for farmers. And so I would urge
18 at looking at 2019 agenda, that that would be a
19 very appropriate area for peer review this year.

20 MS. BEHAR: Thank you, Michael. And
21 that was a very interesting infographic.

22 MR. SLIGH: I'm glad you like it. I'm

1 merely passing this on. And it represents 20
2 years of international organic conformity
3 assessment and it was developed by the
4 International Organic Accreditation Service.

5 MS. BEHAR: Okay, anyone else?

6 MR. ELA: Harriet, this is Steve Ela.
7 I have a question.

8 MS. BEHAR: Okay.

9 MR. ELA: Michael, I guess two
10 questions. The first is, at the start you were
11 talking about fatty alcohols and you were urging
12 us to take action as quickly as we can.

13 What are the -- could you talk about
14 that a little bit more in terms of what the
15 problems are if we aren't able to take action
16 fairly quickly?

17 MR. SLIGH: Sure. I think, as you
18 heard from the farmers earlier in the call,
19 they're using up what they have. They need to
20 know with certainty that they can continue to
21 grow this crop.

22 As you heard, it's kind of a lynch pin

1 in their economic model for organic rotation.
2 And my worry is that, while we had hoped that
3 this topic could have been taken up at this
4 meeting, we understand there were various delays.

5 And so now you have the petition, but
6 you won't be able to vote on it until the fall.
7 That's about as late as we want to push this
8 thing in order for them to be able to know what
9 they're going to do for 2020.

10 As you heard, some of these farmers
11 may not even continue farming if they don't know
12 the answer. So I guess, Steve, my concern is I
13 just hate to see this thing get strung out any
14 further than we can possibly avoid because of the
15 uncertainty. They need to know early.

16 MR. ELA: Great, thanks. Thanks for
17 that. And then my second question is, with
18 regard to hydroponics and container production of
19 not having standard or consistent standards, is
20 there anything particular on that, that you see?

21 I mean, I know it's a broad key
22 question, but is there anything specifically,

1 that you're seeing issues on right?

2 MR. SLIGH: Well, I think the macro
3 concern is that if we are allowing operations to
4 be included in organic that do not have specific
5 standards, then it is very difficult and creates
6 an inconsistent marketplace in terms of
7 inspectors knowing what should be allowed and
8 what should not be allowed.

9 And the fact there is not specific
10 standards creates this unlevel playing field and
11 a potential for operations to be included that
12 are not compliant with all of the other critical
13 components of the organic regulation such as
14 biodiversity, such as crop rotation, such as
15 building of soil.

16 All of these are essential components
17 of the organic system. And to allow hydroponic
18 and container operations by some certifiers and
19 not others without any common standards is a
20 recipe for failure to comply. Hello?

21 MS. BEHAR: Yes, hello. Thank you.

22 MR. SLIGH: Hello? Okay. Couldn't

1 tell if I lost you or not.

2 MS. BEHAR: No. We heard you. Good
3 words.

4 MR. SLIGH: All right. Keep up the
5 good work. Thank you very much.

6 MS. BEHAR: Okay. Anyone else on the
7 Board have a question? Okay, we're going to move
8 on to Amber Pool.

9 MR. SLIGH: Thank you.

10 MS. BEHAR: You're welcome, Michael.
11 Nicole Dehne and Jaydee Hanson on deck. And
12 please state your name and affiliation. Amber?

13 MS. POOL: Hi, I'm Amber Pool. I work
14 as a senior farm certification specialist at
15 CCOF. CCOF is a nonprofit organization governed
16 by the people who grow and make our food.

17 305 CCOF members list horticultural
18 oils on those OSP. These horticultural oils are
19 used for both insect and plant disease
20 management. Horticultural oils are often used in
21 combination with other allowed plant disease
22 management practices to ensure crops are

1 protected.

2 MS. BEHAR: Excuse me. Michelle, can
3 you -- are other people having a hard time
4 hearing Amber?

5 MS. ARSENAULT: I can hear you, but,
6 Amber, if you could get a little closer to the
7 mic, that would great. Thanks.

8 MS. POOL: Is this better?

9 MS. BEHAR: Are you on a speaker phone
10 or a headset or --

11 MS. POOL: I'm on a conference room
12 that has a conference room setup.

13 MS. BEHAR: Is there any way you could
14 actually get on a handset?

15 MS. POOL: Yes, I can call you back.

16 MS. BEHAR: Maybe we should do that
17 because I was kind of catching only every third
18 word or so.

19 MS. POOL: Okay.

20 MS. BEHAR: Great.

21 MS. POOL: I will call back right now.

22 MS. BEHAR: All right, we'll go to

1 Nicole next, and then we'll bring back Amber.
2 So, Nicole, please state your name and your
3 affiliation.

4 MS. DEHNE: Okay, can you hear me?
5 This is Nicole Dehne.

6 MS. BEHAR: Yes.

7 MS. DEHNE: Oh, great. Okay. So my
8 name's Nicole Dehne. I'm the certification
9 director for Vermont Organic Farmers. And VOF,
10 we're the USDA accredited certifier owned by
11 NOFA, Vermont. We certify over 700 organic
12 producers just in Vermont.

13 And I just want to start by thanking
14 the NOSB and all the members for all your hard
15 work and the opportunity to give comment today on
16 a few agenda items.

17 The first one, I just wanted to say
18 that we appreciate the NOSB adding paper products
19 to your work agenda in a timely manner. VOF
20 continues to stress the importance of this
21 product of small scale vegetable producers in
22 Vermont.

1 We request that when the NOSB reviews
2 this material, that virgin paper be included as
3 part of that review. This may mean requesting
4 that the technical report includes virgin paper
5 as well as recycled paper.

6 If additives such as synthetic fibers
7 are a concern, then allowing the virgin paper may
8 offer better control over what additives the
9 paper contains.

10 And in addition, we ask that the NOSB
11 take a practical approach to reviewing this
12 material, understanding that paper is already
13 widely used in organic systems as mulch, pots,
14 compost, seed stock, et cetera.

15 Secondly, on vaccines, we appreciate
16 the subcommittee's emphasis on the importance of
17 vaccines to organic livestock producers. We
18 acknowledge vaccines play a critical role in
19 preventing disease.

20 We believe that the current
21 regulations prohibit the use of vaccines that are
22 produced with excluded methods unless they're on

1 the national list specifically. Currently, we
2 are reviewing all the vaccines used by our
3 producers to determine if those vaccines have
4 been produced with excluded methods.

5 We have not found that the livestock
6 producers we certify, which are mainly dairy,
7 small scale beef operations, pork and poultry,
8 have needed a vaccine produced with excluded
9 methods.

10 But we acknowledge we do not certify
11 large poultry or pork operations, and we
12 understand that there may be vaccines needed by
13 livestock producers in other parts of the country
14 that are not needed in Vermont.

15 Therefore, we support the change
16 proposed by the subcommittee that would allow
17 producers to use vaccines made from excluded
18 methods when alternatives are not commercially
19 available.

20 And for clarity, we suggest using a
21 definition of commercial availability that's
22 similar to what's used in seeds and plants and

1 stuff, so quality, quantity and maybe specificity
2 to a disease or a health issue. And if
3 documentation of commercial availability could
4 include statements from a veterinarian and
5 statements from suppliers of vaccines.

6 And then lastly, just to remark on the
7 embryo transfer, over the last 15 years we've
8 gotten maybe one or two questions about the use
9 of embryo transfer on organic farms.

10 So it's always been kind of our
11 interpretation that as long as no hormones were
12 used to synchronize the animals who received the
13 transferred embryo, that the process could be
14 approved. But having said that, we've not had
15 any producer interested in the process who felt
16 willing to take the risk of the transfer, of the
17 embryo transfer without using the hormones to
18 synchronize the estrus.

19 So I think, therefore, we're kind of
20 sharing our experience that, in -- this
21 technology has not been in high demand nor a
22 necessity for livestock producers in Vermont.

1 And that's all I've got today.

2 MS. ARSENAULT: Perfect timing. Oh,
3 Harriet, we have you muted. Hold on one second.
4 I'm unmuting. Sorry.

5 MS. BEHAR: You muted me??

6 MS. ARSENAULT: All right, go ahead,
7 Harriet. Thank you, Nicole.

8 MS. BEHAR: Any other questions from
9 the board? Okay, well, Nicole, you had a few
10 issues that are on the lead on. So thank you for
11 the information on the vaccines.

12 And, but I want to ask you something
13 about the embryo transfer. So if a producer did
14 approach you and the embryos came from an animal
15 that had been treated with hormones, but the
16 receiving animals had not, that would be okay
17 under Vermont? Is that what you said?

18 MS. DEHNE: That's, I mean, we never
19 -- that had been kind of our interpretation of it
20 a few years ago when we had been asked that. But
21 we never necessarily had to make a final policy
22 on it because it became a moot point once we told

1 the producer that they couldn't use any
2 synchronizing hormones on the receiving animal.

3 So we never really had to make a final
4 policy, but we were leaning in that direction of,
5 well, you know, you could have
6 semen from a non-organic animal, but you know,
7 like you said, collects embryos as well.

8 MS. BEHAR: All right, but the semen,
9 I don't believe, comes from animals that have
10 been treated with hormones.

11 MS. DEHNE: Yes, that might be true.
12 But we weren't testing, so it was kind of like an
13 understanding that you weren't starting until
14 they were being placed inside the -- an organic
15 animal.

16 MS. BEHAR: Right. Has there been any
17 discussion about well if it became less expensive
18 to do this type of embryo transfer would -- is
19 there any concern about the narrowing of the gene
20 pool or whatever if, you know, people are kind of
21 mostly preferring these kind of super animals?

22 MS. DEHNE: I mean, there might be

1 that concern. I guess what -- I don't -- it
2 doesn't seem to me over the time that I've been
3 doing this work that it has been a necessity for
4 our producers.

5 So that was sort of the point that I
6 wanted to make today, was we haven't -- this
7 doesn't come up a lot. In my 15 years of being
8 here, I think we've maybe been asked twice. So
9 it's not -- you know, that could be because
10 people have the understanding that it's not
11 allowed but it's not something I've spoken to
12 producers about, that they've been upset that
13 it's not an allowed practice.

14 MS. BEHAR: Okay. Any other
15 questions?

16 MR. ELA: Harriet, this is Steve Ela.
17 I have a question.

18 MS. BEHAR: Okay.

19 MR. ELA: At the start of your, of
20 this, you talked about paper products and
21 encouraging us to allow the use of virgin paper,
22 which we're certainly considering.

1 But I did want to follow up a little
2 more. One of the things we're running up against
3 is finding out that there are synthetic fibers
4 often used in some of these paper products.

5 So I have two questions. One, do you
6 have any comments about whether we should allow
7 synthetic fibers, plastics, for example, in those
8 paper products or other paper products? And do
9 you think we should just look at paper products
10 or the use of paper in general, for example,
11 paper mulch, other paper planting needs?

12 MS. DEHNE: I guess my perspective
13 would be that we need to be careful about
14 requiring like a perfect material or thinking
15 that we have a perfect material for use on
16 organic farms.

17 So, for example, I would liken it to,
18 when our farmers apply a prohibited, you know,
19 fertilizer or herbicide to their land, there's a
20 three-year wait period for, you know, that land
21 can qualify as organic.

22 Now, we all know that that doesn't

1 necessarily mean that there are no residues three
2 years after an application of a prohibited
3 substance. But it's sort of the compromise that
4 we've taken to say that this is doable and then
5 this discourages the use of these materials.

6 So I guess I'm likening that to this
7 idea that, yes, I'm kind of leaning towards there
8 may be some synthetic fibers but, you know, the
9 amount that is actually being applied to the land
10 is not very significant. And I think we need to
11 be careful about being too idealistic and too
12 pure in what we're allowing for farmers to use on
13 their farms.

14 MR. ELA: And would you have any,
15 given that you think some is okay, would you have
16 any thoughts on how much? I mean, I guess we --
17 you know, we're trying getting information on
18 that. You know, what are the boundaries?

19 MS. DEHNE: Right.

20 MR. ELA: You know, if you allow some
21 synthetic fibers, should it be less than 5
22 percent? Should it be less than 50 percent?

1 Less than a hundred percent?

2 MS. DEHNE: Yes, well, I guess if
3 we're wanting to like avoid a situation like the
4 bio-based mulch, then we should probably look to
5 see what is doable in the marketplace to say,
6 okay, but right now, the marketplace is, like
7 most of these products have 10 percent of
8 synthetic -- of their mass is synthetic fibers.

9 Then maybe we start there with an
10 encouragement for the market to reduce it to 5
11 percent. So I think well the idea is to allow
12 these products. So I think we want to do some
13 research to say what's doable for the marketplace
14 and start there, and maybe push the marketplace
15 towards the use of less synthetic fibers once
16 we've granted allowance.

17 MR. ELA: And then, finally, do you
18 have any sense of whether we should expand the --
19 you know, other than distribution in paper pots,
20 you know, where paper isn't production made
21 without being necessarily specific to paper
22 products?

1 MS. DEHNE: Oh, sorry. Yes, you did
2 ask that. Thank you.

3 MR. ELA: That's fine.

4 MS. DEHNE: I think, yes, I think that
5 would be good because we're -- now that this
6 paper product issue has come up, we're starting
7 to look at it's exposing other areas that, you
8 know, we could potentially resolve these issues
9 all at once.

10 So I think it should be an allowance
11 for, you know, paper as a synthetic potentially.
12 It would be a broader and more useful thing for
13 NOSB to pick up.

14 MR. ELA: Great, thanks.

15 MS. BEHAR: Okay. Any other
16 questions for Nicole?

17 MS. ARSENAULT: Harriet, I see Asa's
18 -- this is Michelle. I see Asa's hand raised. I
19 don't know if Asa has a question or not.

20 MR. BRADMAN: I think Steve kind of
21 asked my question, and I think this will be a big
22 discussion item at the in-person meeting.

1 MS. ARSENAULT: Okay, thanks.

2 MS. BEHAR: I don't see the hands.

3 MS. ARSENAULT: Okay, he put it down.

4 MS. BEHAR: Okay, Jaydee Hanson with
5 Dana Perls and Marina Abitia on deck. Jaydee,
6 please state your name and affiliation.

7 MS. ARSENAULT: Harriet --

8 MS. BEHAR: Yes?

9 MS. ARSENAULT: Sorry, we're going to
10 go back to Amber because --

11 MS. BEHAR: Oh, that's right. I
12 forgot about her. Okay, Amber --

13 MS. ARSENAULT: Amber, did you -- were
14 you able to dial in?

15 MS. POOL: Yes, I called in on a
16 phone. Does it sound better.

17 MS. BEHAR: Oh, so much better.

18 MS. POOL: Oh, okay, great. I tested
19 it before I dialed in.

20 MS. BEHAR: So you don't have a
21 mouthful of marbles now.

22 MS. POOL: Oh, okay, great. Okay.

1 Hi, I'm Amber Pool. I work as the senior farms
2 certification specialist at CCOF. CCOF is a
3 nonprofit organization governed by the people who
4 grow and make our food.

5 Currently 305 CCOF members list
6 horticultural oils on those OSP. These oils are
7 used for both insect and plant disease
8 management. Horticultural oils are often used in
9 combination with other allowed pest and disease
10 management practices to ensure crops are
11 protected.

12 Typical brand names that we see
13 farmers using are the IAP High 444 Supreme spray
14 and the IAP Summer 415 spray oils. We don't
15 currently know of any better alternative to
16 horticultural oils.

17 Right now, 465 CCOF members list
18 pheromones on their OSPs. Pheromones are used in
19 a variety of ways to manage insect populations.
20 Some pheromones are used to disrupt insect mating
21 and others are used to monitor insects present
22 and population densities.

1 Pheromone use continues to grow in
2 organic crop production as various formulations
3 have been developed for specific target species.
4 Common formulations we see farmers using are
5 Checkmate and Isomate products.

6 These materials are often the best
7 choice for organic farmers dealing with invasive
8 insects. And I'm complete. So if you have any
9 questions, let me know.

10 MR. ELA: Harriet I have a question.
11 This is Steve Ela. I wanted to ask on these
12 pheromones, do any of you -- do you allow any of
13 your growers to use sprayable formulations? Or
14 are they all put up in some sort of dispenser?

15 MS. POOL: I can't - I don't know off
16 the top of my head, but I can definitely get you
17 that information. Most of the ones I'm familiar
18 with are in a dispenser. But I can find out for
19 you if we have any that are sprayed on.

20 MR. ELA: Yes, I'd be curious if
21 you're able to do that. Thank you.

22 MS. POOL: Okay.

1 MS. BEHAR: Okay. We are behind a
2 little bit on time. So just thought I'd put that
3 out there. Next up is Jaydee Hansen with
4 Dana Perls, Marina Abitia on chat. And, Jaydee,
5 please state your name and affiliation.

6 MR. HANSEN: This is Jaydee Hansen.
7 I'm the policy director at the Center for Food
8 Safety. And I'm I coming through?

9 MS. BEHAR: Yes.

10 MR. HENSEN: Okay. First, I want to
11 thank the Board and its committees for all the
12 work that you've been doing.

13 And I want to quickly highlight just
14 three items. One, we were very surprised at the
15 meeting in October when we learned from the staff
16 of the NOP that the NOP itself was taking off its
17 work agenda EPA.

18 We had asked that EPA be, continue to
19 do research. But also that other fact suppliers
20 be looked at as well. These chemicals mimic
21 hormones. They're endocrine disrupting
22 chemicals. And we are going to be writing with

1 other groups to the Secretary of the Department
2 of Agriculture asking that this be put back on
3 the agenda.

4 But wanted to highlight that this
5 year. This is essentially a loophole because
6 these are used in contact substances, but they
7 move into foods, particularly foods in the dairy
8 range because these chemicals are attracted to
9 fats.

10 I urge you to go to our comments and
11 look at all of the ways these chemicals can
12 disrupt development, in particular development of
13 fetuses and young children. And I'll stop that
14 there.

15 We appreciate -- I'll move to excluded
16 methods. We appreciate the materials that the
17 subcommittee comments on, how transposons arrive
18 from environmental stress, et cetera. And, you
19 know, we agree that in the main, they are
20 natural. Barbara McClintock even got a Nobel
21 Prize for her work in this years ago.

22 But when they are developed with the

1 use of in vitro nucleic acids, they should be
2 considered excluded methods. That doesn't mean
3 they're natural any more once you've manipulated
4 them with in vitro nucleic acid techniques.

5 Moving on to cisgenics and
6 intragenics, we support the intent of the
7 proposed definitions, but we urge you to make
8 them a bit more expansive. And we've given you
9 language for that, making clear when this is a
10 natural cisgenic product and when it might be
11 considered a gene-edited product.

12 We've added something I don't think
13 your folks -- yes?

14 MS. ARSENAULT: Yes, you've reached
15 your time.

16 MR. HENSEN: Yes, okay, well --

17 MS. BEHAR: And thank you. I know you
18 have very extensive written comments. But thank
19 you for all those links.

20 MR. HENSEN: Yes, thank you. Yes, I
21 would just, in closing, thank you also for your
22 work on silver dihydrogen citrate. It should not

1 be allowed. And thank you again.

2 MS. BEHAR: Okay. Any questions for
3 Jaydee?

4 MR. BRADMAN: Yes. This is Asa
5 Bradman. I have a question. Thank you for your
6 written comments and the review of phthalates.
7 Perhaps you could comment a little bit on the
8 regulations and law within the OFPA and the
9 justification for continuing with our BPA review
10 and perhaps even expanding to other food contact
11 materials.

12 MR. HANSON: Yes. I mean, you know,
13 one of the problems we have now is that we have
14 not been taking food contact materials seriously
15 enough. And BPA is -- if there is a huge camel
16 in the tent, it's BPA and orthophthalates. These
17 are active chemicals that aren't needed in
18 packaging other than they make inner plastics
19 more pliable.

20 But, you know, I mean, they're counter
21 to what organic is about, which is not using
22 dangerous chemicals. And these are chemicals

1 that the more we study them, the more we are
2 learning that at incredibly small amounts they
3 make significant changes.

4 They are chemicals like hormones that
5 we need to move to get the guidance or, if
6 necessary, the legislative language to exclude
7 from organic.

8 MS. BEHAR: Okay. Any questions?

9 MR. CHAPMAN: This is Tom.

10 MS. BEHAR: Anyone have questions?

11 MR. CHAPMAN: This is Tom. I have a
12 question. Jaydee, building on Asa's questions
13 about BPA, what information -- what has Center
14 for Food Safety done to survey to determine the
15 usage of BPA in the organic industry? Is it
16 widely used in the organic industry? Do you have
17 any data?

18 MR. HANSON: Well, we participated in
19 a couple groups in having products tested. In
20 particular, we chose products from Kraft Company
21 that were both organic and non-organic and found
22 that the organic products contained the same

1 levels of orthophthalates and BPA as did non-
2 organic.

3 So there's no protection from BPA and
4 orthophthalates just by being organic. The fact
5 that you're wrapping these products in a plastic
6 that does leach is a reason to, you know, totally
7 exclude this from organic.

8 MR. CHAPMAN: Is the orthophthalates
9 about BPA or was it about phthalates or am I --

10 MR. HANSON: Orthophthalates, the good
11 news is BPA is being phased out because there's
12 been so much attention. The bad news is
13 orthophthalates are what's replacing it as
14 plasticizers. So you really need to look at both
15 at the same time.

16 MR. CHAPMAN: Thank you.

17 MR. HANSON: Thank you.

18 MR. BEHAR: Okay. Just reminding
19 people that we are getting a little bit behind
20 here. So next up is Dana Perls with I'm not sure
21 if Marina Abitia is on tap. If not then Jessica
22 Shade will come after Dana. Dana, please state

1 your name and affiliation.

2 MS. PERLS: Hi. Thanks so much. My
3 name is Dana Perls, and I am the Senior Food and
4 Technology Campaigner with Friends of the Earth.
5 Thank you so much to the Board. And I'm going to
6 provide comments specifically on the materials
7 subcommittee, which was on the heated method.

8 My comments echo the previous speaker,
9 Jaydee Hanson. We would like to strongly urge
10 the subcommittee to include transposons when
11 produced using in vitro nucleic acid techniques
12 as well as directed mutagenesis, cisgenesis and
13 intragenesis in the excluded methods terminology.

14 You know, we want to ensure that we
15 have an organic certification that is actually
16 addressing the emerging biotechnologies and the
17 new techniques which are being applied to
18 agriculture that otherwise NOSB in 2016 voted
19 unanimously to update its organic standards to
20 exclude ingredients derived from these next
21 generation genetic engineering and gene editing.

22 And as the NOSB has already

1 established, the new genetic engineering
2 techniques are incompatible with organic and
3 sustainable ag. And currently the list of
4 techniques that are excluded methods is
5 incomplete although we are doing a lot of work on
6 them.

7 So cisgenesis, including when
8 techniques like gene editing are involved, and
9 intragenesis both involve intentional genetic
10 modification and therefore they should clearly
11 fall under the NOSB's adaptive definition of
12 modern biotechnology and should be excluded
13 techniques.

14 We also note that transposons, as was
15 mentioned earlier, although they may occur
16 naturally they may also be developed in a lab
17 using in vitro nucleic acid techniques, in which
18 case they fall under the criteria for the
19 excluded methods.

20 So we noted in our written comments,
21 which we submitted, that there is a way that
22 transposons could be more clearly defined so as

1 to indicate when the method would be considered
2 an excluded method.

3 And similarly while some mutagenesis
4 arises from things like environmental stress, we
5 note that directed mutagenesis should be
6 considered an excluded method as it also involved
7 in vitro nucleic acid techniques that are not
8 part of the organism's natural evolution.

9 So we really support the improvements
10 and the updates to the organic standards, which
11 are going to help preserve the integrity of our
12 organic classification. And we strongly urge the
13 NOSB to exclude new gene editing and synthetic
14 biology techniques from organic by updating this
15 list to include the noted excluded methods and
16 the excluded techniques and also to continue this
17 work to include additional genetic engineering
18 techniques. Thank you so much.

19 MS. BEHAR: The Board?

20 MS. ARSENAULT: Sorry, Harriet. Go
21 ahead. You were muted there for a moment. Go
22 ahead and say again.

1 MS. BEHAR: Okay. Thank you, Dana.
2 Any questions from the Board?

3 MR. MORTENSEN: Harriet, this is Dave.

4 MS. BEHAR: Hey, Dave Mortensen.

5 MR. MORTENSEN: Yes. I just wanted to
6 thank the caller for the detailed comments and
7 the written materials. I think it definitely
8 helps us. Thank you.

9 MS. BEHAR: Dave, you're breaking up
10 a bit. And I'm not entirely sure if it's your
11 line or if it's somebody else. So if you're not
12 talking, please put yourself on mute. Thanks.

13 MR. MORTENSEN: Okay. Yes, I was just
14 thanking the last caller for the detailed written
15 materials and comments. They were very helpful
16 in us getting the kind of feedback that helps us
17 with the new documents we've been working on.

18 MS. BEHAR: Okay. Next up, I'm not
19 sure. Is Marina Abitia with us from Porterville
20 Citrus? Okay. We can come back to her at the
21 end. Michelle did send me a note that she didn't
22 see her name or a phone number for her.

1 Okay. So next up is Jessica Shade and
2 on deck will be Kathleen Mellone and Dallas
3 McCann. So, Jessica, please state your name and
4 affiliation.

5 DR. SHADE: All right. Hi, everyone.
6 Thank you so much for giving me time to comment.
7 I'm Dr. Jessica Shade, the Director of Science
8 Program for The Organic Center. We're a
9 nonprofit that communicates and conducts organic
10 research.

11 And we are commenting in support of
12 the continued listing of celery powder on the
13 National List until we can find a commercially
14 available substitute.

15 And we've been working on this in
16 collaboration with the Organic Trade Association,
17 the University of Wisconsin and several other
18 researchers, growers and processors. But a lot
19 more work still needs to be done, and we need
20 time to do that work.

21 We worked with the Organic Food
22 Association to convene the National List

1 Innovation Working Group. And their first
2 priority was to find an organic alternative to
3 conventional celery powder.

4 We were awarded a small scale Organic
5 and Research and Extension Initiative, OREI,
6 Planning Grant. And then they complemented that
7 with funding from the Farmers Advocating for
8 Organic. And that was enough for us to build
9 kind of the scaffolding for understanding what
10 partners we need to work with, what crops would
11 be most promising to investigate, what data we
12 needed to collect and what research questions
13 were most pressing.

14 And we also developed a pilot project
15 doing initial varietal testing in organic celery
16 crops and broader testing of production scale
17 organic celery.

18 We have some preliminary data on
19 feasibility to include in a NOFO for a million
20 dollar OREI grant proposal. So, unfortunately,
21 our OREI proposal wasn't funded last year, but it
22 ranked really highly.

1 So we're going to be resubmitting that
2 this year. And what we're planning to do is
3 identify a potential variety in management of
4 organic crops even beyond celery that would meet
5 the chemical specifications that we need for
6 curing and can be easily incorporated into the
7 crop rotation system.

8 We also want to make sure that the
9 crops we choose don't make the meat a funny color
10 or change the flavor profile of the meat. My
11 daughter loves the book Green Eggs and Ham, but
12 the idea of green ham kind of makes my stomach
13 turn.

14 So crops like spinach with strong
15 green coloring are more difficult to use. We're
16 also thinking about how to make this profitable
17 for farmers. So we're looking at crops that
18 might be an incentive for expanding organic
19 acreage. Plus we want to identify potential
20 challenges that might be associated with the
21 production of a high nitrate crop, especially
22 with things like nutrient pollution.

1 So all of this to say that, like, any
2 resource project, replacing conventional celery
3 powder isn't a simple task. It's pretty complex
4 and so the timeline is slow, but we're working
5 towards a solution.

6 We have an amazing multi-regional,
7 multi-stakeholder interdisciplinary team. What
8 we really need to increase the pace of the
9 project is funding, which we're hoping to get
10 from an OREI grant in the next funding cycle. So
11 thank you all for giving me this time.

12 MS. BEHAR: Thank you. Any questions
13 from the Board?

14 MR. BRADMAN: Yes. This is Asa. More
15 of a comment. Just as you know, this will be a
16 big item for discussion at the in-person meeting
17 in Seattle. But one thing I've learned in the
18 discussions leading up to this is really the
19 importance of more research and more work on
20 this.

21 So as a member of the Board, I
22 definitely see the need for more research and

1 funding for the kinds of work that you're
2 proposing, and I think that would help move
3 things forward. Thanks.

4 MS. BEHAR: Okay. Anyone else? Okay.
5 Thank you, Asa. Next up, no, Marina. Okay.
6 Next up is Kathleen Mellone with Dallas McCann
7 and Andrew Dykstra on deck. Kathleen, please
8 state your name and affiliation. Kathleen, are
9 you there? If you're speaking, you're on mute.

10 MS. ARSENAULT: Hey, this is Michelle.
11 I have not been able to locate Kathleen on the
12 webinar or on the phones. I'm not sure if she is
13 on the call with us.

14 MS. BEHAR: Okay. Okay. Well, I will
15 then move to Dallas with Andrew Dykstra and
16 Roland Cargill on deck. Dallas, please state
17 your name and affiliation. Dallas, are you
18 there?

19 MS. ARSENAULT: He also may not be on
20 the call with us. I haven't been able to locate
21 him or her.

22 MS. BEHAR: Okay.

1 MS. ARSENAULT: I guess that's a
2 unisex name.

3 MS. BEHAR: From Tannersville, New
4 York. I know where that is. Okay. Well, then
5 it would be Andrew next with Roland Cargill and
6 Kelsey Kerston on deck. Andrew, are you there
7 and can you please your name and affiliation?
8 Andrew? Michelle, do you have his phone number?

9 MS. ARSENAULT: I see two other phone
10 numbers from the same area code. Andrew, I just
11 unmuted a 360 area code. Was that you? No. I'm
12 not hearing anything. I have not been able to
13 locate him in the phone list either.

14 MS. BEHAR: Okay. Well this helps
15 make up time, I suppose. But I do want to hear
16 from people signed up. But okay, so next is
17 Roland Cargill with Kelsey Kerston and, no, Andy
18 Hudson, is he?

19 MS. ARSENAULT: Andy cancelled.

20 MS. BEHAR: Okay. Okay. So it's
21 Roland Cargill up next, Kelsey Kerston on deck
22 and Jennie Landry after Kelsey. Roland?

1 MR. CARGILL: This is Roland Cargill.
2 Can you hear me okay?

3 MS. BEHAR: Yes. Please state your
4 name and affiliation.

5 MR. CARGILL: I'll do that. My name
6 is Roland Cargill. I am a product registration
7 specialist for Fair Products, Inc. I also serve
8 as a consultant to Green Egg Supply, which is the
9 petitioner for the fatty alcohols.

10 My comments today will be directed
11 primarily in response to the NOSB's earlier
12 rejection of the petition to approve the fatty
13 alcohols produced in organic tobacco.

14 The NOSB determined that the use of a
15 synthetic growth regulator in fatty alcohol was
16 not compatible with a system of sustainable
17 performance in agriculture.

18 This statement by the NOSB was
19 published without any rationale for such a
20 statement. Our response to the statement was
21 that with respect to the compatibility to new
22 sustainable agriculture, which in its simplest

1 terms is the production of food, fiber or other
2 plant or animal products using farming techniques
3 that protect the environment, public health,
4 human communities and animal welfare.

5 We also contend that the use of the
6 fatty alcohol product on organic tobacco was
7 compatible with this process and this concept.

8 Furthermore, since the natural source
9 of the fatty alcohol is derived from palm oil and
10 palm kernel oil, it is certified sustainable.

11 And this fact should support that the fatty
12 alcohol derived from palm oil and palm kernel oil
13 should be judged sustainable.

14 Therefore, we contend that the fatty
15 alcohol derived from natural sources is
16 compatible with organic agriculture, particularly
17 organic tobacco agriculture.

18 In addition to the 16 page TAP report,
19 which provided a very thorough and comprehensive
20 review, indicates that fatty alcohols do not, in
21 fact meet -- that do, in fact, meet the Organic
22 Food Production Act criteria for use in organic

1 production at Section 6517 on the National List.

2 Specifically, the technical report
3 determined that fatty alcohols would not be
4 harmful to human health or the environment. The
5 technical report stated there appears to be no
6 known detrimental chemical reactions between
7 fatty alcohols and other materials used in
8 organic farming systems.

9 It goes on to describe that toxicity
10 is moderately low. And it indicates that fatty
11 alcohols are suspected to be of low concern for
12 environmental contamination.

13 Furthermore, the report defines that
14 there is no evidence to suggest that fatty
15 alcohols cause an increase in susceptibility to
16 human health, infants and children. It explains
17 that no readily observable affects occur in the
18 agri ecosystem and that they're known for their
19 high degree of biodegradability in the
20 environment.

21 MS. BEHAR: Okay. Thank you. You did
22 reach your three minutes. Are there any

1 questions from the Board?

2 MS. BRADMAN: Hi, Harriet. This is
3 Asa. I was on mute. I just have a quick
4 question and maybe it's kind of internal
5 struggle. I'll just make a comment and maybe
6 this is for discussion at another point.

7 But you mentioned public health and
8 the effects on infants and humans. As a parent
9 with teenagers, I have seen an enormous increase
10 in use of tobacco products and the very serious
11 health impacts of that. You know, of course,
12 what's linked here is a reproductive toxicant.
13 Cigarettes are carcinogens. There are many, many
14 other problems with these products.

15 I'm kind of, like, torn in a way,
16 perhaps a little heartbroken over this, you know,
17 in terms of the argument and in terms of being
18 able to support other kinds of organic
19 agriculture.

20 And I'm not sure where that leads us.
21 And I really think we need to focus on the
22 agricultural activity. But since its human

1 health and environment, I don't think that's so
2 relevant here in the sense that all of us know it
3 is really a danger to public health.

4 And I know tobacco has a long history
5 and centuries of use. And it's used in many
6 different settings. But there's a level to this
7 that perhaps maybe we can discuss more at the in-
8 person meeting. Thanks.

9 MR. CARGILL: So was that a question?
10 Comment? Okay. Thank you.

11 MR. BRADMAN: Yes.

12 MR. BUI: This is Jesse. Are you
13 familiar that alcohol has been listed in
14 California as a carcinogen?

15 MR. CARGILL: Listed as a carcinogen?

16 MR. BUI: Yes, sir.

17 MR. CARGILL: Not to my knowledge.
18 Fatty alcohols are naturally occurring in the
19 environment in plants. And so in fact, this
20 alcohol is approved as a food additive by the
21 FDA. So I don't. And I know of no published
22 information that says they are carcinogens. At

1 least the chain links that we're talking about
2 which are C8, C10, primarily --

3 MR. BUI: Thank you.

4 MR. CARGILL: -- carbon chains.

5 MS. BEHAR: Okay. Any other -- okay,
6 thank you. Any other questions from the Board?
7 Okay. Thank you.

8 MR. CARGILL: Okay. Thank you.

9 MS. BEHAR: Next up is Kelsey Kerston,
10 with Jennie Landry and Katherine DiMatteo on
11 deck. Kelsey, please state your name and
12 affiliation.

13 MS. KERSTON: Hello. My name is
14 Kelsey Kerston, and I work as a senior livestock
15 certification specialist at CCOF. I'd just like
16 to thank the NOSB for the opportunity to speak
17 today.

18 I just wanted to touch on the
19 discussion document regarding vaccines produced
20 with excluded methods. At CCOF, vaccines play an
21 important role in maintaining animal health and
22 are used by the majority of our CCOF certified

1 livestock operations as a preventative health
2 care practice.

3 The discussion document proposed three
4 options on excluded methods of vaccines. The
5 individual review of vaccines before at the NOSB.
6 Furthermore, we're concerned that individual
7 reviews could delay producers from being able to
8 administer these vaccines, especially for
9 operations using the less common or custom
10 vaccines.

11 Option 2, the allowance of excluded
12 method vaccines as a class or a type of vaccines
13 would be a simpler solutions but allows for the
14 possibility of greater use of excluded methods in
15 organic production and allowing vaccines produced
16 to exclude the method if there's no commercial
17 available options to organic producers.

18 Or the third option, it's a middle
19 ground offered in the discussion document.
20 However, we don't see it as a perfect solution
21 either. Excluded methods are still being
22 defined. And collecting information from vaccine

1 manufacturers could prove difficult especially if
2 manufacturers are unresponsive when asked to
3 share information about their products.

4 Our thought is that NOSB should
5 carefully consider the impact as well of each of
6 these options on organic livestock producers with
7 state mandated livestock vaccinations.

8 For instance, CBSA in California
9 requires cattle entering the space to have
10 histophilus vaccinations. Depending on the
11 options supported by NOSB, if a state mandated
12 vaccination was produced using excluded methods,
13 organic producers could be limited in their
14 ability to purchase out-of-state cattle and also
15 limited in moving cattle in and out of the state.

16 Other states may also have specific
17 state-mandated vaccination requirements, although
18 I'm not aware of other state requirements.

19 CCOF does not support the use of
20 excluded methods in organic production. But many
21 organic livestock producers rely heavily on
22 vaccines to ensure the health of their herds and

1 stock.

2 In order to have a safe and stable
3 food system, we think the use of vaccines in
4 organic livestock could be essential.

5 CCOF simply encourages the NOSB to
6 invite organic producers and vaccine
7 manufacturers as well as other potential
8 stakeholders to present further information on
9 this topic at our next NOSB meeting.

10 Thank you so much for the review of
11 our comments. And if you have any questions, I'm
12 happy to answer them.

13 MS. ARSENAULT: Hold on one second.
14 Harriet. Sorry, you are on mute again. All
15 right. You are unmuted, Harriet.

16 MS. BEHAR: Okay. Any questions from
17 the Board?

18 MS. SWAFFAR: Hi, Harriet. It's
19 Ashley. I have a question.

20 MS. BEHAR: Okay, good.

21 MS. SWAFFAR: Yes, so, Kelsey, we kind
22 of struggled a lot with all of the points you

1 raised. Do you have a suggestion of is there an
2 Option 4 that you would recommend?

3 MS. KERSTON: Hi, Ashley. We don't
4 have an answer at this time. We're happy that
5 it's being discussed, and it is a bit of a tricky
6 situation.

7 The third option presented of
8 exploring commercial availability seems like the
9 potentially best option. We just think that
10 there's a lot of potential for unintended
11 consequences just in that most certifiers aren't
12 currently going through that process of checking
13 with manufacturers and the fact that it seems
14 that some excluded methods are still being
15 defined.

16 So we think potentially exploring that
17 option but waiting to suggest anything until that
18 option has been sort of tested out may be the
19 best route.

20 MS. SWAFFAR: Thank you.

21 MS. BEHAR: Okay. I also have a
22 comment to review the written comments of Michael

1 Hanson. He's got some unexcluded methods
2 vaccines. He's got some pretty detailed
3 resources on how to find out which ones are
4 clearly genetically engineered.

5 So I found that interesting. And
6 maybe you will, too. So those are the comments
7 from Michael Hanson from the Center for Food
8 Safety.

9 Any other questions or comments from
10 the Board? Okay. Next up -- thank you, Kelsey.
11 Next up is Jennie Landry, and on deck is
12 Katherine DiMatteo and Tom Honingford.

13 Jennie, please state your name and
14 affiliation.

15 MS. LANDRY: Hello. Can you hear me
16 okay?

17 MS. BEHAR: Yes, thank you.

18 MS. LANDRY: Okay. Okay. My name is
19 Jennie Landry. I represent DSM Nutritional
20 Products, the manufacturer of omega-3, EPA and
21 DHA based products from fish oil.

22 DSM strongly recommends the relisting

1 of fish oil to the National List of non-
2 organically produced ingredients in processed
3 products labeled as organic.

4 The re-listing of fish oil is critical
5 for its continued use as a nutritional ingredient
6 in organic certified products. This is because
7 organic fish oil is not commercially available
8 due to the absence of organic production
9 standards for aquaculture.

10 When added as a nutritional ingredient
11 to foods, fish oil provides a reliable source of
12 EPA and DHA omega-3 fatty acids that are highly
13 desired by consumers, including those who choose
14 organic products.

15 These omega-3 fatty acids are sought
16 after because they have been proven to support
17 overall health across several systems of the
18 body, including contributing to healthy brain
19 development and reducing the risk of
20 cardiovascular disease.

21 Evidence supporting these benefits
22 spans the past four plus decades and remain

1 favorable. Organic consumers recognize the
2 benefits and should have access to these value-
3 added products.

4 Fish oil is a naturally sourced
5 byproduct of fish meal in edible canning
6 industries. Despite contradictory statements in
7 the fish oil technical evaluation report, most
8 fish are caught for the exclusive production of
9 oil for use as a nutritional ingredient.

10 It is highly inaccurate to suggest
11 that fish oil production would contribute to
12 global extinction of fish species.

13 Fish oil manufacturers, especially
14 DSM, are committed to the responsible and
15 sustainable use of natural marine resources.
16 It's the only business model that ensures
17 continued profitability that only for the fish
18 oil industry but for all value chains and those
19 who rely on them.

20 One more thing, DSM only considers
21 fisheries who have the proper equipment,
22 practices and procedures and legislative controls

1 in place to protect their stock. DSM sets
2 expectations for environmental quality, social
3 responsibility and sustainability, which are
4 evaluated during a rigorous qualification
5 process.

6 Lastly, to address the misconceptions
7 that exist regarding health risks which have been
8 associated with consumption of fish oil, due to
9 the presence of environmental contaminants, fish
10 oil for human consumption follows classical
11 production techniques that include refining,
12 bleaching and deodorization to control the risks
13 of potential contaminants.

14 Fish oil has been proven to be
15 generally recognized as safe with no FDA
16 questions and all industry leaders who are
17 members of the global organization for EPA and
18 DHA must abide by the contaminant limits that are
19 based on the strictest global regulations.

20 In closing, DSM strongly recommends
21 the relisting of fish oil to the National List.
22 As a leading producer of omega-3, we understand

1 that protecting our marine environment is
2 crucial, and we are committed to sustainability
3 now and in the future.

4 I will conclude by saying thank you to
5 the NOSB for your time and opportunity to provide
6 comments in this webinar.

7 MS. BEHAR: Thank you. Am I off mute
8 there, Michelle? Hello? Whoa. Michelle, can
9 people hear me? This is Harriet.

10 MS. ARSENAULT: I can hear you,
11 Harriet, yes.

12 MS. BEHAR: Okay. Well, I didn't
13 know. You keep putting me on mute. I do have a
14 question, Jennie. In one of our questions in our
15 document, we asked about if there's any limits on
16 possible contaminants and how that purity is
17 assessed and tested and if it is made available
18 to the purchasers of the fish oil.

19 MS. LANDRY: Yes. So for the first
20 part of that question there's no U.S. regulatory
21 limits on contaminants in fish oil specifically
22 although all industry players in the fish oil

1 industry follow the GOED voluntary monograph to
2 have compiled all of the restrictive global
3 regulatory limits that are in place and put it
4 together in one monograph.

5 So members of GOED need to comply to
6 those strict limits. In terms of assessing the
7 purity and ensuring that those limits are met,
8 it's likely individual for each manufacturer
9 industry.

10 I mean, we, ourselves have a very --
11 we follow a quality management program, and we
12 have strict quality procedures in place for the
13 evaluation of our incoming materials and then
14 routine contaminant testing. And then we have
15 specifications on all of our finished products,
16 which are available to our customers.

17 MS. BEHAR: Okay. Thank you. Any
18 other questions from the Board?

19 MR. CHAPMAN: This is Tom. I have a
20 question. Thank you for responding to our
21 specific questions in your written comments. And
22 we asked, you know, the fourth question was about

1 how we could potentially modify the listing to
2 control for conservation concerns.

3 You guys offered four responses. Do
4 you have a preference out of those four options?

5 MS. LANDRY: The options that we
6 proposed are ones that today we would comply
7 with. I think industry-wide, the one that makes
8 sense to address the concerns that have been
9 expressed previously with regards to the fish oil
10 is that it must be sourced as a byproduct and not
11 a result of direct fishing. That's a fairly
12 straightforward one that has been expressed as a
13 concern. And it's one that the industry already
14 follows.

15 MR. CHAPMAN: As a follow-up to that,
16 if, like, when we introduce in terms, like,
17 byproduct in direct fishing, those will also have
18 to be defined. Are you guys able to provide
19 suggested definitions for byproduct in direct
20 fishing?

21 MS. LANDRY: We certainly can put some
22 better definition behind that to support that.

1 MR. CHAPMAN: Yes. If you could send
2 that through, that would be appreciated.

3 MS. LANDRY: Yes. Will do.

4 MR. CHAPMAN: Thank you.

5 MS. BEHAR: Thank you. Any other
6 questions from the Board? Okay. We will move on
7 to Katherine DiMatteo, with Tom Honingford and
8 Ray Frizzell on deck. Katherine, please state
9 your name and affiliation.

10 MS. DiMATTEO: Thank you. My name is
11 Katherine DiMatteo. I am the senior associate
12 and partner of Wolf, DiMatteo & Associates, a
13 consulting service to the organic sector since
14 1995.

15 We support the relisting of hydrogen
16 peroxide as a disinfectant, algaecide and for
17 plant disease control in organic crop production.
18 It breaks down rapidly in the environment to
19 oxygen and water leaving no residue.

20 It is a better alternative to process
21 copper products for algae control and to chlorine
22 materials as a sanitizer. As a plant disease

1 control, hydrogen peroxide based products show
2 good to excellent efficacy under fire, blight,
3 infection conditions in recent field trials at
4 Oregon State University in 2016 and Connecticut
5 Agricultural Experiment Station in 2018.

6 We also support the relisting of
7 ammonia soaps as a large animal repellent. Yes,
8 there are other alternatives such as fencing,
9 coyote yarn and human hair.

10 However, for farms with large areas to
11 protect, these alternatives are not sufficient,
12 practical and are cost prohibitive. Other
13 contact repellents like black pepper oil must be
14 frequently reapplied.

15 Ammonia soaps work, are non-toxic, are
16 readily biodegradable and do not migrate to cause
17 harm to non-target organisms.

18 We support the review of paper
19 planting aids in organic farming, in particular
20 evaluation of the risks to the environment and
21 human health. We encourage the NOSB to utilize
22 the ASTM D5988 biodegradation standard as one

1 tool in determining if the paper and the
2 additives used in manufacturing these paper
3 planting aids that they meet National List
4 criteria.

5 Finally, we support a low vetted
6 National List but not decisions made that take
7 away materials that can provide the needed tools
8 for organic farmers. One material cannot be
9 appropriate for all situations. Removing
10 material from the list based on amount of current
11 use and the consistence of other ordinates that
12 may or may not be as effective is not reasonable.

13 Farmers need to be able to choose the
14 material that fits their needs when they need it.

15 Thank you for the opportunity to
16 comment and for your good, hard work for our good
17 health.

18 MS. BEHAR: Okay. Any comments or
19 questions from the Board? I have one question
20 for you, Katherine. So one thing that we have
21 been doing is not just looking to see if a
22 material is biodegradable but the effect then

1 that material, as its biodegrading, has on soil
2 biology.

3 Does this encourage one type of soil
4 microbe to increase over another? Does it cause
5 any kind of nutrient imbalances or whatever?

6 So I don't think that those
7 biodegradable standards deal with that deeper
8 effect. Do you think that we should be looking
9 at that, or do you think that the soil is
10 resilient enough that it's not so much of an
11 issue?

12 MS. DiMATTEO: Well, I think this --
13 I have two answers for that.

14 MS. BEHAR: Okay.

15 MS. DiMATTEO: One is that I think
16 that biodegradation standard includes the impact
17 on soil as well, not necessarily the testing of
18 it. There is also testing and certification of
19 impacts on soil that can be done in conjunction
20 with some of these ASTM standards.

21 So there are two ways in application
22 that you can use it. But just looking at the

1 standard, you can at least get some criteria and
2 tools that may be helpful in determining these
3 paper pots and other paper planting aids that as
4 you consider them whether or not they are going
5 to impact both in degradation and in
6 environmental impact.

7 But rather than suppose that there's
8 any one specific testing method or certification
9 that can be used to ensure that, I wouldn't make
10 that suggestion. And I'm not sure that the NOSB
11 or the NOP could, you know, just say one
12 verification system is the only one that's being
13 used. So it may be that you want to include
14 testing as part of the guidance that you give on
15 paper pots and other planting aids.

16 MS. BEHAR: Okay. Great. Any other
17 comments from the Board?

18 MR. BRADMAN: This is Asa. I just had
19 a quick question. You're saying that ASTM 6954-
20 18?

21 MS. DiMATTEO: It's 5988.

22 MR. BRADMAN: Okay, 59.

1 MS. DiMATTEO: 5988.

2 MR. BRADMAN: Thank you.

3 MS. BEHAR: Okay. Anyone else? Okay.

4 We will move on to Tom Honingford, with Ray
5 Frizzell and Linley Dixon on deck. Tom, please
6 state your name and affiliation.

7 MS. ARSENAULT: Harriet, we haven't
8 been able to find Tom on either list, the webinar
9 or the phone. So he may not be with us. I also
10 don't see his area code phone number.

11 MS. BEHAR: Okay. Okay. Well, then,
12 Ray, you're up next. Hello?

13 MR. FRIZZELL: Can you hear me?

14 MS. BEHAR: Is that Tom?

15 MR. FRIZZELL: This is Ray Frizzell.

16 MS. BEHAR: Oh, that's Ray. Okay,
17 Ray. You are next. But Linley Dixon and Bill
18 Wolf are on deck. Ray, please state your name
19 and affiliation.

20 MR. FRIZZELL: I want to thank the
21 Board for giving me this opportunity. My name is
22 Ray Frizzell. I'm the CEO at Full Measure

1 Industries.

2 MS. ARSENAULT: Ray, this is Michelle
3 at NOP. I'm sorry. You're a little faint. Is
4 it possible that you could get a little closer to
5 the microphone or -- okay? Harriet, are you
6 okay? Can you hear him all right?

7 MS. BEHAR: Yes. But I'm wondering if
8 you're on a speaker phone if you could get on a
9 handset.

10 MR. FRIZZELL: I raised the handset.
11 Can you hear me now?

12 MS. BEHAR: Well, we can hear you.
13 You sound a little fuzzy.

14 MR. FRIZZELL: Can you hear me better
15 now?

16 MS. BEHAR: We're getting a little
17 background, I think. Come again, Tom? Sorry,
18 Ray.

19 MR. FRIZZELL: How about now?

20 MS. BEHAR: Now we're getting really
21 bad feedback and an echo. If you are near your
22 computer and your speakers and mic are on your

1 computer as well, usually that's the cause of
2 feedback like that.

3 MR. FRIZZELL: I'm away from my
4 computer now. Can you hear me better now?

5 MS. BEHAR: Brilliant. Thank you.
6 All right.

7 MR. FRIZZELL: I have run a half a
8 mile out of the area.

9 MS. BEHAR: All right. Well, thank
10 you. State your name.

11 MR. FRIZZELL: My name is Ray
12 Frizzell. I am the President and CEO of Full
13 Measure Industries, LLC, the organization that
14 has put the discussion in for calcium acetate to
15 be considered by the Board.

16 Full Measure Industries is a small
17 family run business, and my son Nathan is an
18 owner as well. And he will be going to the
19 Board's meeting in Seattle at the end of the
20 month. And he looks forward to meeting you all
21 there.

22 What we are looking to do is to get

1 calcium acetate accepted as an organic material.
2 Calcium acetate is an item that is created in
3 nature specifically by the plant interaction with
4 the microbes in the soil that create the calcium
5 acetate, which makes it an available calcium.

6 So what we have done is we have taken
7 pharmaceutical grade limestone, and we have
8 created two products that take vinegar,
9 concentrated vinegar, which is acidic acid and a
10 portion of that calcium is created with that
11 vinegar and that converts it to calcium acetate.

12 Calcium acetate has been found to be
13 an unusually available calcium. And we have been
14 able to make a 30 percent calcium where most
15 other calcium products out there are excluded at
16 10 percent calcium. This is a huge advantage for
17 organic farmers because you are going to get the
18 benefit of the calcium up into the plants.

19 And we have research and studies that
20 we have done that Nathan will be bringing to the
21 Board at the end of the month for you to take a
22 look at.

1 What else do I have to tell you on
2 this? In addition, to being linked as a
3 nutrient, our product also has the ability to
4 help with prevention of sunscald. It has become
5 more and more of an issue for crop growers
6 throughout the United States and the rest of the
7 world.

8 We've had great success with
9 watermelon growers. In fact, we have watermelon
10 processing companies that refuse to use the clay
11 based calciums or clay-based shade guards because
12 they foul up their equipment and leave residue
13 where our product doesn't do that.

14 Our product is very easy to apply.
15 You spray, rinse. And growers for the last 12
16 years have been using our product in agriculture.
17 And we've got numerous requests by organic
18 farmers to have an organic product in the
19 marketplace. And we are now making that effort
20 to make that happen. And I've run out of time.

21 MS. BEHAR: Okay. Any questions from
22 the Board?

1 MR. ELA: Yes. This is Steve Ela, I
2 have a question.

3 MR. FRIZZELL: Yes, Steve.

4 MS. BEHAR: Hi, Steve, go ahead.

5 MR. ELA: Could you elaborate a little
6 more on why this product would be essential to
7 organic production? I mean, there's certainly --
8 it may be slightly different in concentration or
9 form than other calcium products. I mean, is it
10 critical for organic production?

11 MR. FRIZZELL: I think it's very
12 critical for organic production because it allows
13 for the natural uptake of the other nutrients
14 that are trying to be uptaken by the plants.

15 And it gives you the ability to move
16 that material into the plant and give them much
17 stronger cell wall development and it gives them
18 crops that resist disease better and are more
19 resilient once it gets harvested and they're put
20 in the supply chain to stores due to the strength
21 of the plant.

22 MS. BEHAR: Any other questions or

1 follow-up? Okay. We will move ahead to Linley
2 Dixon is on deck, with Bill Wolf and Dave Chapman
3 on deck. Linley, please state your name and
4 affiliation.

5 MS. DIXON: Hi. I'm Linley Dixon the
6 associate director of the Real Organic Project.
7 So the Real Organic Project is a farmer-led and
8 grassroots effort to get organic standards back
9 in line with the law.

10 The formation of ROP is a result of
11 major failures of the NOP, including the failure
12 to enforce the livestock raising standard and
13 implement the origin of livestock rule.

14 The direct result of these failures is
15 the loss of many organic dairy farms that follow
16 the rules and that were unable to compete under
17 the same label and had misled organic consumers
18 into thinking they were getting the nutritional
19 benefits of real pasture organic milk in the
20 marketplace.

21 The NOP failed to require real outdoor
22 access for poultry, resulting in the dominance of

1 mega confinement chicken houses under the organic
2 seal. The loss of pasture and organic poultry
3 production has resulted in the emergence of
4 pasture-based poultry labels, and those are
5 directly competing with the organic label, but
6 they're not using organic feed.

7 So the integrity of their organic
8 label has been severely harmed by the failure to
9 enforce real outdoor access for chickens.

10 Both the NOP and the NOSB failed to
11 enforce 20520(c), control fertility and crop
12 nutrient management practice standards again
13 leading to unfair competition under the same
14 organic label.

15 There are pre-certified berry farmers
16 right now struggling to stay in business because
17 they're losing markets to hydroponic berries
18 under the same label despite extreme differences
19 in cost of production due to the failure to
20 follow soil fertility standards.

21 ROP is an attempt to restore fair
22 competition under the organic seal. Under the

1 standards that follow the principle of AFSA
2 (phonetic), of course, the lifeline were
3 providing to farmers under the organic label will
4 be too late for many producers.

5 Many pasture poultry farms have either
6 long abandoned the field or gone out of business.
7 The same is true for dairy, field grown tomatoes,
8 cucumber, pepper and berry operations are
9 experiencing the squeeze right now.

10 As NOSB members, we urge you to make
11 the Real Organic Project obsolete by working to
12 prohibit hydroponics and endorse the still
13 standing 2010 recommendation on the requirements
14 to foster soil fertility in both livestock and
15 crop production.

16 Some have changed the meaning of
17 organic to simply a product that doesn't come
18 into contact with a particular substance. This
19 fails to acknowledge all the prohibited
20 substances that have been used to bring that
21 product to the market.

22 Consider the chemicals applied to the

1 thousands of acres of conventional soybeans that
2 are exclusively used to make hydrolyzed soy that
3 fertilizes hydroponic crops.

4 Consider the prohibitive substances
5 used to produce the substrates that hydroponic
6 crops grow in. The increased use of prohibitive
7 substances for the production of hydroponic crops
8 is a direct result of the NOSB decision to allow
9 hydroponic production without any standards to go
10 with it.

11 There are many certification bodies
12 that still uphold the soil fertility and crop
13 production principles in AFSA. This is an unfair
14 advantage to those APAs that have chosen to
15 ignore parts of ERSA and go along with
16 management's lack of enforcement of law.

17 The APAs with integrity who refuse to
18 say if I don't certify them, someone else will,
19 they're losing business.

20 We are working with some of these high
21 integrity APAs to implement the ROP program this
22 coming season. We have significant farmer

1 momentum behind us.

2 Thank you for your time.

3 MS. BEHAR: Any questions from the
4 Board? Okay. Thank you, Linley. Next up is
5 Bill Wolf, with Dave Chapman and Colehour Bondera
6 on deck. Bill, please state your name and
7 affiliation.

8 MR. WOLF: Hello. Can you hear me?

9 MS. BEHAR: Yes.

10 MR. WOLF: Great. I'm Bill Wolf, and
11 I'm here representing both Thorvin Kelp and Wolf,
12 DiMatteo & Associates, a leading organic
13 consultancy.

14 I will amplify on our written comments
15 about marine materials. We agree strongly that
16 seaweed harvest must be sustainable, but we
17 suggest a different solution.

18 My seaweed company only uses certified
19 organic marine algae and would certainly benefit
20 from your proposal to require certification of
21 all marine algae used as crop inputs.

22 However, we do not support this.

1 Neither adding individual annotations to the
2 National List nor requiring that input sources be
3 certified is in the best interest of the organic
4 community. Instead, I ask that you consider
5 three overarching principles and comments.

6 One, apply the organic preference
7 principle to the entire National List that when
8 organic inputs and ingredients are commercially
9 available, they must be chosen first.

10 Requiring the use of certified organic
11 sources for all inputs when commercially
12 available will solve both discrimination and
13 phase-in problems, encourage innovation and
14 continuous improvement.

15 This actually can be applied to 601,
16 603 and 605, not just 606. Although we haven't
17 been the loudest, we've been making this
18 recommendation for over a decade.

19 Of course, we would also support
20 published and fully vetted guidance documents
21 about inputs and sustainability measurement.

22 Two, our second issue is we suggest

1 that the Board triage the issues that are
2 presented to the Board. Only select the core
3 issues that advance responsible organic
4 agriculture and don't overreact to the loudest
5 voice in the room.

6 Organic regulations can't tackle all
7 social and environmental issues. Farming itself
8 is less than sustainable. There are much bigger
9 organic farming inputs that would not meet such
10 scrutiny from tractor fuel to mined minerals.

11 Number three, I encourage the Board to
12 get more professional help from the USDA and NOP
13 to study the issues and to help develop your
14 positions.

15 As an Advisory Board with incredible
16 volunteer citizens, you should demand to have a
17 professional staff to help further gather
18 accurate information and carry the primary burden
19 of preparing your options and position papers.

20 Thank you for your time. I welcome
21 questions.

22 MS. BEHAR: Okay. Any questions from

1 the Board for Bill?

2 MS. OAKLEY: Harriet, this is Emily.

3 I have a question.

4 MS. BEHAR: Go right ahead.

5 MS. OAKLEY: Thank you, Bill, for your
6 written comments on reading materials. And I
7 have been hearing you over the past many meetings
8 about the organic preference being applied to the
9 entire national list.

10 In terms of how that might spillover
11 into this discussion of marine algae, I have a
12 question. Specifically, if we had some species
13 for which there were no producers entering the
14 marketplace with a certified organic product or a
15 certified organic marine algae species, and that
16 never developed over time but it happened to be a
17 species that was definitely in critical
18 environmental situations in terms of its harvest,
19 how would that suggestion that you are
20 recommending then address the issue of
21 environmental impact and harm and the avoidance
22 of what we are trying to come up with as we

1 explore this issue?

2 MR. WOLF: A really good question.
3 Thank you. Well, first of all, history has shown
4 that organic preference does cause this
5 continuous improvement to occur. People innovate
6 and look for opportunities to fill niches. And
7 that has held true across how 606 has been shrunk
8 over the years or changed over the years.

9 So it would be hard to imagine if that
10 pressure were available that that effort would
11 not occur. Harvesters and processors would look
12 for that innovation and that opportunity.

13 But assuming that that doesn't
14 adequately address the risk of either damage to
15 the environment from harvest, that can be
16 addressed several ways. But I think that can be
17 addressed through guidance and can be addressed
18 by including in guidance reviews of
19 sustainability of methods of production of all
20 inputs.

21 I think we are opening the door to
22 some very important issues. But I think going

1 item by item is scary because it creates an
2 uneven playing field, and it creates a place for
3 the loudest voice in the room as I said.

4 I think that are some very strong
5 efforts being made worldwide to assure best
6 practices in marine algae harvest. I've been
7 observing that in some places for as long as 37
8 years in terms of government oversight and the
9 like.

10 MS. OAKLEY: Thank you.

11 MS. ARSENAULT: Harriet, you are --

12 MS. BEHAR: Okay.

13 MS. ARSENAULT: -- not on mute.

14 MS. BEHAR: Okay. Okay. Any other
15 questions for Bill? Okay. Next up is Dave
16 Chapman, and Colehour Bondera is on deck. Dave,
17 please state your name and affiliation.

18 MR. CHAPMAN: Hello. I am Dave
19 Chapman. I am speaking today as Executive
20 Director of The Real Organic Project, and I am
21 also a former member of the USDA Hydroponic Task
22 Force. And I'm also proud of the fact that I'm a

1 long-time organic farmer.

2 As many of you know, I participated in a
3 recent OFPA meeting with NOP Deputy Director
4 Jennifer Tucker, and the following items came up
5 that were important.

6 The pasture rule is not being properly
7 enforced. The NOP acknowledges this and promises
8 to do better. But they have been promising the
9 same thing for nine years since Miles McEvoy
10 announced the age of enforcement.

11 The origin of livestock rule is
12 languishing in the NOP after passing the NOSB.
13 Without my saying anything, Dr. Tucker said it
14 would take years more to come to an action on
15 this.

16 Associate Director Tucker said that
17 she has no power to pass new regulations but the
18 OFA members pointed out that she does have the
19 responsibility and power to hold certifiers
20 accountable for enforcing the current rules.
21 This is not being done.

22 In an earlier conversation, Dr. Tucker

1 had made clear to NOC that there is no transition
2 time required for hydroponic operations.

3 In the OFA meeting, Dr. Tucker said
4 that the use of herbicides immediately prior to
5 getting certified would not disqualify a facility
6 from organic certification.

7 By implication there is also no
8 restriction on the use of prohibited pesticides
9 the day before changing substrate in a
10 conventional greenhouse and then qualifying for
11 organic certification the next day.

12 There's also no limitation on a
13 greenhouse spraying a prohibited pesticide
14 between crops, changing the substrate and
15 reapplying for organic certification with no
16 transition period. The allowance of herbicides
17 and pesticides in this manner is the logical
18 conclusion for the allowance of hydroponics in
19 organic.

20 Hydroponic cannot and should not be
21 called organic. These NOP positions are
22 indefensible and unacceptable to consumers. They

1 are not outlier issues but cut to the very heart
2 of organic. The only hope for the NOP is that
3 consumers don't find out what is being allowed.

4 We all know this is not a good
5 strategy. Consumers are going to find out if
6 we're going to preserve a meaningful organic
7 program in America, we need to bring great
8 pressure to bear.

9 If we fail, there will be tremendous
10 damage to caring consumers, the organic trade and
11 to the real organic farmers of America.
12 Ultimately, the entire \$50 billion organic
13 industry will suffer.

14 I urge the NOSB to challenge the NOP's
15 reduction of your importance and to take a more
16 activist role in representing the American people
17 and protecting the meaning of organic. Thank
18 you, and I welcome any questions.

19 MS. BEHAR: Okay. Any questions for
20 Dave from the Board?

21 MR. ELA: Harriet, this is Steve Ela.
22 I have a question.

1 MS. BEHAR: Go right ahead.

2 MR. ELA: Dave, I just want to follow-
3 up and make sure I'm understanding correctly.
4 So, for example, in a facility with container
5 production, what you're advocating for is that
6 the land that those containers sit on top of
7 should go through the three year transition
8 period. Am I understanding correctly?

9 MR. CHAPMAN: Well, Steve, what I'm
10 actually advocating for is that America follow
11 the EU standard, grandfather all of the existing
12 container facilities out and require that organic
13 be in the ground.

14 But if that were not the path that was
15 followed then at the very least, yes, I'm
16 honestly not advocating for just reforming the
17 standards around hydroponics because I don't
18 think if there's a logical path to allowing
19 hydroponics, it's going to end up being very
20 strange compromises.

21 MR. ELA: Yes. Thank you for that
22 clarification. So are there -- so at this point,

1 are there farms with containers that -- I mean,
2 you've mentioned -- I'm assuming you have real
3 world examples where an herbicide for example is
4 sprayed and then containers are put right on top
5 of that ground?

6 MR. CHAPMAN: That has been reported
7 to me, yes.

8 MR. ELA: Okay.

9 MR. CHAPMAN: I've been told that by
10 people in Florida and California who are
11 trustworthy people. But I don't have cameras. I
12 don't have people who are willing to come forward
13 because they're afraid of repercussions. But I'm
14 sure if a serious effort were made to research
15 this, the answer would be that it is happening.

16 I know of one certifier on record as
17 saying they do allow that. And, again, it is the
18 stated position of the NOP that it is allowed,
19 that there is no transition period, and that's
20 what that means is that you could use an
21 herbicide or prohibited pesticide today, change
22 the substrate and tomorrow you can be certified.

1 And, you know, we do have large
2 greenhouse facilities that were conventional
3 hydroponics that are now becoming organic
4 overnight. So of course they were using
5 prohibited pesticides.

6 MR. ELA: Thanks, Dave.

7 MR. CHAPMAN: Yes.

8 MS. OAKLEY: Harriet, this is Emily.
9 Can I ask a question?

10 MS. BEHAR: Yes. Sure. Go ahead. Go
11 ahead.

12 MS. OAKLEY: This is a question for
13 the program. I don't know, Paul, if you're still
14 on, but when I hear this discussion, I think
15 immediately, no, there's absolutely no way that a
16 prohibitive substance could be allowed and then a
17 container could be certified as organic without
18 following the three year transition period.
19 Because in my view it's not the container that's
20 getting certified, it's the land on which the
21 container is sitting.

22 And I don't -- I think many organic

1 farmers feel the same that it's the land upon
2 which the facility for a crop is grown regardless
3 of how it's grown or where it's grown that is
4 getting certified. So, Paul, could you please
5 kind of answer some of the discussion that's
6 going on?

7 MR. LEWIS: Yes. Thanks, Emily. So,
8 yes, I'm aware, Dave, of what you're asking and
9 the communication that we recently had on this.

10 I've been having conversations with
11 NOP about this in terms of addressing this.
12 We're going to have more to say next week. I
13 know you want to be talking about it now, but I
14 know Jennie will be talking about this next week
15 at the Board meeting. So if you can just hold
16 your question on this, Emily, until next week
17 we'll have more share.

18 MS. OAKLEY: Sure. I absolutely will.
19 I'll just say, though, that I hope that the
20 clarification can be that the three year
21 transition applies to any producer, land, farm,
22 regardless of what's grown, the size or the

1 geographic region.

2 But I will wait to see what happens at
3 the meeting next week to see where we go from
4 there. So thank you, I appreciate getting more
5 information.

6 MR. LEWIS: And thanks, Emily, for
7 your understanding.

8 MS. BEHAR: Yes, thank you. Any other
9 questions for Dave? Thank you, Dave.

10 MR. CHAPMAN: Thank you.

11 MS. BEHAR: And next up is Colehour
12 Bondera. And I don't know if Tom Honingford,
13 Andrew Dykstra, Dallas McCann or Marina Abitia
14 are there. But if you are, you would be on deck
15 after Colehour. Okay, Colehour, please state
16 your name and affiliation and thanks for getting
17 on the webinar. If he's there? If you're
18 speaking, you're on mute.

19 MS. ARSENAULT: Colehour, I see you on
20 the list, but we are not hearing you speak. It
21 looks like you're on a headset, maybe if you can
22 dial-in on a handset, or unmute your mic on your

1 computer maybe. Still not hearing you, but I can
2 see you.

3 MS. BEHAR: So Colehour, we want to
4 hear you. Maybe he's out snorkeling.

5 MS. ARSENAULT: Well, Harriet, if you
6 want to run through the few folks that we skipped
7 over or that weren't on the line when we called
8 their name, and that may give Colehour a minute
9 or two to get his audio worked out.

10 MS. BEHAR: Okay. Marina --

11 MS. ARSENAULT: Oh, sorry. He's
12 dialing in.

13 MR. BONDERA: This is Colehour.

14 MS. ARSENAULT: Hey, Colehour.

15 MS. BEHAR: Okay, great. Hi,
16 Colehour.

17 MR. BONDERA: Aloha. I was on the
18 phone saying. I don't know. Let's try again.

19 MS. BEHAR: Okay. State your name and
20 affiliation.

21 MR. BONDERA: Again, my apologies.
22 Aloha, NOSB members. My name is Colehour Bondera

1 of Kanalani Ohana Farm in Honaunau, Hawaii. I
2 want to say welcome.

3 If you don't know me, I want to thank
4 you all for your service. It's a lot of serious
5 work, which I know as an alum. I was a small
6 scale producer from 2011 to 2016 on the NOSB.

7 And since NOSB cannot do all that is
8 needed, Dave Chapman took it upon himself to seek
9 integrity and stay true to what organic means,
10 and my sincere thanks to Dave who in my opinion
11 is going to be difficult to follow honestly.

12 I'm going to start with a few general
13 comments and then end with some specific
14 materials as you are considering.

15 First, I want to encourage you to
16 remember that with roots back to 1949 that in
17 1998 a verbiage was put together called the Wing
18 Spring Statement -- Wing Spread Statement, excuse
19 me -- that reads, "When an activity raises
20 threats of harm to human health or the
21 environment, precautionary measures should be
22 taken even if some cause and effect relationships

1 are not fully established scientifically."

2 All that NOSB is working from, OFPA,
3 is grounded in this concept. And it is important
4 when making decisions that if there is a question
5 raised that seems valid, even if not proven
6 scientifically, then substances are best kept out
7 of organic systems based on the precautionary
8 principle.

9 With the five year concept of the
10 material being taken off the National List, the
11 sunset clause is for exceptions, which must be
12 few. The NOSB should ensure that exceptions are
13 just that, and not increasing in number or being
14 kept in sunset mode in perpetuity.

15 As a teenager, one of my earliest
16 memories as I became interested in food choices
17 was related to learning about the animal and
18 synthetic components of gel casings. And in fact
19 this is not already in the past.

20 The non-organic produced collagen gel
21 casings could be permitted in organic systems is
22 like continuing to permit non-organic seeds for

1 planting. Please do not allow non-organic
2 collagen gel casings to be added to the list of
3 permitted non-organic materials. Get me out of
4 the early 1980s, please.

5 Based on health and environmental
6 risks, please reject petitions to add silver
7 dihydrogen citrate and AITT, allyl
8 isothiocyanate, to material listings as well.

9 Further, having worked directly while
10 they were last reviewed, it is my sincere request
11 that chlorine based sanitizers do not get
12 relisted again still using the excuse of no other
13 options when they are not necessary and/or not
14 safe.

15 Finally, it is, after so many delays,
16 in my opinion, time for synthetic methionine to
17 sunset off the list of permitted substances.

18 Changing management practices and
19 breeding choices and/or using natural methionine
20 are all available. As a direct neighbor of mine
21 who raises chickens and eggs here in Hawaii, she
22 practices these behaviors with no problems for

1 organic chickens or the eggs at all. And even
2 though that's just an example, I think it's
3 vital. Thank you.

4 MS. BEHAR: Okay. Well, that was jam
5 packed. Any question for Colehour.

6 MR. ELA: This is Steve Ela. I had a
7 question.

8 MS. BEHAR: Colehour, just so you --
9 oh, go ahead, Steve. Go ahead.

10 MR. ELA: Colehour, with respect to
11 your comment on sanitizers, and given Food Safety
12 Modernization Act regulations, what is your
13 alternative to chlorine materials?

14 MR. BONDERA: Well, I'm not going to
15 be able to address details of that question. You
16 know, I just remember quite directly from our
17 research, and I'm not going to be able to comment
18 on the Food Safety Modernization Act implications
19 honestly.

20 But I am just full aware that there
21 are other alternatives. You know, I go to my own
22 personal bathroom, and I pull out my non-chlorine

1 bleach. And I look and there it is, hydrogen
2 peroxide.

3 So I think that there are other
4 alternatives that are readily available that can
5 be made use of. And I just think that it's not
6 as simple as we must use chlorine or we can't
7 have organics. So I think it's too simplistic of
8 a summary.

9 MS. BEHAR: Okay. Any other questions
10 or comments for Colehour? I have one, Colehour,
11 we are going to hear from the methionine task
12 force. And they're going to be talking to us
13 about what natural methionine materials they have
14 tried and why they didn't work, and what they're
15 planning to do.

16 So I know this has been a long time
17 material that causes consternation on the Board,
18 and we're doing the best we can to get good
19 information on where we go next.

20 MR. BONDERA: I appreciate that. And
21 I thank you for your continuing down the path in
22 a healthy manner. And I think that needs to be

1 our shared goal.

2 MS. BEHAR: Okay. So I am going to
3 ask for the people who were listed but did not
4 speak during their allotted time.

5 Marina Abitia, A-B-I-T-I-A? Kathleen
6 Mellone, a USC anthropology student? Dallas
7 McCann, Fromer Market Gardens in Tannersville,
8 New York? Andrew Dykstra, an Organic Valley
9 dairy farmer and ex-WODPA President? And Tom
10 Honingford from Hurricane Flats Farms? Those
11 were the people that I have that had signed up
12 but that did not give their public comments.
13 Michelle, did I get everybody?

14 MS. ARSENAULT: I believe so, yes.

15 MS. BEHAR: Okay. Okay. Well, I
16 guess I want to say thank you to everyone who is
17 still on the line who participated and gave us
18 some great comments.

19 On Thursday, same time, same place, we
20 will have an abbreviated, it won't be quite as
21 long as today because we have less of a list. So
22 if you want to hear some more public comments,

1 the Board members will all be there. And we will
2 be hearing from approximately 10 people on
3 Thursday.

4 I want to say thank you all and any of
5 you who will be in Seattle, see you in person
6 next week and have a great rest of your
7 afternoon.

8 Michelle, do you have anything else to
9 say?

10 MS. ARSENAULT: No. I think you
11 covered what I was going to say. Just that the
12 next portion of the webinar is on Thursday at
13 1:00 Eastern.

14 So thank you, Harriet, thank you,
15 everyone who participated. Great job keeping the
16 noise in the background down. And we appreciate
17 it. Thank you, Board members, and we'll talk to
18 you guys on Thursday.

19 MS. BEHAR: Okay. Thank you. Bye-
20 bye.

21 MS. ARSENAULT: All right. Bye-bye.

22 MR. ELA: Thank you, Harriet. Thank

1 you, Michelle.

2 (Whereupon, the above-entitled matter
3 went off the record at 3:48 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Webinar

Before: USDA/NOSB

Date: 04-16-19

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

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UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

PUBLIC HEARING WEBINAR

+ + + + +

THURSDAY
APRIL 18, 2019

+ + + + +

The Webinar commenced at 1:00 p.m.,
Harriet Behar, Chairperson, presiding.

PRESENT

HARRIET BEHAR, Chairperson
SUE BAIRD
ASA BRADMAN
JESSE BUIE
TOM CHAPMAN
LISA de LIMA
STEVE ELA
JAMES "RICK" GREENWOOD
DAVE MORTENSEN
EMILY OAKLEY
SCOTT RICE
A-DAE ROMERO-BRIONES
DAN SEITZ
ASHLEY SWAFFAR

ALSO PRESENT

PAUL LEWIS, Director, Standards Division, NOP
MICHELLE ARSENAULT, Advisory Board Specialist

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

2 1:00 p.m.

3 MS. ARSENAULT: Hi, everybody. It's
4 Michelle from NOP again. I have straight up 1:00
5 o'clock Eastern time here. So, I think we'll get
6 started.

7 It looks like some -- well, you know
8 what? Actually, let me wait a couple of minutes.
9 It looks like folks are still joining in and
10 rather than have interruptions and have to -- I'm
11 sorry, I can't talk anymore.

12 Let's give it another minute or two
13 and then we'll get started.

14 (Whereupon, the above-entitled matter
15 went off the record at 1:00 p.m. and resumed at
16 1:01 p.m.)

17 MS. ARSENAULT: Hello, again,
18 everyone. It's Michelle.

19 I think we're going to maybe get
20 started. It looks like the majority, if not all,
21 of the Board members are here. So, I think we're
22 ready to begin.

1 So, welcome. We would appreciate it
2 if you could self-mute yourself while we're on
3 the call just to keep the background noise level
4 down. Otherwise, we have to mute everybody at
5 once and then we have to search for the people
6 that are going to be providing comments to unmute
7 them and it just takes a little bit extra time to
8 do that.

9 So, Tuesday ran really well and
10 background noise was at a minimum. So, I really
11 appreciate that, thank you, everyone.

12 All right, we're going to get started
13 and, first of all, Paul Lewis, the Director of
14 Standards is going to call the meeting to order
15 and then we'll dive into some logistics.

16 MR. LEWIS: Thank you, Michelle.

17 And, good afternoon, everyone. I'd
18 like to welcome NOSB members and the public today
19 to today's, and actually, our second day this
20 week on the National Organic Standards Board
21 Public Comment Webinar.

22 And, as I said before, I really

1 appreciate all the work of the NOSB members
2 taking this call and for getting us ready for
3 this public comment webinar. Thank you for all
4 of your work serving on the Board.

5 This webinar provides the opportunity
6 for the public to provide comments to the NOSB as
7 part of the Board's upcoming public face to face
8 meeting scheduled next week in Seattle,
9 Washington. And, please consult the NOP website
10 for information about the face to face meeting.

11 This meeting, like other meetings, the
12 National Organic Standards Board will meet face
13 to face and our public webinar operates under the
14 provisions of the Federal Advisory Committee Act.

15 And, I look forward to hearing
16 comments from the public to assist the NOSB
17 preparing their recommendations to USDA in
18 response to NOSB work agenda items.

19 I'd be remiss without thanking
20 personally my colleagues in the Standards
21 Division, Michelle in particular, for their work
22 behind the scenes to bring us today's

1 teleconference.

2 I'd like to close by turning now to
3 Harriet Behar, Chair of the Board.

4 Harriet, thank you, again, for
5 chairing this webinar and for your upcoming
6 serving as Chair for next week's NOSB meeting.

7 MS. BEHAR: Thank you, Paul. It's
8 more fun than it might seem.

9 Okay, so, I will go through some
10 housekeeping and if Michelle has any points to
11 make after I'm done, she can chime in.

12 We're going to leave those phone lines
13 open unless there's too much background noise, as
14 Michelle stated. So, if you have a mute, please
15 mute it. If not, you can press star, six to mute
16 or star, seven to unmute.

17 Just as a reminder, you had to pre-
18 register in order to comment on this webinar.
19 So, as we are going through our 12 speakers, I
20 will announce who's on deck, there's the
21 following two people. So, you'll be ready to
22 join in when the -- when we're done with the

1 previous person and any questions that the Board
2 might have.

3 There is a timer which Michelle will
4 show us or sound us when I'm done speaking so
5 that will go off when you have done your three
6 minutes of public comment. And so, when you hear
7 that timer, please, finish up because you're at
8 the end.

9 Board members, I think it worked
10 pretty good the last time. Just I have a hard
11 time, I don't really see people raising their
12 hands. So, I will just ask for Board members to
13 let me know who wants to speak and then you can
14 ask questions.

15 It was very engaging on Tuesday and I
16 really appreciate all the input from the Board
17 members.

18 Just to let you know, this webinar
19 will be transcribed and in print as part of the
20 official public record for the Seattle 2019 NOSB
21 meeting.

22 And, I just want to say, thank you to

1 all the public for their comments. It's really
2 important for us to hear from the organic
3 community so we know which way to head on these
4 various issues facing us, materials, and practice
5 standards that we are working on. And so, thank
6 you so much for taking time out of your busy day.

7 Now, I'm going to go to Michelle and
8 she can let us hear what the time sounds like and
9 she will also do the roll call so you know which
10 NOSB members are on the call.

11 MS. ARSENAULT: Thank you, Harriet.

12 All right, I'm going to hit the timer
13 and give us three seconds here. Hopefully
14 everyone can hear that okay. I know when you're
15 speaking, sometimes, you know, it's not as loud
16 as it needs to be.

17 All right, and I just want to touch on
18 -- Harriet covered pretty much everything, I
19 think. I just want to cover a couple of things.

20 Comments, our participants are able to
21 chat into the Chairperson which is me and a
22 couple of other staff members. And so, if we

1 have problems finding you in the list to speak, I
2 may go ahead and send out a chat. So, kind of
3 keep an eye on that.

4 The chat is not part of the public
5 record. So, we don't accept comments through
6 chat. So, please, don't do that.

7 And then, just for reference --
8 (telephonic interference) -- hi, if you're on the
9 phone with us, please put yourself on mute.
10 We're getting some background conversation.
11 Thanks.

12 The other thing is, on the screen, I
13 have displayed the readytalk.com help. If you're
14 having technical problems, there's readytalk.com
15 or you can dial that 800 number.

16 I've always had a good response and a
17 good experience with their technical support.
18 So, you can always call that number if you're
19 having any audio problems or trouble with the
20 website.

21 And, as Harriet said, there's a
22 transcriptionist on the line with us, so the

1 notes will be transcribed and be part of the
2 record after the spring meeting that ends in
3 April.

4 All right, I'm going to take roll call
5 of the Board members, so everybody knows who's on
6 the call.

7 Sue Baird?

8 If you're speaking, Sue, you're on
9 mute.

10 MS. BAIRD: So sorry. Yes, I'm here.

11 MS. ARSENAULT: That's okay.

12 Harriet is here. Harriet, you want to
13 say --

14 MS. BEHAR: Yes.

15 MS. ARSENAULT: Thank you.

16 Asa Bradman? Asa, I see you, but we
17 can't hear you. So, I think you may be muted as
18 well. Or, you're on a headset, so maybe your mic
19 is not working. So, I see you on there. We'll
20 come back. Just be brief.

21 MR. BRADMAN: I'm here.

22 MS. ARSENAULT: Hello, sir.

1 Tom Chapman?

2 MR. CHAPMAN: Present.

3 MS. ARSENAULT: Hello there.

4 Lisa de Lima?

5 MS. DE LIMA: Here.

6 MS. ARSENAULT: Thank you.

7 Steve Ela?

8 MR. ELA: I'm here.

9 MS. ARSENAULT: Thank you, Steve. I
10 see you there.

11 Rick Greenwood?

12 MR. GREENWOOD: Here.

13 MS. ARSENAULT: Hi, Rick.

14 MR. GREENWOOD: Hi.

15 MS. ARSENAULT: Dave Mortensen?

16 MR. MORTENSEN: I'm here.

17 MS. ARSENAULT: Hello, Dave.

18 Emily Oakley?

19 MS. OAKLEY: Present.

20 MS. ARSENAULT: Thank you.

21 Scott Rice?

22 MR. RICE: Present.

1 MS. ARSENAULT: Hi, Scott.

2 A-dae Briones?

3 MS. ROMERO-BRIONES: Here.

4 MS. ARSENAULT: Hi, A-dae.

5 Dan Seitz?

6 MR. SEITZ: I'm here.

7 MS. ARSENAULT: Okay.

8 And, Ashley Swaffar?

9 MS. SWAFFAR: I'm here.

10 MS. ARSENAULT: Hi, Ashley.

11 And, for those of you keeping track,
12 I called 14 names. We had an unexpected vacancy
13 on the Board a couple of months ago, so we are a
14 14 member Board at the moment. We will be 14 for
15 the two 2019 meetings, so in April and October,
16 we'll have 14 members present.

17 All right, Harriet, I believe it is
18 all yours.

19 MS. BEHAR: Okay. So, first up is
20 Allison Schmidt. And, after Allison, Berit
21 Dockter, and Deborah Attwood are on deck.

22 And, I believe that Allison has

1 PowerPoint.

2 MS. SCHMIDT: Indeed, yes.

3 MS. BEHAR: Allison, you can start
4 speaking.

5 MS. SCHMIDT: Okay. Can you hear me?

6 MS. BEHAR: Yes.

7 MS. SCHMIDT: Hello. Good afternoon,
8 thank you for the opportunity to speak today. My
9 name is Allison Schmidt. I'm a marine ecologist
10 and my research focuses on marine plants,
11 including algae and how human activities in
12 Atlantic Canada impact the services that these
13 ecosystems provide.

14 And, what I mean by ecosystem services
15 are the benefits that contribute to the well-
16 being of all species including humans, that these
17 ecosystems provide through their normal
18 functioning.

19 And, you can see from the chart that
20 the services fall into four categories. And,
21 algae ecosystems do provide services in all four
22 categories and harvesting algae would fall

1 specifically into the provisioning category.

2 Our current economic system does not
3 capture ecosystem services unless they are goods
4 like products, commodities, or tourism.

5 And, as such, economists have been
6 trying to put a value on all ecosystem services.

7 And, in 2011, globally, there were
8 estimated to be worth \$125 trillion U.S. dollars
9 per year.

10 MS. ARSENAULT: Allison, this is
11 Michelle. I'm sorry, I'm going to interrupt you.
12 Your slides are not advancing automatically
13 inside the software, so I'm going to have to do
14 it for you.

15 MS. SCHMIDT: Absolutely.

16 MS. ARSENAULT: So, that will be me,
17 I'm afraid. Thank you.

18 MS. SCHMIDT: That's fine, I can do
19 that. So, if you could advance the slides to the
20 next one.

21 MS. ARSENAULT: Okay, thank you.

22 MS. SCHMIDT: Okay. So, it pretty

1 much just states what I said. And, you can see
2 that value there of \$125 trillion U.S. dollars
3 per year.

4 So, if you could advance to the next
5 slide, please?

6 So, just to orient you to this slide,
7 the pie chart is the percent that each natural
8 ecosystem contributes to that \$125 trillion
9 estimate.

10 And, if you go on, the last shows the
11 size of the ecosystem as a percent of total
12 global area.

13 If you could advance, again, please?

14 So, what I want you to focus on are
15 tropical forests and sea grass and algae
16 categories that are highlighted in red.

17 And, what we can see in the pie chart
18 is that the value of sea grass and algae is
19 comparable to tropical forests. So, when you
20 look at the table, you can see that the area
21 covered by sea grass is an algae is actually five
22 times smaller which means that these ecosystems

1 are disproportionately contributing services for
2 their size which makes it essential that we
3 maintain their functioning.

4 Next slide, please?

5 So, the global monetary value of sea
6 grass is in algae is \$6.2 trillion per year which
7 is more than what harvesting and tourism in these
8 ecosystems actually contribute to the economy.

9 For example, in 2014, marine algal
10 landings in the Canadian Maritime Provinces
11 contributed \$1.3 million to the Canadian economy.

12 Next slide, please?

13 And, beyond harvesting raw materials,
14 you can see that marine alga ecosystems provide a
15 long list of services that directly and
16 indirectly benefit us and range from providing
17 nursery habitat for commercially important
18 fishery species to oxygen production.

19 So, keeping this in mind, next slide,
20 please?

21 The question is, how can we best
22 mitigate harvesting impacts so that alga

1 ecosystems can contribute or continue to provide
2 a full fleet of services that we currently do?

3 One way to do this is to ensure that
4 harvested materials conform to the wild harvest
5 standards. And, that wildcrafting standard
6 language be added to the marine algae and their
7 products on your national list.

8 Next slide, please?

9 MS. ARSENAULT: This is you last
10 slide, so.

11 MS. SCHMIDT: It is, yes. Can I
12 finish it?

13 MS. ARSENAULT: Harriet?

14 MS. BEHAR: Yes, you can.

15 MS. SCHMIDT: Thank you.

16 So, here, I've listed some key aspects
17 that need to be considered within the not
18 destructive to the environment amendment proposed
19 by Beyond Pesticides in their comment posted on
20 April 1st. And, we need to ensure that these
21 points are addressed since they are important in
22 maintaining the long-term health and resiliency

1 of alga ecosystems as well as the essential
2 services they provide.

3 And, thank you.

4 MS. BEHAR: Are there any questions
5 from the Board members?

6 (SIMULTANEOUS SPEAKING)

7 MS. BEHAR: And, maybe Emily has a
8 question.

9 MS. OAKLEY: I do, thank you so much
10 for your presentation.

11 And, I'm wondering if you feel that
12 the wildcraft standard as it's currently written,
13 I'm not sure how familiar you are with it, but
14 also with the additional language that I know
15 you've listed that Beyond Pesticides put in their
16 public comments, if you feel that this is an
17 adequate start for addressing this issue or if
18 you have other suggestions that were not in the
19 discussion document that you think might also
20 help with protecting marine algae and the
21 environmental impact of harvesting?

22 Thank you.

1 MS. SCHMIDT: I think that -- I have
2 read over the language in both the original
3 document of the wildcraft as well as the
4 amendment from Beyond Pesticides.

5 I think that the amendment that they
6 have written does a good job. It's a good start,
7 but that's one of the reasons why I listed all of
8 those items on my last slide. And, it's also in
9 my written comments that those would be things
10 that need to be considered within the definition
11 that they are proposing.

12 So, I'm not sure if the language would
13 need to change to reflect some of those points
14 that I'm bringing up, but I think that would be a
15 good discussion for the committee that I saw that
16 you were proposing to put together a committee
17 for the fall. And, I think that would be a good
18 discussion for that group to have.

19 MS. OAKLEY: So, Harriet, can I ask a
20 follow up question?

21 MS. BEHAR: Sure.

22 MS. OAKLEY: So, some people have

1 expressed concern that a fund buried under the
2 spectrum, one that we don't need any additional
3 regulations or standards because government
4 regulations are currently sufficient or
5 harvesters are following their practices in terms
6 of their harvesting methods.

7 And then, on the other end of the
8 spectrum, those are concerned that even if we
9 applied organic certification of the rule for
10 the, you know, marine algae ingredients, that
11 would be a not organic crop input product. But
12 that wouldn't go far enough to protecting marine
13 ecosystems.

14 So, we're trying to figure out, you
15 know, how to wade through those various ends of
16 the spectrum in terms of public comments.

17 And, I'm wondering if you have any
18 thoughts on that? And, I know that that's a
19 pretty broad question, so if you don't, that's
20 fine. But, I just appreciate that you're on the
21 call so that I can see if you have any thoughts
22 on this.

1 MS. SCHMIDT: Sure. I think that
2 clarifying the no harm to the environment needs
3 to be clarified in terms of the marine
4 environment because it's not the same as the
5 terrestrial environment.

6 So, I think that it would be important
7 to make sure that that language be clarified
8 specifically for marine algae.

9 MS. OAKLEY: Okay, great. Thank you.

10 MS. BEHAR: Any other questions from
11 the Board?

12 (NO AUDIBLE RESPONSE)

13 MS. BEHAR: I have a question. I'm
14 not sure how, but somebody sent me a video of
15 kelp harvesting with something that looked kind
16 of like a vacuum.

17 And, I just wondered if we should be
18 looking at the types of harvest, too? Because I
19 don't know if that would have, perhaps, a more
20 broad catch than other methods. Because it
21 seemed to just be kind of sucking up everything
22 in sight.

1 Maybe can you speak to the specific
2 types of harvest if there's more than one type?

3 MS. SCHMIDT: Yes, I think that when
4 it comes to harvesting, that was actually one of
5 my points that I think needs to be considered
6 within that definition of no harm to the
7 environment is the type of harvest.

8 Mechanical harvesting, at least in the
9 Atlanta Canada, we had a history with it. And,
10 we have had elimination of rock reed beds in
11 areas that have taken a long time, decades to
12 recover because of mechanical harvesting. So,
13 that's the vacuum like harvester.

14 There are a number of different kinds
15 of mechanical type harvesting, but any mechanical
16 harvesting tends to do more harm than hand type
17 harvesting.

18 So, using hand tools, either a knife
19 for cutting it or a cutter rake or some other
20 form that requires actual manpower rather than a
21 machine.

22 Those would be preferred methods

1 because they do the least amount of damage in
2 terms of not just by catch, but also damage to
3 the remaining plants that are left behind.

4 Because, often times, some of these
5 species will regenerate from pieces that are left
6 behind. So, if it's being completely removed,
7 then that makes it difficult for those species to
8 come back in that way.

9 MS. BEHAR: Are there people currently
10 hand cutting and raking? And, is it kind of
11 environment -- I'm sorry -- economically viable
12 method?

13 MS. SCHMIDT: That is the only way to
14 harvest rock reed here in Nova Scotia is using a
15 hand rake harvester.

16 I know that also in British Columbia,
17 they use knife hand harvesting. There's not a
18 lot of harvesting on the West Coast of Canada but
19 what they do harvest usually uses a knife to cut
20 the tops of the large kelp fronds from the
21 surface of the water. And those tend to be more
22 sustainable in the long term.

1 But that also has to -- there's also
2 the caveat of how much you're allowed to take
3 because no matter what method you use, if you can
4 -- it has to be guided by a maximum amount as
5 well.

6 MS. BEHAR: Sure.

7 Anyone else have a comment?

8 Dan, are you speaking?

9 MR. SEITZ: I'm not speaking.

10 MS. BEHAR: Oh, okay. For some reason
11 it's showing up as you are speaking.

12 Okay, I'm not hearing anything else.
13 Thank you so much and thank you for your written
14 comments as well.

15 MS. SCHMIDT: Thank you for your time.
16 Have a great day.

17 MS. BEHAR: Okay, next up is Berit
18 Dockter, Deborah Attwood, and Jane DeMarchi on
19 deck.

20 Berit, please state your name and
21 affiliation.

22 MS. DOCKTER: Sure. My name is Berit

1 Dockter. I represent the International Food
2 Additives Council. IFAC is a global association
3 representing manufacturers and end users of food
4 ingredients including a number of substances that
5 are permitted in organic foods.

6 IFAC supports maintaining citric acid
7 on the national list at 205.605a. Citric acids
8 serve many purposes, including pH control and
9 stabilization of processed food products as well
10 as extending the shelf-life of fresh fruit and
11 vegetables in addition to cut fruit.

12 IFAC is not aware of an organic source
13 for citric acid that will meet the needs of
14 organic producers in terms of quantity and
15 quality.

16 IFAC also supports maintaining lactic
17 acid on the national list. Lactic acid is a
18 natural organic acid present in milk, meat, and
19 beer. IFAC is not aware of organic alternatives
20 to lactic acid.

21 IFAC supports relisting yeast at
22 205.605a. Yeast is extremely important to

1 organic food production, particularly in baking
2 operations. A supply of organic yeast remains
3 very limited and costly which is why we support
4 continued use of nonorganic yeast.

5 IFAC supports maintaining enzymes on
6 the national list. Enzymes are critical for the
7 production of organic cheeses and dairy products.

8 Regarding the Handling Subcommittee's
9 request for additional ancillary substances, IFAC
10 provided a list with our written comments.

11 IFAC supports the continued listing of
12 dairy cultures and micro-organisms. We also
13 support combining these listings under the term
14 Food Cultures.

15 Without dairy cultures and micro-
16 organisms, many products like dairy foods,
17 breads, fruit and vegetables, and meats would be
18 unavailable to consumers of organic food. We
19 also provided a list of additional ancillary
20 substances for use in dairy cultures and micro-
21 organisms with our written comments.

22 IFAC supports maintaining potassium

1 phosphate on the national list at 205.605b.

2 Potassium phosphate may be used to provide a low
3 sodium alternative to health and sodium reduction
4 efforts.

5 IFAC also supports relisting sodium
6 acid pyrophosphate, or SAPP. It's the only
7 product capable of chemical leavening that is
8 allowed by the National Organic Standards Board.
9 And, leavens bake foods faster than yeast. We
10 are not aware of a comparable ingredient that can
11 be substituted for SAPPY.

12 And, lastly, IFAC supports maintaining
13 alginic acid on the national list. Alginic acid
14 is important in the stabilization and thickening
15 of many foods. There is not an adequate supply
16 or organically produced alginic acid available,
17 so it remains essential to organic food
18 production.

19 The seaweed used to produce alginic
20 acid is harvested in a sustainable manner and
21 we're not aware of any damage to local
22 ecosystems.

1 So, thank you for the opportunity to
2 provide comments and I'm happy to answer
3 questions.

4 MS. BEHAR: Any members of the Board
5 have questions?

6 MR. BRADMAN: This is Asa.

7 In terms of the alginic acid, what's
8 your basis for the statement that it's harvested
9 in a sustainable manner?

10 MS. DOCKTER: That's feedback we've
11 received from our membership, but I'm happy to
12 follow up if we have additional information to
13 provide you.

14 MR. BRADMAN: That would be great.

15 MS. BEHAR: Yes, I second that. If
16 you could get us the standards by which they are
17 harvesting the algae, that would be useful.

18 MS. DOCKTER: Sure.

19 MS. BEHAR: Any other -- thank you.

20 Any other comments from NOSB Board
21 members?

22 (NO AUDIBLE RESPONSE)

1 MS. BEHAR: Okay, well, thank you very
2 much, Berit.

3 MS. DOCKTER: Thank you.

4 MS. BEHAR: And, for your written
5 comments as well.

6 Next up is Deborah or Deborah Attwood
7 and on deck is Jane DeMarchi and Francis Thicke.
8 So, Deborah, please state your and affiliation.

9 MS. ATTWOOD: Can you hear me okay?

10 MS. BEHAR: Yes.

11 MS. ATTWOOD: Okay, great. Good
12 afternoon. My name is Deborah Attwood. I'm an
13 attorney with Steptoe and Johnson and I'm
14 commenting today on behalf of PURE Bioscience.

15 Thanks for the opportunity to provide
16 additional support for silver dihydrogern
17 citrate, or SDC, would be a worthwhile addition
18 to the national list.

19 For the full 2018 meeting, the
20 Handling Subcommittee recommended that the NOSB
21 should approve SDC for addition to the national
22 list on the basis that it is of low risk to the

1 environment and human health and would represent
2 a valuable addition to available antimicrobials.

3 Also, recognizing these benefits, the
4 Subcommittee has now recommended against listing
5 SDC due to concerns about environmental disposal,
6 the alleged presence of nanosilver and the
7 intended use of sodium lauryl sulfate.

8 PURE Bioscience has provided extensive
9 comments to the public docket that address these
10 concerns. And, we note that there is now no
11 legal or regulatory reason why the NOSB, on the
12 basis of these written comments and other oral
13 comments, could not now approve SDC for inclusion
14 on the national list and for the benefits of
15 organic processes we strongly urge NOSB to do so
16 without further delay.

17 I'd like to use the remainder of my
18 time to talk about the role of antimicrobials
19 generally.

20 In an ideal world, there would be no
21 need for antimicrobials in food processing. But,
22 in reality, bacteria such as Salmonella, and

1 Listeria, and E. Coli naturally are present
2 everywhere, and so far, it has proven
3 extraordinarily difficult to find reasonable and
4 feasible natural methods to eliminate them.

5 And, these bacteria kill people. But
6 the use of antimicrobials generally helps to
7 reduce that threat. The antimicrobials
8 themselves present a hazard to human health and
9 human and environmental, yes, they do.

10 But the evaluations conducted by EPA
11 and FDA are not just about recognizing a
12 potential hazard, but about whether the risk from
13 that hazard is sufficiently controlled.

14 Neither FDA nor EPA considers a
15 products potential benefits as part of a safety
16 evaluation, instead, they only consider whether
17 the intended use of an antimicrobial on food
18 represents a reasonable certainty of no harm.

19 The expertise of these agencies is
20 recognized in the organic food production as
21 recommendations. NOSB consults with these
22 agencies on the safety of substances for

1 additional list.

2 Based on how SDC is intended to be
3 used in food processing facilities currently not
4 in the fields or in post-harvest applications,
5 both FDA and EPA have concluded that SDC does not
6 represent unreasonable risk of harm.

7 The NOSB has the advantage of being
8 able to consider the benefits of SDC. There is
9 no one antimicrobial that can be or do everything
10 and SDC would simply be an alternative for
11 processors to use as part of their pathogen
12 management program.

13 It would allow them to conduct better
14 antimicrobial rotation practices and thus reduce
15 the threat of antimicrobial resistance.

16 It reduces the threat from food borne
17 illnesses.

18 On these bases, we respectfully submit
19 that SDC would be a valuable addition to the
20 national list.

21 Thank you.

22 MS. BEHAR: Thank you.

1 Any questions from the Board?

2 MR. GREENWOOD: Yes, this is Rick.

3 I just had a question. You had
4 mentioned, for instance, that Salmonella is
5 everywhere. In fact, it isn't everywhere and
6 mostly it's controlled by good growing practice
7 and harvest.

8 So, I don't think that that's always
9 a necessary addition to the processing and it's
10 more of a shotgun approach.

11 I have some concerns about those kinds
12 of statements.

13 MS. ATTWOOD: Yes, and then,
14 certainly, there is no intent here to minimize
15 the need for good manufacturing, good harvesting
16 practices. That's absolutely a key and essential
17 component on producing safe food.

18 You know, use of antimicrobials, it
19 certainly has some issues. They're costly, you
20 have disposal issues.

21 But the -- unfortunately, the fact
22 still remains that for a variety of reasons,

1 whether it's through source material such as MRSA
2 or manure, that food borne pathogens still
3 remain.

4 I mean, if we look at the number of
5 recalls last year, just as one example, related
6 to produce, while, you know, absolutely, we
7 should be encouraging good growing practices, we
8 still want to use additional means to help reduce
9 the impact of food borne illness.

10 And, antimicrobials, for now, are one
11 method to do that.

12 MR. GREENWOOD: Yes, what my concern
13 is, sometimes with the use of antimicrobials,
14 people at the start of the food chain get sloppy
15 because they think, hey, I can just let it go
16 because somebody's going to throw an
17 antimicrobial on this at the end.

18 And, even that doesn't always work
19 because of contact time and how things are
20 processed.

21 So, I think it's just a slippery slope
22 sometimes.

1 MS. ATTWOOD: And, that's certainly a
2 reasonable concern. Although I would -- that's
3 not necessarily a rationale for why silver
4 dihydrogern citrate shouldn't be added to the
5 national list.

6 I mean, that's certainly an important
7 overarching concern. But in terms of, you know,
8 making sure that processors have the necessary
9 tools available to them to produce safe food,
10 antimicrobials, for better or for worse, are very
11 effective, generally.

12 And, when you properly, also a very
13 good point, when used properly are one tool for
14 reducing that risk.

15 MR. GREENWOOD: Okay, thank you.

16 MS. BEHAR: Any other questions for
17 Deborah?

18 (NO AUDIBLE RESPONSE)

19 MS. BEHAR: I have one, maybe two.
20 The first one is, can you tell me what other
21 sanitizers have been typically used in rotation?
22 And, what resistance is it trying to avoid by

1 being part in that rotation? What virus, fungi,
2 or bacteria? Why would it be used in rotation
3 with other sanitizers?

4 MS. ATTWOOD: Well, so, antimicrobials
5 and sanitizers can be used at a number of
6 different stages in processing. And, each
7 sanitizer may have different approvals from EPA
8 or from FDA.

9 So, EPA, you know, may have approved
10 it for use only in hard surface sanitizing. They
11 may have approved it for post-harvest use.

12 Whereas, some sanitizes are approved
13 purely for use in food processing facilities, but
14 only in spray applications or others may be used
15 in dip applications as well. It really just
16 depends on the product themselves.

17 So, depending on the point at which
18 you are -- you want to use the antimicrobial, you
19 can use one that's best suited to your product,
20 the pathogen of -- I mean, it really just depends
21 on what products you're processing and what
22 issues are of particular concern to your product

1 and to your facility.

2 I mean, one, I mean, you know, the
3 pathogens of concern are going to be different
4 for poultry versus produce.

5 But, I mean, I even noted in a recent,
6 well, I'm not entirely sure how recent it is, but
7 an FSIS Listeria compliance guideline for ready
8 to eat poultry products, they recommend sanitizer
9 rotation as one method to help prevent Listeria
10 contamination.

11 So, the -- it depends on the products,
12 it depends on the facility, but sanitizer
13 rotation can be used based on the individual
14 approvals for each product.

15 MS. BEHAR: So, for instance, it's not
16 used specifically in rotation chlorine or
17 peracetic acid or --

18 (SIMULTANEOUS SPEAKING)

19 MS. ATTWOOD: I don't know the answer
20 to that question. I -- we could certainly follow
21 up with some more information on what -- would
22 you be primarily interested on product or poultry

1 or both?

2 MS. BEHAR: So, both.

3 MS. ATTWOOD: Okay, yes, we can
4 certainly follow up with some more information on
5 that.

6 MS. BEHAR: Okay. And then, my other
7 question is if you had a chance to look at the
8 comments of Consumers' Union, Michael Hansen?

9 He talked some about silver being used
10 in human health. And that there was some concern
11 about carping pathogen resistance and that having
12 it in the food supply when it's also used in
13 human health could be an issue. Have you had a
14 chance to look at those comments?

15 MS. ATTWOOD: I have seen those
16 comments. And, silver does have -- silver has a
17 long, very, very long, hundreds of years long
18 history of being used in medical applications.

19 And, actually, that lengthy history is
20 in part good evidence of the fact that
21 antimicrobial resistance to silver is -- it's not
22 easy for bugs to develop because of its centuries

1 long use, one would think that by now, you might
2 have seen some more resistance developing to it.

3 The science on antimicrobial
4 resistance is certainly always advancing. I
5 mean, it's a huge issue that the FDA is looking
6 at. And, will continue to evaluate and it
7 wouldn't surprise me if EPA also considered that.

8 But there are, for a couple of
9 reasons, SDC uses extremely low levels of silver
10 to achieve its technical effect. And so, you're
11 not adding a whole lot of new silver out there
12 into the food supply.

13 I mean, indeed, we talk in our written
14 comments about how -- what SDC gets out in the
15 environment is actually not really adding to the
16 background levels that are already there.

17 And then, the other is the evidence
18 for silver actually significantly contributing to
19 antimicrobial resistance has been -- really
20 haven't been demonstrated very strongly. They're
21 -- they've shown some evidence in lab against
22 some organisms, but their primarily not the

1 organisms that are of primary concern for our
2 purposes.

3 So, I mean, it is, antimicrobial is a
4 concern for all sanitizers used in food
5 processing but where SDC is particularly
6 concerned, it's on the pretty low risk end of
7 that spectrum.

8 MS. BEHAR: Thank you.

9 Any other questions from Board
10 members?

11 (NO AUDIBLE RESPONSE)

12 MS. BEHAR: Okay, I'm trying to get
13 back to my list here.

14 Thank you. And, next on deck is Jane
15 DeMarchi, and Francis Thicke, Elizabeth Miller
16 are both on deck.

17 Jane, please state your name and
18 affiliation.

19 MS. DEMARCHI: Hi, my name is Jane
20 DiMarchi. I'm from the American Seed Trade
21 Association. ASTA was founded in 1883 and we
22 represent over 700 member companies involving

1 seed production, distribution, plant breeding,
2 and related industries in North America.

3 And, our members produce seed for row
4 crops, vegetables, grasses, cover crops, and,
5 obviously, for the organic food market as well.

6 I'm going to comment on three
7 different proposals, including the excluded
8 methods, genetic integrity, and also, the NOP
9 guidance of food usage.

10 In regards to the excluded methods
11 comments, you know, we continue to have concerns
12 about the criteria that has been established for
13 the excluded methods. We know that it is -- that
14 criteria has not been formally approved by the
15 National Organic Program, but it is now being
16 considered in some ways, we're starting to see it
17 in other guidance documents which is of a concern
18 to us.

19 We know these existing and the allowed
20 methods and some of the methods that have been
21 considered to be excluded or on the list for
22 further consideration of excluded methods, we see

1 that reduction could really ultimately reduce
2 seed availability because you're potentially
3 excluding methods that are using the plant's own
4 defense mechanism to address pest and diseases.

5 In the genetic integrity proposal, we
6 are looking forward to the opportunity to
7 participate in the survey proposed. And, you
8 know, we still feel that the marketplace is the
9 best place to address genetic integrity,
10 freshness, et cetera.

11 And, the many businesses or members
12 are providing testing information to their farmer
13 customers.

14 Lastly, on the NOP guidance on food
15 usage, you know, you'll note in our comments, we
16 are very strong supporters of using trialing for
17 large scale organic producers versus the
18 catalogue where you're generally just using a
19 small scale.

20 And, we note that there continue to be
21 some species and crops that do not have true
22 sources of organic seed at this moment. And,

1 it's likely that that will continue into the near
2 future.

3 And, lastly, you know, most crops do
4 not have a GMO equivalent and so we are concerned
5 about the requirements for non-GMO declarations
6 if they are not considered to be at risk crops.

7 And, just noting that AMS is now
8 asserting the bioengineering disclosure
9 regulations which do have a list of bioengineered
10 crops that are available in the U.S. on the USDA
11 website.

12 And, with that, I will conclude.

13 MS. BEHAR: Thank you.

14 Any questions from the Board?

15 (NO AUDIBLE RESPONSE)

16 MS. BEHAR: I have a question because
17 I was reading your written comments. And, on the
18 seed genetic integrity document, you used still
19 that the cost of testing would become very
20 prohibitive, but you've just mentioned here that
21 many organic seed suppliers are already doing the
22 testing.

1 And, really, the main purpose of this
2 proposal was that we had heard from farmers that
3 they are getting rejected at -- when they deliver
4 a crop. And, they don't know if it's happened on
5 their own farms, if they're getting seed that is
6 somewhat contaminated.

7 And so, they really wanted to have
8 some sort of baseline on what they're starting
9 out with. So, when they sign a contract or
10 trying to get into a certain marketplace that has
11 a tolerance, they know where they're at.

12 For farmers that are using the seed on
13 their own, they may not care as much for what
14 presence of genetic engineering might be in their
15 seed, but for others, it really makes the
16 difference between a lucrative contract and
17 conventional price many times.

18 So, I'm just wondering, since so many
19 organic seed producers are already doing this,
20 why would we not want to provide the farmers that
21 information?

22 MS. DEMARCHI: So, I think one of the

1 things that we're wanting in terms of price is an
2 additional amount of oversight testing that would
3 be the responsibility of the farmer. And, I
4 think that's one of the reasons why we feel like
5 the survey and additional work on what is the
6 testing program can have a huge impact on the
7 expense.

8 If you're, you know, is there a
9 requirement that the grower has to do their own
10 testing in addition to whatever the seed company
11 is providing? That's a potential for additional
12 testing, you know, additional testing expense.

13 You know, there needs be -- really can
14 very dramatically, I think, where different
15 conversations about what all would actually be
16 tested for and that can drive up the cost of
17 testing as well.

18 So, I think, as I was saying, I think
19 we're open to discussions about making testing
20 data available, but we'd have to be mindful as
21 programs are developed that there is potential
22 costs involved that could add to the testing and

1 to the cost of the seed.

2 MS. BEHAR: Okay. Anybody else have
3 any questions?

4 (NO AUDIBLE RESPONSE)

5 MS. BEHAR: Thank you very much.

6 Sorry I mispronounced your name.

7 Next up is Francis Thicke, with
8 Elizabeth Miller and Michael Huber on deck.

9 Francis, please state your name and
10 your affiliation.

11 MR. THICKE: Okay, Harriet. My name
12 is Francis Thicke. I'm speaking today on behalf
13 of the Rural Organic Project which was created to
14 bring the organic standards back into line with
15 the original vision of the Organic Foods
16 Production Act.

17 I'm going to focus my comments on the
18 origin of livestock rule. Today, we have a
19 national crisis in the organic dairy world. Many
20 organic dairy farms are going bankrupt in record
21 numbers. However, the large CAFO dairies seem to
22 have enough capital backing to supply them for

1 organic dairy crisis.

2 The family dairy farms where the
3 capital management and labor are embodied by the
4 family are struggling and going bankrupt. I
5 believe that a lot of the blame for this organic
6 dairy crisis should be attributed to a loose
7 interpretation of the origin of livestock rule.

8 Whereby some certifiers are allowing
9 continuous transition with conventional cows for
10 organic, that has allowed the CAFO dairy industry
11 to grow rapidly and dominate organic dairy
12 markets.

13 Today, we have a two track system.
14 Some certifying organizations require all dairy
15 animals brought into an organic herd to be
16 organic from the last sort of gestation. Other
17 certifiers are allowing some organic dairies to
18 continuously transition conventional animals to
19 organic.

20 Even when USDA Office of Inspector
21 General in 2013 published an audit report that
22 stated that certifying agents were interpreting

1 the origin of livestock requirements differently.

2 But some certifiers allow producers to
3 continuously transition additional herds to
4 organic milk production while others did not
5 permit that practice. We all know this is wrong,
6 the OIG said that it is wrong. It's time to fix
7 it. Between 1994 and 2006, the NOSB made six
8 recommendations for dairy and origin of dairy
9 animals. By now, we all know what the solution
10 is. In its most recent proposed rule of 2015,
11 USDA actually had it right, but that rule was
12 never finalized.

13 The 2015 proposed rule stated, quote,
14 once the transition into organic production is
15 complete, the producer will not be allowed to
16 conduct any additional transitions. After the
17 transition, the producer would only be able to
18 expand the number of dairy animals or replace
19 culinary animals on any dairy farm in two ways.

20 One, add dairy animals that had been
21 under continuous organic management since the
22 last third of gestation. Or, two, transition

1 dairy animals that had already completed the
2 transition on another dairy farm. So, this is
3 really quite straightforward. The USDA could
4 issue a final rule on the origin of livestock
5 tomorrow and has the will to do so.

6 Actually, I believe the NOP could fix
7 this problem simply with a directive to
8 certifiers to close this loophole. That would
9 probably be the best route given the current
10 climate against rulemaking in the administration.

11 And, there are precedents for this
12 kind of action, actually. In 2014, the NOP put
13 out a directive that certifiers could certify
14 hydroponic operations even in the absence of any
15 standards for hydroponic production.

16 And, in 2013, the NOP unilaterally
17 changed the rules for sunset process without
18 consulting the NOSB or taking public comments.
19 So, it would be really very simple and
20 straightforward for the NOP to put out a
21 directive to all certifiers that continuous
22 transition of dairy animals is no longer allowed.

1 Thank you.

2 MS. BEHAR: Thank you, Francis.

3 Are there any questions from the
4 Board?

5 MR. SEITZ: This is Dan. Can you hear
6 me?

7 MS. BEHAR: Hey, Dan.

8 MR. SEITZ: Hi, Francis, thank you for
9 that comment. And, I think nearly all of us on
10 the Board probably share your concern about the
11 inconsistency and lack of enforcement in these
12 areas. And, you referenced the actions that the
13 NOSB has taken up until now to try to encourage
14 stronger enforcement.

15 Do you see any steps that the NOSB can
16 take as opposed to the NOP at this point? Or, is
17 it entirely in the NOP's hands to act on this
18 situation? To address this situation?

19 MR. THICKE: Well, it's actually in
20 the NOP's hands. But, of course, the NOSB can
21 continue to prod them on the, you know, the
22 squeaky wheel gets the grease kind of thing.

1 It's very straightforward and I'd
2 actually addressed my comments to the NOP and I
3 would hope they would do something. Because we
4 really have a crisis out here. And, we can do
5 something to help that.

6 MR. SEITZ: Great, thank you.

7 MS. BEHAR: Any other questions? I have
8 a question for you, Francis. If the NOP does not
9 have a final rule out by 2022 or 2023, what do
10 you think the organic dairy landscape will look
11 like at that time?

12 MR. THICKE: Well, that all depends
13 upon how the circles of organic milk goes. Right
14 now, we're seeing a trend that were the CAFO core
15 organic dairies are growing and new ones are
16 starting.

17 And, a lot of that is attributed to
18 the fact that they can continuously transfer
19 animals.

20 So, if we don't have this stopped,
21 we're going to see a continual growing of the
22 CAFO organic dairies and we're going to see a

1 loss of the family organic dairies and it's
2 happening very rapidly. It's actually kind of
3 scary out here.

4 You know, farmers suicides today are
5 twice the rate of Veterans, military Veterans. I
6 don't know about organic dairy farmers, but I
7 presume they aren't immune from that.

8 MS. BEHAR: Thank you, Francis. And,
9 coming from Wisconsin where there are over 500
10 big dairy farms, I very much know that this is a
11 crisis. I hear it all the time. And so, I agree
12 that the National Organic Program really needs to
13 look at this and move as quickly as possible,
14 sooner than two or three years from now. Okay,
15 next up is Elizabeth Miller with Michael Huber
16 and Jim Paskind on deck. Elizabeth, please state
17 your name and affiliation.

18 MS. ARSENAULT: Harriet, I haven't
19 been able to find Elizabeth on the speaker list
20 here. I'm not sure if she's with us today.

21 MS. BEHAR: Okay. We will come back
22 to her later. So, next up is Michael Huber, I

1 believe you have a PowerPoint. And, Jim Paskind
2 and Sam Hardin are on deck. Michael, please state
3 your name and affiliation. And, there's your
4 PowerPoint.

5 MR. HUBER: Thank you. My name is
6 Michael Huber and I represent ICL Specialty
7 Products, Inc. ICL is a manufacturer of food
8 additives and specifically phosphates.

9 So, today, I will be talking about
10 sodium acid pyrophosphate and potassium
11 phosphates and the benefits and using them in
12 certain applications. And, in addition, more
13 detailed comments will be submitted in writing
14 through the International Food Additives Council.

15 Next slide, please. So, sodium acid
16 pyrophosphate has a long history of safe use
17 known as grass. It is actually patented in 1938
18 specifically for chemical weapons.

19 Aside from being the only chemical
20 leavening agent listed, it's heat activated
21 properties is what makes it really near
22 impossible to use other acids in its place. Next

1 slide, please.

2 So, here we see photos comparing SAPP
3 to citric acid. The cake made with citric acid
4 looks like a football. It actually has less
5 color and it's a lot more dense, which is -- may
6 be fine if you're trying to go for a pound cake,
7 or if you like football shaped cakes.

8 This is due to the fact that citric
9 acid can't really control when its gas production
10 occurs. But that mainly is taking place even
11 before the product goes into the oven. And,
12 that's why you need something that will only be
13 heat activated like SAPP.

14 Next slide, please. So, in biscuits,
15 you also see that citric acid doesn't even really
16 provide any leavening. And, even gets splits in
17 it, although SAPP actually provides a lot of
18 leavening and keeps the biscuit structure intact
19 so you won't have any splits in the biscuits.

20 Next slide, please. And continuing to
21 list SAPP, you basically you'll offer
22 conventional leavening based products, bakery

1 products such as tortillas, waffles, cakes, and
2 baking mixes.

3 Next slide, please. By listing
4 phosphates like SAPP also have grass status and
5 have a long history of use. It is mainly used to
6 provide buffering capacity, but has the added
7 benefit of providing potassium which is, of
8 course, an important nutrient to that.

9 The alternate added buffering agents,
10 it performs quite well and only in combination
11 with citrates, carbonates seem to have a higher
12 buffering capacity around pH of 6.5. Calcium
13 phosphates also provide for cellular reduction as
14 a function pretty much like a sodium phosphate
15 would, so you could use them interchangeably.

16 Next slide, please? With potassium
17 phosphates, you could even products whether they
18 are cheese based products like mac and cheese,
19 they can have dairy beverages and plant based
20 beverages and, of course, you get the benefit of
21 having potassium rather than sodium, if you
22 choose to use that. Next slide?

1 And, that's it. Thank you and if
2 there's any questions I'd be happy to answer
3 them.

4 MS. BEHAR: Thank you. Are there any
5 questions from NOSB members? Okay, thank you very
6 much.

7 MR. HUBER: Not a problem, thank you.

8 MS. BEHAR: Okay, next up is Jim
9 Paskind with Sam Hardin and Jessica Gigot, I'm
10 really not sure if I'm saying that right, on
11 deck. Jim, please state your name and
12 affiliation.

13 MR. PASKIND: I will. Thanks very
14 much for the time.

15 My name is Jim Paskind. I'm an
16 executive with Salm Partners, LLC. Salm Partners
17 is a contract manufacturer. We make sausage. Our
18 product portfolio includes many dairy free
19 products, including many all natural sausages.
20 Our sausage products are made with collagen gel
21 as the product casing.

22 I'm speaking today in support of the

1 Devro petition to add collagen gel to the
2 national list and in alignment with the Handling
3 Subcommittee's recommendation. My primary purpose
4 today is to summarize the marketplace demand for
5 organic sausages in collagen casing. And,
6 therefore, the growth opportunity for the entire
7 organic meat market.

8 Collagen casing sausages have
9 basically taken over the fully cooked sausage
10 category, transitioning that category from
11 sausages stuffed in processed pig intestine as
12 the casing. Collagen casing sausage does now
13 represent about half of the fully cooked sausage
14 category. So, they've proven to be consumer
15 preferred.

16 Regarding organic sausages, all the
17 recipe ingredients, the meats, the seasonings,
18 the condiments, are available as organic
19 ingredients. The options for the casing,
20 however, are much more limited.

21 Currently, the only casing option for
22 an organic sausage is processed intestines which

1 is included in the national list. So, while the
2 sausage category has evolved towards collagen
3 casings made from collagen gel, there is no
4 opportunity for an organic sausage made with
5 collagen gel.

6 Specifically, among the potential
7 market growth opportunities, collagen gel would
8 enable production, for example, of a single
9 species organic sausage such as a 100 percent
10 chicken -- chicken sausage versus the chicken
11 sausage in pig intestine casings. It would also
12 provide the pathway to market a kosher organic
13 beef sausage product.

14 So, the use of collagen gel will
15 develop what is now the relatively new category
16 of consumer preferred organic sausage. In turn,
17 this will directly increase the market for
18 organic meats, providing added value to the
19 organic livestock grower as well as providing the
20 same sort of value to suppliers or other
21 ingredients used in organic sausage recipes.

22 So, this approval will benefit both

1 the consumer with a consumer preferred product
2 and the organic producer community. I appreciate
3 the time today to address the group and glad to
4 answer any questions.

5 MS. BEHAR: Any questions from the
6 Board members?

7 MR. BRADMAN: Yes, this is Asa
8 Bradman. So, one, you know, if we list this under
9 606, we have the stipulation that you will use
10 only the product is not term or available in
11 organic form.

12 And, I want to, if you could comment
13 on the availability of collagen gel in organic
14 form and then also what steps can be taken to
15 source organic material to make these -- to make
16 the collagen casing?

17 MR. PASKIND: Sure. I think it is to
18 a great extent or entirely a numbers issue. The
19 availability of organically raised animals to
20 provide the quantity needed of collagen gel is
21 just not available.

22 Just considering a couple of the

1 numbers, the -- well, the casing is -- the
2 collagen is a very small percentage of the total
3 sausage. The corium layer in speaking of beef
4 cows and specifically the corium layer of beef
5 hides, is a very small percentage of the total
6 animal weight.

7 So, right now, it's nowhere near the
8 availability of organically grown animals to
9 provide this. Now, I think part of the benefit of
10 approving collagen gel as on the national list is
11 to grow the organic meat market, because we will
12 grow -- and it can apply beyond sausages, but we
13 will grow the market for this type of consumer
14 product.

15 Therefore, growing the need or
16 increasing the need for more -- to raise more
17 organic animals. So, we are moving in that
18 direction with this approval but a good way to go
19 to get to get to the point where organic gel,
20 organic collagen from organically raised animals
21 exists.

22 MR. BRADMAN: Thank you. Something

1 that would be really interesting to me would be
2 kind of an analysis that kind of puts the numbers
3 on, you know, the availability of organic
4 animals, how, you know, what would be the
5 geographic distribution that would be needed to
6 have actions to their hides and processing and
7 then, you know, are there plants available to
8 actually process them?

9 It just makes it easier to see as kind
10 of part of this, you know, almost a business plan
11 for what steps can be taken to bring this to an
12 organic resource material?

13 MR. PASKIND: Sure. So, I understand
14 that. So, a review of availability now versus
15 demand and what it would take to get to a viable
16 level?

17 MR. BRADMAN: Yes.

18 MR. PASKIND: Yes, understood. I can
19 -- we can certainly chase that down and provide
20 it. Thank you.

21 MR. BRADMAN: Thank you.

22 MS. BEHAR: Any other questions? I

1 have a question. Can the collagen gel be kept
2 refrigerated or frozen to hold it until there was
3 enough of it to then process? Just wondering if
4 freezing it might somehow degrade it so it could
5 not be like saved up to get enough of it to then
6 make the collagen gel. Do you know about the
7 processing?

8 MR. PASKIND: Sure, I do. I do. The
9 collagen gel is currently stored -- it can be
10 stored ambient, but it is currently stored and
11 refrigerated.

12 It does have rather extended
13 refrigerated shelf life, not nearly what it would
14 be if you could freeze it. In terms of freezing,
15 there would be a direct degradation of the
16 physical characteristics. The collagen gel is 96
17 percent water and 4 percent collagen protein.
18 And, forming ice crystals and then attempting to
19 thaw that product would cause physical separation
20 and entirely eliminate the functionality of the
21 gel.

22 So, unfortunately, freezing is not an

1 option. But we do refrigerate it and we do have
2 rather extended shelf life. But certainly not
3 enough to be in a position to, you know, to store
4 enough gel to achieve what you're suggesting.

5 MS. BEHAR: How long is the shelf life
6 in refrigeration?

7 MR. PASKIND: I'm sorry?

8 MS. BEHAR: How long is the shelf life
9 in refrigeration?

10 MS. PASKIND: We are -- depending on
11 the species, we are in the six month shelf life
12 range refrigerated.

13 MS. BEHAR: Any other questions from
14 the Board? Thank you very much.

15 MR. PASKIND: Thank you.

16 MS. BEHAR: Sam Hardin is up next with
17 Jessica Gigot, I'm saying it like it's French, on
18 deck as well as Harold Austin.

19 So, Sam, please state your name and
20 affiliation.

21 MR. HARDIN: Thank you.

22 I'm Sam Hardin and I'm speaking this

1 afternoon on behalf of PURE Bioscience. I'm an
2 environmental engineer, I work for Clearwater
3 Consultants in Mississippi and we have a lot of
4 experience in the design and operation of waste
5 water treatment plants, predominantly serving
6 food processors.

7 We also work from the side of
8 municipalities in working with industry to
9 determine incoming waste loads from cities and
10 from industry on that side.

11 I understand there's been some
12 previous discussion concerning the use of SDC in
13 produce processing applications which might
14 utilize an onsite zero discharge waste water
15 treatment system.

16 Now, that is a big umbrella that can
17 describe a variety of waste water disposal
18 systems. But they all have the one thing in
19 common that treated effluent, and I emphasize
20 treated, is applied to the ground for further
21 treatment and eventual return to ground water.

22 So, the treatment part of any zero

1 discharge system is typically going to be either
2 aerobic with a small aerator or facultatively
3 anaerobic where any available oxygen is used in
4 treatment.

5 But, for the most part, bacteria are
6 grown in the presence of no oxygen and organic
7 material which we would consider waste, they
8 consider food and they grow biomass.

9 Now, SDC is, you know, containing the
10 silver ion is -- it complexes quickly with the
11 organics in the waste water environment. Both
12 the organics present in the raw waste water and
13 in the biomass that's grown during treatment.

14 What would happen in a treatment
15 system locally would be in the -- would observe
16 the same mechanics that a municipal large waste
17 water treatment system would where basically
18 biomass is grown from waste water and is settled
19 out and contained within the treatment system.
20 And then, the effluent is disposed of elsewhere.

21 In small systems, that sludge
22 accumulates and it typically accumulates slowly

1 and then, at some point, it needs to be disposed
2 of. The typical method of disposal will be a
3 suction truck which will vacuum that sludge out
4 and then carry it to a larger treatment facility
5 where it is combined with the sludge handling
6 operation at a larger facility.

7 So, it's basically kind of a
8 microbiological system that eventually joins its
9 larger counterpart in the form of the eventual
10 waste.

11 If, you know, following that treatment
12 line through, the silver is basically meeting the
13 same fate in the small rural septic system that
14 it would meet where it discharged directly to the
15 larger system in the first place.

16 With that, I'll be happy to answer any
17 questions about, you know, what I've just talked
18 about.

19 MS. BEHAR: Are there any questions
20 from the Board?

21 MR. ELA: Harriet, this is Steve Ela.
22 I have a question.

1 MS. BEHAR: Thank you.

2 MR. ELA: So, just to follow on your
3 train of thought, you're saying that there would
4 be no discharge of the silver to the groundwater,
5 that it would be tied up in the sludge like, for
6 example, in a septic tank?

7 MR. HARDIN: That's correct. But I
8 might need to elaborate a little more why it
9 wouldn't get to groundwater. Typically, when we
10 say groundwater, particularly as it concerns
11 public health, we're talking about a significant
12 depth that water needs to travel. The level of
13 treatment that a typical waste water would get in
14 a septic system, we would not think of that water
15 as being applied directly to an aquifer being
16 used for a public water supply.

17 There is further treatment that is
18 applied all the way down through the soil column
19 until it reaches, you know, a depth where it
20 could be used. So, in that line of thinking, yes,
21 the vast majority of silver ion will be in the
22 form of a salt and be disposed of with sludge.

1 There would be some level of silver
2 that could be expected in the effluent, but in
3 thinking about where it's traveling to, where
4 there is also an abundance of organic material
5 for it to absorb, too, the likelihood that it
6 would be mobile enough to travel all the way to a
7 groundwater source is not of, you know, great
8 concern.

9 MR. ELA: Harriet, can I ask a couple
10 follow up questions?

11 MS. BEHAR: Sure, please do.

12 MR. ELA: So, I hear what you're
13 saying about depth to groundwater, but we know
14 across the country there are areas with very
15 shallow water tables.

16 So, would this material be restricted
17 in those area where there isn't a significant
18 depth to groundwater?

19 MR. HARDIN: Typically, constituents
20 which are of great concern in groundwater
21 contamination are mobile in water. In other
22 words, they would stay in the ionic form where

1 they would be able to basically hydraulically be
2 continuously supplied to the water table.

3 In this case, ionic silver would
4 simply not be able to survive very long in a
5 mobile phase. It would transition quickly to the
6 stationary phase. The vast majority of that
7 occurring, again, in the treatment system but,
8 you know, in the portion that would make it to
9 effluent, it would, again, be facing the same
10 obstacle in terms of being in contact with a
11 complex environment of materials to absorb to and
12 to precipitate out of.

13 MR. ELA: And, would there -- we know,
14 especially with the Food Safety Modernization Act
15 now that in some cases, producers field harvested
16 and actually being -- having a sanitizer applied
17 to it in the field, not necessarily, you know,
18 any waste water treatment system being available.

19 What would be your issue with that?
20 Whether there, you know, there is no waste water
21 system, it's just being field applied?

22 MR. HARDIN: Well, if you're talking

1 about the processing of harvested produce, are
2 you saying, and I'm not an expert in produce
3 harvest practices, but are you -- is the idea in
4 your question that produce is processed onsite
5 using water without treatment available?

6 MR. ELA: No, more that it's actually
7 processed in the field, it's not run through a
8 packing shed. So, in some cases, the sanitizer
9 is not being applied to that produce, you know,
10 with clean water, but with the sanitizer added,
11 but not necessarily as part of the packing house,
12 they're actually out in the field itself.

13 MR. HARDIN: I understand.

14 MR. ELA: And, in that case, then it
15 wouldn't be any disposal system available.

16 MR. HARDIN: It's my understanding
17 that SDC is not approved for that use in the
18 first place. So, that would not be an approved
19 use for the product.

20 MR. ELA: Okay, thank you.

21 MR. HARDIN: Yes.

22 MS. BEHAR: Okay, is there any other

1 questions?

2 MR. GREENWOOD: Yes, Harriet, Rick
3 Greenwood.

4 MS. BEHAR: Hi, Rick.

5 MR. GREENWOOD: I have a question --

6 MS. BEHAR: Go ahead.

7 MR. GREENWOOD: Hi. I have a question
8 for you. I'm very familiar with mercury, another
9 metal, and how it gets magnified in the
10 environment. Are there any studies that show
11 there's accumulation of silver as it goes up the
12 food chain that you know of?

13 MR. HARDIN: No, I'm not aware of any.

14 MR. GREENWOOD: Okay. Because, it
15 seems to me, they're very similar in many ways
16 and I was just curious how it could end up being
17 in higher concentrations even though, you know,
18 mercury goes out in very low concentrations
19 sometimes but ends up in high concentration in
20 animals and other forms of flora and fauna. So,
21 I was just curious if you knew of anything.

22 MR. HARDIN: I'm not aware of any

1 silver bioaccumulation. And, you know, and I'm
2 familiar with what you're talking about and this
3 is just a conjecture on my part, with silver
4 being, you know, a part of the natural
5 environment, there would be every opportunity for
6 it to -- for it bioaccumulate in organisms.

7 MR. GREENWOOD: Yes, I would assume so
8 because mercury is also part of the environment
9 from mining and galling and all the other sorts
10 of things, ends up in high concentrations. So,
11 that was one of my concerns.

12 MR. HARDIN: But no, to answer your
13 question, I'm not aware of any bioaccumulation
14 issues proceeding through the food chain.

15 MR. GREENWOOD: Okay, thank you.

16 MS. BEHAR: Okay, any other questions?
17 Okay, next up is Jessica Gigot and up on deck are
18 Harold Austin and Michael Hansen.

19 Jessica, please state your name so I
20 know if I'm saying it right and your affiliation.
21 Jessica, are you there?

22 MS. ARSENAULT: Jessica, I see you on

1 the line on a headset, but we're not hearing you.
2 Maybe your mic is muted. No, we're still not
3 hearing you if you're talking. So, Jessica, if
4 you -- are you there?

5 MS. GIGOT: Can you hear me?

6 MS. ARSENAULT: Yes, we can hear you
7 now, great.

8 MS. GIGOT: Great. Thank you. Great,
9 My name is Jessica Gigot. I own Harmony Fields,
10 a small farm in the Skagit Valley of Washington.
11 We raise certified organic sheep and herbs.

12 Originally, our farm put in full scale
13 vegetables and fresh culinary herbs. Since the
14 beginning of the farm, we've refocused our goals
15 and we have added a sheep creamery and we produce
16 sheep milk (Telephonic interference.)

17 We are also considering the production
18 of organic freshly dried culinary individual
19 herbs.

20 I believe in the organic label and the
21 National Organic Program and want to make sure
22 that it continues into the future. I know that a

1 lot of hard work and that dedication can help to
2 create and implement this important program and I
3 don't want to lose confidence in customer support
4 of all that the certified organic label has come
5 to represent in this country.

6 I'm also here on behalf of the Organic
7 Farmer Associates as a member of the circle
8 (Telephonic interference.)

9 This has been the second year in this
10 industry. This organization represents the
11 farmer's life. And I hope that organic
12 agriculture gains more visibility, interest, and
13 (Telephonic interference.)

14 Key aspects and priorities that are
15 most important to me are natural, organic program
16 integrity, the (Telephonic interference.)
17 hydroponic organic production.

18 I do not want to (Telephonic
19 interference.) program and its values. And,
20 continue our organic community for Washington
21 State and I want us to (Telephonic interference.)
22 move ahead.

1 National Organic Program rules needs
2 to be enforced and that all practitioners could
3 (Telephonic interference.) in their sectors.

4 While actually hydroponic vegetable
5 and herb production may be included in the
6 (Telephonic interference.) food production, I do
7 not believe that these (Telephonic interference.)
8 the core values of organic production.

9 Also, organic producers that are
10 embedded in their communities and driven by
11 (Telephonic interference.) to not have to take
12 (Telephonic interference.) these facilities.

13 Organic production is pretty big in
14 this product. I can't say today whether that
15 product is good or bad. I would say personally
16 that it is not organic.

17 And (Telephonic interference.) you
18 offer inflow and output (Telephonic
19 interference.) impacts the viability of this
20 (Telephonic interference.).

21 I urge the National Organic Standards
22 Board to, number one, help the National Organic

1 Program to move the (Telephonic interference.)
2 and recommendations and not allow for the
3 (Telephonic interference.) hydroponics to the
4 federal rule as recommended nine years ago.

5 I also felt that the National Organic
6 Program to fully implement the enforcement rule
7 of putting (Telephonic interference.) organic and
8 in products.

9 If I have any time left, I'd like to
10 mention as a small (Telephonic interference.)
11 we're actually moving forward with the animal
12 welfare certification, listed organic
13 certification. At this time (Telephonic
14 interference.) requirement. And, I'm curious
15 about (Telephonic interference.) more dairy or
16 micro dairy operations that are (Telephonic
17 interference.) Thank you.

18 MS. BEHAR: Thank you. Any questions
19 from the Board?

20 MS. OAKLEY: This is Emily, it's not
21 a question, it's just a comment. I just want to
22 thank you for speaking as a farmer representative

1 on that. I appreciate hearing from farmer
2 voices. So, thank you.

3 MS. GIGOT: Thank you.

4 MS. BEHAR: Any questions? I have a
5 question. Do you think your customers care if
6 their vegetables are grown hydroponically or in
7 soil? Do they have a preference? And, have it
8 be labeled as organic?

9 MS. GIGOT: I think there's been a lot
10 of different types of customers. So, the
11 customers that I see at the farmer's market or
12 the (Telephonic interference.) are either
13 interested in knowing the farmer, knowing the
14 (Telephonic interference.)

15 I think the customers that (Telephonic
16 interference.) be aware of their (Telephonic
17 interference.) organic fruit (Telephonic
18 interference.)

19 But I feel like there'll be more
20 opportunities for soil farms like ours to succeed
21 economically if certain (Telephonic
22 interference.) to buy organic or (Telephonic

1 interference.)

2 MS. BEHAR: Thank you. Any other
3 comments from the Board? Okay, we're going to
4 move ahead to Harold Austin, an NOSB alumni, and
5 on deck is Michael Hansen and he will be our last
6 speaker unless we go back and find Elizabeth
7 Miller. Okay, Harold, please state your name and
8 affiliation.

9 MR. AUSTIN: Thanks, Harriet. Good
10 morning, Harold Austin, Director of Orchard
11 Administration for Zirkle Fruit Company. I'm an
12 organic consumer and past member of the NOSB, as
13 you mentioned. And, I'm the current Chair of the
14 Northwest Horticultural Council Science Advisory
15 Committee and also their Organic Subcommittee
16 Chair.

17 I had intended to be at the Seattle
18 meeting in person, but unfortunately, got a
19 family medical issue that is going to have to
20 take and be dealt with. So my plans have had to
21 change.

22 But I do appreciate the opportunity to

1 speak to each of you today via the webinar
2 process even though it doesn't allow me to see
3 each of your bright, smiling faces up close and
4 in person. Maybe at the fall meeting.

5 I hope that you will all enjoy your
6 stay in the Pacific Northwest, home to some of
7 the longest certified organic farms in the
8 nation.

9 We are proud of where we have come
10 from and we look forward to what the future had
11 in store for our organic stakeholders and our
12 community as a whole.

13 I'd like to thank you each for all of
14 your service in the organic community and various
15 stakeholders that you each represent, the time
16 and the energy that you have each spent with the
17 preparation of the materials is greatly
18 appreciated.

19 I have provided written comments in
20 support of the continued listing for all of the
21 materials currently under sunset review by the
22 Crop Subcommittee, especially hydrogen peroxide,

1 horticultural oils, pheromones, potassium
2 bicarbonate, magnesium sulfate.

3 These are essential materials for
4 organic tree, fruit, berry, grape growers, not
5 only here in the Northwest, but where ever these
6 types of organic crops happen to be grown.

7 I've also provided written comments in
8 support of all of the materials listed under
9 sunset review by the Handling Subcommittee,
10 especially for activated charcoal, hydrogen
11 peroxide and peracetic acid.

12 These are important materials on the
13 handling process whether it be in our organic
14 wine grapes, organic blueberries, or in organic
15 apple, cherry, and handling facilities.

16 I have also provided written comments
17 on the assessing and cleaning and sanitation
18 materials discussion document.

19 It's imperative that both of our
20 organic crop producers and handlers have the much
21 needed access to the key essential materials
22 currently allowed for use as listed on the

1 national list as either a sanitizer or as a
2 disinfectant.

3 Having adequate flexibility to alter
4 the materials for the resistance management or
5 use the appropriate material in either the dry or
6 the wet side of our organic handling facilities
7 critically important.

8 Using the long systems approach or the
9 materials I mentioned can also actually be more
10 detrimental for pathogen control and doing
11 nothing at all.

12 At the end of the day, we have both
13 the legal and moral obligation to provide the
14 safest organic product to the consumer that we
15 possibly can provide.

16 Again, I wish to thank all of you for
17 all that you do for the organic community as a
18 whole. I know it takes a lot of time and energy
19 away from your jobs, away from your families to
20 be a part of this process. And, I'm eternally
21 grateful that you all are there repressing our
22 organic community.

1 Thank you.

2 MS. BEHAR: Okay, any comments from
3 Board members? Questions? Okay. All right,
4 thank you, Harold.

5 MR. AUSTIN: Thank you.

6 MS. BEHAR: And, just to let you know
7 that we are considering all sanitizers and
8 actually hoping that our review will make an even
9 a couple of sides within areas with our gaps.

10 But just help us in our overall review
11 when new products come to us where they sit in
12 the constellation of what we already have versus
13 what we need.

14 MR. AUSTIN: Thank you.

15 MS. BEHAR: Okay, and last and not
16 least is Michael Hansen. Michael, please state
17 your name and affiliation.

18 MR. HANSEN: First, can people hear
19 me?

20 MS. BEHAR: Yes.

21 MR. HANSEN: Okay. My name's Michael
22 Hansen. I'm a senior scientist at Consumer

1 Reports. And, I'll be trying to make three
2 points, you know, from our written comments.

3 First, for the Materials and GMO
4 Subcommittee, we agree that the proposed
5 definitions of both cisgenesis and intragenesis
6 for the excluded methods terminology chart.

7 We are supporting those because
8 they're basically similar to the definitions that
9 we suggested last fall.

10 In terms of transbovines, we also
11 support adding transbovines developed by use of
12 in vitro and nucleic acid techniques to the
13 excluded method terminology chart since they're
14 clearly not natural because they were constructed
15 in vitro and then inserted into an organism.

16 However, and this -- there's a mistake
17 in our written comments. We're saying we don't
18 support listing of transbovines developed by
19 environmental stress on the table on not excluded
20 methods because we don't think natural occurring
21 transbovines are really -- they're not a method.

22 So, they're naturally -- there are

1 different things that cause them to move around,
2 different forms of stress, whether it's
3 environmental stress or chemical or radiation.

4 And, those really aren't methods. So,
5 I don't think we should even be considering them.
6 So, and for the same reason, we think NOSB should
7 drop the decision on whether transprotons that
8 whether they're -- the use of chemical or
9 radiation that that would make that use of
10 transbovines and exclude nothing.

11 And, again, we're saying that since
12 transbovines are natural, they really shouldn't
13 be. They're not really a method.

14 It's different if you're making them
15 in the lab and inserting them.

16 And then, on a second point for the
17 Livestock Committee, we're glad that they have
18 begun work on vaccines and organic.

19 And, of the three proposed regulatory
20 solutions, we support the third one which is to
21 change 2015-105e basically to read that excluded
22 methods except for vaccines provided that there

1 are no commercial available vaccines that are not
2 products to excluded methods to prevent that
3 specific animal to ease their health problem.

4 We're also urging NOP to develop a
5 list of which veterinary vaccines have not been
6 produced using excluded methods. And, I think
7 this can start, as we said in our comments, by
8 the updating of this APHIS's current list of
9 veterinary biologic including vaccines product
10 catalogues.

11 There's already enough information in
12 there to tell that a bunch of the vaccines are
13 GMO. And, I think with a little bit more work,
14 that can be done.

15 And then, finally, for the Handling
16 Subcommittee, we oppose the recommendation to
17 accept petition for silver dihydrogen citrate
18 because we believe it poses a risk of increasing
19 resistance to antibiotics and silver based
20 medications used in wound management.

21 We also don't think the technical
22 review has not shown that silver dihydrogern

1 citrate is essential for organic production and
2 handling.

3 And, all right, I'll stop there. If
4 you want to ask questions about dihydrogern
5 citrate in response to some of the previous
6 folks, I can talk about that.

7 MS. BEHAR: Okay. Any questions from
8 the Board?

9 MR. BRADMAN: Yes, this is --

10 MS. BEHAR: I said, go ahead, Asa.

11 MR. BRADMAN: Okay, sorry. I -- yes,
12 yes. You mentioned SDC and that the potential
13 for increased resistance -- antibiotic
14 resistance. And, I've been looking for
15 information on cost resistance, the cost, you
16 know, species, and you know, is it SDC versus
17 other antibiotics.

18 And, you know, I work with people who
19 are very steeped in issues around antimicrobial
20 resistance, antibiotic resistance, and I haven't
21 found anything to suggest that SDC would increase
22 resistance to other frontline antibiotics. And,

1 if you could perhaps send us some, that would
2 great.

3 MR. HANSEN: Yes, I actually, I think
4 the point is is that there is the study from 2015
5 also clearly showed that for, at least for
6 Klebsiella pneumonia and Enterobacter cloacae
7 that the resistance to silver was high enough
8 that the level of silver in this -- the silver
9 impregnated burn and wound dressings, they could
10 still continue to grow.

11 And so, those findings, they provide
12 the first evidence of clinical bacteria that are
13 capable of expressing silver resistance at high
14 levels that could significantly impact wound
15 management.

16 And, since there are many different
17 types of these silver impregnated wound
18 dressings, that nine of them tested two of them
19 max or silver and duplex ad, both contained
20 dianic silver and showed no reduction in bacteria
21 levels after exposure to very high silver
22 concentration.

1 So, there clearly is that is the
2 concern, that it could select for resistance and
3 become clinically significant bacteria that could
4 adversely impact wound management.

5 MR. BRADMAN: Yes, that I understand.
6 What I'm -- so there's been an implication in
7 some studies that we're also talking about
8 resistance to other antibiotics. And, that's
9 where I saved my -- and I'm not too --

10 MR. HANSEN: So, yes, you know, part
11 of the issue there is they should do more
12 metagenomics and stuff because they often have
13 found silver resistance genes, for example, in
14 MRSA and other things.

15 And, even though the genes are there,
16 in those cases, they remain sensitive for low
17 silver concentrations. And, that was just that
18 one MRSA.

19 But it is known that they're often
20 found together. Right? So, that the first time
21 silver was really discovered on this plasma PMG-
22 101 from Salmonella which that was resistance to

1 silver, other heavy metals and multiple
2 antibiotics.

3 Now, you can have the genes there,
4 whether they're being expressed as high enough
5 levels to cause a concern, that's a different
6 issue.

7 But the fact that in main management
8 where it's used, it's clear evidence that the
9 ionic silver and selected for enough resistance
10 that the bacteria, even at high concentrations
11 weren't even -- their growth wasn't even
12 decreased.

13 So, that was, you know, part of the
14 main risk we see.

15 Now, the fact that there is a linked
16 gene all over the place, you know, I reference
17 that paper from 2005 that had two silver
18 resistant strains of *Enterobacter cloacae* from
19 infected genes, the nose drops resistant to
20 ampicillin, erythromycin, and clindamycin.

21 So, you know, more work needs to be
22 done on that. I think the main concern is with

1 the gene management. But clearly, these genes
2 are often linked together.

3 MR. BRADMAN: Okay, thank you.

4 MS. BEHAR: Okay, Emily?

5 MS. OAKLEY: No, Asa asked what I was
6 going to ask about. So, thank you.

7 MS. BEHAR: Oh, okay.

8 Okay, any other questions?

9 MR. HANSEN: Can I say one thing?

10 MS. BEHAR: Sure, I wanted to ask you
11 another question, Michael.

12 MR. HANSEN: Oh, okay.

13 MS. BEHAR: But if you -- but on a
14 different topic. So, on silver Dihydrogern
15 citrate, go ahead.

16 MR. HANSEN: Yes, and that someone had
17 said that there's no evidence that there could be
18 any bioaccumulation, I was just sitting here and
19 Googling and I've already found an article from
20 2013 called Bioaccumulation and toxicity of
21 silver nanoparticles and silver nitrate to the
22 soil arthropod *Folsomia candida*. And, I'll just

1 read the last sentence.

2 It says, bioaccumulation factor was
3 higher for silver nitrate an average 5.64 than
4 for silver nanoparticles, 1.12). These findings
5 indicate that silver ions are more toxic than
6 Ag-nanoparticles and silver nanoparticles and
7 have a potential -- higher potential to
8 accumulate in *Folsomia candida*.

9 And, if you look, there's other
10 studies out there that are looking into the
11 biomagnification issue.

12 So, clearly, there is something here.
13 If I can find it in, you know, five minutes,
14 people, if they did more study on that, you could
15 dive into that issue more deeply.

16 So, there is evidence that there is
17 bioaccumulation.

18 MS. BEHAR: Okay, thank you.

19 So, I have a question going back to
20 the excluded methods and the naturally occurring
21 transprotons. So, you're saying that's not
22 really a method?

1 But I would think that a radiation in
2 a laboratory that would cause the transproton,
3 why would that not be a method? Or would that be
4 considered induced mutagenesis?

5 MR. HANSEN: Yes, that's right. Using
6 radiation or chemicals to do this induced
7 mutagenesis, it's going to be hard to figure out
8 how much of those mutations are being caused by
9 transbovines moving around internally as opposed
10 to chromosomal breaks or other things that we
11 know radiation does and that some of the chemical
12 mutagens do.

13 So, rather than try to tease those
14 out, we are not saying, don't look at the issue
15 of these induced mutations, just don't
16 necessarily consider there's no need to look at
17 transprotons for that because you're still going
18 to be trying to determine whether, you know,
19 radiation or, you know, chemicals caused too much
20 mutation.

21 MS. BEHAR: Yes --

22 MR. HANSEN: And, again, I'd separate

1 out -- I don't see any study yet which would be
2 able to separate out from all the mutations
3 caused, for example, by radiation, how much is
4 due to the breakthrough to the radiation versus
5 internal movement of transprotons.

6 MS. BEHAR: Okay. So, then the way
7 that we're looking at it in putting some of this
8 into the induced mutagenesis basket is the way we
9 should go?

10 MR. HANSEN: Yes, you know, right.
11 So, the only thing that really needs to be
12 considered is when it's constructed outside the
13 cell, then it's clearly a not natural method and
14 that's why those transprotons, yes, those -- that
15 is a method because those were developed to
16 engineer animals.

17 But the naturally occurring ones, I
18 just don't see them as a method. So, you know,
19 you look at issues such as radiation and
20 chemicals and just determine whether the
21 mutations that are causing, whatever the
22 mechanism. And there might be multiple ones with

1 these protons. That's a decision that the
2 committee's going to have to make. And that
3 raises some sticky issues, I think, for marketing
4 that need to be discussed.

5 MR. BEHAR: Okay. Okay, I'm not sure,
6 Michelle, did you find Elizabeth Miller?

7 MS. ARSENAULT: I don't see the number
8 she provided on the list, but, Elizabeth, are you
9 on the line with us? No? Okay.

10 MS. BEHAR: Okay, everyone. We,
11 again, thank you so much for being with us for
12 this webinar, for beginning the public comments
13 for the spring 2019 NOSB meeting. We greatly
14 appreciate the Board members and all the
15 participants.

16 And, for those of you who will see us
17 in Seattle next week, let's hope that it's not
18 raining or we bring umbrellas.

19 So, with that, Michelle, I think we
20 can close, is that right?

21 MS. ARSENAULT: Yes, that's excellent.
22 Thank you, Harriet. Thank you, everyone, for

1 participating. I have to say this is probably
2 the quietest webinar I've ever been on, so I
3 appreciate everyone keeping themselves muted or
4 quiet.

5 Thank you so much, we'll see you guys
6 next week.

7 MS. BEHAR: Okay.

8 (Whereupon, the above-entitled matter
9 went off the record at 2:27 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Public Hearing Webinar

Before: USDA/NOSB

Date: 04-18-19

Place: webinar

was duly recorded and accurately transcribed under
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Court Reporter

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DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2019 MEETING

+ + + + +

WEDNESDAY

APRIL 24, 2019

+ + + + +

The Board met in the Courtyard Ballroom at the Renaissance Seattle Hotel, 515 Madison Street, Seattle, Washington at 8:30 a.m., Harriet Behar, Chair, presiding.

PRESENT

HARRIET BEHAR, Chair

SUE BAIRD

ASA BRADMAN

JESSE BUIE

TOM CHAPMAN

LISA DE LIMA

STEVE ELA, Vice Chair

RICK GREENWOOD

DAVE MORTENSEN

EMILY OAKLEY

SCOTT RICE, Secretary

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR

STAFF PRESENT

**MICHELLE ARSENAULT, NOSB Advisory Board
Specialist, National Organic Program**
**DAVID GLASGOW, Associate Deputy Administrator,
National Organic Program**
**DR. PAUL LEWIS, Ph.D., Director, Standards
Division, National Organic Program**
CLARISSA MATHEWS, Ph.D., National List Manager
**DEVON PATTILLO, Materials Specialist, National
Organic Program**
**DR. JENNIFER TUCKER, Ph.D., Deputy
Administrator, National Organic Program;
Designated Federal Official**

ALSO PRESENT

KRISTJAN BREGENDAHL, Devenish Nutrition
HEATHER BURLEY, McDaniel College
**ADAM CLINE, USDA National Agricultural
Statistics Service (NASS)**
**STEVE FULLER, Washington State Department of
Agriculture (WSDA)**
**ANDREW MILKOWSKI, Ph.D., University of Wisconsin
- Madison**
LOGAN PETERMAN, Organic Valley/CROPP Cooperative
**ERIN SILVA, Ph.D., University of Wisconsin -
Madison**
JENNIFER WASIELESKI, Kerry Foods
**DAVID WILL, Chino Valley Ranchers; Methionine
Task Force**

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

2 (8:32 a.m.)

3 MS. TUCKER: Okay, good morning
4 everyone. We're going to get started here.
5 Welcome. We are officially opening the spring
6 2019 National Organic Standards Board meeting.

7 My name is Jennifer Tucker. I'm the
8 deputy administrator for the National Organic
9 Program, which is part of USDA's Agricultural
10 Marketing Service.

11 I'll serve as USDA's designated
12 federal official for the meeting. First, thank
13 you for being here and making the trip to
14 Seattle.

15 I'm going to start by introducing the
16 USDA team. First, next to me here is Dr. Paul
17 Lewis, our Standards Division director.

18 Also supporting the meeting is our
19 National List manager, Dr. Clarissa Mathews.
20 Clarissa, stand up and wave.

21 And next to her, Devon Pattillo, our
22 agriculture marketing specialist and policy

1 analyst extraordinaire. So, say hello.

2 Okay. Also in the room, we have David
3 Glasgow. David, wave to everyone. David started
4 as NOP's associate deputy administrator in
5 January.

6 David has attended a couple of NOSB
7 meetings before as he was previously the AMS
8 director of public affairs. David has been with
9 USDA for over 15 years.

10 Before he came to AMS, he was with
11 USDA Office of Communications, the White House's
12 Strong Cities, Strong Communities Initiative,
13 rural development, and the Appalachian Regional
14 Commission.

15 He holds an undergraduate in economics
16 and political science, and a law degree.

17 So, David has been a wonderful
18 addition to the team. I've really appreciated
19 our partnership, so thank you.

20 We also brought with us Adam Cline.
21 Adam, where are you?

22 (No audible response.)

1 MS. TUCKER: There's Adam right there.
2 Adam is with the National Agricultural Statistics
3 Service.

4 We invited Adam to join us because of
5 the universally strong interest in organic
6 surveys and data quality, both from the board and
7 the community during our last meeting.

8 So, Adam is an expert on USDA's
9 organic surveys, and will give a talk after my
10 NOP update this morning.

11 To close the USDA introductions, I
12 want to give a huge thank you to Michelle
13 Arsenault, our advisory board specialist.

14 As always, this meeting would not be
15 possible without Michelle. She does amazing work
16 to bring us together. So let's give her a hand.

17 Now, I want to thank the National
18 Organic Standards Board who devote themselves to
19 the organic community every day, and in a
20 multitude of ways.

21 There are currently 14 members on the
22 board. We had a vacancy when Eric Schwartz left

1 for a new role earlier this year.

2 That means we are currently recruiting
3 for five new members of the board. The call for
4 nominations is open, and will close May 20. I'll
5 talk a little bit more about that later.

6 For reference, even with 14 members,
7 the number of decisive votes needed to send a
8 recommendation to the program is the same as when
9 we had 15 members. Ten votes are needed.

10 So, here's a quick overview of our
11 three day agenda.

12 This morning, we'll hear from a very
13 special guest, Steve Fuller, with the Washington
14 State Department of Agriculture.

15 Then, we'll hear an NOSB update, I'll
16 provide an NOP update, and Adam Cline will speak
17 with the group.

18 After that, we're going to have a
19 celery powder panel and a methionine update.

20 These segments really illustrate the
21 unique collaborative relationship that the NOP
22 and NOSB enjoys.

1 We're trying new approaches together
2 in a way that supports community needs and
3 advances our work in an effective way.

4 The rest of the day will be dedicated
5 to public comments.

6 Tomorrow, we'll continue public
7 comments, and then we'll turn to the
8 subcommittees.

9 This will continue into Friday, when
10 we'll have another panel. This one on
11 biodegradable mulch film.

12 Again, this is another great example
13 of collaboration, where both the NOP and the NOSB
14 identified subject matter experts to speak to the
15 group about the current research.

16 We'll close on Friday with
17 administrative activities and a look ahead.

18 So to close, I'd like to give a
19 special thank you to Harriet, the chair of the
20 board and this meeting. Let's give her a round
21 of applause in advance for the great meeting.

22 And now, Harriet, I turn the meeting

1 over to you, and to introduce the board.

2 CHAIR BEHAR: Thank you very much,
3 Jenny. Hello and welcome everyone to the 55th
4 publically attended National Organic Standards
5 Board meeting.

6 Yes, we've been through 55 of these
7 already. In the beautiful Pacific Northwest, in
8 the vibrant city of Seattle, Washington.

9 This time around, it's the East Coast
10 folks who will be getting up in the middle of the
11 night until they acclimate to the new time zone.

12 The NOSB work is done by a dedicated
13 group of board members, and I would like to let
14 them introduce themselves now.

15 Please state your name, where you're
16 from, and what seat you hold on the board,
17 starting with Ashley.

18 MS. SWAFFAR: So, I'm Ashley Swaffar.
19 I'm from Fayetteville, Arkansas. I sit in the
20 farmer's seat.

21 I work for Handsome Brook Farms and
22 have a small organic vegetable farm in Arkansas.

1 MR. CHAPMAN: Tom Chapman. I'm from
2 Belmont, California. I work for Clif Bar &
3 Company as a director of ingredient sourcing, and
4 I sit in the handler's seat.

5 MS. BAIRD: I'm Sue Baird. I'm from
6 Missouri. Executive director of the Mid-America
7 Food Hub, and Mid-America Organic Association. I
8 currently am serving as chair of the CACS.

9 MR. SEITZ: Good morning. My name is
10 Dan Seitz. I'm a public member on the NOSB.

11 I live in Great Barrington,
12 Massachusetts, and I work as the executive
13 director for the Council on Naturopathic Medical
14 Education.

15 MR. MORTENSEN: Good morning. I'm
16 Dave Mortensen, and I, back in August, moved to
17 assume the role of chair of the Agriculture and
18 Nutrition and Food Systems Program at the
19 University of New Hampshire, in Durham, New
20 Hampshire. I am the scientist on the board.

21 MR. BRADMAN: Asa Bradman, and I'm in
22 the Center for Environmental Research and

1 Children's Health in the School of Public Health
2 at UC Berkeley.

3 MR. RICE: Scott Rice. I sit in the
4 certifier's seat.

5 I'm the external affairs coordinator
6 for the Washington State Department of
7 Agriculture Organic Food Program. And I serve as
8 the secretary of the board.

9 MR. ELA: Steve Ela, Ela Family Farms
10 in Hotchkiss, Colorado. Western side of the
11 state.

12 I sit in the farmer's seat, I serve as
13 vice chair, and I am chair of the crop
14 subcommittee.

15 MS. OAKLEY: Emily Oakley from Oaks,
16 Oklahoma. I have a farm, Three Springs Farm, and
17 I sit in the farm seat. And I'm a full-time
18 farmer.

19 MR. BUIE: I'm Jesse Buie, president
20 of Ole Brook Organics in Brookhaven, Mississippi.
21 I sit in the farmer's seat, and I'm the vice
22 chair of crops.

1 MS. ROMERO-BRIONES: I'm A-dae
2 Briones.

3 I work for First Nations Development
4 Institute out of Longmont, Colorado, but I run
5 the California office, and we serve indigenous
6 producers in Alaska, the mainland, and Hawaii.
7 And I live in Lodi, California. Public seat.

8 MS. DE LIMA: Hi, Lisa de Lima. I sit
9 in the retailer's seat.

10 I live in Gaithersburg, Maryland.
11 It's a suburb of Washington, D.C. And I'm vice
12 president of grocery at MOM's Organic Market.

13 MR. GREENWOOD: I'm Rick Greenwood.
14 I sit in the environmental seat.

15 I'm a professor at UCLA in the School
16 of Public Health, and I'm a certified organic
17 avocado grower. And I'm from San Diego,
18 California.

19 CHAIR BEHAR: I'm Harriet Behar. I
20 sit in the environmental seat. And what am I?
21 I'm an organic educator, an organic inspector, an
22 organic farmer, an organic advocate, and organic

1 consumer.

2 And I've been to not all, but most of
3 the 55 meetings of the National Organic Standards
4 Board. With that, Scott, would you like to give
5 the secretary's report?

6 MR. RICE: Sure. Madam Chair, the
7 summary notes of the October 2018 biannual
8 meeting in Saint Paul have been distributed to
9 the board members. Are there any corrections or
10 comments?

11 (No audible response.)

12 MR. RICE: All right. I had one
13 comment. I was a little flummoxed by a bit of an
14 anomaly in the transcripts that I found in the
15 fall meeting. I found roughly 19 separate
16 references to beards.

17 I'm going to get the Livestock
18 Committee to look into that and I'll report back.
19 Thank you.

20 CHAIR BEHAR: Living beards? Okay, so
21 with that, I would like to turn it back over to
22 Jenny, and she will introduce our first speaker.

1 MR. RICE: All right. Thanks,
2 Harriet. Back to me.

3 I have the pleasure of introducing
4 Steve Fuller, the assistant director of Food
5 Safety and Consumer Services Division of our
6 Department of Agriculture.

7 It's the division in which our program
8 resides. One moment here.

9 Steve leads the Food Safety and
10 Consumer Services Division, which ensures the
11 availability, safety, and integrity of the
12 state's food supply.

13 He previously served as policy advisor
14 to the director, working on legislation, budget
15 requests, and policy decisions.

16 Before joining the director's office,
17 Steve built WSDA's first food emergency response
18 team.

19 And Steve has a Master's degree in
20 Public Health from UCLA, a Bachelor's degree in
21 Environmental Health from California State
22 University in Fresno. Steve, welcome.

1 MR. FULLER: Great, well thanks very
2 much for having me. I really appreciate being
3 here.

4 And I apologize for having my back to
5 all of you, but my intent is to welcome everyone
6 to the meeting.

7 So, good morning. Thank you so much
8 for coming to Washington state. It's a
9 tremendous pleasure to have the board and all of
10 its guests here with us.

11 We hold your work in very high esteem.
12 And it's an honor to be able to provide whatever
13 modest support we can to your work.

14 We're very happy to have our own Scott
15 Rice holding the certifier seat on the board.
16 Scott's a tremendous asset to our program, and
17 we're happy to share him with you.

18 We have a rich organic tradition here.
19 We trace the roots of Washington's organic sector
20 to a farmer-driven movement in the early 1970s to
21 found Tilth Producers.

22 Tilth Producers' work over a dozen or

1 more years led us to the state legislature,
2 passing the Washington Organic Food Products Act
3 in 1985.

4 The State Department of Agriculture
5 began certifying farming operations to our state
6 standard in 1987 under the leadership of someone
7 you may know, Miles McEvoy.

8 Today, Brenda Book leads our Organic
9 Certification Program. On paper, I became
10 Brenda's supervisor a little more than a year
11 ago. But I can tell you that in the course of
12 that year, I've come to appreciate that she's
13 just as good at managing up as she is at leading
14 the team under her. I'd describe her less as a
15 program manager and more as a force of nature.

16 I've become so proud to have a small
17 role on our team. We certify over 1,300
18 operations of all shapes and sizes to the USDA
19 organic regulations.

20 Agriculture in this state is a very
21 big umbrella, and we're proud to support both
22 small, diversified, direct market growers,

1 alongside row crop producers exporting to
2 international markets.

3 Over 90 percent of the organic apples
4 and sweet cherries that this entire country can
5 squeeze from the earth are grown right here in
6 Washington state.

7 Now, I hear that cherry harvest may be
8 a couple of weeks late this year, but don't fret.
9 They're still on their way.

10 By some unjust quirk of latitude,
11 California seems to beat us to market every year,
12 but hang on just a little bit, and the superior
13 Washington organics are on their way.

14 You know, agriculture in general has
15 some really significant challenges on its hands
16 these days.

17 For the average farm, revenue is down
18 and debt is up. Most farmers have other jobs off
19 the farm to try to make ends meet.

20 And when a farmer whose land has
21 supported the family for generations has to sell,
22 I can only imagine the level of heartbreak and

1 sense of failure. Even though the cause very well
2 may be something macroeconomic, beyond his or her
3 control.

4 On average, our farmers are getting
5 older. We're having trouble attracting younger
6 people to the profession. And we're losing
7 valuable crop land to urbanization and climate
8 change. And into this fray, steps the audacious
9 idea of organic.

10 The idea that if we can connect
11 consumers to a production ethic that resonates
12 with them, they might be willing to pay a little
13 bit more for that.

14 And if we can get our farmers a little
15 better return, well then maybe not so many farms
16 will have to be sold.

17 Maybe a new generation full of vigor
18 will put their hand to the plow. Maybe farming
19 communities, with their roads and warehouses and
20 schools can continue to be a thing.

21 But the only possible way organic can
22 keep providing its returns is if people keep

1 trusting that organic means something.

2 So, I hope I'm not being cliché by
3 reading you this 1997 quote that I read from
4 Michael Sligh, in his editorial on the original
5 development of the U.S. Organic Standards.

6 The soul of organics is at stake. If
7 this process proves to be too onerous or false,
8 the soul of organic will be lost. Then, those
9 who love organic will have two choices.

10 To reclaim the word and the concept,
11 or to find new words and concepts. The future
12 will determine this.

13 Meanwhile, the central guiding
14 principles for our work, including the evaluation
15 of any proposed rules, should be integrity,
16 fairness, and transparency.

17 So that resonates with me, and that's
18 why I feel so honored to be able to welcome you
19 to this event in this place.

20 The board's work here, with broad
21 community input, influencing and sometimes making
22 public policy, can be the embodiment of those

1 principles.

2 I have no idea what the board should
3 do with allyl isothiocyanate, but I very much
4 believe in the value of your doing it.

5 There will be disagreements over the
6 next few days. You will wrestle with hard
7 things, and that's very good.

8 To the degree that you can all listen,
9 advocate, and for a few of you, vote, with
10 integrity, fairness, and transparency, you will
11 create the value of organic.

12 So again, welcome. Thank you all for
13 being here. May you do your work with the best
14 that you have to offer. May it begin.

15 CHAIR BEHAR: Thank you very much,
16 Steve.

17 MR. RICE: Thanks, Steve.

18 CHAIR BEHAR: I know Michael Sligh
19 will appreciate that he was brought here through
20 your words.

21 MR. RICE: Thanks, Steve. I wanted to
22 also remind everyone that WSDA and Tilth Alliance

1 will be hosting a reception tomorrow evening from
2 6:00 to 8:00. And that's taking place in the
3 Northwest Room, which is on the third floor. So,
4 just a quick couple floors up above us.

5 We've got some reminder flyers out on
6 the front table with a reminder of that room, as
7 well. So, it's Northwest Room, third floor. We
8 hope you guys can join us.

9 CHAIR BEHAR: Sounds like fun. Okay,
10 so now, next on the agenda is I will give the
11 NOSB chair report.

12 This is my first public meeting as
13 chair of the National Organic Standards Board,
14 and I want to say what an honor it is to work
15 with such a fine group of dedicated board members
16 who truly work to represent their constituency's
17 concerns, as well as the overall health and
18 vitality of organic agriculture, and the
19 marketplace, as we debate and decide materials,
20 guidance, and regulations for submission to the
21 National Organic Program.

22 I especially thank the subcommittee

1 chairs, who have put in extra time to make sure
2 that everything goes smoothly and gets done on
3 time.

4 I've spent many years as a member of
5 the public watching these meetings, and I can say
6 that being on the inside has greatly increased my
7 understanding of the process, both the
8 opportunities and challenges.

9 There is much positive to congratulate
10 ourselves as organic advocates. The organic
11 market is growing.

12 Organic consumers have access to food
13 and fiber that is healthier for them and
14 represents so many answers to the environmental
15 challenges we face, both regionally and globally.

16 More farmers are continually improving
17 their farming systems by adopting fundamental and
18 advanced organic farming practices, providing a
19 healthy lifestyle and environment for themselves,
20 their livestock, and their local communities.

21 In my mind, there's nothing more
22 beautiful than working with and within the

1 natural systems that have evolved so beautifully
2 on our precious planet.

3 This is not an unachievable dream. I
4 see it all the time on the many excellent organic
5 farms and the processors that I visit.

6 And in my life, I am greatly enriched,
7 both by continually improving my organics farm,
8 my farm's organic system, and biodiversity every
9 year.

10 But there are dark clouds obscuring some of this
11 sunshine.

12 Known cases of fraud and subsequent
13 sale of non-organic grains as organic into our
14 markets has highlighted the need to deal with the
15 loopholes and gray areas in our regs, and
16 enforcement is an immediate need.

17 This fraud has been discovered not
18 only from foreign markets, but also domestically.
19 There is unfortunately a long list of areas where
20 enforcement and additional rulemaking is sorely
21 needed.

22 Pasture for ruminants, origin of

1 livestock, outdoor access for poultry and other
2 livestock, questionable uses of various
3 materials, approval of hydroponic operations that
4 do not meet the same standard as soil-based ones,
5 lack of consistency by many certifiers, and the
6 organic certification system needs more oversight
7 and accountability.

8 Fear that a client might legally
9 challenge a certifier decision has kept both the
10 certifiers and the NOP from regulating to the
11 clear wording and intent in many of these areas.

12 Instead, allowing clients to massage
13 the regulatory language to fit their own needs
14 and their own operation, and their own
15 interpretation.

16 This does not hold everyone to the
17 same high standard, and is one of the
18 contributors to our current problematic
19 situation.

20 The NOP has also limited their own
21 work of what they're going to put to regulations
22 based on the many recommendations given to them

1 by the NOSB, as well as the work of the NOSB.

2 Various issues have been taken off the
3 work agenda, or the NOP has decided not to work
4 on implementation of various NOSB
5 recommendations.

6 Examples of areas that the public has
7 noted in their recent comments include, whatever
8 happened to work on inerts?

9 You know, why don't we have the animal
10 welfare standards? Why aren't we looking at
11 hydroponic? It's such a different system.

12 What about BPA in packaging? Why
13 aren't we hearing more about the peer review
14 system of the NOP? And maybe we will. Whatever
15 happened to the apiculture standards? Pet food,
16 and more.

17 These items were all mentioned many
18 times by various commenters at this meeting,
19 including the former deputy administrator of the
20 National Organic Program, and expressing great
21 frustration.

22 The public has stated the NOP needs to

1 develop better systems to address these important
2 areas in a more timely way.

3 We are a young program in the bigger
4 scheme of things at the USDA. And when we find a
5 gray area or a loophole in the reg, we should be
6 allowed to fix it as soon as possible, before it
7 becomes the norm. Since this reg is still in its
8 infancy, and these problems are bound to come up,
9 and need to be addressed.

10 So, I think we need special
11 dispensation from this administration to
12 understand that when we need regulations, we need
13 them sooner rather than later because we are so
14 new.

15 However, our community is tenacious.
16 And I do not doubt that these issues will
17 continue to be part of the conversation until
18 they are resolved.

19 I can see that the hardworking NOP
20 staff is working towards solving these problems,
21 and I commend the deputy administrator, Jennifer
22 Tucker, for her willingness to engage openly and

1 transparently with the community.

2 However, we are playing catch-up in
3 many ways to tighten up the oversight and
4 enforcement of numerous areas of organic
5 production, which is causing hardship in many
6 sectors of organic.

7 We need to become more proactive to
8 catch the problems before they become the norm.
9 This is the responsibility of both the organic
10 community and the program.

11 It is obvious we have the passion and
12 drive to keep pushing for consistency in the
13 implementation of the high standards we all
14 worked so hard to develop, and provide the
15 guidance to the National Organic Program.

16 We are a very unusual agricultural
17 sector. We want to be regulated. We want those
18 regulations to be followed, and we want them to
19 be strict yet practical. I have visited
20 literally thousands of organic farms, and many
21 hundreds of organic processors.

22 Organic productions is not just

1 something they do, and not just for the money.
2 It comes from their hearts, and has deep meaning
3 in their lives.

4 That organic certificate is something
5 they are proud of since it represents their
6 intense commitment and good work that they are
7 doing.

8 Organic consumers count on us to make
9 sure the food they are getting is what they
10 expect it to be. Organic. The NOSB and the NOP
11 have a responsibility to live up to their trust
12 in our work.

13 We, the organic community, the organic
14 marketplace, organic advocates, the NOSB, and the
15 National Organic Program cannot let down the
16 consumers and the vast majority of owner-
17 operators on the farms, and processors, who are
18 doing it right, and are now competing with others
19 who cut corners or commit fraud.

20 We understand there are problems, but
21 I encourage all commenters and board members to
22 keep in mind that we are here to find solutions.

1 I believe that if we are willing and
2 we work together, we should be able to find a way
3 to improve our rules and enforcement in a more
4 timely way, and honor the hard work and desires
5 of the organic community.

6 The entire organic community and the
7 marketplace depends on the integrity of the
8 organic label. Without integrity, we are
9 nothing.

10 Lastly, I sit on the environmental
11 seat of the board, and I continuously find myself
12 in awe of the beauty and diversity of life on our
13 planet.

14 I've brought along a variety of
15 creatures that each of you should be able to
16 choose from during public comment and after, as
17 well as the board members.

18 There are little animals. Marine
19 life, farm animals. There's a variety of little
20 finger puppets.

21 There's wind-up baby chicks, because
22 after all, we are talking about methionine. And

1 especially, there's some really cute frogs if you
2 go in the bottom of the basket.

3 So, I will invite -- you know, over in
4 the next few days, but I'm going to pass it
5 around to the board members first so they get
6 their first choice to choose one of whatever
7 calls you first.

8 So, I brought a whole bowl full. So
9 these are the farm animals, if you're called to
10 farm animals. And there you go. So, thank you
11 for that. Next up is.

12 (Off-microphone comments.)

13 CHAIR BEHAR: The chicks are really
14 cute, don't you think? But the frogs are, too.
15 Don't forget about the frogs. Okay, so next up
16 we have Adam Cline.

17 (Off-microphone comments.)

18 CHAIR BEHAR: Oh, you're going to?
19 Okay.

20 (Off-microphone comments.)

21 CHAIR BEHAR: Okay, I'm sorry. Next
22 up is -- I had it on my -- okay, wrong. All

1 right, next up is Jennifer Tucker with the NOP
2 update.

3 MS. TUCKER: Okay, good morning
4 everybody. Okay, let's get started with the
5 National Organic Program update.

6 I'm very pleased to be here today, and
7 again, thank you for being here.

8 So first, I always like to open my
9 section by acknowledging our certified organic
10 operations.

11 There are 75 certified organic farms
12 and businesses here in Seattle alone, and more
13 than 1,400 across the state.

14 So, if you are one of them, a
15 certified business from Washington state, please
16 go ahead and stand up so we can give you a round
17 of applause.

18 There you are. Welcome. We're very
19 happy that you are here.

20 Now, let's take a look at the country-
21 level and worldwide numbers. Our end of 2018
22 certified operations count was just over 43,000.

1 So, 43,004 certified farmers around
2 the world. That was approximately a four percent
3 increase over 2017.

4 That means that more than 1,000 new
5 farms and businesses got certified in the United
6 States between the end of 2017 and the end of
7 2018, so we're about 27,500 U.S. producers.

8 So, that pride that people can take in
9 their new certificates, there were 1,000 of those
10 folks who received new certificates last year,
11 so, good for them.

12 Internationally, we're at about
13 15,500, which is an increase of just over 700.
14 So, the count of certified operations does
15 continue to go up.

16 So before I start the formal
17 presentation, I'd like to clear the air. There
18 have been some recent discussions about a
19 conversation that the National Organic Program
20 had with an organic group that visited D.C. a
21 while ago.

22 The group asked about a scenario

1 involving hydroponics and container growing. The
2 scenario was pretty specific, so we asked for the
3 specific operation and the certifier involved.

4 In the absence of a specific case, I
5 allowed myself to get drawn into a hypothetical,
6 which is always risky.

7 I was sharing thoughts on policy
8 complexities and nuances that can play into any
9 particular case evaluation.

10 We emphasis that we would evaluate any
11 complaint on a case-by-case basis, and asked the
12 group for the certifier and operation.

13 The comments in that meeting and the
14 case study itself have since been taken out of
15 context and out of proportion.

16 The comments were not a judgment on a
17 particular case. They were not a program
18 decision or policy statement.

19 Whether an operation is soil-based,
20 hydroponics, or container-based, the National
21 Organic Program follows the rules and applies
22 them to specific case facts.

1 We have since learned who the
2 certifier in question is, and we've engaged with
3 them to learn about what's happening on the
4 ground.

5 We've also raised specific regulatory
6 questions with our council's office. Those
7 questions are currently being evaluated, and I'm
8 happy to talk about what they are.

9 Here are some key points. Glyphosate
10 is not allowed in organic production.

11 The National Organic Program reaffirms
12 the need for all organic operations, including
13 hydroponic and container operations, to
14 demonstrate compliance with the regulations.

15 This includes confirming that no
16 prohibited substances come in contact with an
17 organic crop, and requiring that production
18 practices maintain or improve the natural
19 resources of the organic operation.

20 Certifiers are responsible for
21 assessing individual operation compliance with
22 the rules based on site-specific situations.

1 The work of the National Organic
2 Program is based on regulations and on facts.
3 Bring us facts and give us complaints with
4 evidence.

5 Large and small, soil-based or not
6 soil-based, we will investigate those complaints
7 using the regulations and the evidence before us.

8 We do that every day. It's the core
9 of our mission. We know that some in the organic
10 community do not want hydroponics to be part of
11 organic. And there was a 2010 board
12 recommendation on that topic. That
13 recommendation did not have enough details to
14 support a rule.

15 To further explore those details to
16 support rulemaking, between 2015 and '17, the
17 National Organic Program supported a fair, open,
18 and transparent process to support a task force.

19 We also supported the board's
20 deliberation on this issue. After a lot of work
21 and time, the community did not reach consensus
22 on specific recommendations for hydroponics.

1 Therefore, hydroponics and container
2 growing continue to be allowed in the organic
3 program. The program and its certifiers continue
4 to use the regulations and concrete facts to
5 certify and oversee these operations.

6 Soil-based systems, hydroponic
7 systems, and container-based systems are all
8 accountable to the same standards, and we enforce
9 accordingly.

10 So now, let's go back to the main
11 presentation. NOP has four key priority areas.
12 Everything we do, all the projects that we select
13 fit into these four areas, and they are all
14 oriented towards protecting organic integrity.

15 The first goal area is strong organic
16 control systems, which lead to trusted people,
17 processes, and rules.

18 Our second priority area is farm to
19 market traceability, which supports worldwide
20 supply chain integrity.

21 Third, robust enforcement. Core to
22 all of our work is creating a level playing field

1 for all.

2 And then, fourth, we continue to
3 support the standards and collaborate with the
4 community, increasing engagement and
5 transparency.

6 All our priorities are oriented around
7 these four priorities, which reflect the needs of
8 organic integrity around the world.

9 So, we have a lot to cover in a short
10 time, so here's an overview of my update topics.

11 I'll give some program updates. I'm
12 going to give an overview of the Farm Bill. I'll
13 review the call for board nominations.

14 I want to talk about organic imports
15 and the enforcement activities we're doing there
16 using risk-based oversight approaches.

17 I'll highlight our Dairy Compliance
18 Project. We'll talk about the Strengthening
19 Organic Enforcement proposed rule.

20 I'll be pleased to launch the Organic
21 Integrity Learning Center. And then, we will
22 celebrate our INTEGRITY Data Quality Award

1 winners.

2 First, let's start with program
3 updates. Our first update is on origin of
4 livestock. AMS is grateful for NOSB's and
5 organic stakeholder interest in this rulemaking.

6 A lot of letters have come in very
7 thoughtfully describing the need for this rule.
8 AMS is exploring having a second origin of
9 livestock proposed rule on the fall 2019 OMB
10 regulatory agenda.

11 So, due to the length of time from the
12 first proposed rule, and changes in the industry,
13 the current thinking is to do a second proposed
14 rule, not a final rule.

15 We've gotten a lot of feedback on that
16 point. We will continue to explore that within
17 USDA, and with Office of Management and Budget,
18 to determine what our options might be in that
19 case.

20 However, I can reaffirm that AMS is
21 exploring moving ahead with this rule.

22 Our second program updates relates to

1 the National List. The team's doing a fabulous
2 job of moving National List rules through the
3 system.

4 There was a final rule published on
5 December 27. It had 35 changes. Most of those
6 changes were effective at the end of January
7 2019.

8 We have a final rule in clearance
9 right now to implement the fall 2017 NOSB
10 recommendations, and we also have a proposed rule
11 out.

12 The comments for that closed April 16.
13 That relates to spring 2018 NOSB recommendations.
14 So, you can see these rules.

15 We'll have shorter rules coming
16 through the pipeline faster to get tools out to
17 the organic community in an efficient and
18 effective way.

19 Upcoming in development, we have the
20 2019 sunset materials renewal. That will be a
21 Federal Register notice. We expect to publish
22 that this summer.

1 We'll have the 2019 sunset material
2 removals. That will be a proposed rule.
3 Recommendations are currently under review.

4 And then, we will have a proposed rule
5 for the fall 2018 NOSB recommendation. So, we
6 expect to publish that proposed rule this fall.

7 So, next, I'd like to give an update
8 on our compliance database.

9 Last fall at our meeting, I mentioned
10 that we had just started building a new database
11 to better align our electronic systems with other
12 federal enforcement agencies.

13 Our new compliance system was launched
14 in March. And this was the direct result of the
15 increased funding that we received last year.

16 It is already helping us see patterns
17 across our cases. It's providing more tracking
18 for our investigative reports, tracking our
19 corrective actions from violators.

20 We are doing a lot of enforcement
21 work. A lot is happening out in the community.
22 We can't always talk about our enforcement

1 successes.

2 This compliance database will help us
3 get more visible data to keep the pipeline of
4 investigations moving, and to get you, the
5 community, better information about our
6 enforcement work.

7 Next, some program updates on
8 staffing. We have some new NOP leadership and
9 staff. I just introduced David earlier as our
10 new associate deputy administrator.

11 We're also bringing in a trade systems
12 director. He starts in mid-May, and we actually
13 stole him from Customs and Border Protection.

14 He wants to come over. He grew up on
15 a dairy farm. We wants to come over from CBP to
16 help us understand how to most effectively work
17 with CBP.

18 And so, I think he'll be a wonderful
19 addition to the team.

20 We added an accreditation manager last
21 fall, and we finally, woohoo, have a quality
22 manager.

1 We've been short a quality manager for
2 quite some time, and so, I'm really pleased to
3 have that position filled.

4 So, upcoming announcements. I'm going
5 to change that to open announcements. We have
6 job announcements on the street right now, and
7 please, please, please tell your friends.

8 So, Insider came out yesterday.
9 Another Insider came out today.

10 We are hiring livestock compliance
11 specialists. That's a position that was
12 announced just this morning.

13 We will hire up to two or three of
14 those. They will be based in Washington, D.C.

15 They'll do both policy development and
16 compliance and enforcement work, including
17 leading the Dairy Compliance Project.

18 So, please, if you know qualified
19 livestock compliance specialists, please
20 encourage them to apply.

21 We are recruiting from across the
22 nation for this, and you do not need to be a

1 current federal employee to apply.

2 And so, very important to get the word
3 out. It will be capped at 75 people. So, if you
4 know somebody, please have them get in their
5 application early.

6 Yesterday, we announced remote
7 accreditation auditors. So, this is new for us.

8 We're going to hire multiple auditors.
9 They can be based in Washington, D.C., or
10 anywhere in the country.

11 This is incredibly rare for us to do.
12 Recruiting accreditation managers and auditors is
13 really difficult. It's hard to get folks to come
14 to D.C. full-time.

15 So, we are experimenting with
16 recruiting for auditors out there in the world.

17 Now, the government has fairly short
18 time frames on application dates, so please,
19 please take a look at those applications, and if
20 you're interested, and interested in helping
21 spread the word, please do so as soon as
22 possible.

1 So, anyone who does end up working for
2 the National Organic Program will have the
3 privilege of attending our holiday sweater
4 contest next year. So, there we are. We have a
5 motley crew there.

6 But, this is the National Organic
7 Program at the end of December at our end of year
8 celebration party.

9 Happy Administrative Professionals'
10 Day. So, last April, the NOSB also started on
11 Administrative Professionals' Day.

12 So, that day, I acknowledged and
13 thanked our National Organic Program secretary,
14 Joan Avila, who is fabulous and continues to take
15 hundreds of calls into the front office.

16 So, this year, I get to say thank you
17 again to Joan.

18 But I also want to tell you a story
19 about how another administrative assistant is
20 making a real difference in another organic
21 organization.

22 So later this morning, I'm going to

1 share that the Georgia Crop Improvement
2 Association is one of this year's winners of our
3 Data Quality Award.

4 This award is given to the certifiers
5 with the best data quality in the Organic
6 INTEGRITY Database.

7 When I told the Georgia team about
8 their award, Terry, who is in charge over there,
9 shared with me that Jeanne Gonzales, their
10 administrative assistant, is the person
11 responsible for designing and maintaining
12 Georgia's inputs to the Organic INTEGRITY
13 Database.

14 Terry shared with me that Jeanne's
15 investment in data and the database is what
16 happens when a person truly believes in and
17 dedicates themselves to a project.

18 There are administrative professionals
19 like Joan and Jeanne across the organic community
20 who protect organic integrity every day. Let's
21 give them a hand.

22 Now, let's take a look at the Farm

1 Bill, which passed in December, so since we've
2 last seen you.

3 There were a number of provisions
4 directly related to the National Organic Program,
5 so I'm going to review those here.

6 A number of provisions have already
7 been integrated into our Strengthening Organic
8 Reinforcement rulemaking. That rule was already
9 on the regulatory agenda when the Farm Bill
10 passed.

11 And so, that rule is integrating and
12 expanding language from the Farm Bill into the
13 rule itself.

14 So, three areas in particular there
15 are eliminating exclusions, import certificates,
16 and certifier office oversight.

17 The Farm Bill also called for a
18 collaborative working group between Customs and
19 Border Protection, NOP, and the Animal and Plant
20 Health Inspection Service within USDA.

21 We have already identified members
22 from that. CBP and APHIS have been

1 extraordinarily responsive. We have the work
2 group identified, and we'll kickoff in the
3 upcoming weeks.

4 The next category is technology. In
5 May, we're going to be sending over money to
6 Customs and Border Protection to develop the
7 organic import certificate module in their
8 existing import system.

9 That will get data into the system
10 from organic trade. We also need to be able to
11 get data out to see what is happening and to
12 pursue investigations.

13 That requires both Memorandum of
14 Agreement and data access. So, we're working
15 closely with CBP to make sure both happen.

16 The Farm Bill also included additional
17 funding for an organic oversight system globally.

18 And so, we are envisioning what that
19 system is. A lot of it will start with the
20 import certificate project.

21 Finally, there were changes in the
22 Farm Bill related to the NOSB. The call for

1 nominations this brings includes the changes
2 required in the Farm Bill.

3 And the Farm Bill also formalized
4 voting rules already in practice with the board.

5 So, let's talk about the call for
6 board nominations. Nomination period is open.
7 It is due May 20, 2019. It was announced in the
8 Federal Register in mid-March.

9 There are five vacancies. Up here on
10 the board, we've got environmental protection
11 resource conservation.

12 Someone who owns and operates, or an
13 employee of an organic farming operation, two
14 people who own or operate, or employees of an
15 organic handling operation, and one person who
16 owns or operates or is an employee of a retail
17 establishment with significant trade in organic
18 products.

19 And I believe we have a flyer out
20 front if you want more information. It's also
21 posted on the NOSB website. Just search Google
22 for NOSB nomination process, and you will find

1 it.

2 So I'd like to take some time to talk
3 about our organic import oversight, some of the
4 risk-based oversight projects we've been working
5 on.

6 Before I get into that, I do also want
7 to highlight what we're doing domestically, as
8 well. There is domestic fraud, and we are much
9 better able to address that fraud given our
10 current capabilities and tools.

11 We have built our relationships with
12 the Office of Inspector General. They have taken
13 on a number of cases with us.

14 What used to take months and years, in
15 terms of investigations, is down to weeks and
16 months. Investigations do take time, and they do
17 take evidence, and we're not always able to talk
18 about that work while it is underway.

19 It does get communicated in different
20 ways on the website and in the public sphere as
21 word gets out.

22 Enforcement is central to our mission

1 and we spend an awful lot of time on it. Our
2 Compliance and Enforcement Division has expanded,
3 using additional support made possible by
4 incremental funding last year.

5 So, that work continues. It's often
6 quiet, but it is happening.

7 Let me talk about six specific
8 projects that we're doing related to import
9 oversight. And some of these projects can also
10 relate to our domestic work, as well.

11 So I'm going to run across these six,
12 from left to right. First, I want to talk about
13 the role of farm-level yield analysis in our
14 approach to import oversight.

15 We recently completed a 100 percent
16 review of farm-level records coming from three
17 specific countries and three specific commodities
18 in the Black Sea region.

19 We did this because we've talked a lot
20 about supply chain traceability. And supply
21 chain traceability is vital, but we also must
22 know what's actually happening on these farms.

1 So, we took a look at all of these
2 farms' Organic System Plans and inspection
3 reports.

4 In doing this, we found that some
5 yields are much higher. The reported yields are
6 much higher than we would expect, given regional
7 yield statistics.

8 So, sometimes farms are reporting up
9 to two and three times the average for the
10 region. And that's a problem.

11 So, we are now investigating that
12 further. We have farm-level data that supports
13 those investigations.

14 Second, we are continuing supply chain
15 research. We have started a new project to map
16 specific supply chains and relationships that may
17 not reveal themselves by looking at official
18 paperwork.

19 So, using advanced dark web research
20 techniques, we are finding patterns of ownership
21 and business relationships that may support
22 further investigations.

1 Third, fumigation investigations. We
2 are continuing to work closely with APHIS.

3 I'm going to share some more
4 information and success story on that when we get
5 to the next slide. They've been very supportive
6 of our efforts, both in data and on the ground
7 boots efforts.

8 Fourth, ship-specific surveillance.
9 We do continue to conduct ship-specific
10 surveillance when we get credible and supported
11 information about incoming organic commodities.
12 More details helps.

13 This supply chain analysis is helping
14 us learn about patterns. And even when
15 everything is confirmed to be organic and in good
16 standing, which it often does, it does signal to
17 the community and that trade that we are
18 watching.

19 We will ask about any ship at any
20 time, and that surveillance is essential to
21 keeping everybody honest out there.

22 All of this work has supported our

1 ongoing oversight and investigations of
2 certifiers, particularly in the Black Sea region.

3 So, certifiers are investigating their
4 operations, and then we are investigating and
5 overseeing certifiers.

6 For example, we have found that two
7 certifiers oversee most of the farms that have
8 abnormally high yield figures.

9 So, we are taking the necessary steps
10 to hold those certifiers accountable for the
11 certification decisions.

12 They need to explain to us how those
13 yields are as high as they are. Those
14 investigations will continue.

15 Finally, our sixth project is that we
16 are working with IOAS, which is an international
17 organic accreditation body, to conduct two
18 country commodity studies.

19 Our goal is to develop standardized
20 approaches for examining high-risk or emerging
21 risks at a commodity level across an entire
22 country.

1 This will further advance our ability
2 to rapidly respond to emerging concerns.

3 So, all six of these initiatives have
4 been underway and are continuing. They directly
5 support our investigation and enforcement action.

6 So, let's take a look at some of the
7 successes. As a result of the new directives on
8 unannounced inspections and residue GMO testing,
9 100 operations -- about 60 percent of operations
10 in the Black Sea region -- have lost
11 certification. And there is continuous
12 scrutiny of the remaining certified operations.

13 The impact is real. There's been a
14 reduction in the organic grain and oil seed
15 imports from the Black Sea region in Turkey.

16 In 2016, those imports represented
17 almost 50 percent of the dollar value of those
18 imports. In 2018, they represented just 21
19 percent.

20 In terms of fumigation, we are seeing
21 increased importer awareness, and our partnership
22 with APHIS is working well.

1 There are shipments that have not been
2 sold as organic. They have been relabeled. So,
3 let me tell you a specific illustration of how
4 this has worked.

5 In March, the Port of Philadelphia
6 notified the National Organic Program that they
7 had fumigated a shipment of bell peppers that had
8 organic label. The shipment included about 350
9 boxes.

10 So, this was actually the second
11 report that we had received from Philadelphia
12 about fumigation, and they included label
13 photographs and supply chain documentation, like
14 invoices.

15 Unfortunately, the first notice
16 arrived during January, when the NOP was out on
17 furlough.

18 So, label photographs are critical
19 evidence, but they're actually not included in
20 the text-only automated fumigation reports that
21 come to us from the APHIS database.

22 So, we were able to use the

1 photographic evidence and available trade data to
2 identify and contact our bell pepper importers.

3 The importer reconditioned the
4 peppers. That's the term they use.

5 By removing they literally removed
6 every single sticker off every single pepper, and
7 replaced those individual stickers with a non-
8 organic sticker number. They also papered over
9 the word organic on all bulk containers.

10 So, in addition to providing evidence
11 of this reconditioning, the importer also shared
12 that a similar shipment was on route to Miami,
13 and would also be reconditioned to remove the
14 organic claims.

15 So, to further this work, the NOP has
16 proposed a statement of work to APHIS.

17 In order to expand this type of
18 information sharing, we want to expand to the
19 ports of Miami and Long Beach, where a lot of
20 organic products come in.

21 Next, I'd like to give a report out of
22 our Dairy Compliance Project. And this has been

1 a significant domestic initiative this year.

2 I'll talk about the process, the
3 policy outcomes, and the compliance outcomes.

4 First, we'll take a look at the
5 players. Who's been involved in this project?

6 We have AMS auditors and NOP compliance
7 specialists. Our auditors are coming from across
8 AMS, particularly the livestock and poultry
9 programs.

10 They have a lot of auditors who know
11 a lot about livestock, and we've given them
12 specialized training on the organic standards.

13 Many of them had done accreditation
14 audits with us before, so they already are
15 familiar with the regulations.

16 On selected cases, the Office of
17 Inspector General has also gotten involved, as
18 has the Animal and Plant Health Inspection
19 Services. Certifiers have been an important part
20 of this work, as well.

21 All of our visits for the Dairy
22 Compliance Project have been unannounced. These

1 have all been unannounced visits. They've
2 occurred nationwide.

3 They have been single day and multi
4 day, depending on the circumstances of the
5 operation.

6 We consider the project to be highly
7 successful, and our 2019 program has already
8 started. The unannounced visits will begin
9 actually this week. Our assistant director of
10 compliance and enforcement right now is in the
11 Midwest at a dairy farm.

12 We have done auditor training with
13 about 17 auditors to lead this program this year.

14 So, policy outcomes from year one.
15 This was our first year of doing a structured
16 surveillance project in dairy. And we learned a
17 lot about the training needs for our certifiers
18 and operations.

19 The Pasture Rule is a good rule. It
20 is well written. It needs to be better enforced.
21 And so, there are training needs that need to be
22 done with certifiers in some very specific areas.

1 So first, we saw some challenges with
2 how the regional grazing season is defined.

3 That there are some large dairies that
4 are near each other that have very different
5 declared grazing seasons, and we need to have
6 certifiers really looking at what is the regional
7 grazing season? Not just what somebody writes
8 down on an OSP.

9 We need to carefully teach and review
10 justifications for breaks in the grazing season.
11 So, discontinuous grazing season.

12 There is an allowance for it in the
13 regulations, but the regulations are pretty
14 specific about the allowance that is provided.

15 This is an area where we believe more
16 training is needed, both with certifiers and
17 operations, to ensure that those justifications
18 are aligned with the regulations.

19 We also need to do more training on
20 crop rotations and natural resource management.
21 And we had some observations related to access to
22 shade and water sources.

1 So, unfortunately, our training in
2 dairy -- we were going to do face-to-face
3 training in January with our certifiers, and it
4 was impacted by the shutdown.

5 We have talked to certifiers, and
6 certifiers would prefer getting online, self-
7 serve training, so lots of people can take it in
8 their organization to get the word out.

9 We need to train certifiers to be
10 asking the right questions at the right time, to
11 look for the right things, and to have the right
12 inspectors assigned to the right operations.

13 So, we will be launching self-guided
14 training in the Organic Integrity Learning Center
15 this summer.

16 Anyone will be able to register for an
17 account and view that training, both operations
18 and certifiers.

19 Part of that training will involve
20 some sort of case studies where different parts
21 of the regulations need to be considered against
22 each other.

1 So, for example, pasture quality
2 changes over the course of a season, and can be
3 impacted by season lengths.

4 So, your pasture season can directly
5 impact DMI values. It's very important that
6 certifiers know the right questions to ask to
7 consider both of those variables to maximize
8 compliance with the regulations.

9 Finally, compliance outcomes. We did
10 find that all operations that we visited
11 demonstrated at least 120 days of grazing.

12 So, even with the discontinuous
13 grazing season, every farm that we visited did
14 meet that requirement.

15 There had been some rumors that maybe
16 that wasn't the case. It was the case. They all
17 hit the 120 minimum.

18 All cows got 30 percent DMI from
19 pasture during the season. And so, that was
20 another concern that we had -- was looking at DMI
21 values. All the farms that we visited were
22 hitting that 30 percent.

1 So, where supported by the evidence,
2 investigations are ongoing. And this is both at
3 the operation level and at the certifier level.

4 Do keep in mind the non-compliance and
5 adverse action process that we take, both with
6 farms and with certifiers, where there are
7 correctable violations are allowed to correct
8 those non-compliances.

9 So, certifiers who are found to have
10 gaps in the system will receive a non-compliance
11 in order to be able to correct those gaps, as
12 will farmers.

13 So, we are continuing investigations.
14 We are taking enforcement action. There has
15 already been a significant civil penalty levied
16 against a livestock operation.

17 Okay, let's move to our Strengthening
18 Organic Enforcement proposed rule.

19 You'll be grateful that I'm not
20 reading this list to you, but this is a snapshot
21 of a number of areas that are being considered
22 for the rulemaking.

1 You will note that this is an update
2 of the last slide I did, and it has changed a bit
3 based on feedback from the community. We had a
4 webinar and have gotten some very thoughtful
5 letters. There's also the Farm Bill happening.

6 And so, this list is a little bit
7 different than the list you've seen before. But
8 the rule is very, very well underway and we're
9 feeling very good about a fall 2019 publication.

10 So, can't be more specific than that.
11 This is considered a significant rule, which
12 means that it will go through inter-agency
13 review.

14 So, agencies like CBP, for example,
15 will be able to read our rule and comment on it,
16 which we think is a very strong benefit. And it
17 will lead to a fall 2019 opening of public
18 comments. That will be announced in an Organic
19 Insider.

20 So next, our final two updates are
21 really good news updates. First, I am pleased to
22 announce the launch of the Organic Integrity

1 Learning Center.

2 So, this is another project that we
3 had just started when we met last fall, and that
4 directly results from the increased funding that
5 we received last year.

6 The core idea behind the Learning
7 Center is that qualified and trained organic
8 professionals lie at the heart of strong organic
9 control systems.

10 It is the strong organic control
11 systems that lead to fair and consistent
12 certification, and ultimately drive organic
13 integrity.

14 So the Organic Integrity Learning
15 Center offers free online training that supports
16 the professional development and continuing
17 education of all professionals working to protect
18 organic integrity.

19 So the system is live. So, we assign
20 the accounts at NOP, so you're not able to self-
21 register. And that has to do with the way we
22 manage seats.

1 So, every seat is a subscription
2 service to the learning management system, so we
3 need to register you into the system.

4 So, the way that this is going to work
5 is that organic certifiers, inspectors, and
6 reviewers, and compliance and enforcement
7 professionals are the target audience.

8 That may include operations that are
9 interested in understanding how to comply with
10 the regulations.

11 It can include quality assurance
12 representatives within companies. So, anyone who
13 is responsible for compliance and enforcement of
14 the regulations can get an account.

15 So, the way this will work is
16 certifiers -- for certifiers in the room -- the
17 primary and secondary contacts the NOP has for
18 you are automatically enrolled.

19 We have already auto-enrolled the
20 primary and secondary contacts at each certifier.
21 And you will be receiving your account
22 information either later today or tomorrow.

1 Certifiers are in turn responsible for
2 outreach to staff to get their staff registered.
3 And we have a sort of two-way sign up process for
4 that.

5 So, for example, groups and certifier
6 groups can send an Excel spreadsheet to us with
7 information to basically do a bulk account
8 assignment to all of their inspectors and
9 certifier staff. The public can also make
10 individual requests for accounts.

11 So, what I'm asking is if you lead an
12 organization, please coordinate with your group
13 to let them know whether you want them to sign up
14 for accounts individually, or you're going to
15 enroll everybody as a group.

16 We're going to do our best to manage
17 double accounts.

18 It will help if organization leaders
19 help work with their organizations to signal
20 whether you want them to register themselves, or
21 whether you're going to do it as a group.

22 Now, we do have a flyer about this,

1 and so the flyer is going to be out on the table
2 once we're done here. And I made 200 copies, so
3 there should be enough.

4 So, it has instructions for how to
5 sign up for an account. Again, the system is
6 live. It is working. And so, we're pleased to
7 get the word out about that.

8 Again, if you are a certifier lead or
9 a secondary contact, you'll be getting your
10 registration information with login and password
11 today. These login and passwords are for
12 individuals because it does track your
13 individualized learning.

14 So please don't register a group email
15 address, because then your individual folks won't
16 get credit for the courses that they complete.

17 So, let's talk about next steps. On
18 the left side is a list of the courses that are
19 in there right now. And so, we have introduction
20 to the organic system, we have sound and sensible
21 organic certification, we have fundamentals of
22 inspection, we have compliance and enforcement,

1 adverse actions, appeals and reinstatements, and
2 we have import oversight essentials.

3 This is just the start to launch the
4 system. We are in the process of developing more
5 courses.

6 So, first stop. I already mentioned
7 dairy compliance. We're doing an entire course
8 on traceability techniques, so that's, for
9 example, how to do mass balance calculations, how
10 to do traceback audits.

11 There are lots of different
12 traceability techniques that will be included in
13 that training.

14 We will be doing an advanced
15 inspections training, which will be more
16 investigations focused.

17 We'll have a material review course,
18 a certification administration course, and a
19 course on sampling and testing.

20 So, another goal is to deepen our
21 assessments and reporting. This is a very young
22 system, so we've really just started. We didn't

1 have this even six months ago, so brand new.

2 Right now, at the end of each lesson,
3 there is a multiple choice quiz at the end of it,
4 and you do tracked for credit on that.

5 We would like to deepen those
6 assessments so we have better ways of tracing
7 what people really learned and are able to apply.

8 And we are working on better reports
9 so an inspector can print it out and say, here
10 are all the courses I've taken. Here are the
11 course hours I completed, and my grades on the
12 assessments.

13 So that is still in progress and is
14 going to be what's happening in the next few
15 months.

16 So, a number of these courses will
17 launch in 2019, and we're going to continue to
18 develop them. We consider this a long-term
19 investment.

20 Organic training and education is
21 going to be in the proposed rule requirements
22 related to continuing education and training, for

1 both inspectors and reviewers, and that makes it
2 super important that we continue to load new
3 content into the training system over time.

4 So, look forward to getting those
5 accounts assigned, and let the learning begin.

6 So, for our final topic, I am pleased
7 to announce our Organic INTEGRITY Data Quality
8 Awards winners.

9 So, a little bit of background here.
10 Let's look at the context behind these awards.
11 Protecting organic integrity requires accurate
12 and timely data from our certifiers.

13 Unfortunately, data management is
14 often invisible labor. It costs money to do data
15 well. It's a reality of data management -- is it
16 takes a lot of time, and it takes a lot of effort
17 and investment.

18 So, we, a couple years ago built the
19 Organic INTEGRITY Database's Data Quality
20 Dashboard in order to make data labor more
21 visible and show certifiers the strengths and
22 weaknesses in their data.

1 So, certifiers can look at a number of
2 factors to see how they're doing with their data
3 submittals in the Organic INTEGRITY Database.

4 And certifiers have really upped their
5 game on data quality. And so, the investing in
6 INTEGRITY Awards for this year were based on data
7 quality and quantity at the start of 2019.

8 So, what we were looking for were
9 regular data updates, use of the product
10 taxonomy, the inclusion of acreage and livestock
11 counts, and complete information.

12 And what we've seen over the last
13 year, since our first round of awards, is that
14 the data quality and completeness has gone up
15 significantly across certifiers.

16 Certifiers are really coming into
17 their own, both in the frequency of data updates,
18 and in the completeness of the data.

19 Now, the proposed rule that'll be
20 published this fall will also make some of this
21 reporting mandatory.

22 So for example, acreage will be a

1 required piece of reporting, as will item level
2 information in the proposed rule. And so, if you
3 find that data useful, look for the public
4 comment opportunities this fall when that comes
5 out.

6 And so, now, we're going to do -- drum
7 roll, please, for the winners. Come on, help me
8 out here. All right.

9 We have eight winners this year, and
10 I'm going to ask them to stand so we can
11 recognize the folks in the room. So, if you are
12 a representative of these organizations, please
13 go ahead and stand up.

14 California Certified Organic Farmers,
15 CCOF. Where are you?

16 DR. TUCKER: Stay standing. We've got
17 the Colorado Department of Agriculture. We have
18 the County of Marin Organic Certified
19 Agricultural. Let's give both of them a hand.

20 We have the Georgia Crop Improvement
21 Association. They couldn't be with us today.
22 But give them a hand. GOA, we've got the Global

1 Organic Alliance here. Go ahead and stand up.
2 Stay standing.

3 We've got the New Mexico Department of
4 Agriculture. Unfortunately, they couldn't be
5 with us today, but let's give them a hand. We
6 have One-Cert, Incorporated. So I think I saw
7 Sam here earlier. Congratulations.

8 And we have Primus Labs. So is Primus
9 here? Let's give them a hand. So
10 congratulations to all of you. This reflects a
11 lot of investment in data quality.

12 We're going to take a picture with all
13 the awards winners at the break. So if you are
14 an award winner and you want to be in the
15 picture, please meet us at the base of the
16 elevators at the beginning of the break.

17 We promise it will be quick. But if
18 we all convene quick we can take the picture. So
19 we'll take pictures with the award winners at the
20 bottom of the -- we'll meet at the bottom of the
21 escalator at the beginning of the break.

22 I just want to note that of these

1 three -- of these eight winners, only three won
2 it two years in a row. That's how much the
3 quality game has increased, is that there were a
4 number of winners last year that got bumped off
5 the list because some certifiers said hey, we're
6 really going to invest in this.

7 So we do -- we will continue to award
8 these each year, and it will be interesting to
9 see how the list continues to evolve.

10 The winners this year met a higher
11 baseline than the winners last year. So I think
12 it's a great example of continuous improvement
13 across the organic community. And there we have
14 it. So that concludes the NOP update, and I am
15 happy to take questions from the Board.

16 CHAIR BEHAR: Dan.

17 DR. SEITZ: Jenny, thank you for that
18 very informative report. And I appreciated
19 hearing your perspective on how to regulate the
20 hydroponic operations. I appreciated hearing
21 yesterday during the NOC meeting that you're in a
22 fact-finding mode.

1 You're trying to understand what's
2 happening out there in the field. And that
3 there's a strong commitment that you have to
4 enforcing the rules, the current organic rules
5 when dealing with the hydroponic operations.

6 My question is as you do your fact
7 finding and you explore what's actually happening
8 out there in the field, if you discover that
9 there are novel aspects to hydroponics that can't
10 be covered by the existing rules, because many of
11 those were developed with in-soil farming in
12 mind, do you see yourself coming back to the NOSB
13 and working with us to develop additional rules
14 that will address the novel aspects of
15 hydroponics and other ponics operations?

16 DR. TUCKER: Okay. Thanks very much
17 for the question. There are legal and policy
18 questions. We are gathering information, you
19 have called it well, sir, data gathering mode
20 right now.

21 The growth of hydroponics and
22 containers has raised some new policy questions.

1 We do need more information and data in order to
2 make concrete policy decisions based on the
3 reality based facts.

4 So I think there is -- there's been
5 specific questions about sort of the soil-based
6 aspects of the regulations. And I think in
7 general USDA disagrees that the provisions in the
8 Act and regulations related to soil mean that all
9 soil must be soil-based.

10 Rather, those provisions apply to the
11 systems that do use soil. And so that is I think
12 an important part of, when we're looking at these
13 systems, that the provisions related to soil
14 apply to soil-based operations.

15 Now there is the natural resources
16 element of an operation, which involves the
17 entire environment of the operations. That's an
18 important separate component of the regulation.

19 So there are policy questions. I
20 think we are going to learn a lot. I think if
21 there are areas where the rules are being broken,
22 we're going to take enforcement action.

1 So if the rules aren't being met, that
2 is a compliance problem, and it needs to be
3 addressed as an enforcement issue. If there are
4 policy inconsistencies and policy questions,
5 generally we communicate those through handbook
6 documents and communication with certifiers on
7 that.

8 If there are novel policy questions
9 that we feel are best handled at the Board, in
10 the Board forum, we would certainly consider
11 that. The Board had a lot of opportunities to
12 work on this topic, and I'm not sure that a lot
13 has changed at this point.

14 So right now we have the regulations.
15 We have the Act. And we are able to make
16 judgments about these policy issues. We get
17 complex policy questions all the time at the
18 National Organic Program, and the vast majority
19 of them don't need to come to the Board. That's
20 just what we do every day.

21 And so we would like the opportunity
22 to do this research. I think there's also some

1 urgency to answering these questions. And so I
2 think we can do that at the program level
3 effectively and in a transparent way.

4 CHAIR BEHAR: Steve. Oh, I thought
5 you said -- oh, Emily, and then Dan -- Dave.

6 MS. OAKLEY: Thank you, Jenny. I was
7 glad to hear you say that all systems are
8 accountable to the same standards. So I'm
9 wondering if you can clarify for everyone that
10 all farm operations, regardless of location,
11 crop, size, or growing system must adhere to OFPA
12 Section 2105(2).

13 Not be produced on land to which any
14 prohibited substances, including synthetic
15 chemicals, have been applied during the three
16 years -- sorry if you can't hear me, during the
17 three years immediately preceding the harvest of
18 the agricultural products.

19 DR. TUCKER: Sorry. We are absolutely
20 committed to upholding OFPA. And so I'll say
21 that again. We are absolutely committed to
22 upholding the Organic Foods Production Act and

1 the USDA organic regulations.

2 There are questions about the scope of
3 the land requirements for -- and the regulations
4 in 205.202. And so what does define the
5 boundaries of hydroponic and container systems?
6 I think that's sort of an essential question that
7 has been raised through some of the recent sort
8 of policy questions that have come up. And how
9 should certifiers consider those land use
10 histories?

11 So you're mentioning that three years.
12 How should certifiers consider that land history?
13 So take, for example, in urban agriculture you
14 have a, you know, greenhouse that's built on the
15 roof of a building. There's -- does a three year
16 transition of a greenhouse built at the roof of a
17 building, it's not really applicable. There's
18 nothing to transition.

19 And so I think that those are the
20 types of policy questions that need to be
21 carefully looked at. We need to understand
22 what's really happening on the ground with these

1 operations. And we are committed to upholding
2 the Organic Foods Production Act in full.

3 MS. OAKLEY: Could I have a follow-up
4 to that? So, yes, I understand that's sort of a
5 unique situation. But, for example, you might
6 have a greenhouse that was previously
7 conventional that's transitioning to organic. So
8 I'm hoping for clarity that in that situation
9 they would follow the three year transition
10 period. And I'll just give an example.

11 My whole farm is certified organic.
12 So if I were to build a greenhouse in an enclosed
13 environment, but I decided to spray a prohibited
14 substance before that on my land, you know, that
15 would seem to be in conflict with what my
16 certifier would allow.

17 DR. TUCKER: Sorry. You know, one of
18 the reasons I gave the statement this morning was
19 that I engaged in hypotheticals, and
20 hypotheticals are really risky. So I would
21 prefer not to engage in hypotheticals here. We
22 need to learn what specific systems are out

1 there, what certifiers specifically are doing,
2 and we need to pursue the policy questions that
3 those raise. But I got myself in trouble with
4 hypotheticals last time. So I'm not going to do
5 that.

6 MS. OAKLEY: One more follow-up? Is
7 that okay? Sorry. Okay. I totally understand
8 that. And I also don't want to put you in a
9 situation of hypotheticals.

10 And I think though that some of that
11 can be clarified by, as you say, you know,
12 following OFPA with every operation. And I think
13 what would satisfy a lot of concern, at least for
14 me, because when I first heard this situation I
15 thought there is no way that's happening. You
16 know, that's just not allowed. And I think a lot
17 of people would think that initially. Like, that
18 can't possibly be allowed because we have a three
19 year transition period.

20 So if the program could please
21 clarify, maybe not on the spot right now but very
22 soon after this meeting, that a three year

1 transition period is required for all operations.
2 I mean, that would really resolve the issue right
3 there.

4 DR. TUCKER: Yes. We appreciate the
5 urgency with which these questions are being
6 asked, and I am committed to reviewing the policy
7 questions that have been raised and getting
8 clarity where it's needed out into the -- out to
9 the world.

10 CHAIR BEHAR: Dave.

11 MR. MORTENSEN: Jenny, I just wanted
12 to come back to Dan's question. I don't -- you
13 know, and when we think about facts and what we
14 voted on and what we didn't vote on, when we
15 voted on the soil versus hydroponic issue in
16 Jacksonville, we did not get into defining what
17 is an acceptable suite of practices, that once
18 we've then decided that hydroponics is going to
19 be in play, we've never had that discussion as a
20 Board. That's a fact.

21 And it's my view that there are a lot
22 of dimensions. And I've been in probably 30

1 hydroponic production facilities, most recently
2 two last week. That we would consider, I think,
3 or at least we should discuss. I'm not sure that
4 we would all agree.

5 But we should discuss whether or not
6 those practices conform to an organic label or
7 not, that have to do with a whole host of issues
8 around plastics, metals, pumps, lubricants, lack
9 of vegetation, lack of bio-diversity, plastic
10 covering the complete ground of a farmed lot,
11 including truck traffic ways with plastic, and no
12 green vegetation.

13 I think that it's incumbent on the
14 Board to take a critical look at what constitutes
15 the suite of practices that are in play and where
16 are we really going off the rails with a, you
17 know, with a production system that really has --
18 that really violates many of the principles, I
19 think, upon which the label is granted.

20 DR. TUCKER: So I appreciate the
21 comment. I'd like the opportunity to learn more
22 about what's happening and then make the best

1 next steps that we need to take, based on what we
2 learn.

3 CHAIR BEHAR: Scott.

4 MR. RICE: Thanks. Jenny, in your
5 dairy compliance project report you mentioned
6 that all of those operations that you looked at
7 were meeting the 120 day minimum, which was great
8 to see. Can you just clarify that is regardless
9 of, like, any confinement period?

10 DR. TUCKER: Correct. So temporary
11 confinement is allowed as part of the regulations
12 under, again, very specific circumstances. And
13 so that would need -- it's also going to be part
14 of the training. That 120 days was met, even
15 with any temporary confinement due to the
16 allowable reasons in the regs.

17 MR. RICE: Okay. Thanks.

18 CHAIR BEHAR: Ashley.

19 MS. SWAFFAR: So, Jenny, thanks for
20 the program, for updating us on origin of
21 livestock. I understand that the industry's
22 changed, and you need to do a new proposed rule.

1 But I will say that, you know, we've
2 heard from dairy farmers for quite some time now
3 how much they needed this rule and need it now.

4 So I would encourage the program to
5 not slow it down like they have in the past, to
6 move this rule through. We hear from dairy
7 farmers every meeting and through the public
8 comment process that they need this out there to
9 continue their businesses. So --

10 DR. TUCKER: Yes. I think from every
11 meeting, after every meeting I go back to our
12 leadership. And I tell them here are the big
13 topics that were raised. Origin of livestock is
14 clearly something where the message here has been
15 clear that the community is very interested in
16 going to a final rule.

17 I think one of the questions is -- so
18 when we're looking at regs there are kind of two
19 opposing arguments here. We need the rule
20 quickly, and the industry has changed a lot.

21 Well, if the industry's changed a lot,
22 that increases the need for public comment in a

1 second proposed rule because you have market
2 participants that maybe didn't comment the first
3 time because they weren't in the market.

4 So if you believe that the market has
5 changed, but not in such a way that it
6 fundamentally alters the public comments that
7 came in, we need that feedback.

8 And so this is where if the community
9 can articulate why you believe, you know, the
10 public, despite the growth of the industry, that
11 the controversies and the comments at the time
12 are still relevant, despite those changes in the
13 market, those are the kinds of arguments that may
14 have more weight.

15 This is not a program decision, right.
16 This is a decision that will be made by USDA and
17 likely Office of Management and Budget. They're
18 the ones who make these kinds of decisions. But
19 those are the arguments that they would likely be
20 more compelled by.

21 Okay, you say the market's changed a
22 lot. Why wouldn't you need a second proposed

1 rule, given those changes? If you can articulate
2 how the market's actually pretty much the same
3 but has increased, and why you're not shutting
4 out -- why we're not shutting out people by not
5 having a second proposed rule, those are
6 important arguments that would need to be
7 articulated.

8 I will take back the interest in a
9 final rule, back to the administration. I think
10 -- we hear often the need for openness and public
11 comment and transparency. And now you're saying
12 oh, no, no, don't do another round of public
13 comment, and that can be a little bit
14 contradictory in a community that so values
15 public comment.

16 MS. SWAFFAR: One follow-up to that,
17 Jenny. For the dairy industry, if they feel
18 that, who should they direct those comments to,
19 that they need -- they don't need a new proposed
20 rule, just a final? Straight to the Secretary?

21 DR. TUCKER: Honestly, on that one, we
22 are the ones who end up writing the work plan

1 that goes up, and that's where those arguments
2 are articulated. There's a very formal process
3 for all of these. So, honestly, sending letters
4 to me and Paul would be useful.

5 The best letters are those that are
6 really thoughtful, contain unique information
7 about -- through your perspective and your
8 understanding of the market. Those are the most
9 helpful. Often when they come in from an
10 organization representing a group, those are just
11 -- tend to have more content that we can use in
12 formal documents.

13 CHAIR BEHAR: Steve.

14 MR. ELA: Jenny, I'm curious. On the
15 dairy inspections, and I know you can't comment
16 on specific ways you select farms because that's
17 part of your process.

18 But did that -- I mean, of the -- all
19 the farms inspected, and you said they all
20 complied with 120 days. Was that a cross section
21 of regions, sizes?

22 I mean, do you feel -- I guess, you

1 know, there's always concern with big operations
2 versus small, and I know they each have their own
3 issues. But do you feel like you had an adequate
4 cross section of those?

5 DR. TUCKER: Yes. So I can talk a bit
6 about the selection criteria. So I won't tell
7 you who the farms were, and I'm not going to say
8 how many there were either because those are
9 investigative techniques.

10 I will share some of the criteria. We
11 are using a risk-based approach. And so I think
12 with respect to dairies, given the complexity of
13 those operations, large operations are
14 particularly a high risk.

15 I would also say that any operation,
16 large or small, that hovers right around that 30
17 percent DMI and right around that 120 days, we
18 would consider that to be a risk factor with
19 respect to the regulations.

20 Operations that have had multiple
21 complaints against them, or compliance history.
22 Now the fact that somebody's had a complaint

1 against them does not make them guilty.

2 And in fact, an awful lot of
3 complaints that we get are actually from
4 competitors. And so that is a nature of the
5 business.

6 And in fact, actually the majority of
7 our complaints are about uncertified operations.
8 So a lot of our enforcement time is actually
9 spent regulating people who are using the organic
10 name without certification. So that just is a
11 little bit of a sidebar.

12 So but having a history of either
13 compliance issues, where they've actually been
14 issued non-compliances by the certifier. So that
15 is a risk factor.

16 We did go across the country. So we
17 visited Western dairies, upper Midwest, East,
18 Central. So we've been all over the place. Up
19 here in the Pacific Northwest. We've been around
20 the country. And we'll go to even more
21 operations this year.

22 So we did take a pretty broad view of

1 the distribution. So those are some of the
2 factors that we use to make those decisions.

3 CHAIR BEHAR: Tom.

4 MR. CHAPMAN: Hi, Jenny. Thank you
5 for sharing that information about the USDA
6 enforcement activities. It's reassuring to see
7 the program working in this space so actively.

8 And I look forward to seeing that
9 proposed rule in the fall. I just want to
10 continue to encourage the program to advertise
11 and inform the public of its enforcement
12 activities.

13 In the absence of information I think
14 most folks will generally make up their own
15 stories to connect the dots and generally assume
16 the worst. So that enforcement activity is not
17 occurring or is not occurring at the robust level
18 that it is.

19 So just want to continue to encourage
20 you. I like the sharing of information here and
21 encourage the program to find -- continue to
22 share in this forum and find other forums to

1 share that information out to the public, so they
2 can continue to establish, or hold their trust in
3 the organic program.

4 DR. TUCKER: I appreciate the
5 comments. You know, that was a big take home
6 from the meeting yesterday with the National
7 Organic Coalition, is that we need to do a better
8 job of communicating what we are doing in
9 enforcement.

10 You know, I'll repeat that actually
11 the majority of our enforcement actions are --
12 were -- are against non-certified farms. So
13 farms, businesses that are representing
14 themselves as organic without certification. And
15 so that is a top priority in protecting organic
16 farmers who have gone through the certification
17 process.

18 We have improved reporting on our
19 website, are going to continue to do so. I think
20 that the new database gives us the ability to see
21 patterns in enforcement that will make it much
22 easier to report on those to the public.

1 We are committed to sharing more
2 within the constraints of investigative
3 techniques and due process. So, and there are
4 some things I'd love to tell you and just can't.

5 You know, I do encourage folks right
6 now, what we do have posted on our website is we
7 do post, for example, final suspensions and
8 revocations of both certifiers and operations.

9 We post settlement agreements. We
10 post consent orders. And if you look at the ones
11 that have been issued over the past few months,
12 there will be more coming. So encourage folks to
13 keep an eye on those pages.

14 You know, again, I can't say hey, look
15 at this page today, you know. But I think there
16 are folks out there who regularly look at those
17 pages. And we are committed to getting the word
18 out, and if you can help us in that, we
19 appreciate it.

20 CHAIR BEHAR: Emily.

21 MS. OAKLEY: Sorry. I don't want to
22 belabor the point, and I know that we have other

1 things to go to. I just want to re-emphasize
2 that consumers understand many things about
3 organic, and things they don't understand about
4 organic are also very vast.

5 But one thing that they do understand,
6 surprisingly in large numbers, is the three year
7 transition point. And I think that -- I hear you
8 saying you need to do some investigating and see
9 what's out there.

10 I just want to reiterate that I think
11 it can really be clearly established, not by
12 looking to see what people are doing necessarily.
13 We don't need to engage in hypotheticals. We
14 just need to clearly assert what the rules state.

15 And I know you mentioned the issue of
16 land. I think it's possible that we could guess
17 that perhaps when that law was written there
18 wasn't an expectation that that might then be
19 produced in a building or in a facility.

20 And perhaps you're thinking that it --
21 on land, or the operation, that that might
22 provide different clarity. I don't know. But I

1 just want to say that for me this strikes at the
2 heart of why I'm here and why I'm an organic
3 farmer.

4 And I really hope that you can issue
5 clarity on this immediately. Because it is an
6 extremely important issue. Thank you.

7 DR. TUCKER: Yes. I appreciate that,
8 and I hear you, and we will move quickly.

9 CHAIR BEHAR: Yes, thank you. I want
10 to say thank you, Jenny, for the wide-ranging
11 amount of work happening at the National Organic
12 Program, and reiterate what Tom said.

13 I believe both for the trust of those
14 who are doing it right, to hear the work that you
15 are doing, as well as to those who maybe want to
16 skirt around the rules a little bit, to know that
17 they will be caught, or at least they'll have
18 scrutiny. I think that is super important.

19 So a little bit more outreach on your
20 activities and, you know, that you are going to
21 be out there looking, I think does a lot to deter
22 some of the problems that we have.

1 DR. TUCKER: Yes. I just want to say
2 I am fully committed to protecting both farmers
3 and consumers.

4 You know, every time I go to the
5 grocery store, it's inevitable that the person in
6 front of me has an organic product on that belt.
7 They're handing it to the checkout person. And
8 they're making a choice with that purchase.

9 And I am -- we are all devoted to
10 protecting that choice and protecting the
11 integrity of the seal. So thank you for
12 listening to the update, and looking forward to
13 the rest of the meeting.

14 CHAIR BEHAR: Let's give Jenny a round
15 of applause. Thank you. Okay. Finally, I can
16 do what I thought I was going to do earlier. I'd
17 like to introduce Adam Cline.

18 Adam is the head of the Census Section
19 in the Census and Survey Division at the USDA's
20 National Agricultural Statistics Service. Adam
21 directs the day to day operations for the
22 Agency's census of agriculture program and the

1 organic program. Multiple national level surveys
2 are conducted on an annual basis.

3 Prior to that Adam worked as a
4 statistician and project manager, where he
5 coordinated data collection and analyzed
6 agricultural data for over 15 years.

7 Adam is here to talk today about
8 USDA's organic surveys and data quality. Thank
9 you, Adam.

10 MR. CLINE: Thank you to Jenny and
11 Harriet and the rest of the Board for having me
12 here today to speak about organic data. As far
13 as data goes, organic is still fairly new in the
14 game.

15 And I fully understand that there is
16 at many times confusion as to what numbers to
17 review and what numbers can be trusted. So I
18 will attempt to clarify that as we -- as well as
19 provide some information on the upcoming 2019
20 organic survey.

21 So I will provide some explanations of
22 the different surveys, the different data

1 sources, as well as the challenges that USDA
2 faces when it comes to capturing these data and
3 how we can succeed in providing accurate and
4 reliable data, as I know the policy changes we
5 all look for start with good data.

6 Additionally, we recently released the
7 2017 Census of Agriculture data. And I will
8 provide a couple organic highlights from that.

9 So we'll start with the NASS producer
10 surveys. The upcoming 2019 survey will be the
11 sixth producer survey that we have conducted.
12 And while all the surveys -- organic surveys we
13 have conducted so far are similar, there are a
14 couple of differences to note.

15 We receive appropriations to conduct
16 a special study following the Census of
17 Agriculture, and the first was conducted in 2008,
18 and then we did another one in 2014.

19 2019 will be a special study to the
20 2017 Census of Agriculture. And I will provide
21 some further information on that on the next
22 slide.

1 In the in between years of those
2 special studies, NASS has collaborated with the
3 RMA, Risk Management Agency, to conduct organic
4 surveys in direct support of their price
5 selection program.

6 And while the content for these are
7 similar, we do ask a few more questions on the
8 Census of Agriculture program special studies.

9 So as I mentioned, the 2019 organic
10 survey will be the next data collection effort
11 conducted and is part of the 2017 Census of
12 Agriculture.

13 The Federal Register was posted on
14 February 28th, and it will close on April 29th.
15 If you have already provided comments, thank you.
16 And if you would like to provide comments and
17 have not done so yet, there's still some time.

18 We're currently conducting field
19 testing on some questionnaire changes that we
20 hope will provide more accurate data. Some of
21 these changes include simple wording and section
22 ordering.

1 We also included some more information
2 on food marketing practices that will correlate
3 closely with the questions that we had on the
4 Census of Agriculture and a 2015 local food
5 survey.

6 We recently enjoyed meeting with a
7 number of USDA stakeholders, as well as external
8 stakeholders from the National Organic Coalition,
9 to determine the needs of the industry.

10 And the survey will continue to
11 collect data on production quantity and values,
12 as well as production and marketing practices.
13 We'll begin data collection in December of this
14 year, and we will release results in October of
15 next year.

16 So along with the producer surveys, we
17 also have conducted the certifier surveys to get
18 certifier, acreage, and livestock data. AMS
19 began this effort in 1992 and followed that by
20 Agrisystems, a private company that conducted it
21 in 1995.

22 Economic Research Service provided the

1 longest tenure of data, from 1997 to 2011, before
2 they lost resources to continue. At that time
3 NASS took over for a couple of years in 2014 and
4 '15. And now we've come full circle, and that
5 data will be provided by the NOP through the
6 Organic Integrity Database.

7 And kudos to the NOP for taking the
8 transition to collecting and reporting the
9 acreage and livestock data seriously. Stacy
10 Swartwood did an amazing job at ensuring all
11 stakeholders were consulted along the way. That
12 included NASS, ERS, and certifying agencies.

13 Our goal was to create a database that
14 allows the certifiers to report their acreage and
15 livestock data easily and in a structure that
16 will provide data that could be compared to that
17 of the previous efforts of NASS and ERS and
18 others.

19 The first data report was completed in
20 2017, and NOP has provided multiple reports since
21 then. While the reporting of these fields is
22 currently voluntary, the stats do show that

1 participation is consistently increasing.

2 As you know, there is a proposed rule
3 to make reporting mandatory. And that will go a
4 long way in improving the accuracy of this data.

5 So with the multiple surveys and data
6 sources there of course comes confusion of which
7 numbers to trust and what do the numbers actually
8 represent.

9 I'll start with the number of
10 operations. The NASS producer surveys are self-
11 reported and represent certified organic crop and
12 livestock operations that have production in the
13 given survey reference year.

14 This number does not include
15 processing and handling operations. On the other
16 hand, the NOP operation counts are from mandatory
17 and regulated reporting and do include operations
18 and businesses such as processors and handlers.

19 Another thing to keep in mind is
20 methodology differences. While NASS may count a
21 single entity with multiple locations as one
22 operation, NOP may count that as multiple

1 operations, or vice versa.

2 Next we have the difference in the
3 certifier and acreage livestock data that NASS
4 and ERS have provided in the recent data from the
5 Organic Integrity Database.

6 A couple of items to note here are
7 that NAS and ERS had very long data collection
8 timeframes. We also had resources to interact
9 with the certifiers.

10 On many occasions we went and visited
11 the certifiers ourselves, in person, and went
12 through the files and entered the data ourselves
13 from paper. Or they would send us a spreadsheet,
14 and we'd enter it that way. We also have the
15 expertise to review and edit the reported data,
16 looking for duplication or obvious key entry
17 errors.

18 The NOP currently has limited
19 resources for certifier interaction and data
20 review and must rely on the assumption that the
21 data is being reported and reported accurately.

22 So to further dive into the challenges

1 from getting acreage and livestock data from the
2 Organic Integrity Database, first and foremost is
3 reporting is voluntary.

4 Working in a data collection agency I
5 know first-hand that getting responses on a
6 voluntary survey is very difficult and often
7 requires multiple contacts. And as I mentioned
8 previously, the data issues, such as duplication
9 and key entry mistakes are not corrected.

10 The record keeping varies greatly
11 among certifiers. While some have very
12 sophisticated systems that sync with our
13 integrity database, others are working off of
14 paper only.

15 And while this data may be currently
16 a bit less reliable, it does have the capability
17 of being much more accurate, timely, and
18 available to users.

19 So how do we get reliable, accurate,
20 and timely acreage and livestock data from the
21 Organic Integrity Database? I absolutely believe
22 that we will get there, and there a few steps

1 that will assist in this effort.

2 The first is mandatory reporting.
3 More data means better data. NASS and NOP have
4 also begun discussing a data validation project
5 that will allow NASS experts to consult with NOP
6 to ensure reported data is being analyzed and
7 corrected accurately.

8 And finally, certifier support from
9 you, the industry. Simply talking to the
10 certifiers about the importance of this data will
11 help tremendously.

12 With these three steps I am confident
13 that in a short time the USDA will have the
14 ability to provide accurate acreage and livestock
15 data.

16 I mentioned earlier that NASS recently
17 released the results from the 2017 Census of
18 Agriculture. I'd like to point out a couple of
19 highlights from that data.

20 The first is the number of organic
21 farms and value of sales are up from 2012. The
22 number of certified operations is up 39 percent,

1 and the value of sales is up 57 percent, at \$7.2
2 billion dollars.

3 The other takeaway is that the organic
4 producer is younger and more likely to be a full-
5 time farmer than those -- than non-organic
6 farmers. As you can see the average age of the
7 organic farmer is 51.3, while all farms is 57.5.

8 Another interesting highlight is that
9 64 percent of organic farmers noted that their
10 primary occupation was farming, compared to 42
11 percent of non-organic farms.

12 So thank you again for having me and
13 allowing me to speak about USDA's organic data.
14 I hope I have cleared up a little bit of
15 confusion when it comes to all of the different
16 numbers out there.

17 CHAIR BEHAR: Any questions from the
18 Board? Emily.

19 MS. OAKLEY: It's really just a
20 comment. I just want to say that I find this
21 data very helpful, and I appreciate its
22 collection. I know that it's hard to get data

1 from farmers. But I think it's a great tool.

2 And it's a bright spot in terms of
3 data collection and what can be gained from it.
4 And also, your staff is very accessible, in terms
5 of mining through that data for more details. So
6 thank you.

7 MR. CLINE: Thank you.

8 CHAIR BEHAR: Steve. We're not done
9 yet.

10 MR. ELA: With total sales going up,
11 what, from, what was it, \$7.1 billion from two
12 point -- I can't remember the numbers. But did
13 you, obviously -- and the number of farms went
14 up.

15 But is income per farm up as well? Or
16 how does that, I mean, in those smaller, I mean,
17 I know those are kind of micro details. But
18 where are you seeing that trend going?

19 MR. CLINE: Well, the average, the row
20 just below that \$7.2 billion average value of
21 sales per farm, went from 401, or went from 218
22 to 401, up 84 percent.

1 But, you know, what it doesn't show
2 is, you know, the size of that farm. And there's
3 a number of other things that are in that data
4 point that really kind of skew that number. It's
5 hard to really look at just that one single data
6 point and really make a decision on it.

7 But I think in the end it increased,
8 you know, per farm. And, you know, whether it
9 was that drastic for all size of farms, probably
10 not. But --

11 MR. ELA: And do you have any -- I
12 can't remember the questions, it's been long
13 enough since I filled them out. I hope I did.
14 But that would be gross income per farm. Any
15 information on net income?

16 MR. CLINE: We don't have it for
17 strictly just the organic farms. We do have it
18 for the overall farm. But not just only organic
19 sector.

20 CHAIR BEHAR: Any other questions?
21 Dave.

22 MR. MORTENSEN: Yes. I also wanted to

1 thank you. That's really interesting data and a
2 summary. I was curious, is there any way of
3 linking the data that you're collecting here, or
4 maybe it's already in the data set, based on the
5 acreages that you're reporting in transition,
6 where you could probe the data set to determine
7 whether farms are increasing in size?

8 What the nature of changes in farm
9 number and size are as a function of production
10 type? Those are some of the sorts of things that
11 could help inform the Board on some of the
12 thinking about, you know, are dairy operations
13 getting much larger? Do we have a bi-modal
14 distribution emerging in agriculture, or things
15 like that?

16 I was just curious. I know MacDonald
17 and the Economic Research Service published a
18 really helpful guide on how farms' size is
19 changing. And then he argued how practices that
20 go along with farm size change almost in
21 lockstep. And I was just curious if we could do
22 that with this data.

1 MR. CLINE: I feel that we could do it
2 with, you know, some of the overall data we have
3 for all farms. You know, with the census the
4 organic section is really just two questions.

5 It's, you know, are you certified,
6 exempt? Do you have acres in transition? And
7 then your total value. So we're really limited
8 on what we can do with that, with the organic
9 piece.

10 MR. MORTENSEN: And the details of the
11 production --

12 MR. CLINE: And the details of it.

13 MR. MORTENSEN: -- system.

14 MR. CLINE: Yes. And we do try to,
15 you know, with the 2019 survey coming up, we try
16 to ask some, you know, probing questions on what
17 their future plans are and what they're -- if
18 they're going to enter or exit any -- in the next
19 five year. And so we do try to get a little bit
20 of that information there.

21 MR. MORTENSEN: Okay. And one other
22 question. Is the data publicly available to the

1 group here? All of this data? Or not yet?

2 MR. CLINE: 2017 Census?

3 MR. MORTENSEN: Yes.

4 MR. CLINE: Yes.

5 MR. MORTENSEN: It is? Great.

6 Thanks.

7 MR. CLINE: Yes. It's on the -- if
8 you go to the -- well, I don't have it on there.

9 Sorry. It's AgCensus.USDA.gov, I believe.

10 CHAIR BEHAR: Rick and then Jesse.

11 MR. GREENWOOD: Yes. Question. Can
12 you do production by a particular commodity by
13 acre? And what I'm interested in, my commodity
14 is avocados.

15 There's always talk that organic
16 groves are less productive. But I'd like to be
17 able to see if you could get a dollar value per
18 acre for conventional versus organic.

19 MR. CLINE: We -- you can compare it
20 a little bit just from our -- from the different
21 surveys that we've done. And I know that ERS has
22 actually tried to do some conventional versus

1 organic price research as well.

2 It wouldn't be from the 2017. Because
3 we only have the conventional. Well, the organic
4 commodities are included in the conventional, but
5 it's not broken out by organic. So we can't get
6 -- you can't make that distinction from the
7 census of organic and conventional to get to that
8 price difference.

9 MR. GREENWOOD: Okay. Thank you.

10 CHAIR BEHAR: Jesse.

11 MR. BUIE: Yes. In reference to data
12 accuracy, this is just an aside. I notice that
13 during my most recent inspection that the
14 inspector made a real effort to really document
15 my acreage.

16 And we spent a lot of time going over
17 exactly what I had and what the plans were. So,
18 you know, that gives me encouragement that this
19 is a, you know, data is moving in a accurate
20 direction.

21 MR. CLINE: Yes. That's good to hear.

22 CHAIR BEHAR: I have one comment and

1 maybe a question. In the State of Wisconsin, I
2 am on the Wisconsin Organic Advisory Council,
3 along with someone else in the audience.

4 And we have been kind of struggling
5 about the economic impact of organic, especially,
6 you know, there's kind of this gap between we
7 know what the sales are of organic products, you
8 know, in stores.

9 And we know what the farm gate prices
10 are. But there's this whole gap there in the
11 middle that, trying to understand like what the
12 multiplier effects might be for organic.

13 You know, there's -- in conventional
14 world they'll say, you know, every ten cows is
15 one, you know, person employed or whatever it
16 might be. But we feel like there is more
17 economic activity around organic because of the
18 somewhat higher price and the need for more labor
19 and that sort of thing.

20 Is there any way to distill any of
21 these statistics to help understand if, you know,
22 an organic farm in the neighborhood is generating

1 more ripple effects throughout the local economy
2 than perhaps a conventional farm?

3 MR. CLINE: Yes. That's a great
4 question. You know, I know AMS does a lot of
5 their own kind of that retail price for organic.
6 And, you know, what we're getting is really what
7 the farmer is receiving.

8 So what happens kind of in between
9 there, it's hard to say. And, you know,
10 something to think about for sure, if there's
11 some type of questions or some set of questions
12 we could add in there to maybe get to that.

13 CHAIR BEHAR: Okay. Thank you. With
14 no other questions, I say thank you to Adam.

15 MR. CLINE: All right. Thank you.

16 CHAIR BEHAR: Okay. So we are
17 scheduled for a break, and I just want everyone
18 to know that we are three minutes early. So
19 we'll see if we can hold on to that one. So we
20 will come back at 10:45 a.m.

21 (Whereupon, the above-entitled matter
22 went off the record at 10:27 a.m. and resumed at

1 10:48 a.m.)

2 CHAIR BEHAR: Okay. Thank you,
3 everyone. We are now going to move into a
4 discussion on celery powder with the panel. And
5 I'm going to turn this over to Asa Bradman, who
6 is the Chair of the Handling Subcommittee.

7 MR. BRADMAN: Thank you. I'm pleased
8 to introduce the session today addressing celery
9 powder. And also just to provide a little
10 context, celery powder, as many of you know, is a
11 material that is in many ways essential for
12 curing organic meats as an alternative to
13 synthetic nitrate and nitrites.

14 And this material has been on the
15 National List for a bit over ten years now. It's
16 gone through one Sunset Review and is now going
17 through another Sunset Review. And as you know,
18 it's listed on 606 as a non-organically produced
19 agricultural product, allowed in processing.

20 And it's kind of a, really a test case
21 for how we can take important and critical
22 organically or agriculturally produced materials,

1 and get them off 606 and into -- and sourced
2 organically.

3 So this discussion really is a time to
4 evaluate this material, which in many ways is
5 critical to a large industry related to organic
6 production. But at the same time we would like
7 to kind of extend the full range of materials
8 used in producing meat products to organic
9 sources.

10 First, I want to thank the panel
11 member. As part of this Sunset Review we felt
12 like this was such a critical material it would
13 be better to have an in person discussion with
14 experts, rather than a relatively brief Sunset
15 Review.

16 So I want to thank the panel members
17 for their volunteering to come and attend this
18 meeting and educate us on this issue. And also I
19 want to thank the National Organic Program for
20 sponsoring this, allowing the NOSB to convene
21 this panel and have this discussion.

22 So I won't speak too long here. I

1 want to turn it over now to Dr. Mathews, who will
2 be introducing the panel members and reading the
3 bios.

4 And then we'll follow along with the
5 first series of presentations by the panel
6 members and then opportunities for discussion and
7 questions by the Board.

8 I want to say one thing. We want to
9 limit questions during the presentation period
10 only to very brief clarification questions about
11 the content of a specific, any specific points
12 raised in the presentation and then save more
13 broader discussion or in depth questions for
14 afterwards. Thank you.

15 DR. MATHEWS: Thank you. Starting
16 with our first panelist, I'll be introducing in
17 the order in which our panelists will be speaking
18 today.

19 We have Erin Silva, an assistant
20 professor in the Plant Pathology Department at
21 the University of Wisconsin Madison. Dr. Silva's
22 research and extension program focuses on

1 sustainable and organic cropping systems,
2 including cover crops and cover crop based no
3 till production, variety selection in organic
4 environments, and the impact of organic
5 management on soil biology and physical
6 properties.

7 She teaches food sustainability and
8 climate change and organic system health. And
9 she has launched a comprehensive organic grain
10 training program for farmers in the upper
11 Midwest. Dr. Silva also serves on the Wisconsin
12 Organic Advisory Council.

13 Jennifer Wasieleski holds a bachelor's
14 degree in microbiology from the University of
15 Minnesota and a master's degree in food science
16 from the University of Illinois.

17 She's currently the RD&A Director for
18 the Food Protection and Fermentation Department
19 at Kerry in Beloit, Wisconsin. Ms. Wasieleski
20 leads a team focused on developing clean label
21 solutions to replace chemical preservatives in a
22 wide variety of food products and has been a key

1 participant in celery power working group
2 initiatives.

3 Logan Peterman has a background in
4 ecology, statistics, and research design. He
5 grew up on an apple orchard in central Wisconsin
6 and has worked in the organic sector for a decade
7 advising state, federal, NGO, and private
8 organizations in data analysis and research
9 interpretation and application.

10 Mr. Peterman currently serves as the
11 Director of Agricultural Research and Analytics
12 at Organic Valley, America's largest cooperative
13 of organic farmers, representing more than 2,000
14 farmers in 36 states. Mr. Peterman chairs the
15 Science Committee for the Organic Center and
16 serves as an active member of the Board of
17 Trustees.

18 And Andrew Milkowski holds a
19 bachelor's degree in chemistry from the
20 University of Illinois and a PhD in biochemistry
21 from the University of Wisconsin.

22 Dr. Milkowski conducted research on

1 food chemistry, ingredient technology, sensory
2 evaluation, product quality evaluation, shelf
3 life measurement, nutritional labeling, and food
4 safety for Oscar Mayer Foods.

5 He retired in 2006 as a Kraft Foods
6 Fellow after 29 years with the company. Dr.
7 Milkowski is currently an adjunct professor of
8 meat science at the University of Wisconsin and a
9 member of the University of Wisconsin Madison
10 Food Research Institute Executive Committee.

11 Thank you to all of our panelists.
12 And we'll begin first with a presentation by Dr.
13 Silva.

14 DR. SILVA: Thank you, Dr. Mathews,
15 for that introduction. And thank you to the
16 Board for allowing me the opportunity to speak
17 about the research we've done over the last,
18 gosh, you know, at least four years now, and talk
19 about what we've learned in terms of producing an
20 organic celery powder alternative. It's really -
21 - it's been an exciting project, and I've learned
22 a lot along the way.

1 So as Dr. Mathews said, I'm at the
2 University of Wisconsin Madison. I'm an
3 assistant professor in organic and sustainable
4 cropping systems. And I've worked in organic
5 vegetable production for about 15 years now.

6 So my expertise is really more
7 holistically in organic production. I'm not a
8 nitrate expert. I'm not an expert on celery
9 production, but looking more at how to grow
10 organic crops, what are the opportunities to grow
11 organic crops in different regions, and how do we
12 optimize different production aspects to get the
13 quality that we're looking to achieve from that
14 product.

15 So I'm going to start, and this is a
16 little hard to see on this. But I just want to
17 put some context on our efforts. So I was pulled
18 into this project back in 2015 and pulled into it
19 from a working group that was organized under the
20 Organic Trade Association.

21 And it really was looking to address
22 in a very systematic way how to, with

1 collaboration from universities, with USDA, with
2 industry, how to find a solution for an
3 alternative, organic alternative to celery
4 powder.

5 So it really has been a very
6 collaborative, participatory, grass roots
7 movement to find an alternative. So getting
8 together, discussing the issue, discussing where
9 our state of the knowledge was, and then
10 generating a plan for research, and requesting
11 funding to conduct that research.

12 So initially that funding came through
13 an OREI, a USDA Organic Research and Extension
14 Initiative planning grant, which was extremely
15 helpful to better understand the landscape, to
16 understand where the bottlenecks were, to
17 understand who the key players were.

18 Securing that grant, and with
19 additional funding from Organic Valleys, Farmers
20 Advocating for Organic fund, and with in-kind
21 donations from industry, such as Kerry, we were
22 able to collect some preliminary data.

1 And with that preliminary data have
2 been attempting to apply for a larger research
3 grant, again from the Organic Research and
4 Extension Initiative.

5 You know, we've submitted that
6 proposal a couple of times. Have gotten
7 extremely, extremely good reviews back. But
8 unfortunately that program is extremely
9 competitive. So have not got funded yet for that
10 full proposal. But next week we'll be submitting
11 that proposal again. And hopefully third time is
12 a charm on that one.

13 But regardless, what I'm going to be
14 presenting to you today is the research that we
15 have conducted with the initial funding, which I
16 think has gotten us quite far in terms of
17 understanding and making progress in terms of
18 finding an organic alternative.

19 So I'm going to through, we were give
20 questions by the Board. So I'm going to go
21 through systematically what those questions were
22 and what I'm able to contribute from the work

1 that I've conducted since 2015.

2 And the first question was compared to
3 growing celery for vegetable production, is the
4 increased use of synthetic nitrogen fertilizers
5 required to produce source plants with enough
6 nitrate for celery powder production?

7 And, you know, this, as part of that
8 initial planning grant we did do interviews with
9 different industry players and different aspects
10 of the celery powder chain, and unfortunately
11 this was not a question we were able to get a
12 definitive answer to. And it was -- there's not
13 a lot of publicly available data on this.

14 I do have to say that Jeff Sindelar,
15 who is a professor in the Animal Science
16 Department, who has done a lot of work in terms
17 of natural curing products, it's his
18 understanding that there are specific
19 recommendations for the production of celery
20 powder for juicing as a meat curing agent. We
21 don't know specifically what those
22 recommendations are or if they're calling for

1 excessive use of nitrogen fertilizers.

2 But regardless to say, and I think
3 this is important in the context of what we need
4 to accomplish to get to an organic alternative is
5 it is different.

6 There is different production
7 parameters for this product versus celery that's
8 grown as a fresh market vegetable crop. So no
9 specifics but knowing that there are different
10 recommendations there.

11 So the third question is really where
12 I'll spend my time. Since 2015 what progress has
13 been made on the production of organic celery for
14 powder production?

15 So this is where the majority of my
16 investment has been. So like I mentioned, our
17 current grant funding to date, we did obtain an
18 Organic Research and Extension Initiative
19 planning grant. We applied in 2016. That was
20 awarded in June. Those efforts have been led by
21 UW Madison.

22 But we did receive some very important

1 and generous funding from Organic Valley's
2 Farmers Advocating for Organics fund, which
3 allowed us to move this work even further from
4 that initial planning grant.

5 So our experimental approach. Again,
6 we did a comprehensive survey of what the state
7 of the industry was, what were some of the key
8 questions in terms of how to produce organic
9 celery for a curing powder.

10 So we looked at several variables that
11 we knew could potentially influence the amount of
12 nitrate within that product. That was variety
13 selection, what types of celery were we growing,
14 fertility management strategies, the farm
15 environment, the harvest date of the product, and
16 then looking at an entirely different alternative
17 to celery, looking at yellow and white beets as
18 an alternative plant source.

19 So we had a core experiment that was
20 conducted at certified organic land at the UW
21 West Madison Ag Experiment Station. This land
22 has been certified for over ten years. It's been

1 managed per very sound organic practices using
2 good fertility practices, good rotation
3 practices.

4 We're certified by MOSA. So we get
5 the same checks as any farmer would. This
6 particular plot of land was under a vegetable
7 rotation with extensive cover cropping done for
8 soil building, 3.5 percent organic matter. It
9 was a silt loam soil

10 And we fertilize annually using
11 pelletized poultry manure, aiming for about 125
12 or 120 pounds of nitrogen per acre, estimating
13 about 50 percent of that N will be available in a
14 given year.

15 We had three replications in a split
16 plot design, with the celery planted as eight
17 week old transplants, drip irrigating as needed,
18 and harvested in late September. So really
19 trying to do what we thought were best practices
20 to obtain a quality crop.

21 We then juiced and froze the samples
22 at UW Madison, aiming to do that within 24 hours

1 of receiving the samples. And then the samples
2 were sent to Kerry Ingredients for further
3 testing.

4 So what did we find? So getting into
5 the nuts and bolts of where we are right now at
6 2019. So these were the nitrate concentrations
7 of the organic celery samples by variety.

8 Again, knowing that different crops
9 will differ in their nitrogen, nitrate
10 concentrations, depending on what the genetics
11 are.

12 So these are all organically produced
13 varieties. We got all organic seed from any of
14 the varieties that we chose. These are standard
15 cultivars that are used by the industry.

16 These are two years' worth of data,
17 2016 and 2017. My understanding, talking to
18 Jennifer, is the threshold that we're looking at
19 is about 12,000 ppm.

20 So the samples varied in terms of how
21 close they came to hitting that threshold. Some
22 exceeded that threshold, and some came under that

1 threshold.

2 But a couple of things to note. That
3 indeed we did see differences in nitrate
4 concentrations depending on variety, which offers
5 an opportunity for optimization by looking at
6 what variety is going to consistently produce the
7 highest amount of nitrates.

8 Again, we are not excessively
9 fertilizing these plots. We're fertilizing them
10 as we would per standard vegetable
11 recommendations. So we're not dumping on extra
12 nitrogen on these by plots by any means.

13 But I do want to note that there's a
14 great degree of variability from year to year.
15 We only had half the amount of nitrate from that
16 high nitrate producing variety, Tall Utah, in
17 2017 versus 2016.

18 So this is something that we
19 definitely need to understand, what is that
20 source of that annual variation, because we did
21 not alter the production practices from 2016 to
22 2017.

1 Some of these varieties, like safir,
2 this was actually kind of interesting because
3 this was a variety that we chose because it's
4 actually an Asian variety that's more used as an
5 ingredient for soups, or more of a flavorant,
6 versus a fresh market variety. But actually,
7 that was very, very low in nitrate, which
8 differed from these more typical fresh market
9 varieties.

10 This is a graph showing effective time
11 to juicing on nitrate concentration, so one of
12 the things we were concerned about, just in terms
13 of the logistics of what this industry would look
14 like if we had an organic source of celery.

15 The bars here, this is 1-1/2 days
16 post-harvest, 5 days post-harvest, and 8 days
17 post-harvest. There was no consistent trends
18 here, depending on the variety, it differed in
19 terms of whether time from harvest to juicing
20 actually increased or decreased the level of
21 nitrate, so again, this is another aspect in
22 terms of optimizing the production chain that we

1 need to understand as we go further into
2 developing an organic alternative.

3 We also looked at harvest date, so
4 looking at the literature and seeing what
5 scientists have done to understand what
6 influences nitrate concentrations in vegetables.

7 And interestingly, the vast majority
8 of literature focuses more on lowering nitrate
9 concentrations, because typically, we're looking
10 at keeping concentrations low in plants versus
11 increasing them, but, you know, looking at light
12 conditions certainly influences nitrate variety,
13 nitrogen fertilization, but also, where that
14 plant is in maturity.

15 So we looked at impacts of harvesting
16 early, 145 days after initial seeding, versus
17 late, 171 days after initial seeding, and again,
18 there were very inconsistent results, depending
19 on variety.

20 So this is where more work needs to be
21 done to identify what is the most consistent
22 high-producing nitrate variety, and then within

1 that variety, determine what is the best
2 management of that variety in terms of post-
3 harvest and harvest date.

4 Again, our focus was to look at, what
5 are the nitrate concentrations being responsible
6 in terms of the nitrate or nitrogen fertilization
7 strategies we're using, but we also wanted to see
8 if we split the nitrogen applications, if that
9 influenced the nitrate levels in the organic
10 celery.

11 So we did this for two years, doing
12 two different strategies. In 2016, we used a
13 foliar feed with a fish fertilizer. So we
14 applied the nitrogen directly to the above ground
15 parts of the plant.

16 We did not see a difference of
17 anything and these were not statistically
18 different, but if anything, we saw a trend to the
19 unfertilized plants having a higher level of
20 nitrate.

21 So in 2017, we took a different
22 strategy, and instead, side-dressed the plants

1 with pelletized poultry manure, and we saw a
2 slight increase, but not significantly so.

3 So at this point, we're not able to
4 dial in on a specific fertility management
5 program using split applications that would
6 significantly increase the amount of nitrate in
7 the product.

8 We also did some on-farm sampling as
9 well, and Harriet might recognize some of these
10 names of these farms that we -- that generously
11 provided us samples and these are all organic
12 farms around the Madison area.

13 Very good organic farms using sound
14 organic practices. We did this for two different
15 years. The first column here is 2016, the second
16 column is 2017.

17 Again, you can see this variability
18 that, in 2016, overall, we had higher
19 concentrations versus 2017, so there's some
20 influence of environment and weather conditions
21 between years that's influencing those varieties,
22 but the other thing I want to know, and again, is

1 just the huge variability in nitrate levels that
2 we're seeing, depending on where those are grown.

3 Interestingly, our experiment station
4 consistently gives us the highest levels of
5 nitrate, which I'm not sure if we just spend more
6 on inputs, but our soil type, or why we tend to
7 consistently produce more higher levels of
8 nitrate in the plant.

9 Just some notes here in terms of some
10 of the varieties that were used in some of the
11 fertility strategies, composted poultry manure,
12 CPM, but the farm that was using cover crops as
13 well. This is a not-replicated design. This is
14 just more of an exploratory set of data, but it
15 is kind of interesting to see these trends.

16 We also got, in 2016, a sample that
17 was sent out to us from California, just to see
18 what the California environment might produce,
19 but again, I just want to highlight that we're
20 looking for a 1200-ppm threshold here.

21 So sometimes we are able to achieve
22 that minimum threshold and sometimes we're not,

1 so there's a lot of work we need to do to better
2 understand this source of variability that we're
3 seeing between farms, between environments, and
4 between years.

5 So for the last question, are there
6 commercially available agricultural products
7 produced alternatives to celery powder, what is
8 our experience with them, are they organic, does
9 their use vary by application, and are they more
10 effective in one application compared to another?

11 And my contribution to this question
12 would be the data that we obtained using organic
13 beet as an alternative to organic celery, and I
14 believe Jennifer's going to talk a lot more about
15 what the different plant-based alternatives are
16 and why they -- or why not they may be
17 appropriate.

18 But I just want to note that these
19 were not any better in terms of accumulating
20 nitrate than celery, and they do have other
21 aspects that may make them less suitable in terms
22 of imparting other flavor profiles to the cured

1 meat product that they may not necessarily be
2 appropriate or any better, more suitable, than
3 celery as we're looking to doing organic
4 production chain for celery as the primary source
5 of natural curing powder.

6 So for our continued work, again, like
7 I mentioned, we are submitting, next Thursday,
8 that proposal for a third time, because we would
9 like to build off of this work. We feel like
10 we've learned a lot.

11 We've developed a very strong
12 collaborative team as part of this proposal. We
13 have Jeff Sindelar, who's an expert in natural
14 curing, we have myself, we have a collaborator
15 from the University of Florida to bring in a
16 different environment, and we have an Ag-
17 economist that's going to look at more of the
18 economics of production and look at more of
19 logistics of supply chain.

20 So we have a very strong team that
21 we've assembled, we regularly meet, we talk about
22 what we need to do in our progress. It's been

1 frustrating that we have not gotten this larger
2 amount of funding to be able to push this project
3 forward, but we do feel like we've achieved a lot
4 with the initial minimal amount of funding that
5 we have had and understand what we're facing and
6 what challenges we need to overcome to get this
7 organic celery powder alternative.

8 So with that, we can pass it on to the
9 next panelist.

10 DR. MATHEWS: Thank you, Dr. Silva.
11 To the board members, we have just one minute if
12 you have any immediate questions for Dr. Silva.
13 If not, we'll move onward.

14 MR. BRADMAN: Just clarification
15 questions.

16 CHAIR BEHAR: Will you be able to do
17 any studies this summer or is it totally
18 dependent on the incoming grant?

19 DR. SILVA: At this point, it's
20 dependent on funding and so we hadn't planned on
21 doing anything else this summer because we won't
22 find out about the outcome of this submission,

1 probably, until July at the soonest.

2 MR. BRADMAN: Emily, just --

3 MS. OAKLEY: Do you think there's a
4 chance that the variation in levels between years
5 was related to rainfall levels?

6 DR. SILVA: Yes, I mean, I definitely
7 think that that could be a primary driver. And
8 it may be also interesting to dissect the weather
9 data a bit more and look at cloud cover, or days
10 of sunlight, looking at soil temperature and soil
11 biological activity may be impacting
12 mineralization.

13 There's a lot of different aspects
14 that we need to put together, but certainly, I
15 think rainfall could be a primary driver.

16 DR. MATHEWS: Thank you. Now we'll
17 move to the presentation by Ms. Wasieleski.

18 MR. WASIELESKI: Thank you. I'd like
19 to take this as an opportunity as well to thank
20 all of you for allowing me to come here and
21 present to you on the data.

22 Since the celery powder working group

1 has been formed, there's been a lot of great
2 work, and I'm really excited to share my
3 learnings with you alongside the other panelists
4 here today.

5 And so as I was thinking about a title
6 for my presentation I felt it was important to
7 take a step back and really think about what the
8 goal is of this project, and it really is not
9 just around celery powder, but, on a larger
10 picture, growing the market for sustainable,
11 profitable organic vegetables.

12 And so to start, I'd like to share
13 this illustration with you of the celery cycle.
14 So there's a number of different steps that are
15 involved in the supply chain in order to create
16 celery powder that can be used in organic meat
17 production to make bacon, and hot dogs, and ham.

18 And so all of these steps in the
19 process provide -- you know, have their own
20 unique hurdles that need to be overcome. And
21 ultimately, our goal is to try to figure out how
22 we can develop a robust and sustainable process

1 so that we can get the organic celery grower into
2 this cycle.

3 So the first question that I'll begin
4 with is on strategies to produce organic celery
5 powder that's standardized to consistently meet
6 the safety and other requirements of the meat
7 processing industry.

8 And so in order to develop a strategy
9 to create an organic celery powder, there's a
10 number of boxes that need to be checked, and to
11 date, the large majority of the work that Erin's
12 presented on has been focused on the cultivar as
13 well as the different growing practices that are
14 needed to achieve the high nitrate levels.

15 The reason these nitrate levels are
16 important is because you're putting an
17 agriculturally produced product, you know, a
18 vegetable, celery, into meat that's not a common
19 flavor that goes into meat products.

20 And so the higher the nitrate levels
21 we have, the less celery that goes into it, and
22 so that means it's less impact to color and less

1 impact to flavor to keep the desirable flavor and
2 organoleptic properties that we like in our cured
3 meats.

4 But there's other boxes that we need
5 to continue to focus our research on, definitely
6 around the juicing process, identifying where the
7 juicer is in location to where the crops are.

8 So there has been some work done and
9 we believe that there is enough acreage
10 available, but that acreage needs to be in a
11 proximity close enough to a juicing facility,
12 because we know that raw celery does have a short
13 shelf life, and we also need to understand, how
14 short is that shelf life, how many days,
15 depending on the variety, can it be held before
16 it needs to be processed, or do we start losing
17 nitrate levels because the normal enzymes within
18 the plant are continuing to operate until the
19 celery is blanched?

20 And then once we identify, you know,
21 the distance that's needed, the shelf life of the
22 celery, the next hurdle that needs to be overcome

1 is, is the juicers that we've identified, will
2 they have capacity within that limited timeframe
3 to start harvesting these vegetables?

4 Because I'm sure at that the same time
5 that celery is coming out of the field, so are
6 lots of other vegetables that they're currently
7 processing.

8 And so we need to make sure that
9 there's also a juicer with the appropriate amount
10 of capacity.

11 Moving into the fermentation step,
12 which is an area that Kerry and other suppliers
13 participate in, there's also some questions that
14 have come up in the research that surprised us
15 about whether the bacterial strain has the
16 capability to convert the nitrate to nitrite in
17 these organic varieties.

18 And this step is actually really
19 important and critical to creating a standardized
20 meat -- or standardized product for the meat
21 processors so that they're delivering the correct
22 amount of nitrites into their meat to make sure

1 that their food product is, in turn, a safe food
2 product for consumers to eat.

3 And then obviously, because this is an
4 agricultural product, we can't expect that 100
5 percent of the time, that all of the celery
6 that's grown is going to meet these requirements.

7 And so I think the most critical part
8 and the critical box that needs to be checked in
9 order to have full success in this process is,
10 where is the outlet for the celery that doesn't
11 meet the nitrate characteristics or won't be able
12 to convert?

13 And hopefully, we'll be able to find
14 a cultivar that is suitable for celery powder
15 production, but is also suitable for, say, other
16 industries, like the fresh market or even
17 culinary applications.

18 But we do need to be mindful that, you
19 know, growing celery for culinary applications,
20 for whether it's color or flavor, may not be an
21 ideal attribute for meat production, but it's
22 important that we find that outlet to reduce the

1 amount of risk to the organic grower.

2 Is an increased amount of synthetic
3 nitrogen fertilizer required to produce plants
4 with high nitrate levels for celery powder
5 production?

6 So we do know that there's a question
7 out there as to whether conventional celery
8 growers, the suppliers that we're currently using
9 today, if they just apply fertilizer prior to
10 harvest, and that's how they achieve their high
11 nitrate levels.

12 And so Kerry had worked with a
13 conventional celery grower to do a small plot
14 study, so they were growing -- the celery variety
15 here is used in the fresh market, and we asked
16 them to apply a handful treatment of urea at the
17 time that they would harvest their crop.

18 And so as Erin had mentioned, we take
19 eight-week old seedlings and transplant them into
20 the soil. At that point, the growing cycle is
21 about 90 days.

22 And so in this particular crop, at 95

1 days, that's when they would have deemed their
2 crop at full maturation. And so they measured --
3 they gave us samples so that we could measure the
4 nitrate levels, they applied a foliar feed, and
5 then we monitored it at Day 96 and 97.

6 And we were actually surprised to see
7 that there wasn't a significant impact on the
8 nitrate levels. However, it was really
9 interesting to see that the nitrate levels were
10 almost double at Days 75 and 81.

11 And so my first thought there was, was
12 there a significant amount of rainfall that
13 reduced the nitrate levels of the plant?

14 So we looked through the historical
15 weather data and there actually wasn't a
16 significant difference in the rainfall levels.
17 Between Days 75 and 81, there was just less than
18 an inch of rainfall, and between Days 81 and 95,
19 there was just under an inch and a half, so not a
20 significant difference there to explain why the
21 nitrate levels had dropped to almost half.

22 But I would suspect that knowing that

1 as in the last month of maturation of the celery
2 plant, that's when it takes up most of its growth,
3 that it was probably converting the nitrates, at
4 some point, to other compounds that are needed
5 necessarily for its growth and development.

6 And so I think an area that our next
7 research will focus on is not necessarily
8 thinking that it's all around the foliar feed
9 application, but is a strategy to continue to
10 monitor the levels as it approaches maturation
11 and find that sweet spot between plant size, even
12 if it means sacrificing some pounds to achieve
13 the high nitrate levels that are needed.

14 Since 2015, what progress has been
15 made on the production of the organic celery for
16 powder production?

17 So Erin had obviously shared a lot of
18 the data that she did on the growing side with
19 the different vegetables. From the Kerry side,
20 she also shared some of the samples that were
21 grown at the West Madison Agricultural Research
22 Station.

1 And I'm only showing the data of the
2 four varieties that had been grown both in 2016
3 and 2017. And so we had taken this juice and we
4 had put it into our fermentation process, and in
5 2016, we had seen that, if not all, the majority
6 of the nitrate had been successfully converted to
7 nitrite by the bacterial strain that we're using.

8 But in 2017, we didn't see the same
9 trend and this was actually really surprising to
10 us, because this was the same varieties, grown in
11 the same field, under the same growing
12 conditions, you know, Erin had said that they
13 standardized it to the same nitrogen levels, and
14 fertilizers and nutrients at the start, yet,
15 there's a significant difference in the percent
16 conversion.

17 And so we had discussed that there
18 could be, in future research, we need to better
19 understand the bacterial nitrate reductase
20 enzyme. Are there certain cofactors needed for
21 that enzyme to work or was there an unintentional
22 inhibitor that was added between 2016 and 2017

1 that could have accounted for this difference?

2 So I don't see this as a significant
3 setback, but it's just a point that highlights
4 the complexity of this process as more than just,
5 can we grow celery organically, because we know
6 we can for the fresh market, but the
7 characteristics that are required to create the
8 consistent and safe product for meat processors
9 involves a bit more complexity than it originally
10 looked like from the beginning.

11 Are there commercially available
12 agriculturally produced alternatives to celery
13 powder? And so over the years, Kerry has tested,
14 as we come across suppliers that offer different
15 high-nitrate vegetable sources, whether it be
16 conventional or organic, we do request samples.

17 And so we've tested a number of
18 different products. Unfortunately, you know,
19 most of them either had issues with nitrates or
20 there were issues with the conversion.

21 There was one vegetable that did make
22 it through the first two qualifying

1 characteristics, however, once it got put into
2 meat applications, we realized that it had a
3 strong negative flavor impact.

4 And when I was talking with Andy and
5 Erin about that, they pointed out to me that it
6 makes sense because Chinese cabbage is a
7 cruciferous vegetable, which has high sulfur
8 compounds, and so going forward, we would try to
9 avoid that family of vegetables when we're
10 looking at alternatives going forward.

11 But these challenges that we face in
12 terms of nitrate levels, conversion, flavor,
13 color, we put Swiss chard into meat applications
14 and it has seen impacts on the color.

15 This is why celery is still the chosen
16 vegetable and why it's the ideal vegetable,
17 because it has the high nitrate levels needed for
18 functionality, but low organoleptic impact in
19 meat.

20 And lastly, if not enough organic
21 celery is being produced to support the meat
22 industry, why not?

1 And so I bring it back to this celery
2 cycle and like I had mentioned before, we believe
3 that there's enough organic celery -- or organic
4 acreage out there to grow celery, but that
5 there's other areas that we need to investigate
6 further so that we can create this robust supply
7 chain so that it reduces to the risk to the
8 organic celery grower in creating a sustainable,
9 profitable process for them to create celery
10 powder.

11 And so with that, I conclude my
12 presentation. I do want to say thank you for
13 allowing Kerry to be a strong industry partner in
14 this area.

15 I do believe that we will find a
16 solution with the proper time and adequate
17 funding, and in collaboration with all of the
18 groups that I have on this slide here, but it's
19 been really exciting on the progress that we've
20 made and we're continuing to looking forward to
21 working together.

22 DR. MATHEWS: Thank you, Ms.

1 Wasieleski. To the board members, we do have two
2 minutes if you have questions for brief
3 clarifications.

4 MR. BRADMAN: Harriet.

5 CHAIR BEHAR: Could you, in a short
6 way, explain the fermentation process that you do
7 and what properties does it impart to the celery
8 powder that's part of, you know, when you're
9 using it for curing meat.

10 MR. WASIELESKI: So the main purpose
11 of the fermentation process is just to take the
12 nitrates and convert them to nitrites.

13 So before a pre-converted product came
14 out on the market, meat processors would be just
15 putting these vegetables into their meats, as
16 well as the starter culture that has that
17 capability, but if you have issues in your
18 processing, your temperature control isn't as
19 tight, you can have inconsistent results, and
20 that's where this pre-converted product provides
21 a benefit to the meat processors, because they
22 know that when they put this product in, they're

1 delivering exactly the amount of nitrite that
2 they need for the safety of the product.

3 Whereas, if they did the conversion
4 process in the meat itself, there's a lot of
5 variability that can happen.

6 MR. ELA: Is there any evidence, I
7 mean, obviously, in 2017, with the nitrate levels
8 being lower, is the conversion process
9 concentration dependent at all?

10 MR. WASIELESKI: It's not. No. So we
11 can run the process at any -- either really
12 dilute or more high solids, so we don't feel that
13 that's a part of it, but there's -- yes, there's
14 definitely something interesting going on there.

15 MR. BRADMAN: Rick, and very briefly,
16 and this'll be the last question.

17 MR. GREENWOOD: Yes, just a quick
18 question. Do you add standard microbial
19 cultures? Do you have stock cultures that you
20 use or do you just use natural fermentation?

21 MR. WASIELESKI: So we use cultures,
22 specific cultures, so in the process, we would

1 sterilize all of the raw materials going in, and
2 then add our specific strain.

3 MR. GREENWOOD: Okay. Do you try
4 different cultures, over time, do you get better
5 conversion?

6 MR. WASIELESKI: We have looked at --
7 there's a number -- there's, like, three strains
8 that I can think of that all our capable of
9 converting nitrate to nitrite, but we haven't
10 seen any differences between the conversion, and
11 we did test those different strains, with the
12 material from 2017, but didn't see any
13 differences.

14 MR. GREENWOOD: Thank you.

15 MR. WASIELESKI: Although, sorry, I
16 will comment on that, if you look at the actual
17 genetic makeup of the strains, they all have the
18 same nitrate reductase enzyme within them, even
19 though they're different stains, they all have
20 the same. There's four different nitrate
21 reductase enzymes and they all have the exact
22 same one.

1 MR. GREENWOOD: Okay. What genera are
2 they in?

3 MR. WASIELESKI: It could be
4 micrococcus or staphylococcus.

5 MR. GREENWOOD: Oh, okay. Thank you.

6 MR. WASIELESKI: Yes.

7 DR. MATHEWS: Thank you. We'll hear
8 next from Mr. Peterman.

9 MR. PETERMAN: Just making sure I'm on
10 here so I don't blow everybody out of the room.
11 Good morning, all, and again, like the other
12 panelists, I'd like to thank you for the
13 opportunity to have this discussion.

14 We've been working on this for some
15 time. Organic Valley has certainly has a
16 concern, and I should probably clarify that
17 Organic Valley is actually a brand name owned by
18 the farmer-owned cooperative, CROPP Cooperative,
19 and that cooperative also owns a wholly-owned
20 subsidiary, the Organic Meat Company.

21 So if you hear me rattling off
22 acronyms without realizing it, OMC stands for the

1 Organic Meat Company and is where our primary
2 interest in celery powder lies.

3 The first question I'd like to address
4 is, is celery powder, conventional celery powder
5 in particular, still an essentially ingredient?
6 And the answer is, unequivocally, yes.

7 It is the, essentially, the only
8 ingredient that we have access to that can
9 fulfill the FSIS food safety requirements and I
10 think that it warrants mention of the stakes that
11 celery presents from the standpoint of cured
12 meat.

13 As you can see in that third bullet,
14 cured meat products represent nearly 25 percent
15 of the Organic Meat Company's gross revenue. And
16 beyond that, the organic meat industry has been
17 growing consistently over the last 20 years.

18 And in 2017, the OTA reported that all
19 organic meat sales amounted to about \$1.1 billion
20 and they've got a couple of subdivisions in there
21 that I think are very helpful.

22 We estimate that almost our entire

1 pork sales revenue is in cured products that use
2 celery powder and on a national level, those pork
3 sales amount to about \$32 million annually.

4 Sausage and deli meats, which would
5 also be heavily dependent on celery powder in
6 this context, amount to about \$119 million, and
7 beef, which would have a smaller component, but
8 certainly would have some, amounts to about \$263
9 million.

10 So you can tell that de-listing
11 conventional celery powder without an organic
12 alternative would be very destabilizing move in
13 the industry as it stands now, and it's certainly
14 an area of great concern for us.

15 So I found myself thinking, you know,
16 about the questions that all of you might have in
17 your minds, and one of the first ones that came
18 to mind was one that I carried for about the
19 first year working with this group, and that was,
20 why isn't the market just answering this demand,
21 right?

22 These are large industries, right? I

1 mean, millions and millions of dollars. And what
2 we found through this process is that there are
3 numerous constraints on this product that have
4 been limiting it.

5 Jennifer very eloquently put many of
6 them, in terms of the conversion rates from
7 nitrate to nitrite. These varietal differences
8 that Dr. Silva mentioned, are extreme. And in
9 some cases, you know, we're still trying to
10 understand why they exist.

11 The fertility and the regional
12 variation, as we saw from year-to-year, even
13 seasonal, but within OMC, the other thing that I
14 started to recognize was that the sensory panel
15 approval is also critical, right?

16 So as we start looking at alternatives
17 and even within organic celery powder itself, we
18 still have to get this out in front of consumers,
19 we still have to ensure that the ingredients that
20 we are including are not compromising the quality
21 of our products that consumers then buy and
22 ultimately associate with our brand.

1 So with all of these constraints,
2 there's inherently a great deal of risk for
3 anyone that might be looking to get into this
4 market, might be looking to fill this demand.

5 And the financial risk to the farmers,
6 I think, is fairly apparent. They would very
7 likely be under contract with an organization
8 like Kerry, and it's going to be really hard to
9 get a farmer to sign-up when they don't have
10 varietal recommendations, they don't have
11 fertility recommendations, and even if they
12 follow those things to the T, to the best of our
13 knowledge, we may see seasonal variation that
14 would essentially put that entire crop below
15 specification.

16 Beyond that, the financial risk to
17 processors would also be considerable. An
18 alternative to that circumstance where the farmer
19 takes the risk, a processor might contract and
20 say, you can have a flat rate, right? We won't -
21 - if it doesn't meet spec, we'll take that on.

22 We've seen that in the seed industry.

1 Unfortunately in this case, you have -- that
2 amounts to a great deal of risk because not only
3 is the processor then taking on the production
4 risk, but they also have the risk of that product
5 not necessarily being consumed or utilized in the
6 way that they think it will be.

7 So the demand for that organic celery
8 powder on the other end is also not assured. And
9 then finally, the product is used in extremely
10 small amounts.

11 The recommendation that our
12 certification department gave to me was
13 approximately 0.4 to about 0.9 percent of the
14 green, what is the called the green weight. So
15 it's a by-weight calculation, but it essentially
16 amounts to ounces per 100 pounds.

17 So it's a very, you know, small part,
18 but also, a very critical part of the process.
19 And then that, in and of itself, dictates that
20 the gain for processors or farmers in this
21 context is fairly limited.

22 So you're essentially, in this case,

1 asking farmers to adopt a crop that they may or
2 may not already produce, and the profit on the
3 other end, certainly, doesn't justify the risk.

4 And that's why we find ourselves, I
5 anticipate, in this circumstance where it kind of
6 languishes in-between a market-driven
7 investigation and a grant or public research
8 investigation.

9 I bring all of this up because I think
10 it bears heavily on a number of products that are
11 currently listed on the 606. I think it's a
12 problem we're going to see ourselves finding in
13 the future, and that we probably need to work to
14 identify, where are these products that don't
15 necessarily represent a large enough opportunity
16 for the market to get traction, develop a
17 product, and then move forward on the basis of
18 the risk.

19 And finally, I just wanted to mention,
20 and it's been covered by a number of the other
21 panelists, but is the use of synthetic nitrogen
22 increasing the conventional celery production.

1 As Dr. Silva reported, our experience
2 engaging our farmer network is that the
3 contracted growers have been very unwilling to
4 share in-field practices, so it's largely
5 speculative from our perspective.

6 We don't really have data, and, you
7 know, it also, to a degree, seems somewhat beside
8 the point. From our perspective, we would
9 maintain and pursue an organic source of this
10 material regardless. It just, as a measure of
11 integrity, and as Jennifer very eloquently
12 pointed out, as a way to expand organic vegetable
13 production and demand.

14 So I will leave it there.

15 DR. MATHEWS: Thank you, Mr. Peterman.
16 To the board, we have time for clarification
17 questions.

18 MR. BRADMAN: Harriet?

19 CHAIR BEHAR: Where is the
20 conventional celery grown for celery powder
21 grown?

22 MR. PETERMAN: Great question. We

1 identified three major regions that we looked at
2 through the Working Group. Florida, the upper
3 Midwest, and California are the predominant
4 areas.

5 MR. BRADMAN: Steve?

6 MR. ELA: So, don't the same problems
7 exist in the conventional celery powder thing as
8 in the organic?

9 Don't those growers take the same risk
10 because there's the same problem with
11 alternatives if they don't meet spec? Or how do
12 they control that?

13 I guess I'm not clear where that break
14 is, between conventional and organic.

15 MR. PETERMAN: It's a good point and
16 I think that it relates to scale of these
17 industries. So, if you look at the conventional
18 industry, whether it be conventional meat curing
19 or other uses for that celery powder, you have a
20 much larger pool of potential buyers and also
21 potential demand.

22 So, as I mentioned in the organic seed

1 issues where we've seen this, it is also an
2 element of companies that do not entirely produce
3 organic products.

4 There are many, many companies that
5 are producing conventional products and then they
6 open up organic lines.

7 And so we see that the organic demand
8 is enough to get their attention but not
9 necessarily enough to justify that either
10 business unit or that new product development.

11 DR. SILVA: Could I add to that as
12 well? So, we did not do within our experiments
13 control plots with conventionally grown celery.

14 It was really our intention to
15 optimize the organic system but in terms of
16 nitrate or ammonium availability, crop available
17 nitrogen, it's going to be significantly
18 different in organic because it's going to be a
19 biologically driven process that's going to be
20 mediated by a variety of environmental impacts.

21 So, I think that that could be a key
22 aspect of why. And again, it's very speculative,

1 but why they may have a more stable system in
2 conventional if they're using synthetic nitrogen
3 where that aspect of uncertainty is taken out.

4 MS. WASIELESKI: Sorry, and I'll also
5 add that when it comes to the conventional
6 growers, they've been doing it for at least the
7 past decade. We've only spent since 2015
8 researching this topic.

9 But to Logan's point, there was a
10 large enough market demand for them to want to
11 develop that themselves, whereas, the demand on
12 the organic and the usage levels are so low that
13 it really needs to be an industry research
14 project as opposed to the industry doing the
15 research.

16 DR. MATHEWS: Just as a reminder, we
17 will have an extended Q&A session following our
18 final presenter.

19 MR. BRADMAN: Exactly, so these
20 questions should be just clarification. Let's
21 move to the next presentation.

22 DR. MATHEWS: Okay, thank you, and

1 finally, we'll hear from Dr. Milkowski. Your
2 slides are ready.

3 DR. MILKOWSKI: Thank you very much.
4 Okay, now we're on. Thank you very much for the
5 ability to comment here.

6 My friends here to my left have really
7 answered most of the questions concerning
8 production and the generation of nitrate and
9 nitrite in celery powder.

10 I think what I will do in moving along
11 is to respond to some of the questions a little
12 bit that were directed towards me. But the last
13 question, which I'm the sole responder to, is the
14 one that I'll spend the most time on.

15 And I have that listed here as human
16 nitrogen oxide physiology because it's very
17 interesting and reinforces the complexity of
18 nitrate and nitrite and where does it come from,
19 where does it go? And all of that.

20 So, first question is, is non-organic
21 celery powder still essential for production of
22 non-processed meats? I'm not aware of anything.

1 I think they have answered the question much
2 better than I could.

3 I would tell you that from the
4 perspective of a meathead like me who would be
5 more focused on making the meat product, nitrite
6 and nitrate are the same ion regardless of the
7 source.

8 And through thousands of years of the
9 development in curing meat products and the
10 increase in scientific knowledge in the twentieth
11 century, we know that in order to properly cure
12 processed meats and get the benefits that we want
13 in terms of pathogen safety and the color that
14 characterizes these products, we need about 80 to
15 200 parts per million on a meat basis going into
16 that mixture.

17 And if you apply a dilute source, you
18 need lots of it. If you apply a concentrated
19 source, you need less of it. So, if you take
20 pure nitrite and nitrate, you would be talking
21 about 0.01, 0.02 percent.

22 If you are talking about the celery

1 powders, you need 100-fold of those types of
2 levels. And this is what's going on in the
3 biochemistry there in that we characterize it by
4 a cured meat color, which relates to nitrate
5 reacting with myoglobin.

6 There is a lot of oxidoreductive
7 chemistry going on in its conversion to nitrite
8 and a rereduction of the myoglobin, the iron in
9 the myoglobin, to an iron plus two state, which
10 will then also be coincident with formation of
11 nitric oxide, a gas.

12 So, we go from NO_3 to NO_2 to NO . Two
13 charged compounds to an uncharged molecule and
14 they become increasingly unstable as you move
15 down that pathway.

16 The half-life of nitric oxide and
17 biological tissues is a few milliseconds. It's
18 going to react with something and typically
19 sulphidal groups or with the iron in a heme
20 group.

21 When it binds to a heme iron in the
22 plus two state, you get a nitrosohemochrome,

1 which is the characteristic pigment that we call
2 cured meat.

3 And from that we get the benefits of
4 color, we get an antioxidant effect, and we get
5 very important antimicrobial effects in terms of
6 we have a more stable system with respect to
7 potential for botulism growth under anaerobic
8 conditions or clostridium perfringens growth if
9 you're cooking a product and then trying to chill
10 it and not have perfringens spores be activated
11 by cooking and then grow out and cause problems.

12 And it has in the last 20 years been
13 recognized that it's an important factor in the
14 safety system for listeria monocytogenes in
15 processed meats.

16 And that nitrate and nitrite can come
17 from either celery powder or a purified source.

18 Question 4, are there strategies to produce
19 organic celery powder that's standardized?

20 I'm totally unqualified to answer
21 that question so I'll have to defer to my
22 colleagues here. And are there other available

1 alternatives to celery powder? Well, we've heard
2 about a number of them.

3 In the 40 years that I've been
4 involved in nitrite and meat curing, a number of
5 high nitrate vegetable sources have been
6 identified. These have all been reported to have
7 north of 1000 ppm of nitrate in them on an as-is
8 basis.

9 And when they've been tested in one
10 way or another in a meat product, there have been
11 problems in the quality of the meat product. And
12 so any further work has been discontinued, which
13 I think is consistent with what you've heard.

14 And then the last question that
15 perhaps we'll spend the most time on is what's
16 the latest information on human health risks of
17 nitrates and nitrites present in processed meats
18 from either the synthetic or organic or plant-
19 based sources?

20 So, I'm sure all of you are aware that
21 IARC, the International Agency for Research on
22 Cancer, classified processed meats, which may or

1 may not be cured, as Group 1 carcinogens, meaning
2 that they consider them to be a cancer hazard.

3 And in the final report that they
4 issued, I would note that in all of their work,
5 they were noting that cured meats are a minor
6 source of nitrate and nitrite in human
7 physiology, which I'll expand on. And they also
8 indicated that the source doesn't matter in this
9 case.

10 Although, if we go back 30, 40 years
11 there was a great controversy around nitrite and
12 its safety, our modern knowledge is that these
13 classifications are probably due to some other
14 mechanism and it's not likely to be the nitrite
15 and nitrate.

16 However, there is this persistent
17 feeling that that's what it is. But I'm here to
18 tell you that it's very likely not for a number
19 of reasons that we were totally ignorant of 30 or
20 40 years ago. And that is nitrogen oxide
21 physiology.

22 When I was in graduate school and we

1 were being taught about metabolic control, there
2 was a factor called the endothelial relaxation
3 factor that lowered blood pressure, relaxed
4 smooth muscle and so forth. And it was very
5 mysterious, nobody knew what it was.

6 Well, in the mid-1980s it was
7 discovered to be nitric oxide, that same compound
8 that is forming the nitrosohemochrome pigment in
9 cured meats, and that there is a pathway in the
10 human body to take the amino acid arginine and to
11 do a six electron reduction and convert it into
12 nitric oxide.

13 And it has profound physiological
14 effects. Everything that allows us to live is in
15 some part touched by this. It's involved in
16 blood pressure control, in memory, in immune
17 response, wound healing, all types of functions
18 in one way or another.

19 And what's become realized now is that
20 there is a nitrogen oxide in human physiology
21 where nitric oxide is synthesized in the body, it
22 is ingested in the form of nitrate and nitrite

1 from dietary sources, it's recycled in the body
2 through saliva, and we have a huge exposure to
3 nitrate and nitrite that is entirely natural.

4 In fact, our largest exposure to
5 nitrate is from vegetables. And this is a
6 summary of some of that work that's been updated
7 to reflect that.

8 So if you were to look at the human
9 diet formation or exposure to nitrate and
10 nitrite, we would get up to 220 milligrams per
11 day for an adult coming from the diet, except for
12 cured meats.

13 Nitrite would be very, very small, 0.7
14 milligrams. The exposure to 75 grams of cured
15 meats, which is a fair amount, provides up to 6
16 milligrams a day and next to nothing, 5 to 6
17 milligrams a day, of nitrite.

18 Water with residual, water -- nitrate
19 in water and lower levels of nitrite is an
20 important source because we drink a lot of water.
21 And saliva is an even more important source
22 because of the recycling of nitrate in the body.

1 And the endogenous synthesis of nitric
2 oxide is about 1 milligram per kilogram of body
3 weight. And that winds up being broken down into
4 nitrite and nitrate and then are converted, and
5 is both excreted and recycled into saliva with
6 all of the exogenous sources.

7 And so nitrate is secreted in the
8 saliva so the salivary glands actively accumulate
9 nitrate from blood plasma as it's circulating.
10 And about 25 percent of the circulating nitrate
11 winds up back in your mouth and is swallowed
12 again as nitrate is recycled.

13 The bacteria in your mouth are likely
14 to have some level of nitrate reductase activity
15 and that will form nitrite. And roughly 20
16 percent of the nitrate that's secreted in the
17 saliva goes into nitrite.

18 And then people swallow that nitrate
19 and nitrite and in the acid environment of the
20 stomach, that nitrite may be converted some to
21 nitric oxide but it also has a biological
22 function.

1 And you would wonder why in the world
2 would we have this pathway for us to recycle all
3 of these nitrogen oxides if it wasn't beneficial?

4 Well, there have been a number of
5 studies that if you take gastric juice and
6 supplement it with nitrite, it is much more
7 inhibitory and bactericidal towards a number of
8 the pathogens that we're inevitably going to
9 swallow whenever we eat any food, especially raw
10 commodities.

11 And so there's a proposal that this is
12 a form of human innate immunity, which I find is
13 fascinating. And I tell students that if you
14 think everything's been discovered, think again.

15 This was totally unknown 30 years ago.
16 So, in our lifetimes this is a great new
17 discovery.

18 And so with that, I think I'm going to
19 stop so that we can take on questions. And
20 perhaps later during the question-and-answer
21 period or if the Committee would like to look at
22 it later, I'd suggest you test your own salivary

1 nitrate and nitrate levels.

2 I have these little test strips and
3 the process of doing that would be to wet your
4 finger, put it on the pads of the test strips,
5 and then read them against the scale on here.
6 And I'll leave this with you and you can do that.

7 And you will be surprised that the
8 younger you are and the more vegetables that you
9 consume in your diet, the higher the nitrate and
10 nitrite will be.

11 If you use a lot of antiseptic
12 mouthwash, you will probably see a low nitrite
13 level because that is inhibiting the commensal
14 bacteria in your oral cavity, which would be
15 doing the reduction of nitrate to nitrite.

16 So, with that, I will end and thank
17 you very much.

18 DR. MATHEWS: Thank you, Dr.
19 Milkowski. To the Board members, do we have any
20 very brief clarification questions for Dr.
21 Milkowski before we move on to the Q and A
22 session.

1 MR. BRADMAN: Harriet.

2 CHAIR BEHAR: Why is it that nitrate
3 and water is hurtful to especially babies and
4 pregnant women, but consuming nitrate in food
5 does not have these same blue baby effect, for
6 instance?

7 DR. MILKOWSKI: Okay. Newborn infants
8 have a high residual content of fetal hemoglobin
9 in their system, which if you think about it
10 biologically it's designed to bind oxygen more
11 strongly than the oxygen in the blood of the
12 mother. So the gradient for oxygen transfers
13 towards the fetus prior to being born.

14 After birth, that is replaced by what
15 you'd say is normal human hemoglobin. Fetal
16 hemoglobin is very sensitive to nitrite. That's
17 one factor. The second factor is that the
18 gastrointestinal tract of the newborn is
19 virtually sterile, but as it gets colonized by
20 bacteria, there will be bacteria in the
21 intestinal tract that will reduce nitrate to
22 nitrite.

1 And so they are explicitly sensitive
2 to having nitrite bind to their hemoglobin, and
3 in essence create anoxia for them. That's a
4 problem through about six months of life, and
5 that's why we have so much medical concern about
6 that. When you have adult human hemoglobin, this
7 pathway is pretty innocuous.

8 So the toxic dose for nitrite in
9 humans gets to be very, very high, although there
10 is one.

11 MR. BRADMAN: Looks like we should
12 open it up now for broader discussion.

13 CHAIR BEHAR: Okay.

14 MR. BRADMAN: Okay. So at this point,
15 we want to open up the Board to ask any questions
16 related to the presentations, and also on
17 discussion related to the sunset and how to move
18 this forward. I think both David and -- had a
19 question and also Dan.

20 DR. SEITZ: Can you give us some
21 background material. Are there methods apart
22 from celery powder that are used to cure meats,

1 and also or also going back traditionally, I
2 imagine there have been cured meats for
3 centuries, perhaps millennia, I have no idea.
4 What were the methods that have been used
5 traditionally to cure meats?

6 DR. MILKOWSKI: So I'm not aware of
7 any fractions of celery, but let me go back to
8 the historical context of curing meat. The word
9 for sausage in Greek is related to botulism.

10 It was just by experience and
11 coincidence that in preserving meat by salting a
12 millennia ago, meat that happened to be -- or
13 salt that happened to be a particular salt called
14 saltpeter, potassium nitrate, was very, very
15 effective at preserving meat when you salted it,
16 to dry it out, to keep it from spoiling
17 microbiologically.

18 That coincidentally turned it pink,
19 and that association was a way to recognize that
20 you didn't have a preserved meat that would be
21 toxic to you if you ate it. In societies where
22 food was scarce, that was an issue. Today, we've

1 worked out a lot of the science and we certainly
2 have a lot further to go.

3 But the findings that nitrate gets
4 converted to nitrite and where that pathway is
5 early 20th century, and regulations and knowledge
6 about using nitrite as the curing agent, which is
7 more efficient and we can use less of it. Those
8 were initially developed in the 1920's, and then
9 refined in the late 1970's.

10 DR. SEITZ: But I mean is, can you
11 take pure nitrite, I'm not a chemist, so I don't
12 know if there's such a thing as pure nitrite that
13 you can add to meat, or does everyone use
14 something like celery powder that --

15 DR. MILKOWSKI: Oh no. Most of the
16 meat that's conventionally produced is cured with
17 nitrite and some with nitrate. It's the -- the
18 process is if you cure with nitrate, if you want
19 to say produce a ham, it will take you three to
20 six days.

21 If you use sodium nitrite, it will
22 take you less than a day, and it's simply that

1 reduction of nitrate to nitrite as a time factor.

2 MS. WASIELESKI: On that though, what
3 I will say is in the last decade, there has been
4 an increase in consumers demanding food
5 ingredients that have clean label and
6 recognizable ingredients. So that's why the
7 demand and why celery powder has started to be
8 used, because consumers recognize that ingredient
9 as opposed to sodium nitrite.

10 If you do go to the grocery store and
11 look at those meats that are produced with sodium
12 nitrite, compared to the meats that are produced
13 with celery powder, you'll see that there's a lot
14 more than just that ingredient that's been
15 replaced or removed to create the cleaner label
16 food products.

17 MR. MORTENSEN: Thanks for the
18 presentations. I had two unrelated questions.
19 The first one had to do with most of the data
20 that Aaron and Jennifer, that you guys were
21 presenting was in parts per million
22 concentration, and I was thinking to myself you

1 have concentration by mass to get the total
2 amount of whatever it is that's coming into the
3 processing facility, right.

4 So you could have 400 PPM in 2017 and
5 one quarter of the amount of celery mass, and
6 then it's -- and then you're compounding the loss
7 of the nitrate in the celery processing line. So
8 my question is how critical -- maybe you spoke to
9 this, but I wasn't really hearing it. How
10 critical is it in the fermentation process that
11 something comes in at 400 PPM or 2,000 PPM, when
12 the end product of the celery powder is a dry
13 powder with, you know, with some amount of the
14 transformed nitrite in the powder?

15 MS. WASIELESKI: Yeah. So the reason
16 that we focus a lot on PPM is because in the meat
17 regulations, the minimum amounts or maximum
18 amounts that they're allowed to use are in the
19 form of PPM. But at the levels that we're trying
20 to target here, on a percentage basis it would be
21 .4 to .9 percent. But that's at the targets
22 we're trying to meet.

1 If you met a third of that level, then
2 you would be adding 1.2 to 2.7 percent of the
3 product if it had a lower nitrite level coming
4 out of the fermentation.

5 So the target levels that we're
6 looking to achieve actually have nothing to do
7 with the fermentation aspect, but how much of the
8 actual celery biomass you're going to be putting
9 into the meat product, and whether that's going
10 to start having a color or an organoleptic issue
11 in the meat application.

12 MR. MORTENSEN: Okay thanks. That's
13 very helpful, thank you. The second question had
14 to do with Logan's comments that, you know, this
15 is just the first of a number of kinds of natural
16 ingredients, where the economic incentive may not
17 be there for any one or several companies to
18 pursue this.

19 And OREI is one of the funding paths,
20 and that's cool. USDA also has programs like the
21 Small Business Innovation and Research Program
22 and other things that are explicitly targeting

1 this, it seems to me this sort of application, a
2 sort of a smaller application that might result
3 in something bigger but maybe not.

4 I was curious if that has been
5 explored as a mechanism for bringing industry or
6 two partners together to do something.

7 MR. PETERMAN: So it's a great point.
8 To my knowledge, we haven't applied for an SBIR.
9 We essentially initially used the farmers
10 advocating for organics as that pilot funding,
11 along with the OREI planning grant, so it was --
12 but similar, similar circumstance, that that
13 organization is a farmer-appointed board within
14 Organic Valley, that then makes the planning
15 decisions, but the awards are below \$50,000.

16 So at this point, I find myself
17 wondering if we've -- if we've exceeded the range
18 of an SBIR grant, just because of the
19 variability, because the questions that we're
20 finding ourselves asking are pretty large in
21 scope. But great suggestion and certainly worth
22 looking into this round.

1 MR. BRADMAN: So I'm going to
2 intervene here and follow up one of David's
3 questions, and then we'll have Tom, Harriet and
4 Steve. About the parts per million, is it parts
5 per million of the solid, the whole plant, or is
6 it parts per million of the juice, or is it parts
7 per million of the fiber that's the most
8 important piece? And because you talked about
9 getting it to a juicing facility.

10 So it wasn't clear to me whether
11 you're actually grinding up the plant drying and
12 grinding up the plant, or whether you're perhaps
13 evaporating the liquid fraction and therefore
14 maybe in concentrating the nitrate and nitrite?

15 MS. WASIELESKI: So when we refer to
16 parts per million, we're talking about parts per
17 million of nitrate or nitrite. So it doesn't
18 matter how much celery fiber versus celery liquid
19 that is in there; it's whatever the nitrate or
20 nitrite concentration is. So I would --

21 MR. BRADMAN: So the concentration as
22 a substrate. So you're talking about the whole

1 plant?

2 MS. WASIELESKI: We would expect that
3 the juicers are using the whole plant, because
4 that's the most economical. So I know in fresh
5 market that they would cut the leaves off the
6 top, but we would expect because the leaves do
7 also contain high levels of nitrate, that they
8 would be using the whole plant.

9 I think based off of the different --
10 the slide where I said that we had evaluated
11 different sources, I think that there's probably
12 some suppliers who are separating the solid plant
13 portion from the liquid portion.

14 I also think that there's some who are
15 just grinding them up and drying the whole plant.
16 So I think it depends on the company and their
17 process.

18 MR. BRADMAN: Okay, Tom.

19 MR. CHAPMAN: I'm thinking about your
20 question too. I'm not sure. Did you get it
21 fully answered?

22 MR. BRADMAN: Not quite actually.

1 MR. CHAPMAN: But I mean is that on a
2 dry basis or a wet basis that you're measuring
3 it? I mean I guess couldn't you take the juice
4 and evaporate it in concentrate?

5 MS. WASIELESKI: Yes, you can. But
6 what needs to be delivered into the meat product
7 is a specific PPM amount. So if you have a
8 liquid at 50 bricks, you might be adding one
9 percent of the celery product. But if it was
10 dried, so then you'd assume 100 bricks, you might
11 be only delivering half a percent of that celery
12 product.

13 So the -- it's the concentration of
14 the nitrate in the product. It doesn't matter
15 whether it's diluted or concentrated. You still
16 have to deliver that same amount of PPM. But the
17 percentage of the celery then changes.

18 MR. CHAPMAN: In the meat application?

19 MS. WASIELESKI: Correct.

20 MR. CHAPMAN: So I think maybe that's
21 the confusion. In the farm side, the celery
22 itself coming out of the farm, is concentration a

1 way to increase nitrate content that would be a
2 viable method?

3 MS. WASIELESKI: No, because you would
4 -- all you're doing is evaporating water. You're
5 still --

6 MR. CHAPMAN: And you do that later
7 anyway? Is that why or --

8 MS. WASIELESKI: Right. So if you --
9 if you have something that's like when you
10 concentrate it, either through evaporation or
11 drying, all you're doing is removing water.
12 You're not actually increasing the amount of
13 nitrate per bricks of celery or for salads,
14 amount of celery.

15 And so we -- we would receive say a
16 concentrated liquid, because the benefit of
17 concentrating the liquid increases the stability
18 of the raw material. So if you think about meat
19 is produced year-round, so we have to produce our
20 ingredient year-round. When you juice celery,
21 it's around four bricks.

22 That four bricks liquid has a really

1 high water activity, and unless it's aseptically
2 packaged and stored that way, you're going to
3 have challenges with microbial control. So
4 usually the products that we receive are in a
5 concentrated form or a dried form, so that we can
6 store it because, you know, celery is at least in
7 the Midwest only one growing cycle per year.

8 So that that can all be generated and
9 then stored for nine months as we continue to
10 work off the supply.

11 MR. CHAPMAN: Good answer, but that
12 wasn't my question. But did that answer yours?

13 MR. BRADMAN: I think it does.
14 Basically what we're saying is we can't remove
15 water and concentrate the nitrate to the point
16 where it's functional for the project.

17 MR. CHAPMAN: So I have two questions.
18 I was just trying to follow up on yours. I think
19 they're quick, but the first one is we received
20 some public comment talking about the use of
21 nitrate in meat products and suggest that we can
22 -- and you guys presented information about its

1 application, and it's a 200 parts per million
2 range.

3 And we had someone that had commented
4 that we should compare it to drinking water
5 requirements at ten parts per million, and I want
6 to know how relevant that comparison is, if it's
7 relevant at all.

8 DR. MILKOWSKI: Well, that's a safety
9 requirement related to drinking water that's
10 consumed in large volumes, and you also have the
11 concern about very young children. So I don't
12 think it is directly comparable to that.

13 The stoichiometric amount, you know,
14 the nitrogen attached to that iron is really
15 about the equivalent of one to three parts per
16 million of nitrite going in. However, the
17 efficiency of getting it to that point is so low
18 that you have to start with a higher amount.

19 Those levels are regulated through
20 USDA. It's in 9 C.F.R., and for ground products,
21 comminuted products which is the definition, the
22 maximum allowable is 156 parts per million of

1 sodium or potassium nitrate, nitrite on a meat
2 basis. So you subtract any of the other things
3 that you might add in making the product. Any
4 added water, any added sugar, spices and so
5 forth.

6 If you have a whole muscle product
7 where you have to worry about diffusing the
8 material through a mass of the tissue that's not
9 been disrupted, 200 parts per million are
10 allowed. The one exception to that is with
11 bacon, which is a special different product and
12 is one product that was deemed to have a
13 nitrosamine formation risk during the reviews in
14 the late 1970's into about 1980-81.

15 The requirement for enduring in bacon
16 is you must use 120 parts per million, no more,
17 no less of sodium nitrite or sodium nitrate, and
18 you must use 550 parts per million of sodium
19 erythorbate, which is vitamin C, or the
20 stereoisomer sodium erythorbate. The reason for
21 that is when bacon is fried at high temperatures,
22 you do have the risk of forming nitrosamines.

1 And so the ascorbate or erythorbate
2 are there because they are very potent
3 nitrosamine formation inhibitors, and the nitrite
4 is lowered compared to the other products because
5 that was a happy place to be when this evaluation
6 was done at that point. To still allow you to
7 make a product that was functional and would be
8 accepted by consumers, yet add a minimal risk of
9 forming nitrosamines.

10 There's some other language in that
11 regulation around nitrosamine monitoring with a
12 protocol that defines testing for nitrosamines in
13 fried bacon. They have a specific period after
14 production too, which is 21 days and a frying
15 protocol and limits for nitrosamines that would
16 be detected to consider that product safe.

17 MR. CHAPMAN: Thank you, and my second
18 question is in your guys opinion, if we were to
19 remove or recommend the removal of celery powder
20 from the National List now, what would that
21 impact be on the work you discussed? Would it
22 accelerate or decelerate resolving the barriers

1 to producing an organic celery powder?

2 MR. PETERMAN: That's a good question.
3 You've got us thinking. I think the immediate --
4 I think the immediate response in the industry
5 would probably be to destabilize development of
6 new cured meat products because of that
7 liability. Then from there, I think I would
8 anticipate anyways pretty high variability in the
9 way that the companies reacted.

10 Some may sort of steer into that skid
11 and say, you know, we're going to trust that this
12 is going to happen. Others may shy away,
13 depending on how many other products they've got
14 in their portfolio. So I think it's going to be
15 a mixed bag, but I can assure you that it would
16 be -- it would be a lot of anxiety.

17 You know, I mean in the industry I
18 think there would be a lot of anxiety. There
19 would be a lot of destabilization. In terms of
20 accelerating/decelerating the work, at this point
21 I don't know how much effect it would have on the
22 work. You know, I can't say assuredly that it

1 would go one way or the other.

2 There may be certainly more interest
3 in driving the research forward, but at the same
4 time if you have people, if you have companies
5 that are reducing their product investment in
6 cured meats, there's going to be less income and
7 less drive to pursue that ingredient.

8 So again, I think it's going to be a
9 real mixed bag. You may motivate, you know, one
10 or two companies to come forward and say we want
11 to help with this, you know. We may also
12 inadvertently motivate a number of folks to sort
13 of step away and actually reduce demand for the
14 product, and make it harder to bring it out.

15 DR. SILVA: With any research, we need
16 the research, the financial investment. So
17 we've, I feel we have been as aggressive. I will
18 look into Dave's SBIR suggestion and see if
19 that's another potential source. But that's a
20 factor that is going to be a reality of driving
21 this forward no matter what.

22 And then we're also under the reality

1 of this being an agronomic system where we're
2 -- to be able to collect data, we have to wait
3 the season and then evaluate and look at new
4 factors. So there's those continued feedback
5 loops and the reality of having this be a crop
6 that's grown in the field and having to wait that
7 time to harvest, and there's really no way to
8 accelerate the growth of the crop.

9 So but in terms of, again I think
10 we've been successful with obtaining initial
11 funding that's definitely gotten us a lot further
12 ahead, and we've -- hopefully we will be able to
13 push this forward. I just don't know in terms of
14 an approach or trying to make this a more
15 critical issue, if that would spur on further
16 investments.

17 I think I can divulge this. In the
18 reviews of the projects that we have put forward,
19 there was definitely a recognition that this is
20 an important issue. It's a critical issue. It's
21 a critical aspect of organic and even supporting
22 the other aspects of organic industry like the

1 organic dairy farms, where that's an important
2 part of the economics of that industry.

3 So I think that there is a realization
4 that this is an important issue. We need to find
5 a solution, but bringing all these pieces in
6 place in terms of partners and field sites and
7 funding is just taking some time.

8 DR. MATHEWS: Thank you. Board
9 members, we're at the five minute mark just for
10 time management here.

11 MS. WASIELESKI: And I think the
12 complexity of the supply chain. I mean if I go
13 back to the celery circle slide, I would say that
14 depending on how you look at it, there's probably
15 three or four specifically different types of
16 companies that are involved in it.

17 And so if removing it from the list
18 ultimately impacts Logan's business, he's three
19 steps removed from the grower. So to try to
20 explain to a grower, you know, you need to take
21 this risk on to grow this vegetable that we don't
22 know the variety, we don't know the fertilization

1 practices and, you know.

2 Between them, the juicer, a company
3 like Kerry and Logan, who's going to accept the
4 risk, and how do you get all four of those people
5 together and linked together and say yeah, we're
6 all going to accept the risk and if your field
7 fails, he's going to pay for some of that too.

8 I think that type of connection
9 certainly doesn't happy today in the conventional
10 industry, that each company kind of operates
11 separately and you kind of know the people below
12 you and above you. But that Logan isn't
13 necessarily working with the growers that I'm
14 sourcing my juice from, and neither are we.

15 So I think that because of that, you
16 know, disjointed, so many different companies
17 involved, if at any step in that chain there is a
18 company or the companies aren't willing to take
19 on that risk, it's just going to fall apart.

20 MR. BRADMAN: Harriet and then Steve,
21 and then also if we go a little bit over, we'll
22 just shorten our lunch so we won't ruin the

1 afternoon schedule. I hope no one's going to
2 shoot me for that.

3 CHAIR BEHAR: I have somewhat, I think
4 somewhat short questions, two. Do they allow
5 sodium nitrate in Europe? I believe they do eat
6 quite a few cured meats, especially in Northern
7 Europe, and the second question is in the
8 subsequent OREI grant, do you have any
9 cooperators on the conventional side?

10 It's somewhat disturbing to me that
11 there's a lot of knowledge on how they grow it
12 and then we're just starting from scratch on the
13 organic side, not understanding their varieties,
14 their fertility management, their harvest times,
15 I mean all of these things. I'm just kind of
16 wondering too if there's other universities that
17 have worked on the conventional side, where at
18 least maybe we would be a few steps ahead.

19 So the first question is what do they
20 use in Europe, and the second is what about
21 future study?

22 DR. MILKOWSKI: Yes, the nitrate and

1 nitrite are allowed in Europe. In the European
2 Union, there is an E number assigned to those two
3 ingredients.

4 CHAIR BEHAR: I guess I meant in
5 organic. Do they allow sodium nitrate in
6 organic? I believe they do. No?

7 DR. MILKOWSKI: Yes, they do.

8 CHAIR BEHAR: Well Logan? I don't
9 know.

10 DR. MILKOWSKI: So organic nitrite and
11 nitrate?

12 CHAIR BEHAR: Do they allow sodium
13 nitrate in organic cured meats in Europe?

14 DR. MILKOWSKI: Oh, in those products?
15 I don't know that particular question. They do
16 use it in conventional products, and there are
17 regulations concerning its usage level. I think
18 there may be some publications from the EU that
19 talk about that.

20 MS. WASIELESKI: I do think though
21 there's -- I don't know about organic meats in
22 Europe, but there's a distinct difference between

1 the organic in U.S. regulations is because of
2 their E number system. Even if they were to add
3 celery powder, they would still need to label it
4 with an E number.

5 And so in the U.S., one of the
6 benefits of using celery powder is for the clean
7 label declaration, whereas in Europe that benefit
8 doesn't exist between the celery powder and the
9 sodium nitrite curing salt.

10 CHAIR BEHAR: And the university, the
11 further research? Is there any way to have some
12 conventional collaborators that maybe will help
13 us move along, in understanding how to get the
14 correct nitrate levels?

15 DR. SILVA: We are partnering with
16 University of Florida to bring in some different
17 perspectives in terms of celery growing. It's
18 been hard to connect, for whatever reason, with
19 the conventional industry. But bringing in our
20 collaborators and the expertise from the
21 University of Florida, we're hoping to be able to
22 gain some of that knowledge that you're talking

1 about.

2 MR. BRADMAN: Steve.

3 MR. ELA: I have to keep the trend to
4 two questions, but in the nitrate/nitrite
5 conversion, I mean you mentioned the one that
6 there are four enzymes or whatever that change
7 that. If you add that celery powder that is
8 poorly converted like from 2017 to a meat, do
9 those meats have those -- I mean does that
10 continue to convert, or have you fermented it to
11 its maximum point and it's done?

12 MS. WASIELESKI: So I'll admit that
13 I'm not an expert on enzymes. I just know that
14 when we were trying to investigate where these
15 issues came from and we looked at the genome
16 sequencing of the available bacterial strains,
17 that they all fall under this one specific
18 nitrate reductase, as opposed to the others that
19 are available.

20 Where they come from, I don't know.
21 But in terms of the bacterial strains that we
22 use, and if you were to put that celery powder in

1 in its nitrate form into a meat with those same
2 starter cultures, because they're the only
3 cultures, they're the cultures that would be
4 approved for use in meat, you would still see
5 that inconsistent conversion, and then
6 potentially not be delivering the appropriate
7 amount of nitrate PPM subsequently to make a safe
8 food product.

9 MR. ELA: And then my final question
10 goes back to Andrew. So I didn't, and maybe I
11 missed it, but so between the research over the
12 last 30 years, where we show that nitrates and
13 nitrites are cancer-causing agents and that our
14 body is really good at recycling them and they
15 have these gastrointestinal benefits, where does
16 the health data fall?

17 DR. MILKOWSKI: We're a curious
18 species. We have on one hand a number of people
19 who are very, very suspicious of nitrite and
20 nitrate and their exposure in their diet, and we
21 have all this newer information that says well,
22 maybe we shouldn't worry about it.

1 It's more of a sociological question
2 than a scientific one. I can tell you that if
3 you went to clinicaltrials.gov, you'll see
4 hundreds of studies going on to use different
5 forms of nitrite in nitric oxide delivery drugs
6 to treat human health conditions, including
7 direct sodium nitrite.

8 There are few notable things that
9 we've known about on nitroglycerine, which has
10 been used since the 1860's to treat angina, is a
11 nitrite and nitric oxide delivery drug that
12 relaxes muscle and it allows better heart
13 perfusion.

14 Another one that's more recent is
15 Viagra, which has a targeted tissue for release
16 of nitric oxide to give its biological effect.
17 Yet on the other side, we worry about it. The
18 last thing I note is if you go to a drug store
19 and go look at the toothpaste aisle and pick up
20 any tube of toothpaste that has a designation for
21 sensitive teeth, you'll find that on the
22 ingredient list is potassium nitrate at five

1 percent, which is 50,000 parts per million.

2 Now we don't swallow nitrate, but some
3 of it is going to be swallowed and with our
4 ecology and oral cavity, we're going to generate
5 some nitrite and expose ourselves to that too.
6 So I don't understand the psychology and
7 sociological of the conundrum we're in, but
8 that's where we are.

9 MR. BRADMAN: I think we're going to
10 get close to wrapping up. But Tom, could you
11 answer a question. I think we've talked about
12 this before, but nitrate, sodium nitrates are
13 allowed in Europe for organic meat; is that
14 correct?

15 MR. CHAPMAN: I'd look to the
16 certifier on the panel to answer that question.
17 That's my understanding, is that the nitrates are
18 allowed to cure meats via the EU regulations.

19 MR. RICE: Yeah. I just looked at the
20 sunset that we had in the packet. Sodium nitrate
21 is allowed for meat products, but yeah.

22 MR. BRADMAN: All right. Well, I

1 think we're a little bit over time but not too
2 badly right now, so it's time to wrap up. If
3 there are any last minutes questions, or if not,
4 I want to thank the panel again for this
5 presentation, and I think this is such of an
6 important issue for important, you know, a huge
7 portion of the organic industry.

8 This is a really, been a valuable
9 discussion, and again thank you to the NOP and
10 the program for supporting this discussion. So
11 Paul.

12 (Applause.)

13 DR. LEWIS: I want to just echo the
14 remarks here by Asa. I want to thank Asa and
15 working with us in the program. Also Clarissa
16 for helping facilitate this panel. You know,
17 we've been working for some time in terms of
18 developing this panel, in terms of dealing with
19 some challenging technical issues.

20 I think we can all look about this as
21 a success in terms of bringing people in, talking
22 to the Board and really help facilitate a

1 conversation to help the Board do its work as
2 part of a sunset review. So Asa again, thank you
3 for helping working on this.

4 MR. BRADMAN: Thank you.

5 CHAIR BEHAR: Okay. With that, we
6 will take a lunch recess, and I will keep us
7 back, coming back at 1:45 for the methionine
8 update, and then we will go to Public Comments.
9 So thank you.

10 (Whereupon, the above-entitled matter
11 went off the record at 12:25 p.m. and resumed at
12 1:47 p.m.)

13 CHAIR BEHAR: Hello, everyone. Board
14 members, please take your seats. Everyone looks
15 pretty good here. Okay. We are starting the
16 afternoon session of our first day of the 55th
17 in-person NOSB meeting, and what we're going to
18 start with is a methionine update, and I'm going
19 to turn it over to the Livestock Subcommittee
20 chair, Scott Rice.

21 Methionine Update

22 MR. RICE: Thank you, Harriet. If

1 you've been coming to these meetings for any
2 length of time or any of the last 54, you've
3 probably uttered or heard the words methionine,
4 DL-methionine or some variation thereof, and
5 you'll no doubt be familiar with our discussions
6 regarding DL-methionine in organic poultry diets.

7 We're continuing that discussion this
8 afternoon, and are fortunate to have with us
9 three individuals to give us an update on where
10 things are at with the Methionine Task Force. We
11 have Dr. Kristjan Bregendahl. Dr. Bregendahl
12 grew up in Denmark and has lived in the U.S. for
13 more than 25 years.

14 He has a Ph.D. in Animal Nutrition
15 from Iowa State University, and after a post-doc
16 at University of Guelph in Canada, served as an
17 assistant professor of Poultry Nutrition at Iowa
18 State University. He taught nutrition classes
19 there and conducted laying hen nutrition
20 research.

21 Dr. Bregendahl is the author or co-
22 author of 22 peer-reviewed scientific journal

1 articles, two book chapters in a college level
2 animal nutrition textbook. After leaving
3 academia, Dr. Bregendahl has spent the last ten
4 years as a poultry nutritionist with specialty in
5 laying hen nutrition.

6 He provides nutrition and management
7 consulting for conventional and organic laying
8 hens, and works with independent organic
9 producers, companies and feed mills. Welcome,
10 Dr. Bregendahl.

11 We also have Heather Burley. Heather
12 is currently a lecturer and lab coordinator in
13 the Biology Department at McDaniel College in
14 Westminster, Maryland. She completed her
15 master's and Ph.D. work from 2007 to 2012 at the
16 Pennsylvania State University in the field of
17 Poultry Nutrition specializing in projects
18 focused on amino acid nutrition and the study of
19 potential alternatives to synthetic methionine in
20 organic laying hen and broiler chicken diets.
21 Welcome, Dr. Burley.

22 And to kind of give us some historical

1 perspective and a general update on the
2 Methionine Task Force we have David Will, who
3 serves as the chair of the Methionine Task Force.
4 David with Chino Valley Ranchers, and with that
5 David, I'll pass it over to you. Thank you all
6 for being here.

7 MR. WILL: Thank you very much. I
8 don't know. Is this -- there it goes. So I just
9 have a real quick two little presentations that
10 will take very quick, as soon as they get up,
11 just to give you a little history and background
12 so you can see where we are as a group and where
13 we are an industry, and then we'll let the
14 experts who you guys graciously brought in to
15 discuss this.

16 We appreciate the invitation of the
17 chair to come in. Just to give you a quick
18 update, you know, we have to be a certified
19 organic feed. We can't use animal proteins due
20 to the National Organic Program rules. So that's
21 kind of where the need for this synthetic
22 methionine came in.

1 What goes forward, Michelle. There,
2 okay. The Task Force was actually formed in '07,
3 and then we are an industry group put together.
4 We are funded through ourselves. We represent
5 about 85 percent of the organic layers in the
6 United States. It may be a little higher than
7 that.

8 We represent everything from pastured
9 to small independent family-owned and operated
10 farms to larger scale producers, and we also have
11 three of the probably largest broiler people a
12 part of us. No turkeys. So if you know any
13 turkey people, we'd love to talk to them.

14 We've researched, we've done some
15 trials and we've given regular updates to the
16 NOSB. We've done some work by Organic Valley.
17 They did some milk whey protein, some potato
18 starches and a high methionine corn study that
19 they funded and did some work with.

20 Then through our company, we did a no
21 outdoor access, non-methionine ration for an
22 entire flock that went to 65 weeks of age. We

1 looked at mulberry leaves as a source because
2 silkworms, as you hear, are a great source of
3 methionine, and they're a single feed ingredient,
4 and then also brazil nuts.

5 As a Task Force, we funded a high
6 methionine corn trial that took about three
7 years. We're still in the process of using that
8 and we've got a field study growing some corn
9 this year for some independent small producers.
10 UC-Davis did a two year a black soldier fly
11 study.

12 You'll see some information on that
13 coming out. They're publishing, so expect
14 something quickly, and then we're funding a
15 literature review. The UC-Davis study was, took
16 80 birds for 65 weeks of age. We funded 67,000.
17 That was their study goals. It's in your pack.

18 The big thing about it was if you took
19 the 14 million layers, it takes about 910,000
20 pounds per day of black soldier fly to feed them
21 when they're young, and as they get older it goes
22 to about 238,000 pounds. But that's as a dried,

1 so you need to multiply all those by seven, and
2 then the next one real quick.

3 You know, just skip it. Let's go to
4 the experts, because you're -- they're better off
5 with this anyhow, and I met my two minutes. It's
6 in your packets if you want it.

7 DR. BREGENDAHL: Well, thank you for
8 having me here today. I'm going to talk about
9 the need for DL-methionine in organic poultry
10 diets, and just to give a little background about
11 amino acids is that we put protein in diets for
12 birds, but bird actually need amino acids, not
13 the protein in there.

14 And there are 12 amino acids, well 20
15 amino acids in protein, 12 of those that must be
16 fit into the diet. The thing about these 20
17 amino acids is that they need to be fit in
18 different amounts.

19 Birds need in different amounts, and
20 as far as the traditional, the classic way of
21 looking at this, this is a stave barrel here,
22 which each stave here would be like one of the

1 amino acids, and you can only -- and this barrel
2 here, it can only hold water up to the lowest
3 stave.

4 That's part of the production welfare
5 of birds here. You can only have production up
6 to the lowest amino acids in the diet here. So
7 that's the first limiting amino acids, it's the
8 lowest stave in there, and that one is methionine
9 for poultry. It doesn't really matter how much
10 of all the other amino acids are in there. It's
11 the first limiting amino acid that kind of runs
12 the show, and that's methionine for poultry.

13 All right. So that's why we're here
14 talking about in part about methionine. So this
15 is what I do for a living. I make organic laying
16 hen diets, and this is what laying hen diets
17 would look like here. Typically, in the areas I
18 work, Midwest, we've got corn and soybean meal,
19 so that's what I use.

20 And I put in two pounds of methionine
21 in here. I do this to meet the requirements for
22 methionine, which is shown at the very bottom

1 there. So that's how much methionine you should
2 put in there, and I can get that corn soy and the
3 DL-methionine.

4 If we work to make the same diet here
5 meet the same amino acid requirements here
6 without DL-methionine, I would have to increase
7 soybean meal by quite a bit to get the methionine
8 in the diet here, to make the methionine 16 at
9 the bottom there equal.

10 Well, that's a lot of soybean meal I
11 have to put in there, 250 pounds a ton. That's a
12 lot, and the protein goes up from about 18
13 percent to 22-1/2 percent, just to get that
14 methionine, extra methionine in there. The
15 flocks I usually work with is around 20,000 hens.
16 So that's individual organic producers.

17 And so if I had to do this for them,
18 one flock with 20,000 hens, I would need another
19 100 tons of organic soybean meal per year to feed
20 this flock here. To grow 100 tons of soybean
21 meal, you need 100 acres of organic land, just to
22 get the methionine in here.

1 The use of protein in diet comes with
2 some issues too, because the excess protein can't
3 be used by the animal. It's back to that barrel
4 again here. And so when you feed excess protein
5 to birds, you end up with wet litter, basically
6 because birds have to drink more water to get rid
7 of that extra nitrogen in there, extra protein.

8 That usually leads to ammonia issues,
9 footpad lesions, burns on the feet. If you have
10 high enough ammonia in the barn, you see
11 blindness and respiratory issues, e coli
12 peritonitis, mortality that comes with that. So
13 there are some issues with extra protein, other
14 than just the land needed to grow it there.

15 So if we can't use methionine, you
16 know, what can we use instead? Well so what we
17 need in the DL-methionine is the methionine
18 itself. So I put methionine levels in here and
19 corn soy, just as an example here. But what also
20 matters is the amount of lysine of the other
21 amino acids, right.

22 So I put lysine on here, but I could

1 have put total protein as well here. But the
2 ratio, the balance between those two amino acids
3 is what's important when you formulate the diets.
4 So we could use corn, high methionine corn. As
5 you can see it has more methionine, but it also
6 has more lysine, it has more protein.

7 So I kind of end up with the same
8 issue as before. I just put more protein in the
9 diet, it doesn't really help anything. Some of
10 the other ingredients that are available,
11 sunflower meal, canola meal, linseed or flax
12 meal, same thing. They've got pretty good
13 methionine contents but they also are high in
14 lysine. So it doesn't help anything from a
15 formulation standpoint. I still end up with high
16 protein diets, way more than I need.

17 There has been some interest in insect
18 meal. So here's silk worm and black soldier fly
19 larvae, and you can see they have high
20 methionine, but again they have crazy high
21 lysine, so the ratio between those are actually
22 not very good. So they don't really help either.

1 The only thing I found so far that
2 seems to work in literature, at least I found in
3 literature it's not commercially available yet,
4 but that's Brazilian tree nut protein powder.
5 You can see that has a really high methionine.
6 It has a pretty high lysine too, but the ratio
7 between those is really good. It's way high in
8 methionine.

9 So that would probably work if it
10 wasn't because it was grown in Brazil and it
11 would have to fly to Iowa, Indiana where we feed
12 the stuff. So you say well, let's just not put
13 methionine in there and leave the protein where
14 it is.

15 So here's back to the same diets
16 again, 570 pounds of soybean. Now in both of
17 them, I don't use methionine in the one on the
18 right. So now I come up with a methionine-
19 deficient diet, and so this is, you know, maybe a
20 little extreme here. But you could maybe put it
21 a little higher, but my point here is that you
22 end up with a deficient diet that's too low in

1 methionine for the bird's needs.

2 And so, you know, we need all these.
3 I mentioned before the methionine kind of runs
4 the show here. So the methionine, that level
5 here, kind of limits everything now. And so when
6 you have a marginal methionine deficiency in
7 here, you get some production issues. The birds
8 need this methionine to produce eggs and also to
9 have a nice egg weight.

10 But for perhaps what more importantly
11 what you see is you get some issues with animal
12 welfare. I see these in flocks here that are fed
13 low methionine diets. I see those on the farms I
14 feed right now, where you get these poor
15 feathering, because feathers are high in
16 methionine.

17 Birds actually will get aggressive and
18 other animals too if there isn't enough
19 methionine in there. So they kind of start
20 pulling feathers. They might even peck each
21 other and die from this. So they kind of -- they
22 need that methionine there for welfare and for

1 production both. With that, I will let Heather
2 speak here.

3 DR. BURLEY: Thank you very much for
4 having me. I'll wait til they get loaded.
5 There's a little bit of overlap in the beginning
6 here, but I'm going to try very hard to boil down
7 my last kind of decade of between research and
8 literature reviews on different ingredients and
9 strategies and things that we've looked at as
10 replacements to synthetic methionine.

11 So I'll talk a little bit less about
12 the metabolism, since that was covered. So as I
13 said, I'll kind of breeze through this, that
14 methionine is one of ten plus essential amino
15 acids for poultry, and these are the building
16 blocks of poultry.

17 So my analogy is kind of like when
18 you're building a protein, it's like building a
19 full size puzzle, and when you're missing one
20 essential amino acid, it's like missing one of
21 those puzzle pieces, and that's going to lead to
22 those deficiencies that he just talked about, in

1 terms of the loss of feather coverage and feather
2 pecking and cannibalism, and reduced weight,
3 growth and egg weight.

4 Then if you have that excess protein
5 that he talked about in formulation, it's like
6 you have the full size puzzle, but you have all
7 these extra puzzle pieces that you can't include
8 in anything, so they excrete it through their
9 urinary system and it causes manure moisture,
10 footpad lesions, breast blisters, increased
11 ammonia and air, which is bad for the birds and
12 for human health workers.

13 So there's a lot of down sides to both
14 of those situations, and poultry, like humans,
15 like swine, are naturally omnivorous. So when
16 they're fed plant-based diets, these are
17 considered what are known as incomplete proteins
18 for poultry.

19 So they're not providing that complete
20 complement of all those amino acids that they
21 need like animal proteins would. So since
22 organic birds are fed entirely vegetarian diets,

1 it's very challenging to find alternatives to
2 synthetic amino acids without those meat-based
3 ingredients.

4 So I'm going to cover four different
5 categories very, very quickly. One is looking at
6 alternative breeds, alternative feeding
7 strategies. I was asked to cover pasture as an
8 alternative, and a little bit on ingredients.
9 But again that was covered, so I'll kind of
10 devote a little more time to the other three.

11 So one thing we looked at in some of
12 the literature review that I did was looking at
13 breed alternatives. So the bottom line for this
14 one is that there are different categories of
15 poultry. So laying hens, broilers, turkeys,
16 etcetera, that do differ in their amino acid
17 needs based on their age, size and the purpose of
18 them.

19 So they need to build different
20 proteins for meat, versus different proteins for
21 eggs. So they do have slightly different amino
22 acid needs. But when you consider a category of

1 poultry, so your laying hens or your broilers,
2 within that category they don't differ in the
3 ratio of amino acids that they need.

4 So you still need those same puzzle
5 pieces to build that whole puzzle. You still
6 need to build that whole barrel that he talked
7 about. So commonly or more commonly used in
8 Europe, there were these slower-growing strains
9 that are studied.

10 So these grow out for 12 weeks,
11 instead of the typical five to seven weeks of
12 conventional breeds, and they do have lower daily
13 amino acid requirements, but it's mainly due to
14 their lower growth and their lower production
15 rates. One of the big things with these is that
16 these breeds are not readily available in the
17 United States right now.

18 So this is not something that could
19 happen overnight for that sort of thing, and they
20 do take twice as long as grow out as well. Then
21 there is a couple of different alternative
22 feeding strategies that were looked at. One was

1 lowering dietary energy to kind of influence the
2 birds to eat more, to try to make up for
3 marginally methionine-deficient diets, and it was
4 not found to be effective, to make up for
5 methionine deficiency in any remarkable manner.

6 Another thing that they looked at in
7 another study was giving the birds a choice
8 between energy-rich ingredients and protein-rich
9 ingredients for them to try to naturally select
10 for methionine deficient diets, but instead they
11 kind of went for the more tasty corn-based
12 ingredients for the high palatability. So that
13 was not effective either.

14 So a whole bunch on pasture and
15 forage. So for this one, pasture intake for
16 birds is actually quite low. It's only about two
17 to eight percent of the diets. They are
18 consuming some grass if they're out on pasture,
19 but it's not a significant amount.

20 Palatability of plant species differs.
21 So their consumption of it greatly would differ
22 based on whatever pasture is available. One big

1 thing is the moisture level of the grass. So
2 with the -- as is wet grass, methionine is
3 actually very low in the sources. So it's not
4 providing a very significant source, because most
5 poultry feed is dried, it's fat-extracted, things
6 are done to enrich those nutrients, which pasture
7 does not have.

8 The digestibility for birds is also
9 very low, because like us and like swine, we
10 cannot digest pasture. So ruminants such as
11 cattle and goats can; they have adaptive
12 mechanisms, different stomach systems which have
13 bacteria that can digest it, but poultry cannot
14 do that. Pasture is also not available in cold,
15 winter months and you need pasture rotation to
16 prevent burnout from the type of manure that they
17 have.

18 And insect and worm consumption we
19 also looked at because this question came up, and
20 that is also very low. It's only about .42
21 percent of crop content, so the crop is an
22 outpocketing of the esophagus that was sampled,

1 and the percentage in there was very low. So
2 they are eating insects, but it's very low
3 consumption.

4 Then you also have that potential
5 disease parasite risk from them being exposed to
6 soil and insects.

7 So ingredients were kind of covered,
8 but we've looked at a whole list, a whole slew of
9 different ingredients that range from all the way
10 as high as this brazil nut meal, which is one of
11 the studies that I did.

12 But again, these are only found in
13 specific countries on these very well-established
14 trees. So this is a very finite available
15 ingredient. It's really not practical for the
16 large scale we need it at.

17 There's other more animal-based
18 sources such as dried egg and milk powders, which
19 there's no organic allowance for because they're
20 animal products. Fish meal is also very low
21 availability and could have palatability issues
22 at high levels for eggs and meat products.

1 Potato protein and other ingredients have anti-
2 nutritional factors that interfere with
3 digestions, and a corn gluten meal is not
4 organically available.

5 Sunflower seed meal, again limited for
6 organic and has that issue with the
7 methionine/lysine ratio. The same thing with
8 those black soldier fly larvae. So the kind of
9 take-home note is that many things have been
10 investigated. Some have some promise, but all of
11 them do present challenges and the availability
12 is one of the big aspects of that.

13 So my big take-home messages are
14 insufficient methionine leads to issues.
15 Extremely high crude protein diets leads to
16 different issues, both of which impact the health
17 of the birds. Right now, there's no single
18 strategy or ingredient that's been identified or
19 a combination of methods that can fully replace
20 the need for synthetic methionine in organic
21 poultry diets, despite extensive research over
22 the past decade.

1 Pasture access does not provide any
2 aid in meeting those methionine needs. So my
3 recommendation at this time would be to continue
4 this average lifetime allowance for organic
5 poultry until an effective alternative can be
6 identified. Thank you.

7 MR. RICE: Thanks very much to the
8 panelists. It looks like we have some questions.
9 Harriet and then Emily.

10 CHAIR BEHAR: I have two questions,
11 because that's what we always do now. The first
12 one is have you tried some of them in groups? So
13 I know like if it's something's kind of low in
14 lysine and high in methionine, because it seems
15 like you're trying single ingredients to replace
16 the synthetic, and I'm wondering if blending a
17 few together might be good?

18 And then the second question is in the
19 Organic Valley written public comments, they
20 talked about a product called Methiomax, and I'm
21 wondering if any of you know about that? It's an
22 herbal -- I don't know. I was talking with David

1 Bruce. It's kind of -- it's herbally-based. I
2 don't know how it's made or what other
3 ingredients are in there, though it looks like
4 it's just three herbs.

5 That enhances methionine somehow, so
6 then you need to use less. So I'm just wondering
7 if you know about that. So the first one is have
8 you tried blending agricultural products, and the
9 second is about this product Methiomax.

10 DR. BURLEY: All right. I'll do one
11 take on it and then I'll see what I can add. So
12 the herbal methionine I did look into for one of
13 my literature reviews, a couple of different
14 papers, and I saw a couple of different issues
15 with it, the main one being that I did notice
16 that they wrote it was -- it consisted of several
17 herbs.

18 But in many cases, they did not list
19 what those herbs were, and I could not find what
20 the source was, what the plant was, any details
21 on it or even sometimes what country it came
22 from. Another issue was a lot of those papers

1 came from the same company that was also selling
2 that herbal methionine.

3 So I have not seen anything that would
4 lead me to believe that it is a strong
5 alternative source at this time. A lot of the
6 studies that I read through, they were also using
7 other ingredients that were higher in methionine
8 that were not necessarily organic to balance
9 those diets. Do you want to take the next?

10 DR. BREGENDAHL: Yeah. This the
11 combination of the various ingredients, and
12 that's what we do in practical diets. I just
13 showed corn and soybean meal here. But in
14 reality, we will add a little bit of sunflower
15 meal, a little bit of canola meal if it's
16 available at the feed mill.

17 But because the methionine might be
18 high in there, but again it's all the amino acids
19 that matter. So we still have a lot of protein
20 in those diets. Lysine is not the right, is not
21 low enough in there. So it doesn't really help
22 much over just straight corn and soybean meal.

1 CHAIR BEHAR: I just want to tell you
2 that I was able to find the herbal ingredients in
3 that, and it's andrographis and tulsi and neem.
4 It said 40 percent andrographis, 30 percent
5 tulsi. I mean they gave the Latin names. I had
6 to look it up and I said well the first two I'm
7 growing right now in my greenhouse and I'll have
8 out in my field this summer. I've grown them for
9 years.

10 I don't grow neem. I don't quite have
11 the right climate in Wisconsin. But I was just
12 interested in, you know, that possibility. It
13 was kind of an interesting -- and it was part of
14 the public comment from Organic Valley.

15 MR. RICE: Emily.

16 MS. OAKLEY: Thank you. So this was
17 a question about the worms and insects that were
18 .42 percent of crop contents on pastures. How
19 many studies was that referencing, and is there
20 information about the type of forage on that
21 pasture and the frequency with which the birds
22 were rotated or moved to fresh pasture, and does

1 that affect the outcome?

2 DR. BURLEY: This was a very limited
3 study. I have not been able to locate another
4 study similar to that, getting that exact
5 information. This was done by a master's student
6 at Penn State slightly after I graduated from the
7 program, and I dug back to her study. She did
8 not publish the work, but she presented it, the
9 findings in a poster session at a conference.

10 And she had done the pasture
11 quantification and insect and just anything that
12 was in those crop contents. So I believe for
13 that study, the pasture was not rotated. So that
14 might make a minor difference.

15 But again -- and this was during the
16 summer. So it would have been when there was a
17 heavily populated insect population. So that
18 would probably be even lower in winter months I
19 would imagine. But yeah, this is only a single
20 study. So there could be more research in that
21 area.

22 MR. RICE: Next, we had Dan.

1 DR. SEITZ: My question is similar to
2 Emily's. I've read about and have talked with
3 small scale egg producers, who rotate their hens
4 to follow the -- follow their ruminant animals,
5 and time their pasture to correspond with the
6 development of grubs due to manure and so forth.

7 I was wondering if producers like that
8 have the same problems as producers whose hens
9 have the same type of methionine deficiency
10 problems as large scale producers?

11 MR. WILL: Yeah, I'm not familiar with
12 that. I can't answer that.

13 DR. BURLEY: I would imagine that
14 they're also supplementing them with additional
15 feed. I wouldn't think that they'd be able to
16 support the production of those birds or, you
17 know, just maintaining their growth or body size.
18 Was this for layers or broilers? I imagine it
19 was layers.

20 DR. SEITZ: Layers. I believe so,
21 yeah.

22 DR. BURLEY: Layers, yes.

1 MR. WILL: Dan, I'll just throw one
2 thing in there, that of the three largest
3 pastured producers out there, and I mean largest
4 as far as bird count, most of them operate on
5 very small, independently owned and operated
6 farms, they're all members of our Task Force.

7 DR. BURLEY: Another issue with the
8 insects consumed from field and pasture that we
9 didn't kind of touch on in the presentation is
10 that the ones that are fed as a meal are
11 dehydrated. So the moisture stayed down and
12 we're actually concentrating the protein and
13 we're concentrating the methionine content.

14 So they're much richer in that dried
15 form than they would be out in the field. So
16 they're not contributing as much to the
17 methionine as they would be as a meal.

18 MR. RICE: And finally Ashley?

19 MS. SWAFFAR: Thanks. Dan, you can
20 ask me that question during our Board
21 deliberations, because I've worked for two of the
22 three of those pastured companies. But I do have

1 a question, a follow up on the alternative breeds
2 that you talked about. Are there alternatives
3 for layers or broilers? You kind of went over
4 that pretty quick, and then could you explain a
5 little bit more on the difference between the
6 daily lower rates for the slow-growing birds?
7 I'd just like to -- you touched very quickly and
8 that's a huge topic.

9 DR. BURLEY: Yeah, yeah, yes. It is
10 a very huge topic, and I had only a few minutes.
11 So there were both laying hens and broilers. The
12 laying hens just produced less eggs and broilers
13 in general just took longer grow-out times, as
14 kind of the generalized statement there.

15 So you can feed slightly lower levels
16 on a daily basis because they don't have as high
17 -- you're not putting on as much muscle per day
18 or you're not producing as much of those egg
19 proteins per day. So it's lower production that
20 you're trading off for providing lower
21 methionine.

22 DR. BREGENDAHL: And also if I may,

1 just remember that you have to also feed those
2 birds, those broilers longer, right.

3 DR. BURLEY: Yeah.

4 DR. BREGENDAHL: So that your total
5 feed use probably is the same as the faster-
6 growing one.

7 MS. SWAFFAR: Yeah. That was going to
8 be my follow-up as overall, the birds still
9 probably would ingest the exact same amount of
10 methionine over --

11 DR. BREGENDAHL: It would still be a
12 longer period, yeah.

13 MR. RICE: We need to wrap it up here
14 pretty quickly. Dave.

15 MR. MORTENSEN: Yeah, just to follow
16 on Dan's question. I have an impression, but I'm
17 not an expert in this area, that there is a scale
18 of dependency. The larger the flock, the less
19 likely they are to get out into a pasture, and
20 this is based on listening to growers talking
21 about this.

22 And therefore the more likely they are

1 to need to be sure that critical amino acid
2 concentrations are met by supplements rather than
3 some other form. Is there any truth in that?

4 DR. BREGENDAHL: Yeah. From what I
5 see in organic flocks, they do have outside
6 access obviously, and there are birds outside.
7 But most of the chickens are actually inside the
8 barn. They don't necessarily go outside even if
9 they can.

10 I work with a certain producer that
11 requires the pasture feedings. So they have
12 really big doors, they must, so they can't go
13 out. So there's fewer, a little more birds going
14 outside but they're still, I say, no more than
15 half of the birds are outside at any one time.

16 MR. MORTENSEN: I would say that I
17 did, just like two weeks ago I was listening to a
18 guy who has small flocks, but not tiny flocks.
19 Like you know hundreds, not like the 20,000 bird
20 flock you showed, who had the birds out because
21 of the way they were being managed.

22 They were out -- he was ensuring they

1 were outside by design, and doing rotational
2 grazing in the way that Emily mentioned. So I
3 had the impression he was of the opinion that you
4 needed less supplements when you managed the
5 birds that way. I'm just trying to --

6 MR. WILL: Dan, I'll add two things to
7 that. First, our company has 50 producers that
8 have 2,000 or less birds. The majority of those
9 are organic and on five foot per bird or more,
10 outside access in a very wet climate. So they
11 have good growth outside, good access.

12 They all use synthetic methionine in
13 their rations. Part of that is because the birds
14 are conditioned from day of age when we can't let
15 them out to know where their food comes from. As
16 you saw on the one slide early, only two to eight
17 percent of their nutritional consumption comes
18 from the pastured area. It's kind of are you
19 going to eat in a restaurant or go field strip
20 and kill your own cow?

21 The birds are kind of conditioned to
22 where their food comes from and what it looks

1 like. And then second on that is annual. This
2 is seasonal. There's a lot of great areas we can
3 grow a lot of good pasture area, but they're also
4 under three feet of snow part of the year.

5 So they're forced into that. But even
6 the people who are all small producers, all of
7 them still use the average on their flocks.

8 MR. MORTENSEN: Thanks.

9 MR. RICE: Thanks everyone for the
10 comments and to the panel for joining us. I
11 really appreciate that and thank you for making
12 the effort to be here. We're going to need to
13 move on.

14 (Applause.)

15 CHAIR BEHAR: And enjoy your chickens.

16 (Laughter.)

17 CHAIR BEHAR: Okay. So we are going
18 to move to Public Comment, but first I will kind
19 of pass on some information. The National
20 Organic Standards Board's conflict of interest
21 policy can be found in our policies and
22 procedures manual. Prior to this meeting and

1 every meeting, a spreadsheet of all the proposals
2 and discussions documents is distributed to the
3 Board members.

4 They are then asked to declare any
5 conflicts of interest in writing to the NOP. At
6 this time, no conflicts of interest were
7 disclosed, and in the interest of public
8 transparency, I ask any of the Board members if
9 they have any conflicts of interest on any of the
10 items that are up for vote or for discussion at
11 this meeting.

12 (No response.)

13 CHAIR BEHAR: Seeing none, we will
14 move on and we will not do that before every
15 Subcommittee. We've done our work. So we're
16 going to move now to the Public Comment portion
17 of the meeting. Public input is an essential
18 part of the NOSB decision-making, and be assured
19 that we do listen and depend upon your ideas and
20 suggestions.

21 We have already held two public
22 comment sessions in a webinar conference call

1 type format for the spring 2019 meeting. All
2 persons wishing to provide public comment sign up
3 prior to the meeting and speaking slots are
4 assigned on a first come basis. When we hit our
5 limit, we put people on a wait list in case there
6 are cancellations.

7 Comments are limited to one per person
8 for each NOSB meeting. So if you spoke at the
9 webinar, then you cannot speak in person here,
10 and we take as many written comments as you want
11 to give us and sometimes we get buried. But it
12 wasn't too bad this time. As well proxies are
13 not allowed.

14 If we call your name and you're not in
15 the room, we'll try to come back to you if time
16 allows. We're going to try to have everyone
17 who's on the schedule for today speak today. We
18 may cut out some breaks or go a bit late if we
19 run long, so we really would like, we know that
20 many people are leaving, and so to stay on our
21 schedule we'll run everyone today who is signed
22 up for today.

1 For members of the public, if you have
2 to talk to someone next to you, please take that
3 conversation outside. Everyone, Board members
4 and the public, please silence your cellphones
5 and your computers so that we can clearly hear
6 the speakers who are providing comment without
7 distractions.

8 You can take photographs of speakers,
9 but please do it in such a way to not disturb
10 that speaker or the Board and, you know, stay
11 kind of behind the table and the tapes there.
12 Okay. I am going to -- each speaker has three
13 minutes, and I'm going to ask Michelle to go over
14 the --

15 It's a little bit different than we
16 had in the past. There is a three color. It's
17 green, then it goes to yellow and then red, and I
18 believe there's actually a clock in front of you,
19 right?

20 MS. ARSENAULT: That's correct. So
21 for people that have commented in the past,
22 there's a new timer on the podium and there's a

1 countdown clock, so you don't have to remember
2 what the colored lights mean, and it has a less
3 obnoxious beep than it has in the past.

4 CHAIR BEHAR: So there's no beep at
5 the end?

6 MS. ARSENAULT: There is a beep; it's
7 just not a loud buzzing noise.

8 CHAIR BEHAR: Great, okay. So --

9 MS. ARSENAULT: One other thing. So
10 it will beep when you reach your three minute
11 time limit, and then it starts counting up so you
12 know how far you've gone over.

13 CHAIR BEHAR: Okay. So when the red
14 light comes on and the beep starts, you can
15 finish that sentence, but please refrain from
16 taking more time than that. We have many
17 speakers to listen to, and only a limited amount
18 of time. We ask that the commenters start with
19 their name and affiliation at the beginning of
20 their public comment.

21 If any member of the Board has a
22 question about the affiliation of the speaker,

1 please hold that question until the end of that
2 speaker's comment. Once the commenter has
3 completed their three minutes, I will then ask
4 the Board members if they have questions for that
5 individual speaker.

6 Lastly, individuals providing public
7 comment to the Board are asked to refrain from
8 public attacks that might impugn the character of
9 any individual. If I hear that type of speech, I
10 will interrupt the speaker and ask them to
11 refrain from that activity.

12 So I will call on the person who's the
13 next speaker and also the person who's on deck.
14 The on deck person will sit in the chair next to
15 Michelle, and you can then feel free to take one
16 of the animals on the table, to share the great
17 biodiversity that we have. So first up -- yep,
18 another point Michelle?

19 MS. ARSENAULT: Can I just say one
20 thing? I have one video for today's commenters,
21 and no other PowerPoint presentations. If you
22 think you have PowerPoint presentation for today,

1 I don't think I have it, so come see me.

2 CHAIR BEHAR: Yes Dave?

3 MR. MORTENSEN: Some of us are just
4 mildly hearing challenged. These mics are highly
5 directional, so if you could -- if you're tall,
6 move it up or otherwise we don't hear very well.
7 Thank you.

8 CHAIR BEHAR: Okay, thank you for that
9 Dave. Okay first up is Kiki Hubbard, with Lynn
10 Coody on deck, and Lynn there are border collies
11 over there for you. Please state your name and
12 affiliation.

13 Public Comment

14 MS. HUBBARD: Good afternoon. My name
15 is Kiki Hubbard. I'm the Director of Advocacy
16 and Communications for Organic Seed Alliance. We
17 are a mission-driven organization that works
18 nationally to ensure that organic farmers have
19 the seed they need. Our home office is in Port
20 Townsend, Washington, so welcome to our backyard.

21 My comments are going to touch on two
22 topics today. First, OSA appreciates the

1 Materials Subcommittee's work to provide further
2 clarity on excluded methods. We are generally
3 supportive of the proposal on the agenda, and we
4 offer detailed recommendations in our written
5 comments for further strengthening this document.

6 The science involved in this
7 particular area of the Subcommittee's work
8 requires a steep learning curve to be sure, so we
9 applaud these efforts and want to underscore the
10 importance of this work to the growth and
11 integrity of organic plant breeding and organic
12 seed production.

13 Secondly, OSA appreciates the
14 Materials Subcommittee's work on the challenging
15 issue of genetic integrity and transparency in
16 the seed supply. We very much agree that testing
17 for and monitoring the presence of genetically
18 engineered material in seed use by organic
19 growers is important, and we share the
20 Subcommittee's concerns that some organic farmers
21 are facing real market problems because of GE
22 material in their seed and crops, despite their

1 best efforts to avoid it.

2 We remain concerned, however, with the
3 general approach outlined in the proposal that
4 was presented last fall, which would require
5 organic farmers as part of a pilot project to
6 request detectable levels of GE materials in the
7 seed they're sourcing.

8 This project appears to try to achieve
9 two goals, both to collect more information to
10 understand the problem of contamination, and to
11 establish a reporting protocol in the
12 marketplace. In our view, it's necessary to
13 decouple these efforts because the current
14 approach is trying to understand the problem at
15 hand, while at the same time trying to solve it.

16 Because organic field corn represents
17 a very small fraction of overall corn acreage in
18 the U.S., organic field corn producers have
19 limited choices in organic seed in conventional
20 untreated options, and much fewer options in
21 varieties that are actually bred for organic
22 production systems.

1 We remain concerned about implementing
2 a pilot project outside of an expert body. We
3 are also concerned about implementing a project
4 without data that helps us understand what the
5 feasibility as well as potential unintended
6 consequences, including fewer organic seed
7 varieties available.

8 We believe data collection needs to
9 happen, and that it should happen in a systematic
10 and scientific way, and that this collection
11 should be not put on -- should not be put on the
12 backs of organic farmers and the certification
13 and enforcement system.

14 We're very hopeful that we can find a
15 path forward that both supports more transparency
16 in the seed marketplace, while encouraging much
17 needed investments in organic seed production.
18 Increasing the availability of organic seed will
19 lead to more organic acreage, more organic
20 farmers using organic seed that wasn't produced
21 in conflict with organic principles and -- wow,
22 this is a new system.

1 (Laughter.)

2 MS. HUBBARD: All of these factors
3 strengthen organic integrity overall, and we
4 shouldn't lose sight of that bigger picture as we
5 grapple with this challenge. Thank you.

6 CHAIR BEHAR: Hi Kiki.

7 MS. HUBBARD: Hi Harriet.

8 CHAIR BEHAR: So the discussion
9 document from the fall and this one does not stop
10 any farmer from using any corn seed with any
11 limit of genetic contamination.

12 So I'm just not sure if a farmer
13 wanted to buy a certain variety, knowing that it
14 is high or not high or whatever level it is of
15 having genetic contamination, I just am not sure
16 why that would stop them from using it if they
17 were not trying to get into a market that
18 required less?

19 MS. HUBBARD: I don't believe that any
20 of our comments spoke to a concern like that
21 Harriet, to be honest. So I'm not concerned
22 about farmers feeling discouraged from using a

1 particular variety, if that's what you're getting
2 at.

3 We are very concerned based on
4 preliminary conversations with seed companies and
5 other stakeholders, including certifiers, that
6 there needs to be a lot more information
7 collected before moving forward with confidence
8 with this type of a pilot project.

9 We are concerned about the unintended
10 consequences of this establishing a de facto
11 threshold that organic seed companies, despite
12 their best efforts, might not be able to reliably
13 meet, and therefore produce fewer organic seed
14 options for the marketplace.

15 We're concerned that it sets a bad
16 precedent of keeping the costs associated with
17 contamination, the responsibility of identifying
18 the problem and then dealing with it on the
19 shoulders of the organic community alone. We
20 have a number of concerns that OSA has outlined
21 in previous comments. The one that you're
22 speaking to isn't necessarily a concern of ours

1 at this time.

2 CHAIR BEHAR: Okay. I guess what I'm
3 hearing then is that perhaps the seed producers
4 would not produce the seed because there's
5 concern that they might not be able to sell it if
6 it had a high GE content.

7 MS. HUBBARD: Gosh. Well first of
8 all, most seed companies are testing. Organic
9 seed companies are often redirecting seed lots
10 that test high in contamination to the
11 conventional seed marketplace. They're already
12 dealing with the problem internally, because they
13 care about the integrity of the organic label and
14 want to meet the expectations of their
15 customers.

16 We don't know. I can't answer your
17 question because we don't know. We need more
18 information. We need seed companies to respond
19 to both the feasibility of this proposal and any
20 ways that it could affect the way they operate,
21 and whether it's even feasible to achieve current
22 expectations when it comes to levels of

1 contamination.

2 CHAIR BEHAR: Sue.

3 MS. BAIRD: Hi. Thank you for this
4 presentation. You're saying that you would like
5 to see it decoupled. So would you have a plan, a
6 proposed plan that would implement the
7 decoupling, a plan that would say we're going to
8 test for two years or three years or -- do you
9 have a plan proposed, since you would like to see
10 that done?

11 MS. HUBBARD: Yeah. In previous
12 comments by Organic Seed Alliance, as well as
13 previous discussion documents by the Materials
14 Subcommittee, going back I think six or seven
15 years, when the focus was more on exploring
16 whether it was feasible to establish a threshold
17 at the seed level, we have long called for a task
18 force made up of experts that could collect this
19 data so we have a baseline to really understand
20 the problem to begin with, and then to inform
21 what is feasible on behalf of the organic
22 community for addressing the problem of genetic

1 integrity.

2 And so we very believe we need to be
3 calling for a body of experts, be it a USDA task
4 force or another body of experts, to carry out
5 the much-needed research and data collection. I
6 think a lot of these companies would provide
7 years of testing data under a non-disclosure
8 agreement.

9 So there's one idea. Moving forward,
10 there are other low-hanging fruit opportunities
11 such as really educating organic growers who are
12 supplying to a sensitive market to be asking
13 these questions of their seed suppliers. There
14 should be more transparency. Some companies are
15 already doing it.

16 Let's encourage growers to ask those
17 questions, as some of them already are, and to
18 remind them that integrity begins with seed. And
19 also we support the Organic Trade Association's
20 recommendations to move forward with guidance for
21 certifiers, to help them understand the best
22 practices involved with testing protocols for GMO

1 contamination. Those are just a few ideas.

2 CHAIR BEHAR: Sue.

3 MS. BAIRD: Yes. Do you think that it
4 would be a deterrent if this was passed, and we
5 would require the farmer to incur the cost of
6 genetic testing? Would it be a deterrent to a
7 farmer to have to pay that cost, and would it be
8 by lot or would it be by the season?

9 MS. HUBBARD: So we are very -- we are
10 very opposed to the particular part of the
11 proposal that would require organic farmers to do
12 their own testing should their seed supplier not
13 provide detectable levels of the seed that
14 they're buying. We do not think that is fair,
15 and we do think that added burden could deter
16 organic farmers in ways that are not supportive
17 of the ongoing growth and success of organic
18 agriculture.

19 CHAIR BEHAR: Emily.

20 MS. OAKLEY: Do you have some specific
21 examples or suggestions for ways that we can
22 encourage farmers to ask their seed companies to

1 provide that information if it's not actually
2 stipulated as a requirement?

3 MS. HUBBARD: That's a great question,
4 Emily. Again, off the top of my head I think
5 it's going to need to come from the certifying
6 and inspecting community, perhaps from extensions
7 who are fielding these types of questions from
8 buyers. I think it's -- there are a number of
9 ways to encourage that.

10 I think at this time, given all the
11 unknowns, it's not wise to require that of all
12 growers, especially since not all growers are
13 supplying to a sensitive market. That is not to
14 minimize the importance of that information. We
15 are certainly not advocating for ignorance here.

16 We are advocating for a cautious
17 approach in a way that keeps the big picture in
18 mind, and that doesn't further burden organic
19 farmers and further limit organic seed options
20 available in the marketplace.

21 CHAIR BEHAR: Thank you, Kiki. Next
22 up is Lynn Coody, and on deck is Roland

1 McReynolds.

2 MS. COODY: Hi. My name is Lynn Coody
3 and I'm presenting comments for the Organic
4 Produce Wholesalers Coalition, seven businesses
5 that distribute fresh organic produce across the
6 United States and internationally. In our
7 comments to the NOSB, we express our own ideas
8 and also provide a conduit for the voices of the
9 many certified growers who supply our businesses.

10 OPWC has provided detailed comments on
11 14 of the 2021 sunset materials. We solicit
12 comments from growers and handlers, and present
13 their own words in our comments to show how these
14 materials are currently used and needed in the
15 produce sector.

16 OPWC thanks the Subcommittees for
17 their work, and we agree that with almost all the
18 recommendations for this meeting. However, our
19 written comments do address some points of
20 disagreement and today we'll focus on three of
21 these.

22 First is assessing cleaners and

1 sanitizers. We do disagree with many points in
2 this discussion document, as well as a decision
3 to move forward with a TR prior to presentation
4 of this topic to the public. My colleague, Mike
5 Dill, will address this in more detail.

6 AITC. OPWC asserts that the long-term
7 reliance on regulatory exemption for the use of
8 conventionally sourced planting stock blocks
9 continuous improvement in production of organic
10 crops that are propagated through nursery stock.

11 Unless organic standards can provide
12 practical methods of protection against spread of
13 diseases and nematodes via planting stock, there
14 is no incentive for nurseries to grow varieties
15 that are specifically oriented to the needs of
16 organic production systems and the organic
17 marketplace.

18 In response to a question about
19 phytosanitary programs at the last Board meeting,
20 our comments present our research on potential
21 for AITC for making incremental improvements in
22 nursery stock production. We urge the Board to

1 approve AITC with the annotation only on nursery
2 stock subject to phytosanitary programs, and to
3 add a research topic to find other possibilities
4 for organic nursery stock to comply with these
5 programs.

6 We respectfully disagree with the Crop
7 Subcommittee's recommendation not to list
8 ammonium citrate and ammonium glycolate. We
9 reviewed the technical report and the
10 Subcommittee's evaluation checklist and found the
11 recommendation is not well supported by these
12 background materials.

13 OPWC supports listing multiple types
14 of chelates so that growers have the opportunity
15 to determine which works best in their specific
16 conditions of soil type, soil temperature, water
17 availability and crop mix.

18 The TR supports the idea, stating the
19 presence of other approved chelating agents on
20 the National List does not make the petition's
21 substance unnecessary. Further, we concur with
22 the TR statement that the effect of chelation

1 becomes more dramatic in alkaline and water-
2 deficient settings, and note that many fruits and
3 vegetables that enter the organic are grown in
4 areas subject to these conditions.

5 We urge the Board to take another look
6 at background documents on these materials when
7 considering the Subcommittee's recommendation.

8 Thank you.

9 (Laughter.)

10 CHAIR BEHAR: Any questions for Lynn?
11 Ashley.

12 MS. SWAFFAR: Thanks, Lynn. I thought
13 no one was going to ask you a question there. So
14 I do have a question about the sanitizer and
15 discussion document, and I'll ask Mike some more
16 detailed stuff there. You had put in your
17 comments that you were concerned with the
18 intended outcome of this evaluation system. Do
19 you see how we could use this -- how would you
20 see that we could use this document looking at
21 sanitizers?

22 MS. COODY: I think I'd rather answer

1 the question a little bit differently than that.
2 We had, we had a lot of concerns about not only
3 the content of the specific document, but the
4 concept behind it, as far as trying to define
5 sanitizers in terms of uniqueness.

6 First of all, that was not a defined
7 term in the document, and secondly we are unclear
8 how the -- why the idea of uniqueness is so
9 important in sanitizers, when we know that they
10 must be rotated in order to prevent their -- well
11 in practical use, they need to be rotated, and
12 that there are so many widely diverse situations
13 in which they are used.

14 So we're seeing that actually, instead
15 of looking for uniqueness, we need to try to
16 understand more like what is a range of things
17 that we need and what types of things in general.
18 What are the situations in organic processing,
19 livestock and crop production where sanitizers
20 are needed, and why are they needed?

21 So we feel like we're starting at the
22 wrong point with this paper, and we need to like

1 have a very different concept for trying to
2 understand the use of sanitizers in organic
3 production systems. We note that sanitizers are
4 used in every scope, and I would contend in
5 almost every single organic operation.

6 So any, any effort to regulate
7 sanitizers has to really take into account all of
8 the impacts that this would have on all the many,
9 many organic operations.

10 CHAIR BEHAR: Dave was first, and then
11 Emily and Jesse. Emily and then Jesse.

12 MS. OAKLEY: Okay, just to clarify, we
13 were trying to decide who got to go first. Just
14 to clarify, the intent of this technical review
15 is not at all to take away sanitizers. It's not
16 to limit them. It's not to try to make it more
17 difficult for producers.

18 In fact, I think it compliments a lot
19 of the concerns that you said you were worried it
20 wouldn't do. That's in fact I think why we're
21 trying to get this technical review. So I just
22 wanted to assuage your concerns on that front,

1 and it is absolutely not the case for everyone
2 who's coming forward in the future, that the
3 intent is to limit people's tools. It is to try
4 to help us determine as we get these materials,
5 where their necessity falls.

6 Because right now it's sort of
7 happening and I don't want to say like in a
8 vacuum, but to some extent it is, because it is
9 hard to evaluate them based on this holistic
10 approach that we don't really have at this point.
11 A lot of them are not getting passed, and perhaps
12 this would actually change some of that.

13 CHAIR BEHAR: Jesse.

14 MR. BUIE: On AITC, can you address
15 the variability and the effectiveness of AITC
16 across these various nematodes? The TR talked
17 about how the effectiveness was so variable.

18 MS. COODY: Okay. Thank you,
19 Michelle. The number of nematodes and diseases
20 that are addressed by phytosanitary programs are
21 vast. So of course you would expect certain
22 variability because each nematode is affected

1 differently by any given material.

2 My interest in a material like this is
3 not so much exactly which nematode that it's
4 going to be effective for, but rather that it
5 could help organic growers. So you're talking
6 about a grower trying to produce organic nursery
7 stock for use by other organic growers.

8 I think that they are still, they are
9 still subject to phytosanitary programs that
10 require a very high level of cleanliness before
11 the nursery stock is moved to another area. So
12 AITC is not, would not in my view be a perfect
13 material for every single, compliance with every
14 single phytosanitary program.

15 You would have to pick and choose to
16 see which ones it would work for. So it might
17 work for blueberries in Oregon, but not so much
18 for, you know, garlic in Arkansas. You'd have to
19 be careful. You'd have to choose and see which
20 ones it would work for.

21 MR. BUIE: Yes. It seems that the
22 concentration needed for the various nematodes

1 has not been determined yet is what I'm saying.

2 Is that --

3 MS. COODY: Yeah. From the TR, there
4 was, there was -- yeah. There's not a lot of
5 research on how this could work. But I think
6 that we need to take incremental steps forward,
7 with trying to provide tools for organic nursery
8 stock production, because otherwise, we sit here
9 with problems where there's no path forward. So
10 I think that approving this with the annotation,
11 as I said, for use only in the case of
12 phytosanitary programs would allow for a tool
13 that could allow experimentation and could allow
14 for just steps forward in production of organic
15 nursery stock.

16 We dealt with this before, where when
17 we had our famous debates about antibiotics for
18 fire blight, the main fix was let's have
19 different -- let's have different types of
20 varieties developed for organic production, and
21 that was a 20 year horizon, and then at the end
22 of the 20 year horizon we get stymied by

1 phytosanitary programs. So I'm looking at kind
2 of a longer-term approach to trying to solve a
3 really difficult problem of this organic nursery
4 stock.

5 I don't know that AITC is -- it's
6 certainly not a panacea for all problems with
7 organic nursery stock. But I think it would be
8 an incremental step to give growers something to
9 try. Additionally, it would not necessarily --
10 it wouldn't be a substitute for allowing full
11 compliance.

12 What it would do would be to provide
13 a tool for reducing the amount of nematodes and
14 diseases present. That's all it can do. It's
15 not going to be the same as using methyl bromide,
16 that's for sure.

17 CHAIR BEHAR: Dave is next, and then
18 Tom.

19 MR. MORTENSEN: Yeah, and Lynn I
20 think, I think Jesse's point also applies to the
21 ammonium citrate and glyconate examples. Over
22 the past two years or so or something like that

1 we've realized that we really need to knuckle
2 down on asking for efficacy data, as opposed to
3 saying to an applicant saying or someone
4 defending a sunset, you know, it works or, you
5 know, it might work in the Pacific Northwest
6 under this or that condition.

7 MS. COODY: Right.

8 MR. MORTENSEN: So I think as we go
9 forward, we have to continue as a community to
10 insist that we have some sort of, whether it's
11 farmer to farmer on farm trial data or some kind
12 of data, so that we can determine that we're not
13 just, you know, just adding things to the list
14 where we actually don't have compelling evidence
15 that they're even worth buying.

16 MS. COODY: Uh-huh, although I remind
17 you that efficacy is not an OFPA criteria. So it
18 does play into kind of a risk-benefit analysis,
19 but it's not an OFPA criteria.

20 MR. MORTENSEN: But I also think that
21 we are not, at least we're not wanting to add
22 things if we don't have evidence that they're

1 going to do good.

2 MS. COODY: Yep, yeah.

3 MR. MORTENSEN: So that's just a
4 working principle that we're using.

5 MS. COODY: I hear you.

6 CHAIR BEHAR: Okay, Tom.

7 MR. CHAPMAN: SDC. Should I ask you
8 or should I hold it for Mike?

9 MS. COODY: If it's not too technical
10 you can ask me.

11 MR. CHAPMAN: Did you see the
12 petitioner's public comments about applicable
13 areas and applications like that they did not
14 think it was applicable for field applications
15 based on the licensing.

16 Did you find that sufficient to meet
17 your concerns about this material? And as a
18 second part to it, if we were to annotate to
19 restrict its usage to say municipal water
20 systems, would your position on it change?

21 MS. COODY: Yeah. It does change.
22 OPWC was the one if you remember at the last

1 meeting, we were the ones that pointed out that
2 tough language in the EPA background documents,
3 and also expressed concerns about its use outside
4 of municipal systems.

5 So I did read that petition
6 information again very carefully, and I did note
7 that it was not -- they said it was not
8 registered for those uses. If it were clearly
9 annotated, then it would change my position. I
10 feel like SDC has some good benefits as far as a
11 sanitizer because its mode of action is so
12 different than the ones that we have now.

13 So if there could be annotation
14 crafted, I would feel good about it. Our written
15 comments do say we regretfully wish we could
16 have sanitizers that have different modes of
17 action such as SDC and, yeah. So an annotation
18 could work from my perspective, and that's about
19 as technical as I can get on that one.

20 MR. CHAPMAN: Just as a quick follow-
21 up, the human health concerns, the fate of some
22 of the other environmental concerns, do you think

1 those are outweighed by the benefit if we do, you
2 know, resolve this issue about municipal waste?

3 MS. COODY: Well actually, some of the
4 information that was presented by other public
5 commenters in the webinars was compelling to me
6 in that they said even for the case that it was
7 going into a septic tank, that the sludge would
8 be taken away and then treated independently as
9 it would be treated as in a municipal system.

10 So that was new information to me.
11 I'm not an expert in sludge treatment, believe it
12 or not, but I thought that was pretty interesting
13 information, and I felt like it was kind of
14 confined, and if it were additionally handled
15 with an annotation to make sure that it was
16 handled carefully, that's okay.

17 That to me, there again the efficacy
18 of the sanitizer having another mode of action,
19 that's pretty important to me. So I feel like
20 the risk benefit is creeping along to the
21 positive side for me.

22 MR. CHAPMAN: Thank you.

1 MS. COODY: That's not very technical,
2 but that's kind of what I can tell you.

3 CHAIR BEHAR: Okay.

4 MS. COODY: Okay, thanks a lot.

5 CHAIR BEHAR: I just have one short
6 comment and I have a question. I received a
7 Stark Brothers catalogue in the mail, I don't
8 know if anybody knows them, it's kind of a
9 homeowners fruit tree. They ship fruit trees all
10 over. They had a huge insert full of organic
11 fruit trees, certified organic fruit trees. So
12 they have figured out a way to be able to meet
13 some phytosanitary.

14 I don't know where they're growing
15 them or whatever, but there was at least 20 or 25
16 different varieties of organic fruit trees for
17 home gardeners to purchase, and I was thrilled.

18 MS. COODY: Well each state has
19 different programs for each individual type of
20 crop. So like Oregon has blueberry phytosanitary
21 programs. They're extremely diverse. So
22 depending on where they're growing and where

1 they're shipped to, the programs are different.

2 So I can't speak for Stark Brothers
3 but yeah, I'm happy they're giving organic
4 growers -- organic trees for home growers too.

5 CHAIR BEHAR: Thanks Lynn.

6 MS. COODY: Okay, thanks everybody.

7 CHAIR BEHAR: And so next is Roland
8 McReynolds. I'm sure he has nothing interesting
9 to say, and then -- so we won't have any
10 questions, and then Cathleen McCluskey. No
11 offense, Roland.

12 MR. McREYNOLDS: None taken Madam.
13 Madam Chair, members of the Board, thank you very
14 much for the opportunity to speak with you here
15 today. My name is Roland McReynolds. I'm the
16 executive director with the Carolina Farm
17 Stewardship Association.

18 We're a 40 year-old farmers
19 organization working to build a sustainable,
20 regional food systems in North and South Carolina
21 that is based on organic farming and local food,
22 and I'm here to speak to you today in support of

1 the petition that has been approved for your
2 review, to add fatty alcohols to the National
3 List as an allowed synthetic for use in sucker
4 control in the production of organic tobacco.

5 There are approximately 220 organic
6 tobacco farmers in the United States, and people
7 representing 169 of those farms signed a petition
8 in support of the materials petition, and
9 requesting that you make a temporary allowance
10 for continued use of fatty alcohols in organic
11 tobacco until you make a final decision on the
12 materials petition.

13 You received at least 26 written and
14 oral comments from organic tobacco farmers in the
15 docket for this meeting, requesting the same two
16 actions. The average organic acreage of these
17 family farms in North Carolina is 54 acres.
18 These are the mid-scale family farms that are
19 disappearing in America today.

20 These family farmers have made clear
21 in their comments why sucker control is such a
22 critical issue for their farms, and how fatty

1 alcohols address their needs. You received
2 comments from faculty at NC State University
3 documenting their research that is no non-
4 synthetic material available that provides
5 adequate sucker control in organic tobacco.

6 You've heard from farmers that the
7 alternative of hand suckering tobacco plants is
8 economically unfeasible and unhelpful for farm
9 workers. Organic tobacco pays the bills for
10 these family farmers. It allows them to accept
11 greater risk on other organic row crops and
12 achieve the soil health and ecological benefits
13 of soil-building crop rotations without putting
14 their families' livelihoods at risk.

15 Organic tobacco has converted
16 thousands of acres to organic production in the
17 Carolinas. You've received comments from other
18 actors in the organic food supply chain in the
19 Carolinas about how organic tobacco farmers have
20 become the backbone of that supply chain. The
21 crops these farmers grow in rotation with their
22 organic tobacco have made our region a leader in

1 organic sweet potato production, have helped
2 launch North Carolina in the top ten in value of
3 organic production, and have fueled a market for
4 locally milled and locally consumed organic
5 cereal grains.

6 All of this has been made possible by
7 the availability of fatty alcohols for sucker
8 control. These farmers have relied on this
9 product for the last ten years. It is essential
10 not only for them, but to the organic food system
11 in the Carolinas.

12 If you did not take up the materials
13 petition at your fall 2019 meeting, then next
14 January when these farmers are offered tobacco,
15 organic tobacco contracts, they will not know if
16 they can meet those contracts.

17 And they will be faced with the
18 decision about whether to stay in organic
19 agriculture or not. That is why it is so
20 critical that you at this meeting make a
21 recommendation to the NOP to grant a temporary
22 allowance for fatty alcohols in sucker control in

1 organic tobacco, until such time as the materials
2 petition receives your full consideration. Thank
3 you.

4 CHAIR BEHAR: Thank you, Roland. Any
5 questions? Emily.

6 MS. OAKLEY: Thank you for your
7 comments, and I just wanted to just say that the
8 webinar and the written comments were very
9 compelling, and it's very helpful to hear from
10 the growers.

11 However, my concern is that the
12 essentiality is based on economic need, and in my
13 own experience I've grown organic blueberries in
14 a place that they really didn't apparently like
15 to grow.

16 And for the first time I understood
17 why people loved herbicides, although I've never
18 used one. I could understand why they make crops
19 economically viable, and organic blueberry
20 growers in my state all use herbicides, because
21 that is what makes it an economically viable crop
22 in my area. I actually no longer grow

1 blueberries.

2 So I'm wondering if you think that
3 economics really is a compelling reason for us to
4 list an ingredient, especially a synthetic for
5 which we have a high threshold for review?

6 MR. McREYNOLDS: Well, I think that
7 the technical evaluation report that was prepared
8 in 2016 for a prior petition on this material
9 definitely identifies that the evaluation
10 criteria in 6518(m) are satisfied, you know.
11 This does meet. It is -- the toxicity and mode
12 of action is -- it breaks down very easily in the
13 environment.

14 The probability of environmental
15 contamination during its manufacture, use is very
16 low, according to the TER. EPA calls it a safer
17 choice.

18 It states that although there can't --
19 there are no human health risks of concern and it
20 has -- and it is a benefit for worker safety,
21 right, because they're not having to go into the
22 field in the hot summer sun and subject

1 themselves to dermal contact with the plants, and
2 so avoid green tobacco sickness.

3 So it is -- the essentiality
4 economically is, I believe, a fundamental factor
5 that has not been brought forward. But I do
6 think that the technical review that you've
7 received so far definitely demonstrates that this
8 meets the requirements for addition of the
9 material to the List.

10 CHAIR BEHAR: I see Jesse and Steve.

11 MR. BUIE: Just a comment. Do you
12 think that to further this discussion, if we
13 decoupled tobacco from fatty alcohol, that would
14 make this discussion a little bit more palatable?

15 MR. McREYNOLDS: I'm not sure I'm
16 following. I mean I believe -- the petition is
17 limited to the use of this material on tobacco,
18 not other crops.

19 MR. BUIE: Right, right.

20 MR. McREYNOLDS: Is that what you're
21 getting at or --

22 MR. BUIE: Oh no, no. I'm just saying

1 --

2 MR. McREYNOLDS: Because I'm not sure
3 that OFPA, you know, gets to whether or not, you
4 know, we like the crop.

5 MR. BUIE: Oh no. I'm talking fatty
6 alcohol. That's what I was saying.

7 MR. McREYNOLDS: Right, okay. I'm not
8 sure I'm following.

9 MR. BUIE: Okay. I'm just saying if
10 we focused on fatty alcohol and not tobacco,
11 would that -- that's the question.

12 MR. McREYNOLDS: Right. It's
13 difficult for me to decouple that, yes. I mean I
14 -- in terms of the impact that it has on these
15 family farmers, it is -- this is the crop that
16 makes their rotation economically viable.

17 CHAIR BEHAR: Okay Steve, and then
18 Dave.

19 MR. ELA: I think what Jesse's asking
20 is there's been some discussion of -- people have
21 various views of tobacco.

22 MR. McREYNOLDS: Sure.

1 MR. ELA: But our discussion is really
2 about fatty alcohols. It's not about tobacco,
3 just like it is for any material.

4 MR. McREYNOLDS: Yes, yes.

5 MR. ELA: So I think that's where he's
6 getting at.

7 MR. McREYNOLDS: Okay. I apologize.

8 MR. ELA: One thing I wanted to ask
9 some follow-up on from the webinar, and I don't
10 know if you can speak to it, is one of the
11 presenters noted that their insect problems went
12 down using fatty alcohols versus hand sucking,
13 and it was because they understand the aphids
14 tend to be attracted to the suckers, and if
15 they're removed then you don't have to spray or
16 do you have aphid issues?

17 MR. McREYNOLDS: I believe that it's
18 not that -- it's the topping of the plants that
19 reduces the aphid issues, because there's no
20 flower to attract them, and regardless of whether
21 you do it top, by hand or with a material, that's
22 still the effect. It's then it forces -- the

1 topping is what forces the sucker growth, and
2 that therefore that makes the necessity of
3 suckering.

4 MR. ELA: But the aphids were
5 attracted to the sucker as I understood. So if
6 you didn't have suckers, then you didn't have as
7 many aphid problems?

8 MR. McREYNOLDS: I believe yes, that's
9 correct.

10 MR. ELA: Okay. I just wanted,
11 because I think that deals a little bit with it's
12 not just economics. It actually does help reduce
13 the potential of another insect.

14 CHAIR BEHAR: Dave.

15 MR. MORTENSEN: Yeah. Roland, I also
16 wanted to just say thank you to you and the many
17 others that have spoken and to the farmers,
18 because I'll tell you. The last time we looked
19 at this, we had very, very little input from
20 farmers, and the idea as we were saying before
21 about efficacy and need is definitely part of
22 something that we're all thinking about when

1 we're looking at these things. So the case is
2 made in a much more compelling way this go-round.

3 MR. McREYNOLDS: I appreciate that.
4 Certainly, it's been -- the farmers that we work
5 with have been very responsive to this, to this
6 risk that they're facing, for sure.

7 CHAIR BEHAR: And I guess I would just
8 say too that it was very compelling on the
9 webinar to hear about the need for it in a crop
10 rotation, and in Wisconsin we also have a tobacco
11 culture and understand that that is a very high
12 value crop in rotation, and whether you like
13 tobacco or not, it is a legal crop to grow in the
14 United States. And that's it. Okay, thank you
15 Roland. Next.

16 MR. McREYNOLDS: Thank you all very
17 much.

18 CHAIR BEHAR: Next up is Cathleen
19 McCluskey, with Alan Lewis on deck.

20 MS. McCLUSKEY: Good afternoon. My
21 name is Cathleen McCluskey, and I am the
22 Communications and Outreach Associate for Organic

1 Seed Alliance. We're a mission-driven
2 organization that works nationally through
3 research, education and advocacy to ensure
4 organic farmers have the seed they need.

5 My comments will touch on the Crop
6 Subcommittee proposal to strengthen the organic
7 seed guidance. OSA supports the Subcommittee's
8 revised proposal, and we are pleased to see past
9 public comments incorporated into the most recent
10 version.

11 The Subcommittee has put forth four
12 years of hard work into this document, and we're
13 grateful for the progress demonstrated in the
14 latest version. In our written comments, we
15 provide additional suggestions for the
16 Subcommittee and NOP to consider, as you finalize
17 and implement these final recommendations.

18 Improving the sourcing of organic seed
19 will have far-reaching impacts far beyond helping
20 organic growers meet a regulatory requirement.
21 More consistent enforcement and more sourcing of
22 organic seed will lead to more investments in

1 organic plant breeding and seed production, and
2 ultimately more high quality varieties available
3 for organic farmers to choose from.

4 We believe it's imperative to the
5 success of organic farmers that they have many
6 options of high quality seeds and cultivars bred
7 for organic systems. In particular, we
8 appreciate that in this proposal the Subcommittee
9 has emphasized the quality of seed searches, the
10 need to encourage timely seed ordering, and the
11 importance of demonstrating measurable increases
12 in organic seed use over time.

13 We also appreciate the additional
14 language that clarifies what constitutes a non-
15 compliance, in addition to the language that
16 clarifies the role variety trials can play in
17 identifying equivalent organic varieties, given
18 the enormous value the trials and the resulting
19 data provides growers.

20 We also support the language that
21 calls for growers to engage their current non-
22 organic suppliers in dialogue about their desire

1 to purchase equivalent organic varieties or
2 cultivars. We see this recommendation as helping
3 demonstrate the market demand for organic
4 varieties and cultivars to seed suppliers.

5 Further, the documentation of these
6 requests may serve useful to encourage both non-
7 organic and organic suppliers to invest in
8 organic breeding and production to serve the need
9 of organic producers. We hope to see the NOSB
10 pass this proposal at this meeting, and encourage
11 the NOP to swiftly implement these
12 recommendations.

13 This improved guidance complements the
14 seed regulatory language approved by the NOSB
15 last year, which will require demonstrated
16 improvement in sourcing organic seed and planting
17 stocks on an annual basis. Together, these
18 actions represent a milestone.

19 We view this evolution in organic seed
20 policy as a significant step towards a future
21 where the integrity of the organic label is
22 stronger because the critical first link in the

1 organic production chain, the seed the farmers
2 plant, is also consistently organic. Thank you
3 very much for your time and for your service.

4 CHAIR BEHAR: Any questions? Thank
5 you. We did work hard on it, so thank you for
6 noticing.

7 MS. McCLUSKEY: Yes, thank you.

8 CHAIR BEHAR: Okay. Alan Lewis up
9 next. Please state your name and affiliation
10 with Zea Sonnabend on tap, on deck.

11 MR. LEWIS: Thank you Harriet and
12 Jenny and Board members. Alan Lewis, Natural
13 Grocers. We're up to 150-some stores, 19 states
14 west of the Mississippi, and as a starting point
15 we still only sell certified organic produce.
16 I'm here again talking yet again about
17 hydroponics, because there's housekeeping to be
18 done.

19 We don't have labeled hydroponics. So
20 it's coming in on the trucks and we don't know
21 whether it's hydroponic, grown in water, whether
22 it's actual -- excuse me, but actual certified

1 organic grown in soil. You have to imagine that
2 it's 5:30 in the morning. You're 18 years old,
3 you're a little hung over, and you're pulling 500
4 cases off.

5 We already have huge problems knowing
6 whether it's really certified organic or not due
7 to unlabeled cases and missing logos and bad
8 invoicing. So we don't know what to tell our
9 people. So I'm going to make a proposal here
10 today, which is that there are three triggers,
11 potential triggers.

12 Are the items in that case potentially
13 hydroponic items, things like berries, tomatoes,
14 peppers. Are they with brands that are known to
15 be grown without soil, and the last trigger would
16 be a certifier known to certify hydroponics.
17 Somehow in there, you have a trigger so I can
18 tell that young man or woman at 5:30 in the
19 morning if you see these, then a placard goes on
20 them in the store and it says may be grown
21 without soil, because consumer trust and
22 transparency remains critical.

1 And in the hydroponic world, not only
2 is it unlabeled and undisclosed, but their
3 practices and inputs are largely trade secrets.
4 So it's really incumbent on the retail industry
5 to be a last line of defense here, to make sure
6 customers maintain their confidence.

7 Now customers are going to see the
8 placard, and they're going to have questions. So
9 a bit tongue in cheek, let me give you five
10 things that the organic or the hydroponic
11 industry presented over the last five years as
12 reasons to promote hydroponic.

13 One, improve the appearance and lower
14 our dependence on an environment by not having
15 soil, insects, wildlife, bugs, rain, sun or wind
16 or snow. Two, school the organic Luddites who
17 fear new technologies. Three, reduce the number
18 of inefficient small holder soil-based farms.
19 Four, avoid the dark arts and black magic, quote-
20 unquote of soil biology, and lastly, keep food
21 away from dangerous soil microbes.

22 It leaves me a little bit speechless.

1 I think we will help the hydroponic people work
2 on their messaging before we take those five
3 points to our consumers. But in all seriousness,
4 we have housekeeping to do because hydroponic
5 needs to be labeled if the organic seal is to
6 incorporate it and maintain the confidence of
7 consumers in the seal.

8 Give them the choice, give them fully
9 informed choice. I yield the rest of my 12
10 seconds. Thank you.

11 (Laughter.)

12 (Applause.)

13 CHAIR BEHAR: Thank you, Alan.

14 Questions from the Board? I have one. How do
15 you know that your consumers don't want
16 hydroponic organic?

17 MR. LEWIS: Harriet, I don't know. I
18 don't assume, but I do know that some would
19 clearly not choose it if they had a choice.

20 CHAIR BEHAR: Dan.

21 DR. SEITZ: This is actually a
22 question for the program. When we were

1 discussing hydroponics previously, the question
2 came up of -- the mic's on, or at least there's a
3 green light.

4 FEMALE PARTICIPANT: I can hear you.

5 DR. SEITZ: Okay. Maybe I'm not
6 directional enough. When we were discussing
7 hydroponics previously, the question came up
8 about whether you could have a supplement label
9 that would identify a product as organic and
10 hydroponic.

11 I never understood if that's something
12 that is allowable under the organic law and
13 regulations. Is it something that's not
14 addressed at all? I just was wondering about the
15 feasibility about that, if it ever seemed like a
16 prudent idea from the standpoint of transparency
17 and consumer knowledge.

18 DR. TUCKER: Okay, thanks for the
19 question. We support opt-in labeling as long as
20 the labeling is truthful. So for example, there
21 are a number of wrap-around we'll call them
22 labels, that could be considered, for example,

1 organic something. As long as the organic claim
2 is truthful, that the operation is certified.

3 So somebody could advertise themselves
4 as certified organic hydroponic or certified
5 organic soil-based. But we support opt-in
6 labeling to help people differentiate their
7 product through truthful statements about it.

8 DR. SEITZ: Sure, and just from a
9 theoretical --

10 DR. TUCKER: We don't do
11 hypotheticals.

12 DR. SEITZ: We don't do theoretical
13 questions, but rather a legal question.

14 (Laughter.)

15 DR. SEITZ: I understand that you
16 might prefer a opt-in label, but could just --
17 could a segment of the organic industry be
18 required to have an extra descriptor?

19 DR. TUCKER: So to require somebody to
20 put on a label, so non-optional, would require a
21 change in the regulations. So that would be --
22 in all seriousness, that would require regulatory

1 change to impose that label on someone. Yeah,
2 that's why we support opt-in labeling. It's much
3 more positive, yeah.

4 CHAIR BEHAR: Anyone else? Thank you,
5 Alan.

6 MR. LEWIS: Thank you.

7 CHAIR BEHAR: Oh there was? I'm
8 sorry, Tom.

9 MR. CHAPMAN: Hey Alan. So I'm
10 looking at your comments from the Jacksonville
11 meeting, and you were asked questions directly
12 about supporting an organic hydroponic label at
13 that time, and you stated quite clearly no, you
14 don't support it. What's changed? Why do you
15 support it now?

16 MR. LEWIS: What's changed? About I
17 think two years ago, Sonny Perdue, our Secretary
18 of Agriculture, stated unequivocally that
19 hydroponics could be, could use the organic seal
20 that you see on the screen. So we as a retailer
21 that only sells certified organic, and the
22 structure coming in from Albert's, organically

1 grown and the hydroponic is undisclosed, we don't
2 have a choice right now, and neither do our
3 consumers.

4 So it was never being against
5 hydroponic. It was this confusion that's now
6 created between vastly different scales,
7 different economies and different practices and
8 different inputs, that have created really two
9 brands under one seal.

10 CHAIR BEHAR: Thank you.

11 MR. LEWIS: Thank you.

12 CHAIR BEHAR: Zea Sonnabend is next
13 with --

14 MR. BRADMAN: Harriet, I just have a
15 quick comment.

16 CHAIR BEHAR: Okay.

17 MR. BRADMAN: Sorry. I just want to
18 say I agree. There needs to be some resolution
19 to this issue, and I think labeling is one
20 approach that we should consider, and also
21 developing concrete standards that address the
22 different production systems. I hope that's a

1 discussion that as a community we can have and
2 move forward on.

3 MR. MORTENSEN: And I enthusiastically
4 feel the same way about that.

5 CHAIR BEHAR: Okay. We're going to
6 move ahead. Oh, you want to say something else.

7 MR. LEWIS: Can I go?

8 CHAIR BEHAR: Yes, you are excused.

9 (Laughter.)

10 MR. LEWIS: Thank you.

11 CHAIR BEHAR: Zea Sonnabend with Phil
12 LaRocca on deck.

13 MS. SONNABEND: Good afternoon
14 everybody. Zea Sonnabend from Fruitilicious Farm
15 and CCOF, and a former NOSB member. I'm going to
16 speak today about excluded methods, genetic,
17 whatever you call it for seed planted in organic
18 ground and the seed guidance.

19 Starting with the seed guidance, we're
20 very happy to see that this is going to move
21 forward as something that I initiated when I was
22 on the Board and now it looks like it's reaching

1 its summation, and we do recommend passage at
2 this meeting.

3 In our written comments, CCOF proposed
4 a few little wording tweaks, including especially
5 the planting stock language about the vegetative
6 harvest of parts of planting stock, which
7 shouldn't be a substantive change and you should
8 be able to do.

9 We also pointed out that doing your
10 own variety trials is not the only way to access
11 variety trial information. You can go to Field
12 Days, you can talk to your farm advisor. You can
13 go to your neighbors. It's not just your own
14 variety trials as a variety trial sufficiency,
15 but these are very small things that we hope you
16 don't let this hang you up from passing the
17 document.

18 On the excluded methods terminology in
19 general, this is also something we initiated from
20 the Board and we realize that this what -- we did
21 all the things that were very clear at the
22 outset, and the things that are left are very

1 complicated and confusing.

2 So we do urge you to take your time,
3 and I'm sure, I did not read all the public
4 comments this time, but I'm sure you got quite a
5 few with an unclear message about the docket, you
6 know, what you've proposed so far as far as the
7 embryos and mutagenesis. I just urge you to take
8 your time to work through all the issues, but
9 keep working on it because it is very important
10 work.

11 On the genetic integrity of seed grown
12 in organic, this was very unclear what the goal
13 of this was as stated in the document, and it's
14 become a little more clear from talking to
15 people. But I see that it needs to be reworked
16 to state what a clear goal is.

17 In general, we agree with a lot of
18 Kiki's comments, although we do think a pilot
19 program could work if only to see how many
20 entities would voluntarily disclose on a seed
21 bag, because we do think that disclosing on a
22 seed bag is an end goal that we should look

1 towards, because that's the only way we're going
2 to be able to stop things from becoming more
3 contaminated if we can finally get to the point
4 where we know what we're starting with for
5 contamination.

6 So an absolute requirement at the
7 beginning isn't necessary, and I don't know the
8 logistics of how you'll get there. This is why
9 we wanted to have a seed purity task force, so
10 that people with more expertise could hammer out
11 these details of how you could conduct such a
12 pilot program. So thank you very much

13 CHAIR BEHAR: Questions? Sue.

14 MS. BAIRD: Thank you, Zea. My
15 question for you is, if we implemented a pilot
16 program and we would require the organic seed
17 companies to disclose on their seed label the
18 genetic materials within it, at least in the mid-
19 west, many of our grain farmers do not choose
20 because of contracts or because of just climate
21 differences, to use organic seed.

22 So how would the fact that we have no

1 control over non-organic seed companies, if we're
2 going to require --

3 MS. SONNABEND: Well --

4 MS. BAIRD: -- organic seed companies
5 to have this --

6 MS. SONNABEND: But see, I'm not, if
7 you're talking about a pilot project, I'm not
8 talking about requiring necessary right at the
9 outset. But why don't you see, why don't you put
10 it out there and say, well, let's have this pilot
11 program.

12 The only thing you're required to do
13 is ask if your company will disclose it. Organic
14 or not organic seed, the farmer only has to ask.

15 So if you ask, there's no harm in
16 that. If they say no, you're not penalized. And
17 if they say yes, you get the information.

18 And along with asking, the farmer
19 would then have the choice to either plant that
20 seed or not, or to perform their own testing at
21 their own expense or not. And they just would
22 tell you, they could tell the inspector or the

1 certifier that they did that.

2 So then you could at least get some
3 information about how many are willing to do that
4 and how many aren't. Because right now, you
5 don't even know what the universe is.

6 And we, by no means, want to jump
7 right into everyone has to do this. And we don't
8 want to restrict the amount of varieties that
9 growers have. I mean, that's very, very clear,
10 because genetic diversity is paramount in keeping
11 our germplasm good.

12 But at least you could have a pilot
13 that you saw what was going on out there,
14 somewhat.

15 CHAIR BEHAR: Dave.

16 MR. MORTENSEN: I think we are all in
17 agreement that we want to get somewhere with
18 this. And I think that's what you're saying,
19 Zea.

20 I mean, we've had genetically modified
21 corn since 1998. And our poor organic farmers
22 are living in a matrix of 90 plus percent GM corn

1 grown around them.

2 MS. SONNABEND: Yes.

3 MR. MORTENSEN: The longer we put this
4 off, I think the longer it is that we just
5 continue to scratch our head and wonder where are
6 we with this.

7 MS. SONNABEND: Right.

8 MR. MORTENSEN: So, the Board is
9 feeling a sense of urgency that we get on with
10 it. And I know you, and others, Kiki and others,
11 agree with that.

12 It's, like I said, a question of how
13 we get there. But I think some of the
14 suggestions have been very helpful.

15 MS. SONNABEND: Yes. I mean, it's
16 similar to right now, you're required to use
17 organic seed. And if you can't get organic seed,
18 you're at least required to ask if they have
19 organic seed.

20 So you can ask for a disclosure of
21 genetic content and see if you get it. Like some
22 people have said, some companies have the

1 information, and some will disclose it.
2 Especially if, it's not like they have to
3 disclose it to the public.

4 You'd be disclosing it in confidence
5 to your inspector and it might go into your
6 report, but it doesn't have to be public
7 information necessarily.

8 CHAIR BEHAR: Sue, and then that will
9 be the last person.

10 MS. BAIRD: Yes. Could it perhaps be
11 crafted such as commercial availability that
12 handlers do, they don't, or especially pesticide,
13 herbicidal people, they don't want to discuss or
14 disclose their formulation, but they will to the
15 certifier because it's protected. Maybe we can
16 do that same kind of thing with the genetic.

17 MS. SONNABEND: Yes. It's the same
18 thing, if I'm not, don't grow vegetables but if I
19 do and I have the best tomato, I don't want
20 everyone else to know what variety I'm using.

21 So I'll tell the inspector what
22 variety I'm using, but I don't want that in, to

1 the public. And it's really no different than
2 any amount of confidential information you tell
3 your certifier, which is really quite a bit.

4 CHAIR BEHAR: Just for clarification.
5 It was never considered to be public, the
6 information for the data collection, it was going
7 to be anonymous. It wouldn't have --

8 MS. SONNABEND: Yes. The thing is --

9 CHAIR BEHAR: -- tied to a seed
10 company, tied to a grower.

11 MS. SONNABEND: Right.

12 CHAIR BEHAR: Anything like that.

13 MS. SONNABEND: But the seed companies
14 still have to be reassured of that. And the
15 growers too.

16 CHAIR BEHAR: Right.

17 MS. SONNABEND: So yes.

18 CHAIR BEHAR: Right. But that was
19 what --

20 MS. SONNABEND: I know.

21 CHAIR BEHAR: -- the idea behind it,
22 was not to have it be a list of this variety,

1 this lot was, had this --

2 MS. SONNABEND: Right.

3 CHAIR BEHAR: -- not available. Okay,
4 anybody else? Thank you, Zea.

5 MS. SONNABEND: Thank you.

6 CHAIR BEHAR: Phil is next. And don't
7 get yourself an animal there, Phil, he's sitting
8 with the wrong chair.

9 MR. LAROCCA: I don't want animals
10 already.

11 (Laughter.)

12 MR. LAROCCA: Thank you.

13 CHAIR BEHAR: And Peter Nell is on
14 deck.

15 MR. LAROCCA: Good afternoon. Phil
16 LaRocca, I'm the owner of LaRocca Vineyards. I'm
17 also the chairman of the board for CCOF and I'm
18 proud to say that this is my 45th year as an
19 organic farmer.

20 And I had totally different thoughts
21 to express to this Board till about ten days ago,
22 when I saw emails coming in saying that it was

1 okay for a container grower to herbicide his
2 ground, put a piece of plastic on top of it and
3 then grow inside a container. I got to be honest
4 with you, I was actually shocked.

5 I've been around this industry, like
6 I said, for 45, I was certified back in '75. So,
7 I had a conference call scheduled with our
8 executive director and sure enough, she confirmed
9 that the NOP does accept this. This is wrong.
10 I'm sorry, but it's wrong.

11 I know yesterday at the NOC meeting,
12 the argument from the NOP was that it does not
13 make contact with the food. Well, I've had three
14 different ranches over the past and one of them I
15 leased.

16 And I had a, my landlord hated weeds.
17 And this guy begged me to spray the roads. No
18 way in hell would I allow any of my fruit to
19 touch the road, but I had that entire property
20 certified, as most growers do.

21 So, to see this exemption here is just
22 beyond me. This is, the whole system should be

1 certified organic.

2 I'm sorry, having a piece of plastic
3 in between, you take that plastic off, there's
4 going to be residue of glyphosate for years down
5 the road.

6 Which also, let's address, somebody
7 brought up here earlier the idea of the plastic.
8 So if you're a row crop grower, even a fruit
9 grower, strawberries for example, that uses
10 plastic mulch, you have standards in the rule
11 that you have to follow. These people don't.

12 What are we doing with all this
13 plastic? We talk about climate change, that's a
14 problem. But also, our landfills are just
15 filling up. We have plastic up the gazoo.

16 So this is just a little side note,
17 you know. From being over the years when I was
18 heavily involved in certification, I used to see
19 this and it would fry me.

20 For example, rice farmers. If
21 conventional rice tanked and organic rice was
22 high, you would get a grower come in and he would

1 put so many herbicides on that field to hold him
2 for the three years, go in, and after the three
3 year period, which was great, we at least had
4 three years of no contamination to the earth, but
5 as soon as that price changed, this goes back to
6 your introduction here, which was quite eloquent
7 and passionate, I thank you for that, they were
8 gone.

9 So, let's certify the whole process.
10 The whole property, just as every other organic
11 farmer has to do. And let's put some standards
12 on what they're doing with that plastic. Thank
13 you.

14 (Applause.)

15 CHAIR BEHAR: Thank you, Phil. Any
16 comments from the Board, questions? Emily.

17 MS. OAKLEY: I guess you're not
18 surprised that I heartedly agree with you. I did
19 just want to confirm that I heard what you just
20 said right.

21 You said that you spoke with CCOF's
22 executive director and that they confirmed that

1 the NOP accepts --

2 MR. LAROCCA: That's what --

3 MS. OAKLEY: -- this practice?

4 MR. LAROCCA: Yes. And I believe
5 Jenny agreed to that yesterday.

6 MS. OAKLEY: Could I ask Jenny to
7 comment on that?

8 DR. TUCKER: Yes. I would say again
9 that my comments at the time have been taken out
10 of context. It was a hypothetical in a meeting.

11 I asked several times for the name of
12 the operation. This has not been a program
13 decision, it is not a policy, it has not been a
14 decision about any particular farm.

15 So, we are doing data gathering --

16 MR. LAROCCA: No, no, no.

17 DR. TUCKER: -- we need to go back.

18 But NOP has not made any kind of policy statement
19 to this effect.

20 MR. LAROCCA: I'm sorry, then I
21 misunderstood you. Yesterday I think you said,
22 if there was no contact with the product that was

1 growing and therefore it was okay. Maybe I
2 misunderstood you. If I did, I apologize.

3 DR. TUCKER: So when I was talking
4 about the hypothetical --

5 MR. LAROCCA: No, this wasn't the
6 hypothetical, this was yesterday at the NOC
7 meeting, Jenny.

8 DR. TUCKER: Okay, I think I, at the
9 NOC meeting yesterday I said that we had not made
10 a program decision on this. I said there were a
11 number of policy questions. But I wasn't
12 answering any of those policy questions.

13 MR. LAROCCA: Okay.

14 DR. TUCKER: So, there were a number
15 of policy questions related to land use
16 histories, related to methods of separating
17 organic from non-organic. I mean, there are
18 split operations.

19 The same kinds of questions come up of
20 how do you separate out of complete parcels apart
21 at an organic farm.

22 In this case, there are questions

1 about the land use histories and what certifiers
2 are expected to do. And what 205.202 really
3 speaks to, related to land management.

4 Again, I shared a number of questions
5 yesterday. There has not been any policy
6 decision here or any determination on a
7 particular farm.

8 I made the mistake of speculating
9 during a meeting on potential legal
10 hypotheticals, and I will not do that again.

11 MR. LAROCCA: Okay. Well, this is a
12 direct question. You're saying there is no rule
13 that says you can or cannot glyphosate and then
14 put plastic and then grow on it?

15 DR. TUCKER: I said, we're gathering
16 information about what is going on out in the
17 world.

18 MR. LAROCCA: Okay.

19 DR. TUCKER: You cannot apply,
20 glyphosate is not allowed in organic production -
21 -

22 MR. LAROCCA: I understand that.

1 DR. TUCKER: -- period.

2 MR. LAROCCA: And that's why I came up
3 here to speak.

4 DR. TUCKER: Yes. Glyphosate is not
5 allowed in organic production, and I will keep on
6 saying it.

7 MR. LAROCCA: What if there's a piece
8 of plastic between it?

9 DR. TUCKER: I'm not going to engage
10 in hypotheticals.

11 MR. LAROCCA: Okay.

12 CHAIR BEHAR: Okay, so we are on to --

13 MR. LAROCCA: Thank you.

14 CHAIR BEHAR: Thank you, Phil. You
15 sure you don't want to take a lobster or
16 something over there.

17 Peter Nell, please state your name and
18 affiliation, and Tom Harding is on deck.

19 MR. NELL: As a tall person, Dave, am
20 I okay with the volume? Okay.

21 So, hello, my name is Peter Nell, I
22 work for CCOF. Today I'm commenting on the

1 materials subcommittee's discussion document on
2 marine materials.

3 First, I would like to praise NOSB for
4 the well written and thoughtful discussion
5 document. The discussion document addresses many
6 concerns posed by organic stakeholders. It also
7 further explains NOSB's thoughts behind ideas of
8 requiring certification of marine materials used
9 in organic crop production inputs.

10 I would also like to express
11 appreciation to the NOSB for considering the
12 impacts of nonsynthetic inputs. These substances
13 are not given the same attention synthetic
14 substances are through the sunset review process.

15 However, CCOF does not support
16 requiring organic certification under the wild
17 crop standards, for marine materials used in
18 organic crop production.

19 I'd like to also say though, we do
20 support NOSB's continued work on this. We
21 support convening an expert panel at the fall
22 meeting, like what was proposed.

1 We would also recommend that NOSB form
2 a taskforce or a working group of some sort, with
3 diverse experts in these fields, to determine
4 which species of marine algae are most at risk
5 and prohibit those specific species from use in
6 organic crop production.

7 Those experts should work closely with
8 NOSB throughout the development of any and all
9 proposals and recommendations on this topic.

10 Importantly, NOSB should also consider
11 the precedent it may set regarding organic
12 certification of marine materials. Other
13 nonsynthetic inputs used in organic crop
14 production, such as peat moss or mine minerals,
15 also have negative environmental impacts.

16 Should NOSB recommend certification of
17 marine algae, a lengthy phase-in period will be
18 required. This phase-in period should account
19 for the impacts to organic crop producers,
20 organic crop input manufacturers, marine algae
21 harvesters and NOP and all of you guys, in
22 developing and refining this complex guidance,

1 instruction or what have you.

2 I'm happy to ask, or answer any
3 questions. Hopefully not ask any. Thank you so
4 much.

5 MR. ELA: Questions for Peter? Emily.

6 MS. OAKLEY: Surprise. Okay, so thank
7 you so much for speaking on marine materials.
8 And I have a question for you and then a question
9 for the program. Or I guess a comment for you.

10 MR. NELL: Sure.

11 MS. OAKLEY: A lot of people have
12 expressed concern about the potential for a
13 precedent setting that this might create, and I
14 tried to address some of that in the discussion
15 document in terms of this being a unique
16 situation where we're harvesting an organism from
17 a wild native ecosystem, a native organism from a
18 wild native ecosystem. In this case a plant.

19 And I was discussing this with a
20 fellow Board Member earlier, maybe another
21 analogy might be, if we culled and harvested deer
22 for bone meal or for blood meal, which is, I mean

1 obviously, kind of an exaggerated example, but
2 can you see or would you agree that there might
3 be a uniqueness in this situation that might not
4 be the same for other naturals?

5 Although I do agree with you that they
6 deserve more examination to make sure that
7 they're meeting that OFPA criteria, but that this
8 doesn't at all lead to a statement that all
9 naturals should be required to be certified
10 organic or that that's the correct approach for
11 addressing environmental issues in every case?

12 MR. NELL: Yes.

13 MS. OAKLEY: Is that too long of a
14 question?

15 MR. NELL: No. No, I think it was a
16 great question. And I want to really commend
17 your work on this, Emily.

18 I think, I think you wrote the
19 discussion document and I think you did a really
20 great job addressing a lot of the concerns that
21 people have, including the CCOF.

22 You're right that this is a unique

1 situation. And for that reason, we would love
2 for you guys to continue to work on it. I think
3 if you can build a really solid case then
4 obviously it makes sense.

5 Especially given that crop inputs for
6 livestock, you know, there is reasons why it does
7 make sense. So, yes, sure.

8 MS. OAKLEY: So, could I just ask this
9 question of the program, just because that will
10 help the many other commenters who did provide
11 written comments about a taskforce, which I found
12 really interesting that that came up by over half
13 a dozen people on their own, it was not in the
14 discussion document.

15 So, just a question. If the taskforce
16 is something that the program would see as
17 feasible for this, following an expert panel in
18 the fall?

19 DR. TUCKER: I think we're interested
20 in learning what happens in an expert panel, and
21 we'll take it from there.

22 MR. NELL: Us too.

1 CHAIR BEHAR: Okay, anyone else?

2 MR. BRADMAN: Just a quick comment.

3 I think it's really important that you brought
4 this up about peat moss and other materials, and
5 really all inputs that have an impact on the
6 environment, we should consider.

7 I mean, one relevant to this of course
8 is the liquid fish products and whether wild fish
9 are being harvested exclusively to transfer
10 nutrients onto land to grow food. I think peat
11 moss is a good example of something that we
12 should evaluate.

13 And marine materials is particularly
14 complex. We have issues of climate change. We
15 don't even know if the current science would be
16 meaningful about what's going forward.

17 And this could be a situation where we
18 may want to basically even take any use of this
19 material out of an agricultural system just
20 because we don't know what the impacts are in the
21 environment.

22 So, I just want to reiterate, I think

1 these are really important issues. And with the
2 changing world, we have to think carefully about
3 how we move ahead with them.

4 MR. NELL: Yes, if I can respond, I
5 think you put it really well, Asa. In our
6 spring, sorry, this is spring, in our fall
7 comment, we included a little brief section that
8 talked about how we should, you all should
9 consider whether all ocean-based inputs should be
10 moving towards a third-party verification system.

11 So that would include those liquid
12 fish-based, fish meal, things like that. I think
13 that's an important aspect that could also be
14 included in a further examination, through a
15 taskforce, working in conjunction with NOSB
16 members.

17 CHAIR BEHAR: Okay, moving forward.
18 It's okay? Tom Harding is next. Thank you,
19 Peter. And Tony Schilter is on deck. And just a
20 time check, we're about a half hour behind.

21 MR. HARDING: Good afternoon. I want
22 to thank the Board and the NOP for your

1 continuous good work.

2 I represent the Green Ag Supply, the
3 petitioner of fatty alcohols for the use in
4 organic tobacco production.

5 Recently we supported and submitted to
6 the NOP, and it has been moved forward, a revised
7 petition based on the input we received from the
8 NOSB. Including having major data supporting the
9 alternative, meaning fatty alcohols against the
10 alternatives that were recommended.

11 It's really important to us that we
12 move forward with the idea that fatty alcohols
13 are very important. It's not just about
14 essentialities, it's also about the health and
15 welfare of the workers and the green tobacco
16 disease, a number of other things that happen
17 within that system. It's also the most
18 environmental choice.

19 So, I want to mention just briefly,
20 some important things. Plant sucker control is
21 essential to the organic tobacco production and
22 leaf quality, and there is no acceptable

1 alternatives.

2 Without the availability of fatty
3 alcohols, organic tobacco will not be a viable
4 crop for century-old family farmers and will lose
5 all organic cash crops within that rotation.

6 Loss of fatty alcohols will cause a
7 huge economic, huge economic damage to the
8 organic family farmers, estimated, just in our
9 region, around \$23 million. That doesn't include
10 all the way to Tennessee.

11 When this revised petition comes
12 before the crops subcommittee, and subsequently
13 the NOP, we hope that you will not only ask us
14 for any further questions but consider that it's
15 not just about essentialities, it's about health
16 and welfare.

17 We are asking you to revise, to read
18 our revised petition thoroughly, to incorporate
19 all of the data that we have supported. We are
20 passing around my comments, along with the data
21 from North Carolina State University, supporting
22 the research done, and the trials that were done

1 specifically for alternative materials based on
2 the NOP.

3 We are available at any time to answer
4 any of your questions. You've heard some of our
5 farmers on the webinars.

6 I think we've been very clear, it's
7 not a material that we can choose otherwise, it's
8 a material that has been very beneficial to
9 family farms, to the quality. Which raises by --
10 and not only the economic benefits, but the whole
11 health and welfare of the system. And has huge
12 environmental impact that's positive.

13 We encourage you to move forward with
14 this. We hope that if there are any questions
15 that come up, that you in fact will ask us. And
16 we plan to have our growers very active when this
17 material comes forward for a final vote.

18 I thank you very much, continue the
19 good work.

20 CHAIR BEHAR: Any comments, questions?

21 MR. BRADMAN: I have a comment and
22 question.

1 CHAIR BEHAR: Asa.

2 MR. BRADMAN: Can you clarify your use
3 of the words, health and welfare?

4 MR. HARDING: Yes. When suckering and
5 topping happens in tobacco, when you do it by
6 hand, what happens is workers have to go in
7 there, they're exposed to that tobacco leaf.

8 They have to top, and they will be
9 touched, and then they apply, in a very old
10 fashioned way, versus using boon sprayers and
11 things like that. So it does have a health and
12 welfare benefit.

13 There's a safety issue involved. But
14 it's been going on for centuries. This material
15 has helped us to prevent that from occurring, and
16 no longer will that practice, has that practice
17 been used, where we're allowed to use fatty
18 alcohols.

19 MR. BRADMAN: Okay, so you're using
20 that in the context of occupational exposures to
21 the poison, essentially, that's produced by the
22 tobacco?

1 MR. HARDING: Correct.

2 MR. BRADMAN: Okay. Not more broadly?

3 MR. HARDING: Pardon me?

4 MR. BRADMAN: Not more broadly? I

5 mean --

6 MR. HARDING: No.

7 MR. BRADMAN: Thank you.

8 CHAIR BEHAR: Emily.

9 MS. OAKLEY: This may not be for you,
10 but I didn't want to belabor it with Mr.
11 McReynolds.

12 It sounded like he was saying that
13 there have been some growers who have been using
14 this material already for a number of years,
15 maybe up to seven or more.

16 Do you know the process by which it
17 happened that they were using a material and then
18 it became petitioned after such a long history of
19 use?

20 MR. HARDING: There was a request to
21 certifiers, three of them in fact, and they
22 approved the material based on the fact that it

1 has been classified for decades as a natural
2 fatty alcohol. When it was reviewed, they came
3 back and said, well, it just crosses the border
4 in the esterification process that in fact it is
5 a synthetic material.

6 Subsequently, we then prepared to
7 petition. And we went forward with the first
8 petition.

9 But it has been used and it will
10 continue to be used until we're told not to.
11 Although we have advice and we've asked for a
12 continuance this year.

13 And we hope if this petition is
14 approved, that we will continue to use it through
15 that process. And the benefits far exceed
16 anything with that.

17 Now we've had a discussion with all of
18 those certifiers, and we're still looking for
19 alternatives. We've found nothing, Emily.

20 CHAIR BEHAR: I have a question.

21 MR. HARDING: Sure.

22 CHAIR BEHAR: Would you prefer we

1 continue discussing this for a few more meetings
2 or would you like us to go to a vote in the fall?

3 MR. HARDING: Well, let's go forward.

4 CHAIR BEHAR: Why would that be
5 important to you?

6 MR. HARDING: Well, because the next
7 season will be in question and that's very
8 important to us. So we need to have some
9 determination.

10 I won't want to add to that. I want
11 to go forward, but I want to make sure we have a
12 balanced and thorough review and that in fact we
13 look at it, not simply as tobacco, but as a crop
14 production aid that's very important to the
15 family farm.

16 So, some people say, well, if it was
17 marijuana it would be okay. No, it wouldn't be
18 okay. The fact is, it's very important that our
19 family farms have a choice, that it's working for
20 them and has proven to be beneficial.

21 CHAIR BEHAR: Dave.

22 MR. MORTENSEN: Tom, how would you say

1 this process has worked for you?

2 I personally think that our asking for
3 farmer input and efficacy data was a reasonable
4 thing, and then you come back and now we've heard
5 a great deal more this go-round.

6 How has the review process worked for
7 you?

8 MR. HARDING: Well, obviously, it's
9 been very difficult for us. Because, first of
10 all, I'm under the impression that certain of the
11 questions you asked, and we answered, you did not
12 get that information. I can't verify that any
13 way, shape, or form.

14 The other thing is, is that when we
15 asked for the continuance the last time, the
16 reasons was, and why you didn't hear from growers
17 is because we couldn't get on the public comments
18 agenda because we felt in-person testimony was
19 really important.

20 So, specifically, the processes work.
21 I think we've been, we've all benefitted from it.
22 It's given you a lot more information to

1 consider.

2 You know, fair and balanced is all
3 we're asking. And so, I would say, overall it's
4 been good for everybody.

5 MR. MORTENSEN: All right, thanks.

6 MR. HARDING: And I thank you very
7 much.

8 CHAIR BEHAR: All right, thank you,
9 Tom. Next up is Tony Schilter with Ryan
10 Mensonides on deck.

11 MR. SCHILTER: No, Bert Haugen. We're
12 both dairy farmers. He milks 300 cows about 50
13 miles south of here, I milk 250, a hundred miles
14 south of here. And we both have to go because we
15 both have to run farms and we need to be there
16 tonight and tomorrow morning.

17 He's here to correct me if I say
18 something wrong.

19 (Laughter.)

20 MR. SCHILTER: My story, what happened
21 since 2015 we entered a, in 2007 we entered, both
22 him and I entered the organic field and we were

1 shipping to Horizon and things went well for a
2 while.

3 And there was a law implemented in
4 2002 called point of origin that I think is being
5 highly abused. And it's really making it
6 difficult for us to keep farming.

7 And how to explain all that would be
8 to tell you that with the animals that I calve
9 every year, and he calves every year, that calf,
10 when it's born, is organic. And there is people,
11 farms, that take that calf, sell it to somebody
12 else or give it to somebody else and they go into
13 the feedlot. And at the time of the third
14 trimester, they bring it home and they breed that
15 cow. And by the time that cow comes into
16 gestation, she is supposedly organic.

17 Very, very hard on the person that him
18 and I, and a few other people in this room, to
19 keep that animal organic is very, very much more
20 expensive for me than it is that individual that
21 puts them in the feedlot.

22 If we don't, due to this we have an

1 oversupply of milk. And personally I, he's
2 lucky. He did something four years ago, he left
3 Horizon and he went with another company called
4 Organic West, and I didn't. And I stayed with
5 Horizon.

6 And through all this process, Horizon
7 is a given name that I'm sure that everybody sees
8 it on the grocery shelf. And, geez, I lost my
9 train of thought. Three minutes already?

10 CHAIR BEHAR: One minute left.

11 PARTICIPANT: Two.

12 MR. SCHILTER: Oh. They were bought
13 out by a company called Danone, and I became a
14 number on a board in France. And through all, to
15 make a long story short, they cancelled my
16 contract last January 1st.

17 And I've always been a member of a Co-
18 op here in the Pacific Northwest called Darigold.
19 There was seven other producers that were in the
20 same situation that I was, and through that
21 transition and everything, Darigold took it upon
22 themselves to start a pool within the pool. And

1 we seven producers belong to that pool.

2 And Darigold sells whatever milk, mind
3 you we just started January 1st, mind you, they
4 sell whatever milk they can organically. And the
5 rest will go on the conventional market.

6 And if you guys would just implement
7 the rule that's in place and have the certifiers
8 do what you're supposed to do, in my opinion, it
9 would alleviate the surplus we have. And break
10 even for me is about \$2,300 a hundred weight, I'm
11 getting \$1,900 right now within that pool. And
12 it should be around \$27 or \$28.

13 And I think that if you guys
14 implemented that point of origin law that is in
15 place, that we would all benefit from it. And
16 the exodus of the farmers would stop.

17 I'm not, public speaking is not my
18 strong suit.

19 MR. HAUGEN: But he's better than me.

20 (Laughter.)

21 CHAIR BEHAR: Okay. Well thank you.

22 Thank you for speaking from your heart.

1 (Applause.)

2 MR. SCHILTER: I'll answer questions.

3 CHAIR BEHAR: The Board have any
4 comments? Dan.

5 DR. SEITZ: I just want to thank you
6 and say that I think all the Board is concerned
7 about producers who don't really produce in
8 accordance with the spirit of organic. And we'd
9 like to see a level playing field and an up
10 leveling of practices.

11 MR. SCHILTER: That's all I'm asking.

12 DR. SEITZ: So thank you.

13 MR. SCHILTER: Level playing field.

14 CHAIR BEHAR: Okay, thank you.

15 MR. SCHILTER: Okay.

16 CHAIR BEHAR: Next up is Ryan
17 Mensonides. I hope I'm saying that right. And
18 Christie Badger on deck.

19 MR. MENSONIDES: Mensonides, you were
20 pretty close. That's actually impressive. I'll
21 give it to you.

22 I have a dairy, my wife and I have a

1 dairy just east of here. I'm just going to read
2 you off some statistics. And they're as close as
3 they can be since the census of 2016.

4 We typically need about a ten percent
5 growth within the dairy industry to maintain the
6 purchase of milk. Since this rule did not get
7 implemented on the origin of livestock, there was
8 a massive abuse from this rule.

9 And essentially, we have seen about a
10 25 to 30 percent growth in cattle, which is
11 outpacing our growth in milk sales.

12 So here's my numbers, personally.
13 I've had a 48 percent loss in equity. I've lost
14 about \$500,000 in equity in the last two years.
15 I've gotten a 33 percent drop in my pay price.

16 Last year alone I lost \$150,000, which
17 equates to three years' worth of profit
18 previously. And it's because we have an
19 oversupply of milk.

20 The only stats that are important to
21 me is, I've got 90 vendors that rely on me, one
22 of which is my brother. I've got four employees

1 that will lose their job. I've got one disabled
2 father that lives on my property, four kids that
3 lose a house and a wife that's put up with a
4 bunch of crap for seven years for nothing.

5 So I'm going to leave you guys with a
6 video of, this is what we're losing if you guys
7 don't follow through with this rule on origin of
8 livestock.

9 One dairy of mine, BJ's and Tony's, is
10 being replaced a year. There is, one of our
11 dairies is equivalent to, the number of cows that
12 have come on is equivalent to 140 of our dairies
13 a year. It's outpacing and it's because of the
14 fraud. Go ahead.

15 (Video played.)

16 CHAIR BEHAR: All right.

17 (Applause.)

18 MR. MENSONIDES: Does anyone have any
19 questions?

20 CHAIR BEHAR: Emily.

21 MS. OAKLEY: Just a clarification that
22 this Board doesn't have control over whether or

1 not the origin of livestock gets implemented.
2 So, wanted to just give the program a chance to
3 comment on that.

4 DR. TUCKER: So thank you both for
5 your comment and for your story. I heard you
6 speak yesterday too.

7 Origin of livestock, the agency is
8 open to that being added to the regulatory
9 agenda, which would mean that a rule would move
10 forward. We've heard a lot of comments here
11 about interest in moving to a final rule, so it
12 would be implemented as soon as that rule, with a
13 publication of that rule. And we will see if
14 that's possible.

15 If that's not possible, we will have
16 what's called a second proposed rule to get more
17 comments from the public, to make sure that that
18 final rule incorporates the public's view. So
19 thank you for your comment.

20 MR. MENSONIDES: Can I add one thing?
21 I know my time is up, but if this is going to be
22 a one to two to three year process, I'm out of

1 business. I've refinanced twice in the last
2 three years, I can't do it again. My equity has
3 dropped in half.

4 You guys, there has to be a sense of
5 urgency. Your boss needs to know this. We're
6 going out of business. And I don't have another
7 year for this to sit in a committee. I don't.

8 And I lose my home if we do. So I
9 just want to make sure you guys are aware of
10 that. And I appreciate the time. Thank you.

11 CHAIR BEHAR: Thank you. Okay, next
12 up is Christie Badger with Albert Straus on deck.

13 MS. BADGER: My name is Christie
14 Badger. I'm here representing NOC.

15 I wanted you to know my family lost
16 our dairy this year, so this is very hard for me.
17 I've changed my comments a bit based on what I
18 need people to hear.

19 I'll start by saying a public thank
20 you to the National Organic Program for
21 reinstating the posting of the subcommittee
22 notes. And a further thank you for the expanded

1 use of the open docket as a means of
2 communication.

3 We encourage the continuation and
4 expansion of this practice as a way to begin to
5 address perpetual delay in published materials
6 that create a shortened comment period through
7 the publication of discussion documents and
8 proposals to the open docket, as they become
9 available from subcommittees. A repeated
10 request.

11 When I opened my comments, I used to
12 say that I was excited to be here and excited to
13 be a part of this process. And while I still
14 feel this way on the whole there are times when
15 my resolve to being excited is being tested.

16 NOSB work agenda. During the fall
17 2018 NOC pre-NOSB meeting I asked the following
18 question, stakeholders are feeling pressure to
19 agree to documents that they have reservations
20 about, out of concern the item will be pulled
21 from the work agenda, can you offer any
22 reassurance that this isn't the case?

1 I was in fact reassured that this was
2 not the case and told by Dr. Tucker, "I do not
3 think that disagreement on a particular item
4 would discourage us from putting it on the work
5 agenda."

6 During the introductory comments
7 today, and in the NOC meeting yesterday, we were
8 told that the NOSB had the opportunity to discuss
9 hydroponics between 2015 and 2017, but it was
10 pulled from the agenda due to disagreement within
11 the organic community.

12 NOP priorities. At yesterday's
13 meetings, and again today, we've heard repeatedly
14 that the NOP, that the NOP, must work quickly to
15 address issues within hydroponic certification.
16 This is a program priority. Even without clear
17 stakeholder consensus.

18 While there is large stakeholder
19 agreement that this issue of hydroponics and
20 container growing are priority issues, I'd like
21 to be clear in my statement that we are not in
22 agreement to surrender our voice to the program.

1 Since 2010 we have been unable to get
2 the origin of the livestock rule passed. This is
3 not a program priority, despite clear widespread
4 stakeholder consensus.

5 It is beyond frustrating that
6 somewhere along the line the USDA and the
7 National Organic Program decided that their
8 priorities outweigh the priorities of our
9 existing organic farmers.

10 CHAIR BEHAR: Comments or questions?

11 I want to tell you, Christie, myself, being an
12 organic inspector, I understand the emotion
13 behind seeing these beautiful farms go out of
14 business. Emily.

15 MS. OAKLEY: This isn't a question,
16 this is just a comment that it is very hard not
17 to cry from these stories. And it is very
18 frustrating to sit on this Board and feel like
19 your hands are tied over very urgent issues and
20 having farmers in a serious predicament, as
21 someone who sits on the farmer seat.

22 It is a very disempowering and very

1 frustrating experience and I echo your
2 sentiments.

3 MS. BADGER: Thank you.

4 CHAIR BEHAR: Thank you, Christie.
5 And we have Albert Straus next with Bob McGee on
6 deck.

7 MR. STRAUS: Hi, my name is Albert
8 Straus. I'm founder and CEO of Straus Creamery
9 and I have an organic dairy.

10 We just celebrated our 25th year and
11 I feel we're in a crisis. I feel that family
12 farms in our community are disappearing as well
13 as our rural communities.

14 And I think one thing that Ryan didn't
15 say is that farmers don't pay themselves. They
16 don't pay themselves to manage their own
17 business. And when they lose everything, they
18 lose everything.

19 And I think that's something that we
20 really, we need to point out. There's such a
21 disconnect between consumers and the public and
22 farmers that we need to really look at how can we

1 work together, educate and really help everybody
2 working towards the same conclusion.

3 I heard Jenny say that there's,
4 something had changed in the origin of livestock
5 that, in organic dairy, that we need to
6 reevaluate. And I think nothing has changed in
7 organic dairy, we're still in the same crisis
8 that we've been, and nothing has happened in the
9 origin of livestock.

10 Also, as a longtime dairyman, I offer
11 to review the dairy compliance training document
12 because I feel that there's things that we have
13 knowledge, as dairymen, and I want to offer my
14 experience and see if there's things that we can
15 do to help strengthen the training document.

16 So, with the organic integrity at
17 risk, I think that retailers and brands need to
18 work together to say we're not accepting milk
19 from dairies that don't meet the regulations, as
20 we interpret them, and keep the organic
21 integrity.

22 I'm approaching the retailers and

1 brands and see how we can work together to keep
2 those out.

3 Also, we need to train certifiers to
4 kind of be consistent, as well as inspectors, to
5 be trained on dairy, but also look at metrics.
6 What dairies are reporting as metrics for farms.

7 We don't measure crops as, excuse me,
8 we don't measure pasture as a crop. I'm doing it
9 on my farm by a rising plate meter, and we have
10 it all recorded in our computer so we know
11 exactly how much dry matters come from each cow.

12 We also, dairymen don't, they estimate
13 what they're feeding their cows. So the other 70
14 percent is an estimate, it's not, I have an
15 actual dry matter per day, per cow, that I get,
16 which I've testified before.

17 So, I think there's opportunities to
18 have metrics and measurements that dairymen can
19 report that inspectors can verify to and so we
20 can work a lot closer together. Thank you.

21 CHAIR BEHAR: Any comments? Ashley.

22 MS. SWAFFAR: So I got two different

1 questions. First question, you're about the only
2 livestock producer that said they don't want
3 vaccines available, made from excluded methods.
4 Do you know if the vaccinations that you give
5 your cattle are in fact not made from excluded
6 methods?

7 MR. STRAUS: Yes. We have to verify
8 with our, the companies that we buy them from
9 that they're not made from it and get letters
10 from that.

11 MS. SWAFFAR: And are any cattle
12 vaccinations made from excluded methods, do you
13 know?

14 MR. STRAUS: I think there are, but I
15 can't name anything right now.

16 MS. SWAFFAR: Okay. One more
17 question. On iodine, we saw a lot of folks say
18 that we should do an annotation with NPEs
19 restricting iodine made without NPEs. Do you
20 have an opinion on that?

21 MR. STRAUS: I don't have anything
22 right off the top of my head. Thank you. Thank

1 you.

2 CHAIR BEHAR: Thank you, Albert.

3 MR. STRAUS: Thank you.

4 CHAIR BEHAR: I remember 26 years ago,
5 when we first met, and I just say that you were
6 kind of a star there in the organic dairy world.
7 And you've put a lot of effort into having a
8 value-added product. And in some ways protect
9 your market.

10 But there's a lot of farmers that are
11 reliant on a buyer who, on a whim, can send them
12 packing.

13 MR. STRAUS: And I think as has been
14 stated, there's a lot of dairymen that have
15 called me because they've lost their contracts,
16 they're about to, the price is so low that they
17 can't even make, they can't make it after the
18 pasture season.

19 So I've had at least a half dozen
20 farmers call me and say desperately they need
21 someone to take their milk. And I can't take
22 everybody's milk. But thank you.

1 CHAIR BEHAR: Okay. Next is Bob McGee
2 with Jenny Cruse on deck.

3 MR. MCGEE: Good afternoon. My name
4 is Bob McGee and I'm the president of Straus
5 Family Creamery.

6 I'm here representing nine family
7 farms, and a tenth joining us in July. A younger
8 farmer, which we're very excited, is coming
9 onboard bringing an idle farm back into
10 production.

11 First of all, I do want to thank the
12 NOSB and the NOP. There are a lot of good things
13 that are happening and we shouldn't lose sight of
14 that. It is appreciated.

15 At the same time, when I asked our
16 farmers what's the one thing you would like me to
17 convey to the NOSB, and more directly to the NOP,
18 not surprisingly it was around pasture standard
19 enforcement and the origin of livestock.

20 Some of what I'm going to share is
21 going to be duplicative, and I apologize for that
22 but, Jenny, I think I heard you asked, you wanted

1 to hear more public input about this, so, I'm
2 going to fulfill that wish for you.

3 One of the things I've heard the last
4 two days is a reference to changes in the
5 industry that make it necessary to have a second
6 origin of livestock rule. I've checked the
7 website, I've checked a couple of places, I can't
8 find what those changes are.

9 You asked us this morning to give you
10 feedback if we had a different point of view
11 about those changes. If you could communicate
12 those to the community, we'll be able to do that,
13 but right now it's not clear what you're asking
14 us to comment on.

15 The idea of starting all over again
16 probably means a one, two, three, maybe even four
17 year process for a new rule to come forward.
18 Changes will happen in the industry, in that time
19 span.

20 Are we going to hear in 2022 or 2023
21 that there are changes in the industry, so we
22 again need to go back to rulemaking to find a new

1 rule.

2 Finally, as has already been stated,
3 many farmers don't have two to three years to
4 wait. Some are going to go out of business,
5 which will lead to consolidation in the milk
6 industry, which is already creating challenges
7 for us as a community.

8 Others will decide that they're going
9 to take advantage of the cost benefits, being
10 taken advantage of by other suppliers.

11 When we get to that new rule, are we
12 going to hear the genie is out of the bottle now,
13 and there's no way we can turn back and be unfair
14 to those operations?

15 I think most of us in this room feel
16 pretty confident that we're going to have our
17 jobs in the next two to three years. As Albert
18 said just a minute ago, we're hearing from
19 farmers that aren't sure what's going to happen
20 in the next two to three months, after the end of
21 the pasture season.

22 So what am I asking? I'm asking a

1 greater sense of urgency than has been apparent,
2 up until today, to bring forward the 2015 rule.
3 The community came together, talked about what
4 needed to be changed, collaborated, brought
5 together suggestions and then it stopped. Thank
6 you.

7 CHAIR BEHAR: Questions from the
8 Board?

9 (Applause.)

10 CHAIR BEHAR: Thank you, Bob.
11 Questions or comments from the Board?

12 Jenny, do you want to have a reply?
13 You don't have to. I don't want to put you on
14 the spot.

15 DR. TUCKER: I'll be more specific.
16 A few commenters have asked about, what
17 additional data would be needed.

18 Again, we will, a key message coming
19 back from this meeting for our leadership is the
20 strong, strong desire to move directly to a final
21 rule. To give, instead of a second proposed rule
22 for organic, for the origin of livestock, our, I

1 call to him, our wonderful policy analyst over
2 here, Devon, has been sending some data here.

3 And so, just to provide some of the
4 changes in the industry that we are talking about
5 here, according to the NASS data, so that the
6 data used in the 2015 proposed rule said there
7 were about 1,848 organic dairy farms. The 2016
8 data actually indicated that that increased by 38
9 percent, up to about 2,560.

10 So those are the kinds of data points
11 that an organization like Office of Management
12 and Budget would look at to say, okay, how has
13 the industry changed since the proposed rule.

14 It is unusual to go this long between
15 a proposed rule and a final rule. It's just
16 unusual.

17 We will, I commit to going back and
18 talking about the possibilities of going to a
19 final rule. Changes in the industry, such as
20 growth, an increase in the number of organic
21 farms, we saw an increase even from 2017-2018 in
22 total organic farms, those are numbers that

1 matter to folks over at the Office of Management
2 and Budget.

3 And so, again, we will take the
4 message back. These are decisions that are made
5 at sort of an institutional level.

6 And I hear the urgency coming from the
7 commenters in this room and will communicate that
8 back. And thank you to everyone who has
9 commented.

10 CHAIR BEHAR: Steve.

11 MR. ELA: Jenny, just to reiterate
12 what you said this morning, I know not everybody
13 was here, but you said comments that the industry
14 hadn't changed or, I'm going to struggle with the
15 words here, should be addressed to you or the
16 program?

17 I mean, public comments that, to go
18 ahead and continue with the rule and that changes
19 in the industry aren't substantiated might be
20 important, is that correct?

21 DR. TUCKER: So, explanations as to
22 why it would be appropriate to move ahead to a

1 final rule, rather than a second proposed rule.
2 So there is legal risk in moving to a final rule
3 after so long after a proposed rule.

4 Somebody could say, well, I didn't get
5 a chance to give public comment, that was four
6 years ago, and look how much the industry has
7 grown, I should have had an opportunity to give
8 my comments and I didn't get to do that.

9 And those kinds of legal challenges
10 are something that administration is going to
11 take very, very seriously. And I would take very
12 seriously because it would prevent a rule from
13 being implemented.

14 And so, those are the kinds of things
15 we have to think about in these kinds of
16 questions. So, I think articulating why the
17 problems are sort of the same, why the challenges
18 in the proposed rule remain the same, reiterating
19 the, there was actually a fair amount of
20 agreement on the proposed rule, so reiterating
21 that people still agree with the same comments
22 that they made four years ago, those could help

1 us in making that argument of going to a final
2 rule.

3 Again, if you send those to me and
4 Paul, we're the ones that pull together all the
5 documentation to support these proposals. It is
6 ultimately not our decision, but we will try and
7 shape that as well as we can.

8 I would love to go to a final rule,
9 believe me. That would be, I would love it.
10 There's no resistance from here.

11 And, we have to follow, we have to
12 follow the rules. We all want us to follow the
13 rules. This is a different kind of rule that
14 also has to be followed.

15 MR. MORTENSEN: Harriet, I just have
16 --

17 CHAIR BEHAR: Oh, Dave.

18 MR. MORTENSEN: I guess the other
19 thing that we're hearing, and we heard in the
20 webinar and we heard here, and I hear where I am
21 in New Hampshire and I was hearing it in
22 Pennsylvania before I moved in July, is that the

1 change that's happening, that folks are telling
2 us is happening and why it's so much more urgent,
3 is the whole structure of dairy is changing as we
4 lose small and medium sized farms and we have an
5 increase in the number of very, very large
6 dairies that are exacerbating the problems.

7 So the longer we wait, the lack of
8 implementation in the rule is allowing these
9 large farms to get larger and is making it more
10 and more difficult for the medium and smaller
11 sized farms.

12 (Applause.)

13 CHAIR BEHAR: Okay. So, Michelle
14 reminded me that not everyone has an iron bladder
15 and maybe we want to, maybe how does the Board
16 feel? Would they like to take, I'm seeing some
17 yeses.

18 But I'm going to keep it to ten
19 minutes. And if I'm even here alone I'm going to
20 start. Okay, so, Jenny, sorry, we're going to go
21 to a break.

22 MR. CHAPMAN: Can I ask where we're at

1 in the agenda?

2 CHAIR BEHAR: We're about a half hour
3 behind.

4 MR. CHAPMAN: Okay.

5 CHAIR BEHAR: And so Jenny Cruse up
6 next with Pryor Garnett on deck. And ten
7 minutes, which is 4:25. So, everybody back here
8 at 4:25.

9 (Whereupon, the above-entitled matter
10 went off the record at 4:15 p.m. and resumed at
11 4:25 p.m.)

12 CHAIR BEHAR: Okay. Please take your
13 seats. Okay. We are about a half hour behind.
14 So we're staying about the same amount and not
15 really catching up. So Jenny Cruse is next with
16 Pryor Garnett on deck.

17 MS. CRUSE: Good afternoon. I'm Jenny
18 Cruse with the Accredited Certifiers Association.
19 The ACA represents 58 USDA-accredited
20 certification agencies and agencies in the
21 process of becoming accredited.

22 First, I'd like to address the Crop

1 Subcommittee regarding the proposal for
2 strengthening the organic seed guidance. For the
3 most part, we really support the proposal as
4 written and feel that it lines up nicely with ACA
5 best practices that have recently been drafted on
6 issues related to organic seed search
7 requirements.

8 Our members have expressed one main
9 concern with the proposal. And that has to do
10 with the amendment of NOP guidance 5029 Part 416,
11 which says use of non-organic planting stock to
12 produce organic crops is subject to commercial
13 availability as per 205.204(a)(1).

14 If planting stock is from a non-
15 organic source and is used to produce perennial
16 crops, then that planting stock may be sold,
17 labeled, or represented as organic planting stock
18 or an organic vegetative crop only after 12
19 months of organic management.

20 205.204(a)(1) says that non-
21 organically produced, untreated seeds and
22 planting stock may be used to produce organic

1 crop when an equivalent organically produced
2 variety is not commercially available.

3 Some ACA members found the guidance
4 revision to clarify 205.204(a)(1), but others
5 found that it seemed to be in conflict with the
6 standard. So I think a lot of the question has
7 to do with the definition of vegetative crop and
8 what that means.

9 I'd also like to address the Livestock
10 Subcommittee on the topic of vaccines from
11 excluded methods.

12 We appreciate the time that the
13 subcommittee has put into the topic. We didn't
14 feel like we could support any of the three
15 regulatory solutions as discussed without
16 gathering more information first.

17 Option one, adding individual vaccines
18 to the National List is not ideal because of the
19 amount of time that would pass as specific
20 vaccines were added to the National List and the
21 effects on producers in the meanwhile.

22 Option two enables a broad allowance

1 of excluded methods in vaccine production, which
2 doesn't sit well.

3 Then there's option three, which would
4 include a commercial availability provision. The
5 ACA would likely support this option if
6 certifiers can make clear determinations about
7 which vaccines have been produced with excluded
8 methods.

9 Publicly information, publicly
10 available resources that have been suggested in
11 the past do not seem to provide the information
12 that's needed. And historically, certifiers have
13 found it difficult to obtain the information
14 directly from manufacturers.

15 We are renewing some attempts at this
16 to see if the information seems to be obtainable
17 and plan to report back when the discussion comes
18 back around at the proposal stage.

19 The main thing is we don't want to
20 support a requirement that doesn't end up to be
21 possible. So we're glad to have the time to do a
22 little bit of ground-truthing first.

1 Thank you again for your work and for
2 the chance to provide comments.

3 CHAIR BEHAR: Any comments from the
4 Board? I have a quick comment. Can I contact
5 you before we go to proposal and see what your
6 research has done as far as finding?

7 MS. CRUSE: Yes, please do.

8 CHAIR BEHAR: Okay. I know where she
9 lives.

10 (Laughter.)

11 CHAIR BEHAR: Okay. Next up is Pryor
12 Garnett, and on deck is Aimee Simpson.

13 MR. GARNETT: Thank you all for the
14 opportunity to provide comments here today. My
15 name is Pryor Garnett. And I grow certified
16 organic grain on 85 acres in western Oregon.

17 These comments are in my individual
18 capacity, although I chair the policy committee
19 over the Organic Farmers Association.

20 I'd like to comment today on
21 contributions that organic agriculture can make
22 toward mitigating climate change and action

1 needed from the NOSB and the NOP to further
2 organic's contributions. And I'd like to thank
3 Harriet. I have chosen a polar bear.

4 Greenhouse gases in the atmosphere are
5 the principal drivers of climate change. And
6 reducing new emissions and removing greenhouse
7 gases are both necessary to mitigate climate
8 change. Organic agriculture uniquely does both
9 and can be agriculture's key contribution to
10 mitigating climate change.

11 Organic reduces greenhouse gas
12 emissions by eliminating the use of nitrogen
13 fertilizers and other chemicals. Now right there
14 it makes a meaningful contribution toward
15 mitigating climate change, slowing the emissions.

16 Even after accounting for reduced
17 yields and increased tillage per acre, organic
18 has lower emissions per pound of food produced.

19 Instead of nitrogen fertilizers,
20 organic ag relies on nutrient cycling with a
21 robust soil ecosystem creating lots of organic
22 matter, containing lots of organic matter, plant

1 residues created from carbon dioxide removed from
2 the atmosphere through photosynthesis. We all
3 know this.

4 So organic's biggest, bigger
5 contribution to mitigating climate change is
6 removing CO2 from the atmosphere and sequestering
7 its carbon in the soil.

8 We know that soils in organic farms
9 have 13 percent more organic matter than
10 conventional farm's soils. And 1 percent more
11 organic matter per acre represents 21 tons of
12 carbon dioxide removed from the atmosphere.

13 And that's where the NOP and the NOSB
14 need to act, because where plants are grown
15 without soil there's no carbon sequestration.

16 Practices which grow plants separate
17 from the underlying soil, hydroponic, aquaponic,
18 aeroponic, containers in general, don't sequester
19 atmospheric carbon in the soil. And they don't
20 foster soil fertility as required by OFPA. They
21 may be good, say, no pesticides. But without
22 roots in the soil, they are not organic.

1 Indeed, there's a strong case for
2 removing the ponics and containers from
3 eligibility for organic certification based on
4 their elimination of fertile soils, the loss of
5 beneficients in habitat, and problematic disposal
6 of containers and fabric.

7 Consumers associate the organic label
8 with chemical-free produce, natural biological
9 processes, and healthy soils, and hopefully soon
10 with progress toward mitigating climate change.

11 I, therefore, ask the NOSB to
12 reiterate its 2010 opinion that hydroponic
13 agriculture is not eligible for organic
14 certification and to extend that opinion to
15 aquaponic, aeroponic, container, and any other
16 practice where plant roots are not in the soil.

17 And I ask the NOP to impose an
18 immediate moratorium on certifying those
19 practices as organic. Thank you.

20 CHAIR BEHAR: Thank you, Pryor.

21 (Applause.)

22 CHAIR BEHAR: Do I see any Board

1 comments, questions? Thank you.

2 MR. GARNETT: You're welcome.

3 CHAIR BEHAR: Okay. Aimee Simpson is
4 next with Amanda Fulmer on deck.

5 MS. SIMPSON: Thank you for this
6 opportunity. My name is Aimee Simpson. I am the
7 Director of Product Sustainability with PCC
8 Community Markets.

9 Retailers occupy a unique space in the
10 organic marketplace and community as we are the
11 interface between producers and consumers.

12 Within the space of retailers, we like
13 to think that PCC is unique as well, given that
14 we are the largest member-owned food cooperative
15 in the country with 66,000 members, 11 stores,
16 soon to be 15, and a passionate customer base.

17 Just as our customers rely on the
18 organic label, so too do we. This is why we are
19 a certified organic retailer, ensure that 95
20 percent of our produce is organic, and have
21 pledged to add 1,000 organic SKUs to our shelves
22 by 2022.

1 We want to see organic grow. But this
2 is not to the detriment of the standards and
3 consistency that we and our customers rely on.

4 As discussed in our written comments,
5 there are a number of issues concerning organic
6 integrity, some addressed on the Board's agenda,
7 but most absent, that need attention.

8 First, the NOP must finalize the
9 origin of livestock rule. This is not a case
10 where the organic community is not asking for
11 public comment. We've already provided it.

12 The NOP made the improper decision to
13 delay rulemaking. And there is no time to waste.
14 An already-vetted rule should be finalized at the
15 earliest convenience.

16 Second, hydroponically-produced crops
17 should not be certified organic. Soil matters to
18 organic production, now even more so with the
19 promising research, as just discussed earlier,
20 showing organic farming's potential to combat
21 climate change.

22 Finally, many of these and other

1 issues seem to stem from a common and overarching
2 problem, organic certifiers need to be better
3 aligned.

4 OFPA was established to bring
5 consistency and unification to a patchwork of
6 organic standards, labels, and certifications.
7 Now consumers and retailers are increasingly
8 unsure of what the national label means and are
9 left to investigate individual certifier
10 standards that are not transparent or easily
11 ascertained.

12 And this last piece that causes the
13 most concern for us, because we must answer to
14 our members on these very issues and the many
15 issues discussed here today.

16 Here is just a sampling of some of the
17 questions we receive on a continuing basis. Are
18 PCC department buyers aware of the infiltration
19 of non-organic feed fed to animals? Why does
20 organic butter have natural flavors? Why isn't
21 there any organic local honey? And my personal
22 favorite, how reliable is the organic label?

1 Focusing on this last question, how
2 would you answer it? PCC continues to believe
3 the answer is yes. But the increasing amount of
4 exceptions and here is what to look for beyond
5 organic not only make our job harder, but raise
6 concern.

7 Too often we have to note that NOP has
8 elected not to address the problem, ignored
9 recommendations from this Board, or taken a
10 position completely at odds with OFPA. Too often
11 we are having to do the work of the NOP in
12 creating our own standards to fill the gaps.

13 PCC is grateful for this Board's
14 incredible investment of time and energy on so
15 many of these issues and recognize that much like
16 PCC as a retailer you are the interface between
17 the public and those responsible for upholding
18 the organic standards.

19 But just as our customers ask us to
20 keep the hard questions, we must ask you to keep
21 doing the hard work and pressing for the
22 strongest and most consistent standards. Thank

1 you.

2 CHAIR BEHAR: Thank you, Aimee.

3 (Applause.)

4 CHAIR BEHAR: Dan?

5 DR. SEITZ: Holding a consumer seat on
6 the NOSB and also being a board member of a food
7 co-op, I've always taken it for granted that the
8 consumer really does equate organic with in-
9 ground production, partly because any time I've
10 ever walked into a grocery store I see pictures
11 of farms and I've never seen a picture of an
12 industrial hydroponic operation.

13 But I -- you just said that that's
14 what your, what consumers are expecting. I've
15 only had an impressionistic feeling. Is that
16 something that you have, you can speak
17 confidently about based on any research that
18 you've done?

19 MS. SIMPSON: Yeah, I mean, it doesn't
20 take much research. We get questions daily. I
21 mean, literally, these were just three questions
22 of the many that we receive.

1 And we frequently receive comments
2 that say we do not support hydroponics being
3 labeled organic. We believe that soil should be,
4 you know, it matters to organic, that we believe
5 in fostering fertility.

6 And a lot of this is driven, you know,
7 by the science that was just discussed earlier,
8 that now there's this great connection between,
9 you know, the possibility of organic offering
10 solutions to the climate change problem and the
11 fact that agriculture has really struggled with
12 how to become a part of that conversation.

13 And we have a very driven, passionate,
14 educated member base who, they're aware of these
15 issues. And they not only want to support
16 family, independent farms and that concept of
17 what they have always associated with food, but
18 now knowing what we know about the science,
19 that's becoming important to them as well.

20 So we are attempting to label
21 hydroponics that are organic. But that's very
22 difficult. And we'd rather just not see them be

1 a part of organic.

2 CHAIR BEHAR: Okay. Thank you. I
3 don't see any other comments from the Board.

4 MS. SIMPSON: Thank you.

5 CHAIR BEHAR: Next up is Amanda Fulmer
6 with Kyla Smith on deck.

7 MS. FULMER: Hi. Thank you for this
8 opportunity to address the Board. My name is
9 Amanda Fulmer. And I'm here in my personal
10 capacity as a consumer and a PCC member.

11 I'll keep my comments brief. They
12 concern the inclusion of so-called natural
13 ingredients in organic foods.

14 It's my basic position that natural
15 ingredients labeled as such should not be
16 permitted at all in organic foods. I personally
17 would rather they not be included at all on any
18 label, but especially I think it's important they
19 not be part of organics.

20 Transparency and documentation are a
21 few of the core tenets of the organic movement.
22 They're simply core principles for anyone who

1 cares about organics.

2 Natural ingredients are really the
3 black box of ingredient labels. And they may
4 hide ingredients that people may want to be aware
5 of.

6 Certain things that could be labeled
7 as natural ingredients, which could be just about
8 anything, might include sources that, foods that
9 are sourced that might not be appropriate for
10 vegetarians or people following a kosher or halal
11 diet, for example.

12 They may not be appropriate for people
13 with certain allergies. My children have a
14 number of friends with sesame allergies, for
15 example. You see a lot of labeling for other
16 allergens. But sesame, despite being one of the
17 top ten allergens in the United States, is not
18 typically required to be labeled.

19 If it says natural ingredients, our
20 friends fear that it might include sesame, that
21 it might not be appropriate for their children.
22 And there's simply no way to know.

1 Although natural ingredients are, of
2 course, required to be generally regarded as
3 safe, consumers might have personal concerns
4 about safety, but they have no way to find out
5 more.

6 People might have environmental
7 concerns based on the particular ingredients.
8 But, again, there's simply no way to know.

9 So I just want to state my position
10 that natural ingredients have no place on labels
11 at all. Why have ingredient labels if there is
12 this black box? But especially with organic
13 foods, it seems to be important to hold ourselves
14 to higher standards, especially regarding
15 transparency.

16 CHAIR BEHAR: Comments? Lisa?

17 MS. DE LIMA: Hi. Can you just
18 clarify when you say natural ingredients what
19 you're talking about? Are you talking about
20 natural flavors?

21 MS. FULMER: Yeah, so there might be
22 natural flavors or natural colors. I was

1 actually the consumer who submitted the question
2 about butter that was referenced in the previous
3 presentation. So that would be one example.
4 When you buy butter, it says, most brands, most
5 organic brands now say natural flavor on the
6 ingredient label.

7 CHAIR BEHAR: Tom?

8 MR. CHAPMAN: So natural flavors are
9 regulated by the FDA. There is a definition for
10 them. I believe colors have to be labeled with
11 their source, but I could be wrong in that
12 regard. But you're talking flavors and colors,
13 not ingredients per se. Is that correct?

14 MS. FULMER: Yes, that's correct.

15 MR. CHAPMAN: Okay.

16 CHAIR BEHAR: Anything else? Sounds
17 like the Board has to go to a grocery store and
18 look around at those labels. Okay. Thank you.
19 Next up is Kyla Smith with Eric Mandel on deck.

20 MS. SMITH: Good afternoon. My name
21 is Kyla Smith. I'm the Interim Co-Executive
22 Director at Pennsylvania Certified Organic. PCO

1 certifies 1,600 operations throughout the U.S.,
2 around 1,600.

3 I'll be commenting on the Crop
4 Subcommittee's proposal on strengthening the
5 organic seed guidance and on the Material
6 Subcommittee's cleaners and sanitizers discussion
7 document.

8 First regarding the seed guidance
9 proposal, I'll focus my comments specifically on
10 the proposed addition to section 4.1.6 to include
11 the phrase, quote, or on organic vegetative crop
12 only, which would require organic management of
13 non-organic perennial planting stock for 12
14 months in order for the vegetative crop material
15 to be sold as organic.

16 The intent of this inclusion, as well
17 as what is meant by vegetative crop, is unclear
18 and seems to go beyond the seeds and planting
19 stock practiced standard regulatory language.

20 205.204(a)(4) specifically addresses
21 the management of non-organic perennial planting
22 stock, not the crop. If the operation, if an

1 operation plants a non-organic perennial planting
2 stock and then wants to sell the perennial
3 planting stock as organic, then that planting
4 stock must have been managed organically for 12
5 months.

6 Meanwhile, 205.204(a)(1) addresses the
7 management of the crop from annual or perennial
8 planting stock and does not include a 12-month
9 organic management timeframe.

10 Additionally, the proposed rule
11 introduced the new term of, quote, vegetative
12 crop, which does not meet the definition of
13 planting stock.

14 If the intent of the proposed language
15 is to require the 12-month organic management of
16 perennial planting stock to sell the crop,
17 whether it's the fruit, nut, shoots, or leaves,
18 then this would require a rule change.

19 PCO requests that during the revision
20 process of this guidance that the program
21 clarifies exactly what is and is not allowed to
22 be sold, labeled, or represented and when in

1 order to be compliant with both 205.204(a)(1) and
2 (4).

3 We thought the original publication of
4 the seed guidance did clarify this to the
5 industry. But perhaps there is still the need
6 for further clarification.

7 Second, I'd like to briefly address
8 the cleaners and sanitizers discussion document
9 by simply encouraging the Board to include in
10 your discussions on this topic how and/or if
11 inactive ingredients in these products should or
12 should not be reviewed. Certifiers are not
13 aligned in their material review process, with
14 some reviewing inactive ingredients and some not.

15 Thank you all for your service on this
16 Board and for the opportunity to comment.

17 CHAIR BEHAR: Comments, questions?
18 We're good.

19 MS. SMITH: Thanks.

20 CHAIR BEHAR: Thank you, Kyla. Okay.
21 Next up is Eric Mandel with Leslie Touzeau, I'm
22 messing that one up, I'm sure, on deck from QCS.

1 MR. MANDEL: Okay. Well, thank you
2 very much. Appreciate the time to speak. And
3 thank you all for the hard work that you do. We
4 do appreciate it.

5 I'm speaking as an interested consumer
6 on my own. I am a proud member of Puget Consumer
7 Co-op as well.

8 And I just wanted to ask that you
9 continue in your work to prioritize and emphasize
10 both transparency in all the labeling and all the
11 work that's being done throughout the system to
12 bring it to consumers so that consumers have the
13 ability to make choices that are informed
14 choices.

15 And I know a lot of your work is on
16 that. I'll give some examples where I think it
17 can improve.

18 And the other thing that I ask that
19 you continue to emphasize is public health and
20 the outcomes associated with the decisions and
21 the recommendations that you make.

22 On the transparency side of the

1 equation, two things I know you're, you either
2 have been grappling with or are being asked to
3 are dealing with hydroponic labeling. You've
4 heard earlier speakers talk about that.

5 I do think that most consumers assume
6 that organic is talking about farms, soil, the
7 whole system that produces food in that way and
8 that hydroponics, whatever its pros and cons,
9 should at least be acknowledged and labeled as
10 such so consumers can know that. And I would
11 urge you to continue to push for that in
12 mandatory labeling until that's clarified.

13 Other speakers have also talked about
14 the issues around natural flavors. I know from
15 research there's very little difference between
16 natural and artificial. But I think, again,
17 consumers deserve the information. And I would
18 urge organics to phase that out or at least label
19 what is going into them to the extent that it's
20 possible.

21 And then on the public health side, I
22 think one of the things that really you should

1 reemphasize is the BPA packaging. For some
2 reason, that's been deemphasized. And I don't
3 understand that. I think it's a significant
4 potential issue, so please push that forward.

5 And the other one that I would ask
6 about is pushing, again, to include having the
7 impacts of fracking, which I know is beyond your
8 bailiwick.

9 But as far as it impacts organic farms
10 in terms of the ground water and other impacts to
11 those soils, I think that's very important and we
12 need to protect our food system. And that's a
13 big part of it. Thank you very much.

14 CHAIR BEHAR: Thank you. Any comments
15 or questions from the Board? Emily?

16 MS. OAKLEY: Just a question about BPA
17 and its status since it was brought up for
18 whomever that might be either --

19 CHAIR BEHAR: With the program?

20 MS. OAKLEY: -- the subcommittee or
21 the program --

22 (Simultaneous speaking.)

1 CHAIR BEHAR: Would the program like
2 to address it?

3 DR. TUCKER: So the status of that
4 work agenda is that it had been on a sort of
5 holding. And we have deprioritized that work
6 agenda. There are a lot of critical topics being
7 addressed by the Board right now, including the
8 integrity of imports. And so we have
9 deprioritized that item for now.

10 MR. MANDEL: Disappointed.

11 CHAIR BEHAR: Any other comments?

12 Thank you. Okay. Let's see. Where am I?

13 Leslie, can you say your name, please --

14 MS. TOUZEAU: Yes.

15 CHAIR BEHAR: -- and your affiliation?

16 MS. TOUZEAU: Good afternoon. My name
17 is Leslie Touzeau.

18 CHAIR BEHAR: Okay. And then Abby
19 Youngblood is on deck. Thank you. Go ahead. I
20 just wanted to know how to say your name.

21 MS. TOUZEAU: Sure. You were close.

22 I'm the Material Review Specialist for Quality

1 Certification Services or QCS. QCS is an
2 accredited organic certifying agent of the USDA.

3 So thank you for this opportunity to
4 provide comments pertaining to the petition to
5 add fatty alcohols to the National List of
6 Allowed and Prohibited Substances. QCS strongly
7 supports the addition of synthetic fatty alcohols
8 to the National List at 205.601.

9 QCS certifies over 50 organic tobacco
10 operations across the country. Prior to the 2017
11 petition to add fatty alcohols to the National
12 List, numerous organic certifiers determined
13 these substances were non-synthetic.

14 All QCS-certified organic tobacco
15 growers use them for sucker control. QCS
16 recently surveyed the tobacco operations we
17 certify about their use of and reliance on fatty
18 alcohols. All 28 respondents indicated that
19 fatty alcohols were critical to the success of
20 their organic tobacco operations and without them
21 they may be forced to discontinue organic
22 farming.

1 Without fatty alcohols to control
2 suckers, producers would be back to the slow and
3 costly practice of suckering with vegetable oils
4 or by hand. Our clients were unanimous in their
5 agreement that there is no effective alternative
6 to fatty alcohols.

7 Vegetable oil, as the only available
8 non-synthetic alternative to hand picking, does
9 not adequately meet the needs of organic farmers.
10 If applied more than once, vegetable oils can
11 cause leaf drop, plant burning, or otherwise
12 damage the tobacco crop.

13 Suckering by hand is also not a
14 feasible alternative as it requires a significant
15 amount of additional labor. Our producers agree
16 that the chance that they could find reliable
17 help due to this laborious task in the hottest
18 part of the summer is diminished by shrinking
19 rural economies and limited labor availability.

20 Several producers noted that labor
21 costs would not allow them to sufficiently hand
22 sucker their crop, leading to lower yields and a

1 lower quality product.

2 A QCS inspector noted that inspecting
3 tobacco farms for the last three years is like
4 watching the slow death of an industry and of a
5 region.

6 Many of our clients have invested
7 heavily into their organic operations only to
8 experience cuts to contracts followed by the
9 current prohibition of fatty alcohols.

10 One of our growers mentioned that
11 organic tobacco is what has enabled his family to
12 make the transition into organic production and
13 explore the production of other organic crops.
14 For others, organic tobacco is not only essential
15 to the profitability of their farm, it is also
16 important to the economy of their region.

17 Many organic tobacco farmers don't
18 have access to alternative markets. They cannot
19 turn to vegetable farming because there is no
20 market to sell organic vegetables.

21 If fatty alcohols continue to be
22 prohibited, it is very likely that our organic

1 tobacco producers will be forced to discontinue
2 organic farming altogether.

3 On February 11, 2019, QCS received
4 confirmation from the NOP that a use-up period
5 would be allowed for our producers who had
6 existing supplies of fatty alcohols.

7 We urge the NOP to extend this use-up
8 period until the NOSB has made a final
9 recommendation on the petition.

10 QCS hopes that the NOSB recognizes the
11 urgency of this issue and promptly recommends
12 adding fatty alcohols to the National List as
13 farmers' livelihoods are at stake. Thank you.

14 CHAIR BEHAR: Any comments, questions?
15 Steve?

16 MR. ELA: So we allowed the use-up for
17 this year. I mean, use-up generally is using up
18 materials on hand. What does that mean for the
19 growers for next year, for the 2020 season?

20 MS. TOUZEAU: Right. So right now we
21 are asking to extend that period to have a
22 temporary allowance so that farmers for next year

1 would be able to purchase the products to, for
2 the 2020 season.

3 CHAIR BEHAR: Anyone else? Okay.

4 Thank you.

5 MR. MORTENSEN: Yeah, I just wanted to

6 --

7 CHAIR BEHAR: Oh, I'm sorry.

8 MR. MORTENSEN: -- just say thank you
9 to Leslie and to the others that have brought the
10 kind of information that we needed the last go-
11 round. So this has been very helpful. Thanks.

12 MS. TOUZEAU: Yeah, thank you to you
13 as well.

14 CHAIR BEHAR: Okay. Thank you. Next
15 up is Abby Youngblood, and on deck is Anne Ross.

16 MS. YOUNGBLOOD: Hi. I'm Abby
17 Youngblood, Executive Director at the National
18 Organic Coalition. And thank you, NOSB members,
19 for the work that you do to protect organic
20 integrity.

21 NOC is deeply disturbed by the lack of
22 consistency across certifiers. A primary goal

1 for the organic law was to create a level playing
2 field for organic operations regardless of size,
3 geography, or production system.

4 But we're falling short in several key
5 areas on outdoor access for organic poultry and
6 on the continuous conversion of conventional
7 dairy livestock into organic herds or origin of
8 livestock.

9 We appreciate that the NOSB has taken
10 a stance on these issues and put forward
11 resolutions.

12 The lack of clear standards for
13 hydroponic and container systems is another area
14 that requires the Board's attention. We urge the
15 Board to call for a moratorium on the
16 certification of new operations given that the
17 current situation is opening organic up for
18 abuse.

19 We also urge the Board to pay close
20 attention to the annual peer review audits of the
21 National Organic Program. The lack of
22 consistency across certifiers points to serious

1 problems in the NOP accreditation process. And
2 the peer review audits are a mechanism to gauge
3 the health of the NOP.

4 NOC supports the NOSB proposal to add
5 energy infrastructure impacts to your work
6 agenda. And we urge you to bring together a
7 panel of experts and affected organic growers at
8 the Pittsburgh NOSB meeting this fall. That
9 region has been severely affected by this issue.

10 We think this panel is a good first
11 step and will inform an NOSB discussion document
12 on this topic.

13 On excluded methods and induced
14 mutagenesis specifically, we're grateful for the
15 Board's continued efforts to move this work
16 forward.

17 We need more input from stakeholders
18 to understand how frequently this method is used
19 in plant breeding. We encourage the NOSB to work
20 closely with the Organic Seed Alliance and other
21 plant breeding experts to come up with a plan to
22 move this work forward.

1 We're concerned about the chilling
2 effect on organic breeding if this method remains
3 on the TBD list long term. And we also agree
4 with Zea's earlier comments about ensuring due
5 diligence with some of these methods that have a
6 long history of use, including induced
7 mutagenesis.

8 On nutrient, vitamins, and minerals,
9 NOC opposes the relisting with the current
10 annotation because it's used by some food
11 manufacturers to justify adding synthetic and
12 non-organic ingredients to organic foods when
13 they do not appear on the National List. This
14 includes several additives that have been
15 reviewed and rejected by the NOSB.

16 Synthetic or non-organic additives
17 used for nutrient fortification should be limited
18 to those that are essential because they're
19 required by law. Thank you for considering my
20 comments.

21 CHAIR BEHAR: Okay. Tom and then
22 Dave.

1 MR. CHAPMAN: Hi, Abby. I have a
2 question for you on your fish oil comments. You
3 guys wrote NOC doesn't support relisting fish oil
4 due to concerns related to environmental impacts
5 and ecological sustainability. But in 2018 in
6 the fall, NOC supported the relisting of liquid
7 fish products.

8 I guess I'm curious to know what's the
9 difference in terms of environmental impacts and
10 ecological sustainability concerns between those
11 two products.

12 MS. YOUNGBLOOD: Let me consult with
13 our membership and our NOSB consultant on that
14 comment and get back to you.

15 MR. CHAPMAN: Okay. Thank you.

16 MR. MORTENSEN: Abby, I was wondering
17 if you could say a little bit more about the
18 moratorium idea that you mentioned at the
19 beginning of your comments.

20 MS. YOUNGBLOOD: Sure. I mean, I
21 think this idea has been out there for a while.
22 We've been asking for this for a while.

1 And, you know, it's a recognition that
2 if we allow the continued certification without
3 standards in place that we're on this slippery
4 slope without clarity. And, you know, in fact,
5 we would ask certifiers to step up to that call
6 as well given the uncertainty right now.

7 MR. MORTENSEN: Thank you.

8 CHAIR BEHAR: Anyone else? Thank you.
9 Thank you, Abby, wide-ranging comments. Anne
10 Ross is next with Carol McRoberts on deck.

11 MS. ROSS: Good afternoon. My name is
12 Anne Ross. I'm an attorney, and I hold an
13 advanced law degree in agricultural and food law.
14 First, I want to thank you very much for your
15 time and your service to this Board.

16 For the past two years, I have worked
17 as a farm policy analyst for the Cornucopia
18 Institute. My primary responsibility has been to
19 work on import fraud.

20 It's hard to believe that the time has
21 passed. But at my first NOSB meeting in Tucson,
22 I stood before the Board with a petition in hand

1 asking that the NOP take immediate action. The
2 action requested was that the NOP address on an
3 expedited basis the regulatory loopholes that
4 have contributed to fraudulently labeled organic
5 grain imports crossing U.S. borders.

6 Two years later, I still get calls
7 almost every week from U.S. organic grain farmers
8 asking what's happening and what's being done.
9 They tell me about their struggles and how they
10 just want a level playing field. I tell these
11 farmers there's progress thanks to the efforts of
12 many people in this room.

13 The 2018 Farm Bill provisions are
14 positive developments, and rule drafting is
15 underway. But we cannot rest here. Additional
16 work is needed, and it has to start now.

17 First, I encourage the NOP to take all
18 steps necessary to attain Stop Sale authority.
19 Stop Sale authority would allow the NOP to
20 prevent fraudulent organics from entering the
21 stream of commerce. Ultimately, one cannot
22 effectively enforce what one cannot stop when no

1 other agency exercises that role.

2 Stop Sale authority is a powerful
3 deterrent and protects the organic market. The
4 NOP should work with Congress to address any due
5 process concerns and statutory hurdles.

6 Second, when a foreign certifier has
7 been penalized by regulations, by regulators in
8 other countries, this ought to immediately
9 trigger an investigation of that certifier in any
10 of the implicated operations it certifies to
11 establish organic authenticity of those imported
12 products.

13 As stated in my written comments,
14 earlier this month the EU limited the authority
15 of a foreign certifier to certify products in
16 several high risk countries, the reason, fraud.
17 Where is that product headed now? And where are
18 those operations turning for certification?

19 Third, weak penalties for regulatory
20 violations are no match for bad actors with deep
21 pockets. We all know fraud is about money. And
22 as long as cheating is cheap, the conduct will

1 continue.

2 Fines need to be meaningful, otherwise
3 those operations intent on committing fraud will
4 continue to conclude the rewards of cheating
5 outweigh the risk of getting caught.

6 I strongly urge the NOP to not only
7 impose aggressive fines under the current
8 regulations, but to work with Congress to impose
9 greater penalties.

10 Thank you for your service. And I'm
11 happy to answer any questions.

12 CHAIR BEHAR: Anybody here on the
13 Board? Thank you.

14 MS. ROSS: Thank you.

15 CHAIR BEHAR: Very good comments.

16 Okay. Next up, I think we have a little treat
17 here, Carol McRoberts and Jay Feldman on deck.

18 MS. McROBERTS: Good afternoon, all.
19 Can you hear me? We're the Seattle Raging
20 Grannies, and we're going to sing a couple of
21 songs. The first one is the signature song, and
22 our second one will be a restaurant that no one

1 should eat in.

2 (Singing.)

3 MS. McROBERTS: We understand that
4 fracking is very bad for the earth around it, and
5 we think that maybe some of the food served at
6 our restaurants may be growing there.

7 (Singing.)

8 CHAIR BEHAR: Thank you. Tom has a
9 question.

10 MR. CHAPMAN: I think a statement,
11 really. I think John Ashby has been replaced.

12 (Laughter.)

13 CHAIR BEHAR: Thank you very much.
14 And someday I'll be a member of the Raging
15 Grannies. Okay. Jay Feldman is ready to roll.

16 MR. FELDMAN: I have a tap dance for
17 you guys.

18 CHAIR BEHAR: Okay. And Kate
19 Mendenhall is on deck. Don't forget to get your
20 animal, Jay.

21 MR. FELDMAN: I'm Jay Feldman,
22 Executive Director of Beyond Pesticides. So,

1 yes, we're here to celebrate organic after that
2 presentation. Our goal is to ensure its
3 alignment with the principles in the Organic
4 Foods Production Act, but we have serious
5 challenges. Congress created the NOSB to provide
6 leadership and forward movement, not simply to
7 protect the status quo. We have to embrace
8 continuous improvement across the board. We have
9 to grow the organic market exponentially. To do
10 this, we have to ensure public trust in the
11 organic label. We must be transparent.
12 Ultimately, we are only as strong as our weakest
13 link.

14 Organic stands at the threshold of the
15 future. The context in which we are working on
16 organic falls at the intersection of human health
17 and environmental protection. It is our only
18 hope for the future.

19 Organic addresses the climate crisis
20 by adopting soil-based practices embedded in the
21 Organic Foods Production Act. Organic must
22 support a system that protects and enhances

1 biodiversity and staves off the insect
2 apocalypse.

3 But if the public does not support
4 organic, then none of this much matters. And the
5 only way the public will support organic, pay
6 premium prices, understand that their investment
7 in the future is important is if there is
8 transparency and trust in the process.

9 Standards must be in compliance with
10 the Act. NOP must implement NOSB decisions on
11 the National List. There must be rigorous
12 enforcement, and organic certifiers must operate
13 under uniform standards that are seen as
14 transparent in their methods and free of conflict
15 of interest.

16 One more thing. It feels sometimes
17 that independent science, hearing both sides of
18 an issue, identifying hazards of materials is
19 somehow an attack on organic, when in fact it
20 strengthens organic and is compliant with the
21 law. So here are four things: The program should
22 be able to clearly articulate the law and the

1 rules. It has not been true for glyphosate. The
2 lack of clarity we heard today about specific
3 container operation scenarios, not abstract,
4 damages organic and the label.

5 Two, it is painful to see the lack of
6 action on previous Board decisions, as a former
7 NOSB member. Inerts review, animal welfare
8 recommendations, access to pasture, origin of
9 livestock, BPA in packaging, infant formula,
10 remember corn steep liquor, sodium nitrite,
11 methionine. The European Union does not allow
12 the use of synthetic methionine in organic
13 poultry but does require more space for birds,
14 fewer birds per house, and more access to the
15 outdoors.

16 Three, identifying cutting-edge issues
17 like you're doing on sanitizers, marine
18 materials. Keep doing that. We appreciate your
19 efforts to evaluate and find solutions to
20 problems.

21 Hydroponics. Labeling is something
22 you can address with annotation.

1 And finally what more can you do as
2 NOSB members? Exercise your statutory authority
3 to advise the Secretary of Agriculture. Get
4 together as a group or individually, as small as
5 a subset of this group, and tell the Secretary of
6 Agriculture what you've heard here today.

7 Thank you very much for your service.

8 (Applause.)

9 CHAIR BEHAR: Thank you, Jay. Jay,
10 can you tell me are you a membership
11 organization, Beyond Pesticides?

12 MR. FELDMAN: Yes, we are.

13 CHAIR BEHAR: And how many members do
14 you have?

15 MR. FELDMAN: Well, we have, we have
16 a network of 50,000 people. In terms of paid
17 membership, we have about a thousand groups, so
18 we stress group memberships, local community-
19 based organizations. But our strategy is to
20 bridge farmer and consumer interests, which I
21 think are aligned in terms of advancing organic.
22 But we believe very deeply through this

1 membership that exercising local democratic
2 involvement in the marketplace and through the
3 public hearing process in terms of what you're
4 doing and being represented by the stakeholders,
5 every one of the stakeholders on this board, is
6 essential to our membership voice.

7 CHAIR BEHAR: Thank you. Okay. Kate
8 Mendenhall is up -- oh, I'm sorry. Emily? I'm
9 sorry.

10 MS. OAKLEY: Sorry. Just a question
11 about marine materials. Thank you for your
12 detailed comments. They were very thorough. I
13 understand why Beyond Pesticides is suggesting an
14 annotation in terms of specific detailed language
15 for regulatory purposes, but I'm wondering if you
16 would consider an annotation requiring organic
17 certification in the future. If you're not
18 prepared to answer that now, that's fine. But
19 I'm just asking for that consideration.

20 MR. FELDMAN: Well, as you know,
21 Emily, I think part of this process is finding a
22 compromising common ground. Your discussion

1 document and the work of the subcommittee I think
2 identifies a key issue that we must address.

3 Consumers care not only about what they put in
4 their mouths, but they care about how their food
5 is grown and what impact it has on the
6 environment. So we need to get to a compromise
7 that advances this.

8 We at Beyond Pesticides feel that
9 annotations are the best way to ensure that the
10 voice of the NOSB, whatever compromise that may
11 be, is enforceable. And enforceability is key in
12 coordination with certification. So to the
13 extent that those work in tandem, we're all in.
14 We support that and your efforts. Thank you.

15 CHAIR BEHAR: Dan.

16 DR. SEITZ: Jay, I didn't understand
17 the point you made about annotating hydroponic-
18 produced products.

19 MR. FELDMAN: Well, again, you know,
20 the question is if hydroponics is established as
21 allowable under organic, which it has been, the
22 issue is what materials are used in hydroponic

1 and to what extent you require the disclosure of
2 those materials on hydroponic products. So to
3 the extent that a user or a producer of
4 hydroponic crops are using inputs that are
5 allowed by the National List, you have the
6 authority as a board to require annotations of
7 those materials when used in different sites.
8 You know, if it's a particular use pattern or a
9 particular site, a particular crop. And in this
10 case, I would argue that it's a particular method
11 of farming that really does require, I believe
12 consumers want to know that this is part of an
13 organic operation. I'm sorry. A hydroponic
14 operation.

15 So that gives us, you know, we have a
16 lot of authority, you guys, as a board, over this
17 National List and how you convey the use patterns
18 that you've permitted under the law. You can
19 require all kinds of specific disclosures along
20 with that use pattern.

21 DR. SEITZ: Great. Thank you. I'd be
22 curious to hear from you in the future, perhaps

1 some specific example of wording that you might
2 have as an annotation for that.

3 MR. FELDMAN: Okay, sure. Thank you.

4 CHAIR BEHAR: Anyone else? Very good.
5 Thank you very much, Jay. And I didn't see the
6 tap dance. Kate, you're up there. Next up is
7 Dave Colson on deck.

8 MS. MENDENHALL: Thank you, members of
9 the National Organic Standards Board, for the
10 opportunity to speak before you today. My name
11 is Kate Mendenhall. I'm the Director of the
12 Organic Farmers Association, and I'm also an
13 organic farmer in Northwest Iowa.

14 Founded in 2016, Organic Farmers
15 Association provides a strong and unified
16 national voice for domestic certified organic
17 producers. We are led and controlled by
18 certified organic farmers. Only certified
19 organic farmers drive our policy positions and
20 our policy work agenda. We have farmer members
21 in 48 of the 50 states.

22 Organic Farmers Association greatly

1 supports the work and the role of the National
2 Organic Standards Board and finds your role
3 paramount in maintaining integrity in the USDA
4 organic label. Organic farmers were active in
5 every step towards building our national organic
6 movement and market, and we believe that organic
7 farmers deserve a driving seat in setting the
8 future of the organic label.

9 Our 2019 certified organic farmer
10 policy identified five top priorities from the
11 wider certified organic farmer community,
12 feedback that extends beyond our membership and
13 invites all U.S. certified organic farmers to
14 participate. This winter, organic farmers ranked
15 the top five priority issues as organic import
16 frauds, number one; number two, NOP enforcement
17 to ensure organic integrity; number three,
18 prohibiting hydroponics in organic production;
19 number four, pasture rule enforcement; and number
20 five, organic dairy standards and enforcement.

21 We urge the National Organic Standards
22 Board to reaffirm their October 2018 resolution

1 regarding origin of livestock, urging the NOP to
2 move to a final rule in 2019 immediately.

3 Number two, encourage the NOP to issue
4 training and guidance for risk-based
5 certification oversight in organic dairy,
6 focusing on operations on the margins of the 30-
7 percent DMI rule and dairies with a thousand or
8 more milking and dry cows.

9 Number three, call for the NOP to
10 issue an immediate moratorium on any new
11 hydroponic operations and return this issue to
12 the NOSB work agenda as a top priority. OFA
13 believes that the NOP should implement the 2010
14 NOSB recommendation to not allow certified
15 organic hydroponics, but we recognize that there
16 is an immediate urgency to put a moratorium on
17 new hydro operations so that we can have more
18 conversation and consensus within the organic
19 community.

20 The current lack of uniform standards
21 implementation and enforcement of hydroponic
22 certification is publicly undermining the

1 integrity of organic farmers nationwide. The
2 lack of clarity around a three-year transition
3 following the use of a prohibited substance is
4 unacceptable. This ambiguity to a clear rule
5 enforced throughout the life of organic
6 certification calls to question the integrity of
7 the entire NOP program.

8 Thank you for the opportunity to
9 address you today.

10 CHAIR BEHAR: Emily.

11 MS. OAKLEY: Could you elaborate on
12 what you mean by a lack of clarity around a
13 three-year transition period following the use of
14 a prohibited substance?

15 MS. MENDENHALL: Yes. I think the
16 question has been asked many times today, and I
17 think, you know, in one case, there's a
18 hypothetical but farmers need to be able to call
19 their certifier and get a clear answer on whether
20 or not a practice is allowed or not allowed and
21 certifiers need to have clear direction from the
22 National Organic Program about whether or not you

1 can spray a prohibited substance and their
2 certify your hydroponic operation without any
3 transition. That is not a hypothetical. That is
4 a direct question that requires a direct answer.

5 CHAIR BEHAR: Jenny.

6 DR. TUCKER: I want to clarify here
7 that, again, I want to state incredibly clearly
8 glyphosate is not allowed. And right now we have
9 no specific case that is giving allegations of
10 what is being talked about, this idea of
11 glyphosate being put on the ground and then some
12 kind of plastic there and then immediately
13 covered. We do not have a specific case, so we
14 have learned about one operation and have
15 investigated. We have talked to that certifier
16 about what is happening on the ground.

17 We need specific cases where somebody
18 believes the regulations have actually been
19 broken on a farm and has evidence. So that is,
20 when I talk about we need more information,
21 that's what I'm looking for is case-specific
22 information that we can then evaluate against the

1 regulation.

2 So glyphosate is not allowed. We are
3 looking for specific cases, actual on-the-ground
4 realities where people know this is happening, so
5 that we can investigate it and evaluate it
6 against the rules. Give us a case, and we will
7 enforce.

8 MS. MENDENHALL: Could I respond?
9 Clarify?

10 CHAIR BEHAR: Yes, you can respond,
11 Kate.

12 MS. MENDENHALL: So I think that
13 hopefully it's clear and will always be clear
14 that any prohibited substance will never be
15 allowed in organic production. If we're at a
16 point where we're debating that, we have a very
17 serious problem on our hands and we have no
18 organic program.

19 The question is clearly, if a
20 prohibited substance is applied, can I certify my
21 hydroponic production the next day? That is not
22 a hypothetical. We need really clear instruction

1 about the transition period for a farmer growing
2 in the soil and a farmer starting a new operation
3 right next door. Can they spray a prohibited
4 substance and then call their certifier and get
5 their certificate?

6 DR. TUCKER: We know of no certifier
7 that is allowing that scenario, so again, if
8 there is a specific case, then please, please
9 bring it to us.

10 MS. MENDENHALL: That kind of
11 ambiguity leaves a lot of discontent.

12 CHAIR BEHAR: Okay. Thank you, Kate.

13 MS. MENDENHALL: Thank you.

14 (Applause.)

15 CHAIR BEHAR: Up next is Dave Colson
16 with Christopher Peterson on deck. And after
17 Christopher, we have three more commenters.

18 MR. COLSON: Good morning. My name is
19 Dave Colson, and I have a certified organic farm
20 in Durham, Maine and work as the Director of
21 Agricultural Services for the Maine Organic
22 Farmers and Gardeners Association. My job is not

1 to do the certifying of farms but to assist them
2 in their production and marketing processes and
3 to help them to understand and meet the
4 regulations of organic certification.

5 MOFGA first began certifying organic
6 farms in the 1970s. At first, we only certified
7 crop production but later added dairy and other
8 livestock, processed products, and maple syrup.
9 These days, it's easy to dismiss the early
10 certifiers or anything that came before the
11 national rule, but many years of discussion led
12 to the development of what became the national
13 rule in the organic standards as we sought to
14 develop and articulate a vision of organic
15 production.

16 One of the things I appreciate about
17 the way the rule is written is how each section
18 starts with the affirmative methods of organic
19 production. For instance, 205.203 on soil
20 fertility and crop nutrient management begins
21 with the producer must select and implement
22 tillage and cultivation practices that maintain

1 or improve the physical, chemical, and biological
2 condition of soil and minimize erosion. The
3 producer must manage crop nutrients and soil
4 fertility through rotations, cover crops, and the
5 application of plant and animal materials.

6 The rule goes on to describe crop
7 nutrient management that does not contribute to
8 contamination of crops, soil, or water by plant
9 nutrients. And finally, crop nutrients that are
10 allowed when included on the National List of
11 synthetic substances.

12 What I would like to highlight today
13 is that these cultural methods are often
14 overlooked in favor of inputs when debating what
15 may be used in organic production. And I would
16 point out that these meetings are largely about
17 what is on the National List, but most of the
18 organic growers I work with rely on using and
19 developing those cultural methods. In this
20 decision process, we never considered actually
21 removing plants from their interaction with the
22 soil. That seemed inconsistent with the cultural

1 growing practices defined in 205.203.

2 Cultural innovations such as these and
3 others are the heart of organic farming. I speak
4 about it today because I don't want this to be
5 lost in the discussions and disagreements over
6 what products are on the National List. Organic
7 farming is about living within the natural
8 environment and learning to adapt our growing to
9 its demands. I want to remember today the
10 certified organic farmers around the country who
11 farm by following these important cultural
12 processes that incorporate the natural benefits
13 of growing in soil.

14 Therefore, MOFGA supports a moratorium
15 on certification of new container and hydro
16 operations until the details and possible
17 standards for such production are developed.
18 Thank you.

19 CHAIR BEHAR: Thank you, Dave. Any
20 questions or comments from the Board? Emily.

21 MS. OAKLEY: Yes, I don't really
22 remember in previous meetings hearing so much

1 about a call for a moratorium on hydroponics, and
2 I don't know what's happening within the
3 stakeholder community, if this is sort of a
4 natural progression or, you know, it's coming
5 spontaneously or if there's a conversation taking
6 place. But I was just wondering if you could
7 elaborate more on that.

8 MR. COLSON: Well, I first kind of got
9 aware of this discussion back in the meeting in
10 Vermont, and I think that was in 2015. And at
11 that point, that was the first that I heard about
12 a call for a moratorium at that point. And some
13 certifiers have honored that. I think the nuance
14 of how that goes about has to do with not feeling
15 like we do have standards that we're able to
16 certify to. It seems to be picking and choosing
17 from different parts of the rule.

18 So MOFGA right now does not certify
19 hydroponic or container production, and we feel
20 it's important that those standards, if
21 hydroponic is going to move forward, need to be
22 developed so it's clear what it is we're actually

1 certifying.

2 CHAIR BEHAR: Emily.

3 MS. OAKLEY: Is it possible to kind of
4 jump back to the previous commenter's comment, or
5 is that not appropriate?

6 CHAIR BEHAR: No, you could.

7 MS. OAKLEY: I just wanted to say that
8 I hope, Jenny, that there are no producers that
9 are not following that three-year transition
10 period. I hope actually no one will be able to
11 give you an example of that taking place because
12 I hope that that isn't happening within the
13 organic system. So I hope there isn't even a
14 need for someone to do that. I'm just asking and
15 I think people are asking for clarity that that
16 isn't allowed, and I understand your position but
17 I just wanted to state that I hope that we can't
18 even find an example because it's not taking
19 place, and I would like that clarity at some
20 point in the immediate future, if possible.

21 CHAIR BEHAR: And I want to say, Dave,
22 too, as an organic educator, the input

1 substitution, when someone comes to me and asks
2 about transitioning to organic, the first
3 question is, you know, where is the organic
4 herbicide or, you know, and the inputs, and we go
5 through the systems-based approach to farming.
6 And most of the time, they're quite excited about
7 it because it means less cost of inputs, but it
8 also means, too, that they have a much more
9 intimate relationship with their entire operation
10 and they gain so much from being part of their
11 farm, rather than doing to their farm.

12 MR. COLSON: Yes. And I agree. One
13 of the things that we used to do before the NOP
14 program, which I know is not really relevant so
15 much, but we had, rather than what was allowed
16 and what was not allowed, we had not allowed,
17 sorry, prohibited, allowed, and recommended. And
18 often, what we now see as those cultural
19 practices that are embedded in the rule that
20 often don't get talked about a lot because we all
21 accept them as the proper practices to use, those
22 were the recommended practices and they became

1 the ideal to which we would try and move farms
2 towards.

3 CHAIR BEHAR: Thank you. Oh, Ashley.

4 MS. SWAFFAR: Hi. So you had asked
5 for a moratorium on hydroponics because we don't
6 have standards. Would you also support a
7 moratorium on apiary production, honey
8 production, because we don't have standards,
9 mushrooms --

10 MR. COLSON: Well, in effect --

11 MS. SWAFFAR: Wait. I'm not finished.
12 You know, and then you also referenced how people
13 pick and choose what part of the rule to follow.
14 We also saw throughout the hydroponic things a
15 lot of questions. I asked commenters about
16 growing tomatoes in greenhouses. They don't
17 rotate crops, so they're picking and choosing
18 rules to follow there.

19 MR. COLSON: That's a lot.

20 MS. SWAFFAR: Yes, yes.

21 MR. COLSON: And so I agree with most
22 of what you're bringing up. Apiary standards, in

1 effect, we have a moratorium on it because I
2 think there's only two or three in the country
3 that can meet the standard. The rotation with
4 tomatoes, I do recognize there are some small
5 growers that only have one house, and they are
6 growing tomatoes continuously in that house,
7 although what we try to move folks towards is
8 either multiple house or a moveable house so that
9 they do have a crop rotation of some kind.

10 So I would agree with you. I think in
11 some of those cases it would be worthwhile to
12 have a moratorium on some of those pieces in
13 order to articulate exactly what we're talking
14 about in terms of the standard we're hoping
15 people will meet.

16 MS. SWAFFAR: You referenced apiary
17 standards and two people meeting them. What
18 standard are your referencing?

19 MR. COLSON: Well, we do have honey
20 standards from what I understand.

21 CHAIR BEHAR: We have an NOSB
22 recommendation, but it has not been implemented.

1 MR. COLSON: Okay. Thank you for that
2 clarification.

3 CHAIR BEHAR: But I do know that there
4 are some certifiers who are referencing that, you
5 know, as their own.

6 MR. COLSON: I thought there was a
7 certified beekeeper in New Mexico.

8 CHAIR BEHAR: There are certified.
9 The NOP does allow operations if they can show
10 that it meets the current rule to be certified
11 organic, and I know of a few. So various
12 certifiers use various rules, you know. Some of
13 them are following the recommendation and some
14 are not.

15 MR. COLSON: And we at MOFGA did have
16 a honey standard at one time, and the way we went
17 about that as we asked the honey producers to
18 come to us and produce a standard that we could
19 certify to. We didn't certify until we had
20 someone develop a standard that we could work on,
21 and that's part of what I'm talking about. I
22 think to allow things to move ahead before we

1 have a standard that's nationally recognized does
2 not seem to be in the service of the national
3 organic program.

4 CHAIR BEHAR: I had Scott next and
5 then Tom and then Ashley.

6 MR. RICE: To respond to Emily's
7 response to an earlier comment, I just wanted to
8 touch on, you know, when the sort of word came
9 around about glyphosate use on a piece of land
10 and then that going straight to organic
11 production, that was quickly a conversation with
12 my colleagues in the Accredited Certifiers
13 Association and had a fairly participatory and
14 robust kind of dialogue on that over email of,
15 hey, are you doing this, is this something you
16 would allow? And there was no answer that said,
17 yes, we would do that. It was the complete
18 opposite and very consistent of, no, this is not
19 something that we would allow. And I just wanted
20 to make that clear.

21 As Jenny notes, there's no case that
22 we, of course, could look at and kind of dig

1 into, as we often like to as certifiers. But
2 it's the mission and kind of vision of the
3 Accredited Certifiers Association to have
4 consistency in standards, and on this particular
5 issue I saw that consistency quickly and pretty
6 loudly.

7 CHAIR BEHAR: Tom and then Ashley.

8 MR. CHAPMAN: Sorry to dig in on this
9 one, but, I mean, there's a lot of production
10 environments that don't have standards as
11 outlined right now in the national organic
12 standards. Apiculture is one of them, fungus
13 production is another, aquatic plant life is a
14 third. I could probably continue listing several
15 more. Does MOFGA certify any of those operations
16 --

17 MR. COLSON: Of course. You know we
18 do. We do aquatic plants. Absolutely.

19 MR. CHAPMAN: Yes, and mushrooms.

20 MR. COLSON: Yes, and mushrooms.

21 MR. CHAPMAN: Then how does that
22 align? There's no production standard there.

1 MR. COLSON: Oh, I agree. Yes, it's
2 an inconsistency in my presentation definitely.
3 That does not necessarily negate the need for
4 consistent standards.

5 MR. CHAPMAN: I agree with you there.

6 CHAIR BEHAR: Do you have something to
7 say Ashley, or are you okay?

8 MS. SWAFFAR: I was just going to say
9 an NOSB recommendation is not final rule.

10 CHAIR BEHAR: Yes, I think we all
11 understand that. Emily.

12 MS. OAKLEY: Just a clarification. I
13 think when MOFGA is certifying aquatic plants,
14 they are following the wild crop standards. I
15 mean, that might need way more elucidation than
16 it currently has. Like, I definitely agree with
17 that, and I think we've heard that in a lot of
18 the comments, but that is the standard that they
19 are certifying to.

20 MR. CHAPMAN: Can I ask a follow-up
21 question to that?

22 MS. OAKLEY: To me or to --

1 MR. CHAPMAN: To Dave. Does your sea
2 vegetable questionnaire involve cultured
3 products?

4 MR. COLSON: I'm not conversant enough
5 in that to be able to answer directly, but I can
6 try and find that information.

7 MR. CHAPMAN: If I have it up in front
8 of me, can I answer it for you?

9 MR. COLSON: Absolutely.

10 MR. CHAPMAN: It does.

11 MR. COLSON: It does?

12 MR. CHAPMAN: Yes.

13 MR. ELA: Say that again, Tom.

14 MR. CHAPMAN: The MOFGA sea vegetable
15 addendum for certification also handles cultured
16 sea vegetables, which would be not wild crop.

17 CHAIR BEHAR: Dan.

18 DR. SEITZ: I just want to comment
19 that I can see that someone might in good faith
20 take a position that may have some
21 inconsistencies. So if you take the moratorium,
22 for example, around hydroponic, the possibility

1 of new systems being carried out in wildly
2 diverse ways and having an enormous economic
3 impact on existing operations may warrant a
4 moratorium in a way that a much smaller corner of
5 the organic sector may be able to tolerate some
6 inconsistency. And I can also imagine that
7 certifiers might, in a sense, exercise extra care
8 in an area where there may not yet be standards.

9 And I think all of us, in principle,
10 want to see consistency, but I think it's no
11 accident that there's a famous quote that would
12 say foolish inconsistency is the hobgoblin of
13 small minds. I think the point there being, I
14 think here it's not a foolish inconsistency. We
15 strive for consistency. But the fact is in any
16 situation like this where there's such a vast
17 amount of information in situations to address,
18 complete consistency is not possible.

19 MR. COLSON: Yes, and I would just
20 comment that farmers are innovative folks,
21 organic especially, and there are reasons that
22 folks have moved in a variety of directions. And

1 I think the raising of kelp would be a good
2 example, in that originally kelp was not
3 considered a food additive, and that's why the
4 need to certify came into place, as you know.
5 And so there was a quick push to develop a way to
6 allow a use that had already been ongoing, and I
7 do recognize that. And then that couples on with
8 the idea of, well, if we're depleting a natural
9 resource, how can we do it in a better way?

10 So I'm not saying that that's the way
11 to go. I think the idea of a moratorium or a
12 pause when some of these things change so that
13 the process that's being used right now for
14 marine materials can be gone through so that we
15 aren't then catching up with ourselves after the
16 horse is out of the barn. And I think that's
17 where we're consistently finding ourselves in a
18 lot of these pieces right now. So that's where I
19 think the pause or the moratorium might be worth
20 considering on some of these things.

21 CHAIR BEHAR: Okay. Thank you, Dave.
22 We'll keep moving here.

1 MR. BRADMAN: Sorry. I'm just going
2 to restate my earlier comment. You know, I'm not
3 sure where a moratorium fits in or not, but I
4 really think it's essential that we develop
5 standards and that we really think about what it
6 means to produce food in different ways and that,
7 I just think that's extremely important and that,
8 as a board and as a community, we need to work
9 towards that.

10 CHAIR BEHAR: Thank you, Asa. So next
11 up is Chris Peterson, and Andrew Dykstra is up
12 next. And thank you, Chris. My chickens enjoy
13 the feed from your mill.

14 MR. PETERSON: Thank you. My name is
15 Chris Peterson. I represent Cashton Farm Supply.
16 We're an organic feed mill in Cashton, Wisconsin.
17 We've been in business for over 30 years, and
18 we've been working on organic feed for over 20
19 years. We've got about 40 people that work for
20 us and really appreciate the work that's done to
21 support the industry because it is the industry
22 that we focus on. We don't do conventional.

1 We're not using it as a segment. It's 100
2 percent of what we do.

3 We deliver bulk feed in our area.
4 We're located in Southern Wisconsin. We hit most
5 of Wisconsin, Southern Minnesota, Eastern Iowa,
6 with our bulk trucks, and we're serving a lot of
7 customers that are going to be feeding 1,000 to
8 8,000 laying chickens typically. We're mostly in
9 the laying hen market.

10 In addition, we ship a lot of bagged
11 feed either direct to farms, or we have a network
12 of 19 independent farm stores and five
13 cooperative stores that we ship bagged feed and
14 sell bagged feed through. Obviously, that's
15 going to be usually a smaller farm that's got
16 chickens as part of a diversified organic
17 operation. They might be doing vegetables, they
18 might be doing dairy, and the hens and the
19 broilers are there to supplement their farm
20 income.

21 We do encounter -- I should say I'm
22 here to support listing of synthetic

1 DL-methionine and at the average rates throughout
2 the life of the flock. We do see when we're
3 feeding in a bagged ration a 17-percent protein
4 ration with two pounds of methionine per ton. We
5 do see feather pecking and aggressive behavior,
6 which we attribute to a lack of methionine in
7 those birds.

8 And our bulk producers, when they
9 bring a new flock in, they're usually going to be
10 going to, like, an 18-percent protein. If
11 they've got a flock that's coming out of the
12 grower barn with a lot of variation in the bird
13 weights, they might be going to an 18.5 or a 19-
14 percent even to try and grow those birds out, and
15 the ammonia becomes a major problem in a hurry.
16 Anytime from late August all the way through
17 until mid-May, we'll have barns that have a lot
18 of problems with ammonia because they're
19 overfeeding the protein when those birds go in.

20 We do have people that, I should say
21 right in our neighborhood we've got a lot of
22 2,000 to 5,000-bird barns. They do have really

1 good outdoor access, and the chickens do go out
2 in the pasture, but they still have these ammonia
3 problems. We have people that do birds on
4 pasture, usually smaller operations, a couple
5 hundred birds. And, you know, they can
6 sometimes, for short periods of time, get the
7 birds to subsist on the pasture, but we have a
8 really short season. We had ice on the ground
9 here about two weeks ago. By the time we get to
10 the middle of July, the pastures are starting to
11 slow down in their production. And they do see,
12 whenever those birds get inside, they do see that
13 issue with increasing protein makes the litter
14 messy, a lot of ammonia. If they've got a few
15 hundred birds, they will try to supplement that
16 protein because they see they need the protein.
17 So we don't see that that small-scale production
18 exempts people from issues with methionine.

19 Thank you very much.

20 CHAIR BEHAR: Any questions from the
21 board? I have one. How are you working with the
22 new methionine annotation where it is so many

1 pounds over the life of the bird --

2 MR. PETERSON: We're just starting
3 with that because most of our producers have just
4 gotten documents from their certifier. These
5 flocks run for about 14 months, so obviously a
6 flock that's already in, they're not averaging
7 yet. So people are trying to work out how
8 they're going to feed those, working with their
9 certifiers to get a plan in place, get it written
10 to their system plan, and actually start doing
11 it. We have nobody that I know of that's really
12 started doing it yet. But the people are working
13 on that, and I think what we're looking at is
14 averaging based on the requirement of the bird
15 because right now, if you go back to where we
16 have just a flat two-pounds per ton limit, you
17 know, you're looking at the limit is flat but,
18 based on what the bird requires, you're starting
19 out at a low level and then increasing as the
20 flock gets older and people see these issues
21 resolve themselves as you get to the end, where
22 you're feeding more of the requirement because

1 the bird's requirement is coming down.

2 So right now the people that are
3 starting to work on it, they're kind of looking
4 at how do we get that line to flatten out when we
5 consider it as a percentage of the bird's
6 requirements so we're not starting out at a low
7 restriction and coming upward. It's still the
8 restriction even under the average. You're still
9 at a restricted level, but they're trying to get
10 the restriction to be even to the bird's
11 requirement throughout the flock, so you'll get a
12 little more methionine early on.

13 CHAIR BEHAR: So are you responding to
14 their request, or are you working with them in
15 the ration development?

16 MR. PETERSON: So far, we're
17 responding to their requests, but they'll have a
18 breed spec based on the birds they've got, and we
19 can ration it based off their breed spec.

20 CHAIR BEHAR: I know that certifiers
21 are looking at how to actually be able to
22 document that this has occurred, and so as an

1 organic inspector, I know I'll be looking at a
2 lot of invoices and tags and trying to figure
3 that all out.

4 MR. PETERSON: And from the producers,
5 they're, you know, nobody is doing it yet, so
6 people want to, they don't want to jump right in
7 because it's not like your calcium where you can
8 ration it up and down and if it's off a little
9 bit you just fix it. They want to know where
10 they're going to be, and so they need a plan, but
11 they're getting there. And I think, once they
12 get to doing that, I think most people are going
13 to start out with trying to take it as a
14 percentage of that bird's requirement and see how
15 it works and go from there.

16 CHAIR BEHAR: Okay. Emily has a
17 question.

18 MS. OAKLEY: It's actually just a
19 comment that I just see this as a positive
20 example of continuous improvements within the
21 Board's work, and I thank the Livestock Committee
22 for looking at this issue. Yes, I just think

1 this is a bright spot in the organic process of
2 continuous improvement.

3 MR. PETERSON: I don't think I got it
4 in there. We really do support coming up with
5 something that is national because we don't
6 dismiss the concerns that people would have over
7 the synthetic methionine. It's not something
8 that we dismiss. We talk to those customers
9 every day. We have people that, I had a customer
10 that's good friends with my cousin call, and this
11 was quite a while, but he said we talk about
12 methionine and he said how come I can raise my
13 chickens and not have any methionine? I said,
14 well, you do, it's in the, you know, but he never
15 had the label and he didn't know that it was
16 there.

17 So we don't miss that risk of using
18 it. We want the natural alternative. But it
19 also has to be something we can use and be legal,
20 for one thing, but also that we can use a sell a
21 product that will work for people.

22 CHAIR BEHAR: Okay. Thank you.

1 MS. SWAFFAR: I have a question.

2 CHAIR BEHAR: Oh, now Ashley has a
3 question. I just want to say we are not too far
4 behind but --

5 MS. SWAFFAR: I have one question.
6 One question.

7 CHAIR BEHAR: Okay.

8 MS. SWAFFAR: Just for reference, what
9 is the most expensive ingredient pound-per-pound
10 in your feed ration?

11 MR. PETERSON: I'd have to look into
12 that. I always think of the macro ingredients,
13 so you're looking at the soybean meal, flax meal,
14 but your trace minerals are going to be higher.

15 MS. SWAFFAR: Methionine would be
16 probably one of your most --

17 MR. PETERSON: It might be. Honestly,
18 right now, I couldn't tell you what the
19 methionine costs in our rations, but I know you
20 know so --

21 MS. SWAFFAR: It is. It's the most --

22 CHAIR BEHAR: Thank you, Chris. And

1 say hi to Ernie for me.

2 MR. PETERSON: I will do that. Thank
3 you.

4 CHAIR BEHAR: Okay. Andrew Dykstra
5 and then Pete Zambetti is on deck, and then Laura
6 Batcha will be our last speaker after that.

7 MR. DYKSTRA: Hello. This is my first
8 NOSB meeting. I didn't know what to think when I
9 was going to get here. I was here yesterday and
10 today, and I'll be gone tomorrow. I was
11 absolutely encouraged by what I saw and heard and
12 everything that happened yesterday. I think the
13 whole organic industry is completely unified,
14 except I was actually disappointed as to what was
15 happening there in Washington, D.C. In fact,
16 they told me to be polite, so that's all I'll say
17 about that.

18 I'm an organic dairy farmer. I was
19 one of the first ones in Washington state.
20 Actually, about ten percent of us dairy farmers
21 from the state of Washington that are organic
22 will be coming through here and plus the one from

1 California.

2 So I had some stuff written down and
3 didn't know if it was going to be good. But now
4 that I've thought about it from yesterday and
5 today, I think it's 100-percent valid. Anyway,
6 I'm grateful to have a chance to comment.

7 Our family has been farming
8 organically since 1989, since 2004 in the dairy
9 industry, organic dairy industry. The third
10 generation is making a stab at it now. One of my
11 sons is a mechanical engineer, and the other one
12 has a degree in agronomy. So I'm not coming with
13 a lot of verbiage or proposed regulations. I'm
14 here to speak to the origin of livestock, just
15 like everybody else, and the integrity of the
16 organic seal.

17 I really hope that the unification of
18 the organic industry that was created by the
19 Idaho issue will actually help us out. Now we
20 just need the will to solve the origin of
21 livestock issue. We need the will to get
22 everybody to be playing by the same rules. Right

1 now, I don't think we have the will.

2 I will fight for the integrity of
3 organics as long and as hard as I can. But, you
4 know, when the rules are done, I'll abide by
5 them. Hopefully, it's not a watered-down
6 product.

7 Back when we were still conventional,
8 we missed 90 days of milk chuck one winter. Why?
9 Because 95 days were decided, or 90 days were
10 decided by the Russian State Supreme Court that
11 milk was not an agricultural product under the
12 Perishable Commodity Act of 1937. That's about
13 as nonsensical as what Idaho state allowed
14 regarding the origin of livestock and Washington,
15 D.C.

16 After financing and refinancing, the
17 expiration of depreciation, and so forth, it took
18 us about ten years to get out of that hole. What
19 is happening to the organic dairy industry right
20 now will also take ten years for dairy farmers to
21 get out of. Why is it the whole ten years? The
22 USDA NOP is in park regarding the origin of

1 livestock. Somebody once told me God can't steer
2 a parked car. Well, we can't steer the NOP.
3 Why? Because the NOP is in park. So with
4 verbiage of regulation and the will to get out of
5 park isn't there, in my opinion.

6 It's not this administration or the
7 last administration. Origin of livestock has
8 been a frontrunner for dairy farmers for years.
9 So please, let's not keep blaming Trump or Obama.
10 Take ownership. This is a generational problem.
11 Take the NOP and put it in drive. Once we're in
12 drive, we can discuss language and regulations.
13 Until then, smoke is blowing out of the exhaust,
14 it's coming out from under the hood, the engine
15 RPMs are at 9,000, people are seat-belted, but
16 the transmission is still in park.

17 Nobody can defend what's happening to
18 the consumers today. I would dare anybody to be
19 able to defend it to the consumers.

20 The hole that we created, the ten-year
21 hole that we created now is by having the
22 transmission in park. Thank you very much.

1 CHAIR BEHAR: Thank you. Any comments?

2 (Applause.)

3 CHAIR BEHAR: Any comments from the
4 Board? Thank you, Andrew, very much for coming
5 away from your farm. I know that is a difficult
6 thing when you're a dairy farmer. And I also
7 know how hard dairy farmers work.

8 Okay. Pete Zambetti is up next with
9 Laura Batcha, our last speaker of the day.

10 MR. ZAMBETTI: Good afternoon,
11 everybody and thank you for your time today, and
12 thank you for the hard work you do. My name is
13 Peter Zambetti. I'm a representative of Capsugel,
14 a manufacturer of capsules, and we're here to
15 talk about the fact that, talk about to the NOSB
16 for allowing to add pullulan to the National List
17 of 205.605 as an allowed nonagricultural,
18 nonsynthetic ingredient used in tablets and
19 capsules so they can continue to be made with a
20 category in the organics system.

21 Just an opportunity to review some
22 history. In 2004, Capsugel, the company I work

1 for, submitted a petition that was put on hold
2 and never acted upon. In 2018, the Handling
3 Subcommittee found the petition sufficient. So in
4 fall of 2018, a full Board discussion happened
5 and several certifiers and manufacturers wrote to
6 support this effort. The Handling Subcommittee
7 also recommends adding pullulan to the National
8 List.

9 So I know those things have already
10 been said. I just want a little further
11 information on this. Today, there's no other
12 NOP-compliant vegetarian option that exists for
13 encapsulations. There are some organic gelatins
14 available but not nearly enough to satisfy the
15 demand of either the organic consumer or the
16 organic vegetarian consumer.

17 Capsugel continues to work to make a
18 truly organic pullulan capsule, but it will be
19 years until this is commercially available and
20 quantities exist to suffice the market integrity.

21 So now I will also make myself
22 available for any questions, and any questions

1 that are really hard I'm going to defer them to
2 the Organic Trade Association who helped us with
3 this petition. So thanks very much.

4 CHAIR BEHAR: Well, I thank you very
5 much for finally helping us understand how to
6 pronounce pullulan. So we all have to practice
7 that.

8 MR. ZAMBETTI: That's all right.
9 Tomato, tomato, it's the same thing.

10 CHAIR BEHAR: Well, we did butcher it
11 pretty good on the subcommittee. Any questions
12 from the Board? Thank you very much.

13 MR. ZAMBETTI: Great. Panda and I
14 thank you very much.

15 CHAIR BEHAR: Okay, good. You took a
16 panda. That was cute. All right. Laura Batcha
17 is our last speaker of the day. I just want to
18 say that we are at 5:51. We were supposed to end
19 at 5:37, so that's not too bad. Okay.

20 MS. BATCHA: Thank you, Harriet. And
21 thank you to the Board and happy to be your last
22 speaker of the day.

1 We have a letter that Michelle is
2 circulating to the Board that we sent to the
3 administrator earlier this week at the
4 Agricultural Marketing Services regarding these
5 questions around glyphosate in container
6 production, and we sent that letter because,
7 before coming to the meeting this week, our
8 membership, particularly our members that are
9 involved in the produce supply chain, felt like
10 it was extremely important to hear a
11 clarification right out of the gate from National
12 Organic Program around the absolute prohibition
13 on glyphosate, but also the signers of the letter
14 and our membership as a whole are in agreement
15 that there's an urgent need for instructions to
16 clarify how to apply the practice standard to
17 containerized production systems and hydroponic
18 production systems under the current USDA
19 allowance for those systems.

20 So some of the questions that have
21 come up today have, you know, really reinforced
22 that this is extremely important. We do not want

1 to leave this hanging out there to end up five,
2 ten years from now doing a compliance project
3 because there was an OIG investigation about
4 whether or not the standards were being applied
5 appropriately. We have an opportunity with some
6 questions being raised to go to instruction.

7 I appreciate the need for complaints
8 in order to follow investigations, but I think
9 instructions to clarify how to interpret the
10 standards don't have to be coupled to a complaint
11 process. And we continue to hear questions
12 around land use history and transition. And I
13 appreciate that the certifiers truly, for the
14 most part, want to do the right thing. But if
15 you're not asking for land use history when a
16 barrier is being used, like plastic for container
17 production, you simply don't know what you don't
18 know. And I think the instructions about how to
19 interpret the rules could really help get
20 everybody on the same page and do the right thing
21 because that's doable in a timely manner, and we
22 look forward to assisting with those discussions

1 as best we can.

2 In addition to the land use history,
3 there are areas that need to be dug into in terms
4 of natural resources, the use of plastic.
5 There's a lot of questions about really looking
6 back at the Organic Foods Production Act, as well
7 as the national listing on plastic, to ensure
8 that those rules are being followed as well, and
9 uniformly.

10 The last thing that I just want to
11 flag for you all is something that's not on the
12 agenda but we see a lot of energy in the
13 marketplace around hemp production and CBD in
14 food products, particularly food grade I'm
15 talking about. We have an opportunity over the
16 next couple of years for organic to really
17 capture market share in the food grade hemp, and
18 I want to flag a few things. You know, we know
19 we have the standards in place for crop
20 production and handling. This is a no-brainer.

21 I'll say one thing and then -- no CBD
22 on 606. That's what we're concerned about, and we

1 want to put a marker out early that we want to
2 drive this market to organic and really
3 discourage entertaining any petitions around CBD
4 on 606.

5 CHAIR BEHAR: Okay. Any comments? I
6 have Scott, Steve, Asa. Okay, go ahead.

7 MR. RICE: Laura, you talked yesterday
8 at the NOP meeting about, kind of related to your
9 earlier comments of continuous improvement and
10 some ideas about how to keep that moving forward.
11 Could you share those with us for the folks that
12 didn't hear that yesterday?

13 MS. BATCHA: Sure, Scott. And I think
14 some of it is relevant to the discussions that
15 we're talking about about the need for some
16 instruction around interpreting the standards for
17 container production and hydroponic.

18 On that topic, I failed to sort of
19 reaffirm the Trade Association's support of the
20 2010 NOSB recommendation to prohibit hydroponic
21 and allow container production, and we had hoped
22 that that process would have moved forward in

1 terms of the development of robust standards
2 there. But we've taken a step back as we're
3 seeing these issues come at us repeatedly, and
4 you hear a lot of this from commenters.

5 So how do we think about evolving the
6 way the public-private partnership functions in
7 terms of an affirmative obligation for USDA to
8 move forward with NOSB recommendations? How do
9 we create an environment where this voluntary
10 opt-in standard has a little bit more flexibility
11 and speed as it moves through government
12 regulatory processes? And in addition to that,
13 how do we think about what's next in the
14 evolution of the accreditation process,
15 specifically as it relates to outcomes?

16 And, you know, we heard some good
17 reports from the program at the meeting yesterday
18 around the peer review audits, and we heard Jenny
19 speak about that this morning, and that's great.
20 But we think there's even more you can do around
21 outcomes that are really around the relationship
22 between NOP and the certifiers and requiring full

1 sort of compliance to outcomes via accreditation.

2 So examples of that might be, Scott,
3 requiring that on an issue everybody articulate
4 what their policy is so that NOP can quickly
5 determine if there's conformance across the board
6 on a question that comes up. Is there a way to
7 establish annual reporting from the ACAs to NOP
8 about what the certifiers have done to implement
9 any new regulations, guidance, handbook updates,
10 instructions over the course of the last year so
11 that there's a check-back, is everybody doing,
12 you know, what we put out there?

13 You know, we have to remember that
14 there are a lot of certifiers that are not
15 operating in the United States. They don't show
16 up at these meetings. It's a global program, and
17 so how do we get real full visibility, not just
18 audit visibility, on what's happening?

19 And I think one of the last ideas that
20 we have around the outcomes is, you know,
21 requiring mandatory participation in trainings.
22 Whether or not they're through that amazing

1 Organic Integrity Learning Center that the
2 program just launched or whether or not they're
3 in-person trainings or whatever, a lot of these
4 issues get resolved by the National Organic
5 Program investing in training, and we need to
6 make sure that there's mandatory participation in
7 those trainings.

8 The last idea we had is a little bit
9 more creative and sort of pushing the envelope a
10 little bit, but it's the idea of establishing an
11 interpretative review panel so that when
12 questions come up about how to apply the full
13 practice standard to a unique circumstance that
14 certifiers are starting to see as a new
15 production system comes into the marketplace,
16 that there could be a convening to look at the
17 whole standard and say what applies, how do we
18 think about it, is there a reasonable place where
19 there's consensus about the answer to the
20 interpretation? And if there is, then NOP could
21 go ahead and issue instructions.

22 So this is like a proactive approach

1 to prevent some of the circumstances that we're
2 experiencing now. If the interpretation is
3 unclear or the results of that inquiry point to
4 the need for a new standard, then that could get
5 referred to the Board and get put on the National
6 Organic Standards Board work plan. But it's a
7 way to be more proactive about driving consistent
8 interpretations.

9 CHAIR BEHAR: So next was Steve.

10 MR. ELA: Yes. I'm going to save
11 Jenny on this one and turn it to Scott. So when
12 you said that you talked to the certifiers about
13 the issue of, like, the glyphosate and things,
14 did that cover, like, spraying something down and
15 putting plastic over it and then putting pots on
16 it, or was it just -- I guess what was the
17 question that was asked?

18 MR. RICE: It was more a response to
19 just the news that was coming that Jenny has been
20 responding to in terms of that we've all been
21 kind of hearing this week of spraying and then
22 allowing production and at, I would say again,

1 without a specific case and without, you know,
2 knowing details, you know, I'm not trying to move
3 away from answering, just, on its face, we
4 wouldn't allow that. That was the gist of that
5 consensus.

6 MR. ELA: And so even if plastic was
7 laid down on top of the ground and there was
8 theoretically a spatial differentiation, that
9 wouldn't be allowed? And I'm not trying to put
10 you on the spot.

11 MR. RICE: You know, I don't think the
12 conversation even went to that. It was just a
13 reaction to spraying glyphosate, would this be
14 allowed, no, it would not be allowed.

15 CHAIR BEHAR: Okay. Next, I have Asa.
16 Later? Next I have Tom. Is he ready to go?
17 Ashley? Who wants to go?

18 MR. CHAPMAN: I'm ready, I'm ready.
19 Laura, transitioning to another topic, I really
20 appreciated the OTA's detailed comments on the
21 fraud initiatives and opportunities there. I
22 also want to take this quick opportunity to thank

1 OTA for the leadership in terms of the fraud
2 initiative it's taken with industry and trying to
3 put preventative practices out there in the first
4 place to root it out before enforcement is
5 necessary, so thank you for that.

6 But going back to your comments, you
7 mentioned the 2018 farm bill and new authorities
8 that were given to the National Organic Program,
9 and that those authorities were not potentially
10 there when we did our work in 2017 or 2018. And
11 so I guess could you provide some examples of
12 what those authorities are and maybe some of
13 those opportunity areas for the NOSB and the NOP
14 to work on that?

15 MS. BATCHA: Sure. Thanks, Tom. I
16 think first thank you for the recognition of the
17 fraud prevention program, and I want to recognize
18 that really all of the hard work on that
19 development was led by Gwendolyn Wyard, VP of
20 technical services. So when she's at the podium
21 tomorrow, you can all give her a round of
22 applause, and her and a very large industry task

1 force did some major heavy lifting on what we
2 think will be an important private sector
3 advancement. So thank you for that.

4 Megan is going to talk a little bit
5 more about sort of, comprehensively, what's in
6 the authorities from the farm bill and how to be
7 thinking about that. I think the one thing, a
8 couple of things that I would share with the
9 Board is, you know, make sure you take a look at
10 it. We attached it to our comments as well,
11 because there are authorities within the farm
12 bill that the National Organic Program is able to
13 use right out of the gate. They don't require
14 regulatory action. They're authorities that they
15 are utilizing now and a number of them that are
16 funneling into this rulemaking that they're
17 doing.

18 Before I share my thoughts about where
19 NOSB could add value in terms of this
20 conversation going forward, because we know those
21 two things are in play, I want to just say, you
22 know, I understand, to the staff at the National

1 Organic Program, that we demand a lot of you guys
2 and we can be hard on our issues because we care
3 so much about the integrity. There is a
4 marketplace out there that relies on these
5 clarifications, and so we often all come up here
6 and we're really focused on the things we need
7 you to do, and we're really focused on the ways
8 we need you all to do your best to help us move a
9 political machine at times.

10 But I don't think we've done enough
11 today to thank you for the tremendous lift you
12 guys have done on enforcement of feed grains
13 coming into this country. To see that data this
14 morning is remarkable, and, you guys, we owe you
15 a debt of gratitude. You've applied creativity,
16 full effort, prioritization to that task. And so
17 I would be remiss to not take a moment and say
18 that because really shutting down that flow out
19 of the Black Sea, that is not an easy task.

20 That leads into my, like, how do you
21 guys think about adding value? You know, we're
22 now in the United States, I believe, in a

1 position where we are ahead of the rest of the
2 world in global enforcement, and that wasn't the
3 case five years ago. And some of the things that
4 put us in that position are our commitment to
5 transparency in the system so that work, early
6 work on the integrity database that's moving into
7 this realm where we can see a future where, we
8 just heard it this morning, mandatory reporting
9 on acreage available to the public. There will
10 not be a program in the world that has that kind
11 of transparency about information to provide the
12 public assurances and investigate things.

13 So we've got to continue to follow
14 those threads around transparency and then ask
15 what happens when we're way out ahead of the rest
16 of the world on transparency, on data, and it's
17 not happening at other places.

18 So I think places that you guys could
19 be thinking about, you asked the question this
20 morning, Tom, about, you know, encouraging
21 communication around complaints. I think with
22 NOP about to stand up this new database system

1 around complaint management, there's an
2 opportunity for a conversation between the Board
3 and the program about, within the parameters of
4 protecting investigations and not exposing things
5 that derail investigations, how far can we go to
6 create transparency proactively? The farm bill
7 does require that the program report annually to
8 Congress on compliance activities, and so, you
9 know, how do you build off of that, work with
10 their new database systems, and come up with some
11 recommendations about what you all think, with
12 input from the community, should be an
13 appropriate level of transparency around
14 complaints.

15 I think another area that we've looked
16 at but we haven't come to a solution and the
17 Board could maybe spend some time on it is: is it
18 viable to develop some sort of trade alert
19 system? You know, we know that the farm bill
20 provides the authority to adopt a risk-based
21 approach and to apply additional scrutiny under
22 certain circumstances. We know the program is

1 obviously using a risk-based approach in their
2 compliance, or we wouldn't be seeing the kind of
3 results that we're seeing. But is there a way
4 that is acceptable within protecting business
5 confidentiality that, when things like the
6 revocation of the accreditation of a certifier in
7 an office in a region of concern happens, that
8 there could be some sort of alert to say look
9 sharp. You know, it doesn't need to disclose
10 perhaps information that would compromise an
11 investigation, but I think that whole idea of a
12 trade alert system is new and requires some
13 consultation.

14 I think, you know, you've worked with
15 the California Organic Products Advisory Council
16 a lot. They've got a different approach to how
17 they disclose complaints and stuff, so there's
18 probably something to learn there as well. But I
19 think those are both areas that the Board could
20 really dig in on and provide a service to the
21 industry and the public and the consumer.

22 The other place that I would just flag

1 is that, as we're getting ahead of the rest of
2 the world in transparency, it creates a situation
3 where, until very recently, I think that the
4 widely-held belief was that having an equivalence
5 arrangement with another country with a net
6 positive in terms of oversight because there was
7 a government-to-government relationship that NOP
8 could leverage to share information. But we have
9 to contemplate, if we've got all this
10 transparency in our database and we've got all
11 this acreage and then we have an equivalence
12 arrangement with Canada, and stuff is coming in
13 under the arrangement and not under a direct
14 compliance regime, we all of a sudden have
15 opacity around acreage there and where those
16 volumes are coming from, and we have opacity
17 about something coming in from the EU.

18 So as we've advanced our system, that
19 needs to be looked at in my opinion, because
20 we're pushing really hard as an industry. I
21 mean, it's a big deal that we'll be the first in
22 the world on mandatory public acreage reporting.

1 It's not -- that's a big, big deal, so I
2 encourage you guys to think about that, as well.

3 CHAIR BEHAR: Okay. Did Ashley have
4 something? No. Asa? I did have one just
5 comment that not only in the scenario where the
6 glyphosate came up, there was also the land had
7 been laser-leveled, you know, kind of scraped and
8 then compacted and then herbicide and then
9 plastic. And so I know the herbicide, you know,
10 that's clear, you know, prohibited substance, but
11 there's also something to treating the soil and
12 turning it into concrete basically, you know,
13 having it flat.

14 That also is something that does not
15 meet the rule, so, you know, so there's just this
16 whole system of production that relies heavily on
17 -- and this is not, like, on a half an acre.
18 This is on 20, 30, 40 acres of complete landscape
19 cloth. And even though it is somewhat -- it's
20 woven, you know, so it does allow some air and
21 some water infiltration, it's not the same as
22 rain hitting grass or even soil. It runs off and

1 things like that.

2 So there's just the greater system,
3 and it's easy for us to jump on the glyphosate
4 but there's other issues as well, when we're
5 relying on covering the ground with many, many
6 acres with solid plastic.

7 MS. BATCHA: Yes, I totally appreciate
8 that, Harriet. And that's why I think our
9 suggestion is to sort of take a step back in
10 those instructions and point to the different
11 places in the standard that you need to be
12 thinking about and how to apply them to different
13 scenarios.

14 You know, I appreciate the program's
15 need to collect information, but I don't think we
16 need to know everything everybody is doing to
17 know what the regulations allow and don't allow.
18 I think we just have to know enough to identify
19 scenarios, and those scenarios can inform
20 instructions.

21 CHAIR BEHAR: Okay. Thank you. Oh,
22 Asa is back.

1 MR. BRADMAN: Yes. So I had a few
2 comments. One, I think your approach to try to
3 develop a system to anticipate and solve problems
4 is really important. I think it's something that
5 we should try to move ahead with, both as a
6 program and also independently under the NOSB.

7 To the issue of hydroponics and
8 container growing, you know, I think we really do
9 need some standards. Echoed just briefly by what
10 Harriet just said, during the debates around the
11 2017 votes I asked for, you know, those kinds of
12 standards from some of the growers involved and
13 really didn't get anything. CCOF did come up
14 with a proposal that doesn't get into the nitty-
15 gritty, but I think that there's a work agenda
16 item both within the community and the NOSB to
17 think about and develop some standards.

18 And there's complexities. Harriet
19 just mentioned issues around rain falling on
20 soil, you know. I've seen many soil-based
21 programs with big hoop houses, and they're
22 planted in the ground but none of that rain is

1 falling on the soil. I've also seen big
2 greenhouse operations in Maine or in the
3 Northeast, where again it's a very controlled
4 environment, it's in the ground, but the rain is
5 not getting into that soil.

6 And I think that there's really a lot
7 of challenges here, but I think we can move
8 forward and that there may be practices that are
9 going on now that wouldn't be in a final
10 standard, but I think there's been neglect to
11 think about standards, and rather there's been an
12 approach to ban a category, and I think that to
13 move forward, that we need to think about a
14 little differently and look at what we might want
15 to make something acceptable. And I know that
16 would be challenging, but I think that could be,
17 to quote a recent suggestion, kind of a middle
18 path forward.

19 MS. BATCHA: Yes. And I think that
20 that doesn't preclude the need for immediate
21 instruction on what we know now and what we have
22 no for the standard. And I think as I look back

1 at the debate, the recommendations, at least at
2 the time that were moved forward for voting, were
3 really much more about what was happening in the
4 pot than what was happening on the farm. And
5 maybe we weren't asking fully the right set of
6 questions at the time.

7 MR. BRADMAN: And, finally, to move
8 forward, maybe, you know, I look at some of the
9 signers on this letter, you know. Maybe we could
10 convene a group that not just includes these,
11 these are all pretty large producers, but perhaps
12 on a regional basis or some other basis can
13 really develop a template for an approach to
14 developing standards. I think that would be a
15 very positive move.

16 CHAIR BEHAR: Well, thank you. And with
17 that, I don't think I can use the gavel. That's
18 only at the very end, but this just looks -- it's
19 just calling to me. Anyway, thank you for the
20 end of the day, and tomorrow morning, 8:30 a.m.

21 (Whereupon, the above-entitled matter
22 went off the record at 6:14 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: National Organic Standards Board
Spring 2019 Meeting

Before: USDA

Date: 04-24-19

Place: Seattle, WA

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



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UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2019 MEETING

+ + + + +

THURSDAY,
APRIL 25, 2019

The Board met in the Courtyard Ballroom at the Renaissance Seattle Hotel, 515 Madison Street, Seattle, Washington at 8:30 a.m., Harriet Behar, Chair, presiding.

PRESENT:

HARRIET BEHAR, Chair
STEVE ELA, Vice Chair
SCOTT RICE, Secretary
SUE BAIRD
ASA BRADMAN
JESSE BUIE
TOM CHAPMAN
LISA DE LIMA
RICK GREENWOOD
DAVE MORTENSEN
EMILY OAKLEY

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR

STAFF PRESENT:

MICHELLE ARSENAULT, NOSB Advisory Board

Specialist, National Organic Program

DAVID GLASGOW, Associate Deputy Administrator,

National Organic Program

DR. PAUL LEWIS, Ph.D., Director, Standards

Division, National Organic Program

CLARISSA MATHEWS, Ph.D., National List Manager

DEVON PATTILLO, Materials Specialist, National

Organic Program

DR. JENNIFER TUCKER, Ph.D., Deputy

Administrator, National Organic Program;

Designated Federal Official

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

2 8:32 a.m.

3 CHAIR BEHAR: Okay. Thank you
4 everyone. Good morning and welcome to the second
5 day of the 55th public NOSB meeting, and we are
6 going to start with public comment today, and
7 then in the afternoon we will move to
8 Subcommittee reports, our Materials Subcommittee,
9 Compliance, Accreditation and Certification
10 Subcommittee and Livestock Subcommittee are on
11 the agenda.

12 So before we start, I just want to
13 give you some ground rules for giving public
14 comment. Public input is an important part of
15 the NOSB decision-making, and be assured we do
16 listen and depend upon your ideas and
17 suggestions.

18 All persons wishing to give public
19 comment sign up prior to the meeting, and
20 speaking slots are served on a first-come basis.
21 When we hit our limit, we put people on a wait
22 list in case there are cancellations.

1 Comments are limited to one per person
2 for each NOSB meeting, and if you spoke at the
3 webinar or yesterday, you cannot speak again in
4 person at this meeting. Proxies are not allowed.

5 If we call your name and you're not in
6 the room, we'll try to come back to you if time
7 allows. We're going to try to have everyone
8 who's on our schedule get through today, so
9 hopefully we won't get too far behind.

10 I ask that members of the public
11 please try to take any side conversations
12 outside, and members of the public as well as
13 members of the Board, please mute your phones and
14 your computers so that we can clearly hear the
15 speakers who are providing comment.

16 You are allowed to take photographs,
17 but please do not distract either the Board or
18 the speaker during that activity. Each speaker
19 has three minutes and is Michelle there.
20 Michelle, do you want to go over the way the
21 timer works?

22 MS. ARSENAULT: Yes. So there's a

1 clock now on the podium and it will start at
2 three minutes and count down to zero, and it
3 gives you one beep when you have one minute left.

4 Don't be alarmed by that, and then it
5 will beep incessantly when your time is up, and
6 I'll stop the timer at that point. Otherwise, it
7 will start counting back up again to show you how
8 much time you've gone over your three minutes.

9 There's also a slide advancer on the
10 podium. For those of you who have PowerPoint
11 presentations, you can advance your own slides
12 and then I can show you. There's two buttons on
13 it, so you can go back or forward. Thanks.

14 CHAIR BEHAR: Thank you, Michelle.
15 Commenters have three minutes, and once that's
16 completed, I will then ask the Board members if
17 there are any questions for that specific
18 speaker.

19 Lastly, individuals providing public
20 comment to the Board are asked to refrain from
21 personal attacks that might impugn the character
22 of any individual, and if I hear that type of

1 speech I will interrupt the speaker and ask them
2 to refrain from that activity.

3 So I will call on the person who is
4 next to speak and also announce the person on
5 deck. The area on deck is right next to
6 Michelle, and feel free to grab an animal or a
7 marine animal or whatever you see over there as a
8 souvenir or just my gift to you for sharing
9 biodiversity on the planet.

10 So first up is Mike Dill, and after
11 Mike is Michael Crotser, and I should know how to
12 say his name because I know him. Thank you,
13 Mike. Please state your name and affiliation.

14 MR. DILL: All right, good morning.
15 My name is Mike Dill, and I'm the Food Safety and
16 Compliance Manager for Organically Grown Company.
17 I'm also the coordinator for Organic Produce
18 Wholesalers Coalition and of course would like to
19 thank the NOSB for their time and dedication to
20 organic integrity.

21 Please note that today my comments
22 represent both OPWC and OGC. OPWC members are

1 required to comply with FDA's preventative
2 control rule for human food and foreign supplier
3 verification program, FDA's Bioterrorism Act and
4 good manufacturing practices. We have to comply
5 with third party audits, customer audits and
6 we're also subject to FDA's mandatory recall
7 authority.

8 I just want to state on the record how
9 important sanitizers are to our operations,
10 because preventing the adulteration of food is
11 essential to our organic businesses, and in fact
12 is essential to every food business. NOSB
13 members have stated now that the intent of this
14 comprehensive review is not to remove any
15 sanitizers from the National List, but we remain
16 unconvinced because the logical outcome of
17 evaluating for uniqueness would seem to eliminate
18 all but one unique material in each category.

19 We submitted detailed comments on
20 sanitizers expressing our concerns that one,
21 moving forward with a technical report before
22 stakeholders were able to provide input was

1 premature and not transparent, two, the concept
2 of uniqueness, the idea that there can only be
3 one sanitizer per use or function is not
4 supported by OFPA, and does not address the well-
5 known need to rotate sanitizers to avoid
6 resistance problems, and three, developing new
7 evaluation criteria specifically for sanitizers
8 may not comply with OFPA.

9 The OFPA criteria and current
10 evaluation process is sufficient and is working.
11 If you look the petition for SDC, you'll see that
12 the evaluation process is working just fine
13 without using criteria other than those in OFPA.
14 In this scenario, a new sanitizer was petitioned.
15 It's promising because of its alternative mode of
16 action, but we are still evaluating it against
17 the environmental and human health criteria from
18 OFPA because new information continues to be
19 presented by stakeholders and public comment. It
20 appears that we're still in the discovery phase
21 and we're not ready to make a decision yet.

22 When new information comes out, we

1 deserve the time to review, research and respond.
2 In order for the evaluation process to
3 effectively apply the OFPA criteria, especially
4 for products that present information that is new
5 to most of the members of the organic community,
6 we must allow for an iterative process that
7 includes the petitioner, NOSB members, technical
8 experts, affected parties and other organic
9 stakeholders to interact over time.

10 Applying the OFPA criteria is a
11 process that requires careful consideration, open
12 minds and creative outlooks to balance elements
13 of a complex system which at times may conflict
14 with each other. We do not need additional
15 criteria, but rather the patience and
16 perseverance to apply the OFPA criteria, which
17 serves for evaluation of all other types of
18 materials. Thank you.

19 CHAIR BEHAR: Any questions from the
20 Board? Mike, I have one. So are you thinking
21 that if we do a TR on understanding the mode of
22 action of various active ingredients in

1 sanitizers, that we will no longer review
2 products as they come to us as petitioned, and
3 just do it internally and not in front of the
4 public? Is that your concern?

5 Because you mentioned that you wanted
6 the sanitizers to be reviewed in the public eye.
7 So I just want to make sure that you understand
8 that we will still do that.

9 MR. DILL: Yes. I'm not sure if
10 that's what I said.

11 CHAIR BEHAR: Okay.

12 MR. DILL: I was asking that we have
13 a deliberative process with everyone involved,
14 where we still review the materials against OFPA
15 criteria. So I'm not suggesting a change to any
16 process. Did I answer that correctly?

17 CHAIR BEHAR: Okay, Ashley? Okay.
18 Ashley.

19 MS. SWAFFAR: Yeah. So you have
20 concerns over uniqueness. Can you talk about the
21 rotational use of sanitizers in your operation,
22 and why maybe just one sanitizer for an

1 application wouldn't work?

2 MR. DILL: Sure. So we would like to
3 rotate more than we're able to. Unfortunately,
4 we have some pieces of equipment where -- that we
5 lease from manufacturers, so they don't allow us
6 to. They say you have to use this material,
7 because otherwise to use one over the other it
8 might be corrosive, it might damage the
9 equipment.

10 So but we do, and we do it more for
11 environmental sanitation. I will just state that
12 in our operation, we don't use any direct contact
13 sanitizers. We're not applying, we don't use
14 water in our operation. So we're not
15 disinfecting water, we're not -- we don't have
16 water baths.

17 So it's more important for our
18 suppliers than it is for us, because they are --
19 they have many more uses. We're sanitizing table
20 tops, you know. So but we do. We use our
21 hypochlorous acid, which we generate on site,
22 electrolyzed water, and we use that on our table

1 tops daily and in between our repacks. So we do
2 repacks throughout the day.

3 So we might do -- we might sanitize a
4 table 50 times throughout the day. But at the
5 end of the week, we use our peracetic acid and
6 we'll do a full clean up, clean down, wash down
7 of the equipment. So we would love to have more
8 options in terms of sanitizers, especially with
9 different modes of action, and that's why SDC is
10 appealing to us and it was from the very
11 beginning.

12 We were in support of it until we saw
13 the environmental, the potential environmental
14 impacts of using it outside of municipal systems.
15 I think that's been addressed. However now, you
16 know, with some new information that came to
17 light about the potential use of silver in wounds
18 and dressings, and that's a little outside of,
19 you know, my expertise and our expertise.

20 So we're hoping that we can now look
21 at that information, take that into
22 consideration, potentially postpone a vote and,

1 you know, evaluate it against the new information
2 that came to light, and kind of get into this
3 iterative process where we can, you know,
4 actually take the time to research all the
5 aspects of the material so we can come to a fair
6 and proper decision.

7 CHAIR BEHAR: Tom.

8 MR. CHAPMAN: I have two questions for
9 you. You've answered my SDC question I was going
10 to toss at you. Can you, can you spend a little
11 time talking about the difference between
12 cleaning and sanitizing?

13 MR. DILL: I can. So cleaning, I mean
14 these are actually terms that are defined, and
15 when I went to Oregon State University for Food
16 Science, which is what I got my degree in, our
17 very first class was food sanitation. And the
18 very first chapter of the book we had was
19 explaining the difference between cleaning and
20 sanitizing.

21 Cleaning is defined, I'm going to
22 paraphrase, as the removal of dirt and residues

1 from the surface of the -- from the surface, and
2 then sanitation is the actual like destruction of
3 cells or -- I mean they define it more in terms
4 of what the reduction of bacteria is.

5 So if you have a 5-log reduction, then
6 you've actually sanitized the surface. So one,
7 you can't sanitize a surface that hasn't been
8 cleaned first, and that's why the standard
9 operating procedure in any restaurant and retail
10 operation anywhere you go is clean, rinse,
11 sanitize.

12 So you clean off all the debris so
13 that you can go through and sanitize and get that
14 kill step.

15 MR. CHAPMAN: And then my second
16 question is you talked a bit about your use of
17 sanitizers is mostly environmentally based in
18 your operation, and we've had comments or
19 questions earlier about good agricultural
20 practices and whether or not, you know, a high
21 level of good agricultural practices would
22 eliminate the need for sanitizers or negate the

1 need perhaps. Can you, can you speak a little
2 bit to that?

3 MR. DILL: I could, and that's a
4 conversation I love having and I wish we had, you
5 know, hours to talk about this. But good
6 agricultural practices will help reduce the
7 contamination of produce out in the field. It
8 covers personal hygiene as well. So it does have
9 some preventative practices.

10 FSMA's the same, the same kind of
11 process, is that they're trying to prevent as
12 much as possible. However, there's so much out
13 there in the environment that you can't account
14 for everything. If you remember, we grow produce
15 in the dirt outside with animals, with all the
16 environmental factors out there, and we're, you
17 know, so we're subject to a lot.

18 But the -- in my opinion and the
19 research I've done is that the biggest concern is
20 the post-harvest handling. So I think a good
21 example is there might be a single head of
22 lettuce that comes in with some contamination.

1 Maybe an animal dropped by, you know, and visited
2 that lettuce.

3 If you put that in water with another
4 1,000 pounds of lettuce, you can contaminate that
5 whole 1,000 pounds. So it's that post-harvest
6 processing that can really make a small incident
7 into a large one.

8 And so we can't just rely on good
9 agricultural practices and say that, you know, if
10 they're following their GAAP practices, best
11 practices, that there's not going to be any
12 contamination. The potential's still going to
13 exist.

14 And there's other items out there too,
15 you know. I'm not familiar with what
16 certifications are out there for livestock or
17 meat, poultry. I don't, you know, that's not my
18 area so I can't speak to that. But GAAPs aren't
19 going to solve the problem. They're helpful but
20 it's not a failsafe.

21 CHAIR BEHAR: Rick.

22 MR. GREENWOOD: Yeah, quick question

1 for you. Have you seen any resistance from the
2 sanitation agents that you've used? I assume
3 you do follow-up cultures? Have you found
4 resistance. A lot of people talk about
5 resistance, but in fact I wonder if you've ever
6 seen it?

7 MR. DILL: I have not seen it and I
8 don't want to see it. So what we're trying to do
9 is be as preventative as possible. I think
10 that's a concern and one of those that we don't
11 really want to take a chance with. Developing
12 some kind of an anti-microbial resistance in any
13 pathogen would, I mean that could be devastating.

14 MR. GREENWOOD: No, I get that. But
15 the question is when you use the sanitizer that's
16 that strong, the odds are you probably won't have
17 resistance. I think the issue with microbial
18 resistance to antibiotics, which I think is what
19 people are referring to, is low levels of an
20 antibiotic.

21 The sanitizers are high levels, and
22 it's very hard for things to live through that.

1 So I just wonder if this is truly a real issue.

2 MR. DILL: I don't have an exact
3 answer for you. I haven't done a ton of
4 research. We use our sanitizers at as low a
5 concentration as we can. We're relying on the
6 whole process, so the cleaning, the rinsing and
7 the sanitation.

8 We just try to follow best practices,
9 and I'll admit I'm not an expert in sanitation.
10 I mean I manage food safety and like most of the
11 folks in this room that have facilities, we have
12 questions, we look to our sanitation reps and
13 we're consulting with them. That's kind of what
14 we pay them for.

15 So I know how we use it and why we use
16 it. But when it comes to all the technical
17 expertise, those folks aren't here in the room.
18 I mean I'm not sure. I know PURE Bioscience has
19 some folks here, and they would probably be more
20 able to answer specific questions like that. I
21 just don't have the time to --

22 MR. GREENWOOD: Okay. Well it's just

1 it's been used a lot when we talk about
2 sanitizers about resistance, and if used properly
3 I don't know, you know. Not many things can get
4 away from chlorine. And so I just wonder if it's
5 a real issue or something where people are
6 thinking about anti-microbial agents like
7 antibiotics at low level. Anyhow, that's my
8 question. Thank you.

9 CHAIR BEHAR: Okay. Thank you, Mike.
10 Sorry, Emily.

11 MS. OAKLEY: Just a quick one. I just
12 wanted to help clarify some of the questions
13 about process for this document, which is -- so
14 the intent is, you know, to get a technical
15 review and we would never come out with like a
16 proposal as a direct result of that. It would
17 then be a discussion document and potential
18 multiple discussion documents to engage
19 stakeholders.

20 It's also -- I don't think we're
21 looking to do a proposal for this. I think we're
22 looking for information. I think it's a little

1 bit similar maybe to the process that took place
2 with marine materials, because this topic came
3 out of many meetings and public comments asking
4 for this sanitizer review.

5 So it's not something, you know, that
6 came from the NOSB directly. It came out of
7 public comments. So I do think that, you know,
8 in that materials process they came to some
9 issues in the 2015 sunset review, did a technical
10 review, came out with a discussion document.

11 I mean that then led to proposals,
12 which I don't think is necessarily the intent of
13 this. I just want to clarify that the intent is
14 not to get a technical review and then come out
15 with proposals to remove materials.

16 MR. DILL: Sure. No, and thank you.
17 That's why in our comments, I mean I think we
18 submitted 18 pages on this. So if we're going to
19 proceed, you know, that's what our comments
20 reflect.

21 What we're talking about today is kind
22 of more of the, you know, developing a

1 deliberative, step by step process to make sure
2 that we have the right people in the room, and we
3 give folks the chance they deserve to get the
4 information in front of us.

5 Sometimes when you have, you know, one
6 meeting, you hear something. You don't get to
7 comment or the public doesn't see anything until
8 the next meeting. Then we have 20 days to try to
9 do as much research as we can. So it just, it
10 makes it tough. So that's kind of what we were
11 focusing on today.

12 And then I just if I can, I just have
13 one more kind of request, and that is to -- to
14 see if we can align more with industry in the way
15 that we use certain terms. Like I don't know how
16 ancillary ingredients is used in this, in this
17 discussion document.

18 I look for any reference of ancillary
19 ingredients and sanitizers and it doesn't exist.
20 So I would just suggest that we stick with terms
21 that are used in the industry, such as inerts or
22 non-active ingredients, so that we're -- it just

1 makes it a lot easier to understand.

2 So and the same with the uniqueness,
3 you know. If the intent isn't to have a one of a
4 kind material, then we should probably use a term
5 other than uniqueness, because if you look at the
6 definition for uniqueness it's one of a kind. So
7 that's how we came to that conclusion, that the
8 intent is to get to one material per use. So
9 that's just my request.

10 MS. OAKLEY: Yeah. Thanks for those
11 clarifications.

12 CHAIR BEHAR: Thank you. Mike, I
13 think you're up next. Thank you Mike. Mike and
14 Mike, Michael, Mike and Michael. Please state
15 your name and your affiliation, and next up is
16 Rebecca Willows on deck.

17 MR. CROTSEY: I'm Michael Crotser, the
18 certification manager at CROPP Cooperative.
19 Thank you for the opportunity to speak today. We
20 support the relisting of celery powder on
21 205.606.

22 Over 25 percent of the organic meat

1 company sales are products that contain celery
2 powder. This includes hot dogs, meat sticks,
3 sland yager (phonetic), meat bars, jerky, deli
4 ham, summer sausage, pepperoni, bacon and spiral
5 hams.

6 In 2018, these sales represented \$9
7 million and over one million pounds of product.
8 We are exploring organic celery powder production
9 research strategies with Dr. Erin Silva at the
10 University of Wisconsin. However, variety,
11 selection and production strategies did not
12 provide consistent and reliable results.

13 CROPP Cooperative is committed to this
14 project through continued FAFO funding. Several
15 plant species have been identified by Dr. Jeff
16 Sindelar at the University of Wisconsin-Madison.
17 Potential substitutes include charred yellow
18 beets, spinach and other leafy vegetables.

19 However, these alternatives have low
20 nitrate conversions when compared to celery
21 powder. There are no alternatives at this time,
22 so we ask that you re-list celery powder to

1 prevent disruption in organic commerce.

2 My second comment is to support
3 relisting of fish oil and gelatin on 205.606.
4 CROPP Cooperative uses gelatin encapsulated fish
5 oil for omega-3 supplemented milk SKUs. In 2018,
6 we sold over one million gallons of fortified
7 milk, which equates to \$7.8 million in sales and
8 roughly nine million pounds of farm milk.

9 Removal of fish oil would result in
10 discontinuation of this product line. When
11 researchers polled consumers on what nutrients
12 they believe their diets lacked, omega-3 was at
13 the top of their response. Voluntary standards
14 exist for purity and contaminants. This includes
15 Global Organization for EPA and DHA Omega-3, GOED
16 and the COAC standard for fish oils.

17 Health Canada is a federal program
18 which also establishes legal limits. Our
19 supplier participates in the GOED program. Our
20 fish oil is the secondary product of fish meal
21 production utilizing sustainable fish standards
22 that are established by the Marine Stewardship

1 Council of Fisheries, Friends of the Sea and a
2 responsible supply of fish meal and fish oil will
3 verify that production maintains or improves
4 aquatic ecosystems.

5 We also support relisting of gelatin.
6 Gelatin has a function in the fish oil. It's
7 sourced from tilapia skins, from commercial
8 harvests. The function of gelatin is to
9 encapsulate the fish oil to reduce the fish smell
10 and ease the handling of the powder. Thank you
11 for your time for me to comment this morning.

12 CHAIR BEHAR: Any comments. Lisa?

13 MS. DE LIMA: So can you just clarify?
14 So when you're purchasing the fish oil that you
15 use in the milk, it actually comes through with a
16 certification from the MSC, showing that it meets
17 -- did you say MSC?

18 MR. CROTSEY: Yes.

19 MS. DE LIMA: Marine Stewardship
20 Council. Were you just giving general examples
21 of how fish oil can be sourced, or can you
22 specifically trace back on the lots that you get

1 that they're certified MSC?

2 MR. CROTSER: Yeah. Our supplier is
3 certified. I believe it's by the Marine
4 Stewardship Council of Fisheries. I think that
5 would be in their comments, and we can secure a
6 certificate for that to verify. They also have
7 additional environmental statements and other
8 things that we look at when we choose a supplier.

9 CHAIR BEHAR: Any other comments? I
10 have a question. I don't know if you have the
11 answer. In your -- in the Organic Valley public
12 comments you talk about a material called
13 Methiomax that is being looked at. I did talk
14 with David Bruce. That is some kind of
15 methionine enhancer, and I thought sure I know
16 the ingredients.

17 I don't know the manufacturing process
18 or anything like that and it comes from Belgium,
19 I believe. I believe Organic Valley trying to
20 see if the FDA will allow it for chicken feed.
21 But I'm just wondering if you have any
22 information on how much, if that's being fed with

1 the methionine, what type of lowering of
2 methionine would we be able to accomplish, or is
3 it just to kind of enhance what's already there?

4 I don't understand how the product
5 works, but it was in your public comment.

6 MR. CROTSEY: Yeah. David Bruce put
7 that together for the Coop. My understanding of
8 that Methiomax, it's an herbal product or a
9 plant-based product that increases availability
10 of methionine in a feed ration. I don't know
11 exactly or specifically how that does, so I don't
12 want to misspeak on that. I would suggest that
13 connecting with David Bruce on that would be best
14 for a proper answer.

15 CHAIR BEHAR: Can Organic Valley get
16 us some information before we do our vote in the
17 fall?

18 MR. CROTSEY: Yes, we certainly can do
19 that for you.

20 CHAIR BEHAR: Thank you. Anyone else?
21 Okay. Next up is Rebecca Willows, with Johanna
22 Mirenda on deck. Hello Rebecca. Please state

1 your name and affiliation.

2 MS. WILLOWS: Hi. My name is Rebecca
3 Willows, and I'm the senior compliance specialist
4 at Organically Grown Company, with over 30 years
5 of experience in the organic produce industry. I
6 manage organic certificates from over 800
7 certified operations, ranging from simple crop
8 farms to more complex wholesale distributors,
9 grower groups and uncertified handlers.

10 I participated on OTA's Global Organic
11 Supply Chain Integrity Project, and OGC is now an
12 active member of OTA's Organic Fraud Prevention
13 Solution Program. We are also an associate
14 member of the Accredited Certifiers Association,
15 and I participated in many of their working
16 groups, including several best practice documents
17 and the standardization of certificates.

18 I support the NOSB's move to require
19 certification for all operations that buy, sell
20 or handle organic products. There are many
21 instances of handlers who take advantage of the
22 exclusion and are buying and selling organic

1 products without regard to transparency, or
2 managing documentation that provides a vital link
3 from the grower or handling operation to the
4 products they sell.

5 Without certification of the full
6 supply chain, certified handling operations bear
7 the burden of performing verification activities,
8 who must then trace the documentation back to the
9 last certified operation, which can be difficult
10 and time-consuming.

11 To enhance transparency, I support a
12 rule change to require a clear linkage between
13 package labeling and the information on the
14 certificate and shipping documents. This clear
15 correlation would not only dramatically reduce
16 the risk for fraud, it would also increase the
17 efficiency of the supply chain by decreasing the
18 amount of time needed to verify product as it
19 moves through the marketplace.

20 The rules regarding non-retail
21 containers of organic products used to ship or
22 store raw or processed agricultural products

1 which may be labeled as containing organic
2 ingredients should be changed to require the
3 identification of the product as organic, and to
4 list the name and contact information of the
5 final handler of the product, and include the
6 name and contact information of the certifier and
7 the final handler.

8 I ask the NOSB to support rule changes
9 related to product labeling and documentation
10 that are detailed in OPWC's written comments. I
11 applaud the move to require certifiers to input
12 data into the NOPs, since in practice some
13 certifiers are not actively updating the NOP OID
14 until a complaint is filed.

15 The contents of the NOP OID are
16 basically unreliable and are mostly not current.
17 In addition, the taxonomy of certified products
18 does not necessarily correctly identify the
19 product. For example, avocado is often listed
20 broadly as fruit.

21 I support and have joined the ACA's
22 working group focused on creating a consistent

1 taxonomy and urge the NOSB to support a
2 conversion, the mandated conversion of the NOP's
3 OID to a real time database. Thank you, and I
4 welcome your questions if you have any.

5 CHAIR BEHAR: Any questions from the
6 Board? Thank you, Rebecca.

7 MS. WILLOWS: Thanks.

8 CHAIR BEHAR: Thank you for the time.
9 Johanna Mirenda is next, with Dean Wesen on deck.

10 MS. MIRENDA: Okay. Good morning. I'm
11 Johanna Mirenda, the Organic Trade Association's
12 Farm Policy Director. So my job is to develop
13 policy strategy through producer engagement in
14 the interest of our mission and our members.
15 Here we are at another NOSB meeting, another
16 massive 200 page meeting packet, and another
17 wimpy 22 day comment period.

18 That's just 16 business days to
19 address ten proposals, seven discussion documents
20 and 51 sunset materials. In this amount of time,
21 it's impossible to carry out an effective comment
22 development process. At the trade association,

1 we represent over 9,000 businesses, so we have
2 this incredible ability to reach thousands of
3 certified organic operators of all sizes and
4 scopes across the whole value chain, and collect
5 thoughtful and representative feedback on the
6 issues before you.

7 But with only 22 days, we miss out on
8 that valuable opportunity. It's a huge
9 disappointment to the public stakeholders and a
10 disservice to your hard work of the Subcommittees
11 to develop the meeting materials. We urge the
12 Board and members of the organic community to
13 voice this concern to the USDA.

14 Something is fundamentally broken and
15 needs to be fixed so that we can make the most of
16 the NOSB's work and this important process of
17 shaping the organic standards through stakeholder
18 input. So on that note, we weren't able to fully
19 engage on a couple of the topics such as marine
20 materials. We support the Board's ongoing work
21 on this topic.

22 Seaweeds are widely used and put on

1 organic farms, and there's a lot of information
2 and implications to consider. But we ask the
3 Board to keep working on this topic, and to keep
4 the current discussion document open through to
5 the fall meeting, which will give us time to
6 establish a member task force, and deeply engage
7 and respond to the discussion questions.

8 And on the issue of vaccines, due to
9 the time constraints we weren't able to endorse
10 any one of the specific options. But in general,
11 we think all the options are going in the right
12 direction, which is to carve out a very narrow --
13 a very narrow and discrete allowance for the use
14 of excluded methods vaccines as in alignment with
15 the current regulations.

16 And while OTA does not promote the use
17 of GMO vaccines, we also see that its
18 unacceptable to move forward with any
19 recommendations that prohibit the use of vaccines
20 from excluded methods when there's no
21 alternatives.

22 So we want to thank the Board and the

1 previous Livestock Subcommittee members that have
2 put a tremendous amount of work into the topic of
3 vaccines over the past decade. We've come a long
4 way since the 2009 recommendation, and also
5 thanks to the Materials Subcommittee, which has
6 done work on excluded methods terminology, which
7 has really helped this topic move forward.

8 Both the vaccines issue and the marine
9 materials issue have brought forward really
10 comprehensive discussion documents, and that
11 speaks to the importance for an appropriate
12 public comment period so that we as stakeholders
13 can give it a fair shot and deeply engage with
14 that important information. So I'm happy to
15 respond to any questions you may have.

16 CHAIR BEHAR: Thank you, Johanna.
17 Okay. Sue, Steve and Emily. Go ahead, Sue.

18 MS. BAIRD: Johanna, you're the Farm
19 Policy Director for OTA, so you must have a lot
20 of dairy farmers in your membership. So I want
21 to ask you a question, and if you'll bear with me
22 I want to read the rule. 205.236, Origin of

1 Livestock. We've known for all the years of the
2 rules, we've got a problem with A.

3 A discusses -- 205.236(a) discusses
4 the origin of transitioning or the origin of
5 livestock, including the dairy. So we go through
6 that. We know we've got this ambiguous, entire
7 distinct herd thing, which has caused some
8 consternation over time.

9 We get that solved and we say oh, take
10 a breath. Oh now B. B says the following are
11 prohibited. (1) Livestock or edible livestock
12 products, I would think that would be milk, that
13 are removed from an organic operation and
14 subsequently managed on a non-organic operation
15 may not be sold, labeled or represented as
16 organically produced.

17 I thought hmm, that's pretty specific,
18 but maybe there's some problems here because I'm
19 hearing -- have you heard from your livestock
20 dairy operations that we're allowing baby calves
21 be born, obviously brought onto the organic farm,
22 fed in the hut, whatever, and they take it out

1 and then brought back in? Have you heard that
2 from your farmers, because I've heard that here
3 and it amazes me.

4 MS. MIRENDA: We unfortunately have
5 heard that practice. We wholeheartedly disagree
6 with that practice and do not believe it's
7 compliant with the regulations.

8 To demonstrate our disagreement, we
9 galvanized our membership last fall and voiced
10 our concern to actually this Board, which
11 resulted in a resolution being passed to close
12 that loophole and get the final origin of
13 livestock rule published.

14 We've also communicated directly with
15 the USDA on this specific topic and had a number
16 of our dairy producer members sign onto a letter
17 to publicly demonstrate that they also disagree
18 with that practice.

19 MS. BAIRD: Thank you. I actually
20 took time last night to go into the preamble,
21 because sometimes preamble -- well, preamble is
22 the intent of the law.

1 MS. MIRENDA: Yeah, love the preamble.

2 MS. BAIRD: I do too. Page five says
3 -- of 31 in the preamble says "Should an animal
4 be brought into an organic operation pursuant to
5 this section and subsequently moved to a non-
6 organic operation, neither that animal nor any
7 products derived from that animal may be sold,
8 labeled or represented as organic."

9 So I appreciate you taking a stance
10 against it, so I guess I would address NOP, how
11 do you perceive this?

12 DR. TUCKER: Okay. First good morning
13 everybody. So we agree. We agree there is
14 inconsistent implementation of origin of
15 livestock. There has been a very unified message
16 coming from the community, your unified
17 communication to the Department and to the
18 program. About this as a priority for the
19 community has helped us in moving along this
20 rule.

21 And so we are grateful for that
22 feedback. Origin of livestock has been an area

1 of contention for many, many years. And so there
2 is a proposed rule out from 2015. We hope to
3 move as fast as possible, working through a legal
4 process to gain clarity on this issue.

5 CHAIR BEHAR: Thank you. Steve.

6 MR. ELA: Suggestions from you of how
7 we can improve the -- I mean we continuously hear
8 the short comment period, you know. We get
9 caught between the rock and the hard spot of
10 having Subcommittees have time to work on things
11 and get things to NOP and the reality is it takes
12 them a while to vet everything that we send to
13 them.

14 Do you have thoughts of how we could,
15 I mean short of just us having to get materials
16 to the program earlier so they can get it out
17 earlier, but that means we can work on less? Do
18 you have any other ideas?

19 MS. MIRENDA: It may be worth looking
20 at, you know, after the Subcommittees submit your
21 information, what is the time between the program
22 or the USDA reviewing it, so that the

1 Subcommittee meeting materials can get out to the
2 public. What's happening between, like what's
3 happening in that window between when you finish
4 your work and we see it on our end?

5 From what I've heard, maybe that
6 period is too long. Are there possibilities that
7 the agency or the program can work with you all
8 to make that process a little bit smoother and
9 maximize the amount of time that you all have to
10 do your work, and that we have to do our work to
11 respond.

12 DR. TUCKER: So I agree with the
13 comments made about we have to give the
14 Subcommittee time to work. This is a document
15 that has a whole lot of information in it that's
16 posted on the USDA website. And so there is a
17 process of both us reviewing the documents and
18 then explaining internally what these documents
19 are, why they are important in getting the
20 clearance through.

21 I actually think that that process is
22 by government standards quite quick, that it

1 takes time to explain what are all of these
2 documents? What do they mean? What are the
3 implications of them? What is the Board process?
4 When we have new people in the review process,
5 sometimes that takes a little bit longer to walk
6 them through.

7 Okay, this is what the Board is, this
8 is what the Board does, this is how they proceed
9 with their work. We see that actually as a great
10 education opportunity, to teach people about the
11 Board and the importance of its work. It does
12 sometimes add a few days here and there to the
13 time line.

14 We are doing the best we can to move
15 that clearance process through. I think we have
16 gotten it as short as we -- as we probably can.
17 I just want to be clear on what's possible here.
18 But before something goes up on a government
19 website, you know, a lot of people need to
20 understand what it is, and that's part of the
21 process.

22 MS. MIRENDA: Fully understood, and

1 thank you for your work on that. We want to make
2 sure that this process of the NOSB development of
3 materials and the stakeholder feedback is really
4 operating to its fullest extent, because we
5 defend this process on a daily basis. This is a
6 critical part of the organic world that we live
7 in, so we want to make sure its functioning to
8 its best ability and continuously improving.

9 CHAIR BEHAR: Emily.

10 MS. OAKLEY: Thank you for your
11 comments on marine materials and the suggestion
12 to keep the current discussion document on the
13 open docket through the summer and into the fall,
14 which would hopefully then tie into an expert
15 panel. I like the idea, of course, of soliciting
16 feedback from your members for a task force.

17 I'm wondering if you have any sense of
18 what some of those outcomes might be, what some
19 of the questions that might be asked and the time
20 frame for delivering that information to the NOSB
21 on the open docket?

22 MS. MIRENDA: Yeah, thank you Emily.

1 So the establishment of a member task force is
2 the mechanism by which the trade association
3 develops policy positions. We don't operate as
4 staff in a vacuum. We really fully engage with
5 our membership. So that takes time. We have a
6 broad reach.

7 In terms of the outcomes, we would
8 want to look at the specific discussion questions
9 that are being posed, along with some of the
10 unanswered questions that we started to touch on
11 in our comments last comment period and this one
12 again around the feasibility of organic
13 certification option, the impacts of a supply
14 chain, the other options presented in the
15 discussion document and implications of those,
16 all under the understanding of this is a
17 conversation we want to have.

18 We want to move towards more
19 sustainable sourcing of inputs, but doing it in a
20 thoughtful way. So by keeping the discussion
21 document open, we know exactly what we're
22 responding to. We've got the questions. We're

1 not, you know, like some of us sitting at our
2 computers waiting for the meeting materials to
3 post and then rushing to get our membership
4 engaged. We'll know exactly what we're
5 responding to.

6 CHAIR BEHAR: Dave and then Ashley,
7 and we are 25 minutes behind right now. So just
8 I ask both the Board and the speakers to try to
9 have the answers and the questions be succinct.
10 Thank you.

11 MR. MORTENSEN: Yeah just quickly, and
12 it's really more maybe for the Board and the NOP
13 folks. It seems to me that one solution to the
14 turnaround time would be to push the meeting
15 later, and somehow give folks, I don't know. It
16 does seem to me that when you think about it,
17 you're reviewing things. You're going to ask
18 your folks that you work with to engage.

19 It seems to me that it's probably more
20 like a two month, realistically a two month
21 turnaround, not a 20 day one. Like where I work
22 at the University, any place at work you give

1 them two or three weeks to review a dissertation.
2 That's one person going through a 200 page
3 document.

4 Here, there's a process of iterative
5 feedback from your clientele. It seems to me
6 it's a couple of months, I would think, to do due
7 diligence.

8 MS. MIRENDA: Yeah. Sixty days would
9 be ideal.

10 CHAIR BEHAR: Ashley.

11 MS. SWAFFAR: Just an easy question
12 here. So we heard a lot or a few people talk
13 about the concern over the sanitizer discussion
14 document. Do you feel that NOSB has existing
15 tools in our toolbox to conduct consistent
16 reviews of sanitizers, without having to do this
17 new project?

18 MS. MIRENDA: Yes. I think that what
19 we were missing and seeing in the discussion
20 document is acknowledgment of those existing
21 tools. We were looking for how does this new
22 concept fit into the existing framework of OFPA

1 criteria, petition process, technical report
2 process. So I think that using the existing
3 tools of obtaining technical reports for new
4 materials, using your authority to ask for
5 additional focus areas in addition to that
6 technical report template is a good option.

7 Asking for technical reports to
8 compare similar materials so that you can
9 directly compare, for example, the gums TR from
10 last year looked at seven different gums,
11 comparing and contrasting specific modes of
12 action and other characteristics.

13 Another concern we had with that
14 discussion document was the fact that a technical
15 report was requested before this concept was
16 fully fleshed out. We don't understand how the
17 evaluation criteria and the discussion document
18 fit into the existing OFPA criteria and NOP
19 requirements for review.

20 So we need to have more clarity on
21 that. I think it will serve the Board better to
22 get more clarity on what the goals of the

1 discussion document are, and then go to a
2 technical report if needed with a very clear
3 scope of work, and it would probably result in a
4 better end document.

5 CHAIR BEHAR: Thank you, Johanna.

6 Next up is Dean Wesen, with Marie Burcham on
7 deck. Please state your name and affiliation.
8 All right. You chose a baby chick.

9 MR. WESEN: Hello. My name is Dean
10 Wesen. I'm a dairy farmer. I live about a hour
11 and a half north of here. I drove down here on
12 this beautiful day and I don't know why I'm here
13 but I'm here anyway. Sue put it very nicely for
14 us. She explained why I'm here.

15 I'm talking about the origin of
16 livestock. Dr. Tucker knows all about it, and
17 every time we come to these meetings we hear that
18 the NOP is working on it. But it takes time, but
19 how much time? They used to say it took money,
20 but now I'm under the impression that the NOP has
21 a lot more money.

22 So last night I was at a track meet.

1 Kids like track because the rules are clear and
2 they're out in the open. My son throws a shot
3 put. There's a five or six foot circle. You
4 stay inside the shot put. You have this 12 pound
5 ball. You do whatever you want inside that
6 circle, throw the ball. Whoever gets it the
7 farthest wins.

8 Each kid doesn't get to bring their
9 own referee with them. They all have the same
10 referee. Everyone follows the same rules. There
11 isn't anyone there saying well, my kid weighs
12 less so he should get a ten pound ball. My kid
13 is not as good or whatever. Everyone plays by
14 the same rules. That's why kids love track.

15 I appreciate the Board. I saw that
16 you guys passed that resolution last meeting. I
17 would just like to thank you for that and read
18 the last paragraph.

19 "Therefore, be it resolved by
20 unanimous vote, the National Organic Standard
21 Board at USDA's Federal Advisory Board on Organic
22 Issues and representing organic farmers,

1 ranchers, processors, retailers and consumers,
2 urge the Secretary to directly issue a final rule
3 for the origin of livestock."

4 Every month farmers have to try to
5 make ends meet, and the longer this drags out,
6 we're losing farmers every month. I just wish
7 that something could get done. Thank you for
8 your time.

9 CHAIR BEHAR: Any questions from the
10 Board? I have one question. Do you think that
11 the calves that you raise on your farm from birth
12 and then at six months they go out on pasture as
13 their rumens develop, do you think that they are
14 healthier cows and more ready to be pasture-based
15 than cows that might be raised in confinement on
16 grain during that same time period, and then come
17 back and have to then learn how to graze?

18 MR. WESEN: I think all cows love to
19 graze, even the conventional cows that are locked
20 in a barn. They look up outside and see the
21 grass and they'd love to go out in the grass. I
22 think it's bred into them.

1 But your question of do they do better
2 later on in life? I would say yes, as long as
3 they don't get worms or any other problems that
4 could develop when they are out there at that
5 young age. But beef cattle do it all the time.

6 But beef, you know, beef is bred
7 different than dairy and dairy is -- part of the
8 dairy problem is that the animals have been bred
9 for generations to stand behind the feed gate and
10 stand there and eat and make a lot of milk. So
11 it's a little bit of transitioning there.

12 CHAIR BEHAR: Thank you.

13 MR. WESEN: Thank you for your time.

14 CHAIR BEHAR: Okay. Marie Burcham is
15 next. Please state your name and affiliation,
16 with Marisol Oviedo on deck.

17 MS. BURCHAM: Good morning. I'm Marie
18 Burcham.

19 (Off-microphone comments.)

20 MS. BURCHAM: All right. Sorry about
21 that. Can you hear me now? I'm Marie Burcham,
22 the Director of Domestic Policy for the

1 Cornucopia Institute. I am also an attorney with
2 a background on animal and environmental law. We
3 stand by the fact that the organic label isn't
4 just about the substitution of inputs. The rules
5 and the regulations make that clear.

6 But the industry has moved away from
7 holistic practice. We urge the NOSB to continue
8 the hard work required to uphold organic
9 integrity. Organic is about fostering soil
10 health, having the livestock outdoors, on land
11 managed to improve, not degrade its quality.

12 It's about supporting native
13 ecosystems and improving local communities, all
14 while providing the food that is both nutritious
15 and safe for families. When the organic
16 livestock and poultry practices rule was
17 discarded, it was clear to many stakeholders that
18 the NOP was rubber-stamping industrial poultry
19 practices. Confinement-based poultry businesses
20 are breaking the current organic rules because on
21 a basic level every bird does not have access to
22 the outdoors.

1 The loss of the OLPP signified an
2 absolute breakdown of public process. The
3 majority of commenters and the public input was
4 in favor of some kind of regulation. You've also
5 heard from family scale dairies. Cornucopia
6 hears from farmers and our members all the time
7 echoing these concerns.

8 They are losing their farms and their
9 homes due to a perceived loophole in the rules.
10 When farms are like these are lost, many
11 consumers will lose their trust in the organic
12 label. If consumers lose all trust in the
13 organic label, the organic label is lost.

14 Big and small farms will be at risk.
15 The difference is the industrial-scale producers
16 can go back to conventional marketplace. That
17 will not be an option for most family scale
18 farms. There is a theme among these problems, a
19 lack of consistency in how the rules are applied.
20 For many in the industry, there now appear to be
21 two organic labels.

22 We urge the NOSB to aggressively push

1 for these issues with the NOP. We need
2 clarification about the three year land
3 transition period. It is disturbing that what is
4 apparently clear language in the soil fertility
5 and nutrient standard is being muddied.

6 We need accredited certifiers to
7 enforce current and future rules consistently.
8 If we need new rules to provide that consistency,
9 then we need them now. We urge the NOSB to act
10 to the extent they have authority. Your work and
11 recommendations represent the voice of the
12 organic stakeholders for the USDA.

13 If your efforts are fine tuned to
14 support real organic farmers, you can help save
15 the organic label. Thank you for your time and
16 hard work on all these issues.

17 CHAIR BEHAR: Any questions or
18 comments from the Board? Thank you, Marie.
19 Marisol Oviedo is next, with Kelly Pepper on
20 deck.

21 MS. OVIEDO: Good morning and thank
22 you for the opportunity to comment today. My

1 name is Marisol Oviedo, and I am with the
2 Northwest Horticultural Council located in
3 Yakima, Washington. The Northwest Horticultural
4 Council or NHC represents growers, packers and
5 shippers of apples, pears and cherries in Oregon,
6 Idaho and Washington, on federal and
7 international policy and regulatory issues.

8 While the NHC submitted written
9 comments on a number of invaluable tools for
10 organic tree fruit growers, today I will focus my
11 oral comments on the need to allow the continued
12 use of hydrogen peroxide, horticultural oils and
13 pheromones in the National Organic Program.

14 In many ways, the Pacific Northwest is
15 the epicenter for organic palm fruit and cherry
16 production in the U.S. Washington state is the
17 national leader in the production of organic
18 apples, pears and cherries. Over 18 million
19 boxes of organic apples are now harvested from
20 more than 28,000 acres, amounting to over 90
21 percent of the entire organic apple crop in the
22 U.S. There is also a significant amount of

1 organic pears and cherries.

2 Hydrogen peroxide is used in the crop-
3 setting as an effective anti-microbial pesticide
4 in orchards to sanitize picking bags, pruning
5 shears as well as for plant disease control for
6 pathogens like fire blight and powdery mildew.
7 It is also used in the packing house setting to
8 disinfect belts and brushes for food safety
9 purposes. Hydrogen peroxide is used by almost
10 all organic tree fruit growers.

11 Horticulture oils are used as part of
12 growers' integrated pest management strategies,
13 to control mites, pear psylla, leaf hoppers,
14 codling moth and apple aphids. These pests cause
15 significant damage to tree fruit. 100 percent of
16 all organic growers use this product.

17 Pheromones are also of great
18 importance to organic tree fruit production, used
19 for meeting disruption of pests which include
20 codling moth and leafrollers. They're essential
21 to the control of these pests. Pheromones are
22 used by 100 percent of organic tree fruit

1 growers, and loss of this material would be
2 catastrophic.

3 The NHC also understands that the NOSB
4 will be considering a discussion document on
5 sanitizers. We emphasize the critical need for
6 organic growers, packers and processors to have
7 access to multiple effective sanitizers, both now
8 and in the future. The number of food-borne
9 pathogen outbreaks related to fresh produce has
10 increased in recent years, and cross-
11 contamination of produce from food contact
12 surfaces has often been identified as a primary
13 contributor.

14 Access to effective sanitizers is
15 vital to preventing food-borne pathogens from
16 becoming established in packing houses. The
17 ability to rotate sanitizers as well as to use
18 different sanitizers on orchard tools versus
19 packing house food contact surfaces is necessary
20 to prevent developing resistance.

21 In addition, with the implementation
22 of FSMA that are now in effect, growers, packers

1 and processors are required by law to adequately
2 sanitize food contact surfaces. On behalf of the
3 growers and packers we represent, the NHC
4 strongly supports the continued use of these
5 vital tools for insect control. Thank you.

6 CHAIR BEHAR: Steve.

7 MR. ELA: With regard to pheromones,
8 I know the interpretation has been generally that
9 like can applied misters, but sprayable
10 formulations are not allowed. But we don't have
11 that annotated per se. Do you know of any
12 growers using sprayable formulations that would
13 actually contact the fruit and its pheromones?

14 MS. OVIEDO: I don't know of any. I
15 know that we use a lot of the twisty ties so --

16 MR. ELA: Yes, which would be non-
17 contact.

18 MS. OVIEDO: Right.

19 MR. ELA: Do you think there's any
20 issue with us needing to annotate that or is it
21 -- does the system work fine?

22 MS. OVIEDO: That is something that we

1 would probably have to vet through our
2 stakeholders so --

3 CHAIR BEHAR: Any other questions?

4 Thank you, Marisol.

5 MS. OVIEDO: All right, thank you.

6 Thank you for the chicken.

7 CHAIR BEHAR: Next up is Kelly Pepper
8 with Alexander Strauch, DVM on deck.

9 MR. PEPPER: I am Kelly Pepper with
10 Texas Organic Cotton Marketing Coop of Lubbock,
11 Texas. Our members have historically produced a
12 large majority of the organic cotton grown in the
13 U.S. I'm here today on behalf of these farmers
14 to urge you to renew the inclusion of hydrogen
15 chloride for delinting cotton planting seed on
16 the National List.

17 In respect for your time I will not
18 repeat many of the details in the written
19 comments. In light of the major issues that are
20 being discussed at this meeting, which are
21 drastically affecting so many organic farmers, I
22 feel apologetic taking time on an issue that

1 involves so few. However, an inability to plant
2 seed delinted with hydrogen chloride would have
3 similar devastating results for our farmers.

4 I will summarize our comment on
5 hydrogen peroxide and then briefly address some
6 seed issues. At the last sunset of this product,
7 we were hopeful that a mechanical delinting
8 process that was under development might be in
9 commercial use by now.

10 Unfortunately, this has not happened
11 and we have detailed the current status of that
12 research in our written comments. So what
13 remains essential for the cotton industry in the
14 U.S. I am so sorry. Can we proceed from where I
15 was?

16 CHAIR BEHAR: Okay. Please speak into
17 the mic. Like lift it up if you talk -- yeah,
18 much better. Thank you.

19 MR. PEPPER: I'm sorry. At the last
20 sunset of this product, we were hopeful that a
21 mechanical delinting process that was under
22 development might be in commercial use by now.

1 Unfortunately, this has not happened and we've
2 detailed the current status of that research in
3 our written comments.

4 So it remains essential for the
5 organic cotton industry in the U.S. that hydrogen
6 chloride continue to be allowed for delinting
7 cotton planting seed until an approved,
8 alternative process is perfected and in use by
9 seed companies.

10 In my opinion, one of the reasons that
11 an alternative to acid delinting of cotton
12 planting seed for organic production has not
13 become available is the fact that the acreage of
14 organic cotton is so limited. There's just not
15 enough volume to make it worthwhile for seed
16 companies to pursue.

17 In a similar vein, I'm concerned that
18 this volume issue has potential parallels in the
19 strengthening the organic seed guidance proposal
20 and in the genetic integrity transparency of seed
21 discussion document. While we agree that both
22 are addressing important issues, our farmers and

1 perhaps growers of some other small acreage crops
2 are dealing with very fragile seed supplies. We
3 would ask that this be kept in mind as these
4 proposals move forward.

5 Regarding GMO testing of planting
6 seed, let me say that GMO contamination is a huge
7 issue for us, and I appreciate the Board tackling
8 with very difficult issue. In the cotton world,
9 seed breeders struggle to keep GMO contamination
10 under two percent in their breeding programs.

11 So it's only natural that commercial
12 non-GMO varieties often have even higher levels.
13 I would note that in my understanding from
14 conversations within biologic personnel, that the
15 fairly economical and detailed testing methods
16 that are available for corn are not available for
17 cotton at this time.

18 In closing, I want to thank you for
19 the sacrifices in your personal and business
20 lives that serving on this Board entails.

21 CHAIR BEHAR: Any comments from the
22 Board? I want to thank you. I visited, I

1 believe, your family's farm outside of Lubbock,
2 at IOIA organic cotton training.

3 MR. PEPPER: Well, I'm sure your
4 connection with my sister-in-law --

5 CHAIR BEHAR: Yes, LaRhea, yes. So
6 thank you and growing cotton is a very unique
7 crop.

8 MR. PEPPER: Thank you.

9 CHAIR BEHAR: Okay. Next up is Dean
10 Wesen -- I'm sorry. Alexander Strauch and then
11 Bjarne Pedersen is on deck. I'm sure I messed
12 that one up.

13 DR. STRAUCH: I have a PowerPoint.
14 Wonderful, thank you.

15 (Pause.)

16 DR. STRAUCH: All right. I will be
17 assisted by your technical team. Thanks for
18 letting me stall. Good morning everybody. My
19 name is Dr. Alex Strauch. I am a poultry
20 veterinarian from Michigan and I'm trying to
21 impart some Midwestern friendliness to Seattle,
22 but it's really hard to break through. I'm

1 outside.

2 I'm here to speak to you today
3 regarding methionine supplementation in
4 organically raised laying hens. Please proceed.
5 I don't want to take up too much of your time
6 with my bio, so I'll be brief. I'm a licensed
7 veterinary doctor. I work in Michigan and
8 Indiana, and I am a city kid originally from
9 Metro Detroit.

10 I did not grow up next to birds, hogs,
11 pigs or horses, but I consciously spent 11 years
12 researching, studying and working in the
13 agricultural sector due to my conscious effort to
14 enter agriculture and have a voice in the food
15 system and animal welfare.

16 My bachelor's degree is in Zoology and
17 my Veterinary Medicine degree is in -- was
18 concentrated in agriculture. I hope this gives
19 me a balance view of the big picture that we try
20 to work within.

21 To use some choice words here, I am
22 not brainwashed or desensitized to livestock

1 practices that have been used over generations,
2 and we have an opportunity here to ensure animal
3 health, animal welfare, food safety and
4 environmental stewardship through this meeting.
5 Again, thank you.

6 The Methionine Task Force yesterday
7 did a great job laying down this framework, so I
8 won't take too much time again. But the due
9 diligence is methionine is not only an amino
10 acid, a building block for a protein, it is an
11 essential amino acid and in addition it is the
12 limiting essential amino acid for poultry. This
13 is species-specific for poultry.

14 What that means in short is this is a
15 rate-limiting factor for normal biological
16 functions, as in we cannot pass go and collect
17 200 if we do not have enough methionine for these
18 birds to function.

19 Proceed. This ties into -- oh, I've
20 got to hurry up -- the negative impacts of
21 intentional or unintentional methionine
22 deficiency as listed yesterday are retardation of

1 growth, a hindered immune system, agitation,
2 which leads to pecking, feather-eating, feather
3 loss, cannibalism, which is very much tied into
4 stress and pain.

5 We can proceed to the next slide.

6 Decreased ag production and retardation of growth
7 then in turn become an environmentally hostile
8 practice. I aim to look at this problem or
9 opportunity as holistically as possible. With a
10 less efficient bird, we then consume more
11 resources to produce less eggs. This
12 irresponsible utilization of resources will
13 result in a higher environmental footprint.

14 Proceed. I welcome, the U.S. should
15 welcome and the Board should welcome advances in
16 these alternative methionine supplies to support
17 our organic market. I'm excited to hear our talk
18 about them yesterday, today and in the future.

19 We should also look at genetic selection for
20 laying hen breeds that will require less
21 methionine through traditional breeding
22 practices.

1 As it states today, currently we do
2 not have a commercially available alternative.
3 Thus, please allow me to keep supplying my hens
4 with the necessary essential limiting amino acid
5 that they need. Thank you guys.

6 CHAIR BEHAR: Thank you. Any
7 comments, questions from the Board? Ashley, I'm
8 looking over at you.

9 DR. STRAUCH: Hi.

10 MS. SWAFFAR: Hi. Yeah, so one of the
11 alternatives that we've heard a little bit about
12 is fish products. Can you talk a little bit
13 about using those in your diets and maybe some
14 issues or what you see with using fish products?

15 DR. STRAUCH: Understood. The
16 question was fish meal as an alternative for
17 methionine supplementation instead of synthetic
18 DL methionine. Fish meal, other than not
19 currently being allowed through no animal
20 byproduct regulations, has some cons that I can
21 think of right off the top of my head.

22 One, it's very short shelf life. Two,

1 that gives me a salmonella risk, which would have
2 to be dealt with through internal measures. It
3 is dealt with through internal measures at other
4 operations but that is additional risk and three,
5 it has a very unintended consequence of making
6 your egg product fishy, which is a problem for
7 those who do not like fish. Sir.

8 CHAIR BEHAR: I believe Scott's next,
9 then Dave and Sue.

10 MR. RICE: Hi. Your last bullet there
11 talks about selecting for breeds that require
12 less methionine, but I believe in the
13 presentation yesterday, Dr. Burley had said that
14 there were no breeds. Are you talking about
15 future development and looking for how that can
16 happen?

17 DR. STRAUCH: Yes sir, we're on the
18 same page. That would be looking towards the
19 future, which I would welcome with open arms.
20 The current, how do I say, turnover time for
21 genetic selection at the major genetics
22 companies, and then effects seen at market level,

1 which would be me, is about four years is the
2 rule of thumb when we have major characteristic
3 changes done on a genotypical level before we see
4 them phenotypically. So patience is a virtue.

5 CHAIR BEHAR: Dave. Oops, I'm sorry.
6 Dave.

7 MR. MORTENSEN: Alexander, you said
8 that you take a holistic approach to the problem.
9 I was curious about how the size of flocks that
10 are being managed constrains the holistic
11 solution set of management, or does it?

12 DR. STRAUCH: Understood. This sounds
13 similar to the discussion that was done
14 yesterday. Yeah, okay. With the -- the question
15 was regarding size of operations and whether that
16 impacts the holistic management of organic
17 flocks, as it specifically relates to methionine
18 supplementation. Okay, thank you.

19 So pros and cons is the short answer.
20 The cons of having smaller flocks that are
21 pasture-raised to have this .42 percent access to
22 insects and worms and possibly a frog here and

1 there, are that you then have higher parasite
2 load. I really value the ability of choice, and
3 as I see time and time again, I actually have
4 managed a couple of million birds at this point,
5 and provided them veterinary care.

6 When given the choice, the bird
7 chooses to possibly poke its head outside and
8 then return inside. The ancestor of the
9 commercial chicken today was the red jungle fowl
10 out of Africa. This is a jungle-dwelling
11 organism that thrives with canopy cover and not
12 direct sunlight.

13 The birds are curious, and mental
14 stimulation is important. But I see time and
15 time again birds look outside, turn around and
16 then go back in. Maybe it's a sense of security,
17 but the access to pasture and the smaller
18 operations is not the one-size-fits-all or silver
19 bullet.

20 CHAIR BEHAR: Sue.

21 MR. MORTENSEN: Thanks.

22 MS. BAIRD: We know that chickens are

1 dinosaurs. Therefore are --

2 DR. STRAUCH: They're velociraptors,
3 yes.

4 MS. BAIRD: Yes absolutely, yes. So
5 explain to those who don't know what is the
6 source of natural methionine that would make it
7 to be limiting, and why do we need a synthetic
8 methionine?

9 DR. STRAUCH: Great age-old question.
10 Yes, the chicken is a modern hand-held
11 velociraptor, you're absolutely correct. These
12 chickens that we have are what I consider Olympic
13 athletes, and as such, we do not give Olympic
14 athletes the same supplementation or food or diet
15 that we give to my Uncle Rick who's in a
16 recreational bowling league.

17 He requires a very different diet to
18 prosper and thrive than does the, you know,
19 Jamaican 100 meter dashers. We have gotten so
20 precise and so scientific with the best way to
21 most efficiently nutritionally support these
22 animals that we are giving them the Olympic

1 treatment when it comes to their diet, and not
2 the backyard barbeque that fuels every bowling
3 league that I know. Yes ma'am.

4 (Laughter.)

5 CHAIR BEHAR: Go ahead, Sue.

6 MS. BAIRD: I suppose the point I was
7 hoping you would make is that methionine comes
8 from meat and bone meal, and they are required
9 because they are dinosaurs to eat meat. They're
10 omnivores. I just wanted to make that point.
11 And so if we can't give them meat and bone, then
12 we have to find methionine from some other
13 source. Is that correct?

14 DR. STRAUCH: Yes. So if given the
15 opportunity, a chicken is omnivorous, so they are
16 opportunistic omnivores, if I can say that. The
17 pros and cons of then giving them the options for
18 bug or insect supplementation or meat and bone
19 meal supplementation is in the basis of food
20 safety.

21 I can have a more confident view of my
22 feed inputs if I leave out wild bugs. Wild bugs

1 or how do I say, yeah or black soldier fly
2 larvae, which is talked about here and there.
3 That is regards to salmonella, E. coli,
4 campylobacter and listera monocytogenes. Those
5 are my risk factors that again, pros and cons
6 seems to be the common theme to my responses.

7 CHAIR BEHAR: Okay. I have one quick
8 question.

9 DR. STRAUCH: Yes.

10 CHAIR BEHAR: I think one of the
11 reasons that methionine each time brings up a lot
12 of comment is that it is a synthetic, and we
13 would prefer that humans and animals would be
14 getting most of their nutrition from the
15 agricultural products that they are consuming.

16 So I'm just wondering if you know
17 anything about Methiomax and that herbal
18 supplement that would at least lessen, as I
19 understand it, the need for the synthetic. It
20 wouldn't get rid of it, but it would enhance the
21 absorption I believe.

22 Now again, I don't know as much as

1 what I'm trying to hear, but on the Internet it
2 did show that it's even consumed by humans in
3 like muscle-building drinks and that sort of
4 thing. I'm familiar with all three of the herbs.
5 They're all typically consumed by humans or used.
6 So do you know anything about that product?

7 DR. STRAUCH: Great. Thank you for
8 mentioning it yesterday as it piqued my interest,
9 and between yesterday and today I've been able to
10 do a limited amount of Googling regarding this
11 product, and that constitutes the basis of my
12 knowledge of Methiomax. Regarding Methiomax --

13 CHAIR BEHAR: Mine too.

14 DR. STRAUCH: Yes. Other than the
15 online forums of people who I can't pronounce
16 their names, some are over in the Far East, I
17 cannot find the same structured peer reviewed
18 journal articles that I would hold similar
19 supplements to currently available, due to my
20 limited Googling yesterday. I am a very open-
21 minded person.

22 I will pursue Methiomax for research

1 purposes internally when I go ahead and manage
2 flocks in the future. But then I need to also
3 think about commercial availability and that is
4 my next follow-up question and homework to do
5 over this next year, is Methiomax commercially
6 available and is it a legitimate product.

7 CHAIR BEHAR: Well, I believe Organic
8 Value is working with FDA to try to get it
9 approved, and any information that you find out
10 about it, we would really love to hear about it.

11 DR. STRAUCH: Yep, independent review.
12 I will definitely share with anyone that would
13 like to hear it.

14 CHAIR BEHAR: Okay. Thank you very
15 much.

16 DR. STRAUCH: Asa?

17 CHAIR BEHAR: Asa's got a question.

18 DR. STRAUCH: Oh sorry.

19 MR. BRADMAN: I just want to
20 understand the differences between European
21 organic standards and U.S., and how they're
22 dealing with DL methionine, and whether that

1 there's any information that are applicable here.

2 DR. STRAUCH: Okay. Thank you for the
3 question. For the rest of the room, he would
4 like to know how Europe is dealing with DL-
5 methionine supplementation compared to how we are
6 dealing with it.

7 I am licensed in the United States.
8 There were some background documents before this
9 meeting that came out regarding how Europe deals
10 with that. So I will defer the answering to
11 somebody who knows the answer that's possibly on
12 the Board.

13 CHAIR BEHAR: Okay, thank you. All
14 right. We're going to move on to the next
15 person.

16 DR. STRAUCH: I'm sorry. I don't know
17 how Europe deals with it.

18 CHAIR BEHAR: Yeah. Okay, thank you
19 Alex. Next up is -- all right I'm going to say
20 Bjarne Pedersen, or do you say the B?

21 MR. PEDERSEN: Yeah. It's Bjarne
22 Pedersen.

1 CHAIR BEHAR: All right. Well, I
2 really got that one wrong.

3 MR. PEDERSEN: It's a Danish name.

4 CHAIR BEHAR: Thank you, and then up
5 on deck is Jay Kurtz.

6 MR. PEDERSEN: Right, thank you. I'm
7 Bjarne Pedersen, and I'm going to comment on
8 paper pots. I'm a consultant working for the
9 Danish company Ellepot, selling a paper pot
10 system. Ellepot is testing the materials and the
11 paper and I'm pleased to share some of the
12 results. I also shared some of them in the
13 written comment.

14 We're testing fibers and paper
15 degradation. The first samples here are testing
16 plastic fiber and wood fibers to compare them as
17 a sample of polyester, which is used in many
18 hygiene products and also in some papers. I
19 compare it to cellulose, and as you can see even
20 after eight days I have some discoloration on the
21 cellulose.

22 After 35 days, the cellulose is almost

1 completely gone, and as expected nothing has
2 happened to the polyester and looking in a
3 microscope, I couldn't even find any fungus
4 hyphae or anything else growing on it. I also
5 looked up some research on soil burial testing
6 comparing cellulose and some bioplastics, in this
7 case PLA, and after 200 days the PLA, which is
8 the blue square on the bottom is the same and the
9 cellulose on the top is almost gone.

10 And then I'll show you a few results
11 from some papers that I've been testing. The
12 first one is a coffee filter that I took from the
13 company canteen. After 35 days, it's actually
14 completely gone. I could find a few things in
15 the microscope after 30 days.

16 Secondly, Ellepot developed a paper
17 which is approved for organic in the United
18 Kingdom and in Denmark, and after 35 days most of
19 it is gone. Finally, I also took newspaper, the
20 local newspaper in the canteen and I must say
21 much to my surprise almost nothing happened
22 during the period of 35 days.

1 I'm going to look into that a little
2 more. What I've learned so far from one of the
3 paper mills that I'm working with is that the
4 newspapers are challenged financially and one way
5 of lowering the cost is lowering the number of
6 cellulose fibers, because it's an expensive
7 product, and they can add in more glue and some
8 coating to make it printable.

9 This probably causes this well, bad
10 degradation. I hope papers over here are doing
11 better. Anyway, we're testing a lot on materials
12 on degradation because Ellepot wants to make sure
13 that the product does go away when left in the
14 soil. So that concludes my comments and I'm open
15 for any questions.

16 CHAIR BEHAR: Steve, Emily.

17 MR. ELA: Would you -- so as we're
18 talking about synthetic materials and paper
19 production aids, let's say, my understanding is
20 you're moving to rayon, which is a cellulose-
21 based product versus -- I mean Rand's probably
22 classified it as a synthetic because of the

1 chemical process.

2 But that's going to be behave
3 differently in the soil from what you've seen
4 than say a polyester, some other plastic fiber,
5 other synthetic fiber?

6 MR. PEDERSEN: Yeah. I compared the
7 three main types of cellulose fibers, the
8 standard cellulose from some wood and then the
9 two modified ones, rayon as you mentioned and
10 also the lyocell fibers. These three seem to
11 degrade almost simultaneously. The variation is
12 too insignificant.

13 So within one or two months, it will
14 have degraded completely, depending on
15 conditions. The soil burial test probably has a
16 very lower level of oxygen present that will
17 prolong this time of degradation. But compared
18 to plastic fibers like polyester, I mean the
19 plastic will stay there for I don't know how
20 long.

21 And also we've been looking a lot into
22 bioplastic fibers, because some of them

1 certifiable as composable. But we've learned
2 over the years that for instance PLA, that's why
3 I took it up here, it doesn't work in soil.
4 We've had products buried for seven to ten years
5 and nothing really happened.

6 I know that Ellepot really have a hard
7 time recommending it for growth, using it for
8 plant out because it's going to stay there, and
9 Ellepot doesn't really want to leave that impact.

10 MR. ELA: So if -- I mean we're
11 struggling with synthetic fiber content in a
12 paper pot. Would there -- would you be able to
13 give us any guidance on what percent of synthetic
14 fibers? I mean I'm hearing if it's rayon, we
15 really need no other synthetic plastic fibers in
16 a product to make it useable.

17 Do you think we should -- as the
18 Subcommittee struggles with how much to allow in
19 a paper product what -- do you have a percentage
20 of fibers that would maybe across the industry
21 might keep a pot, make a pot useful but also let
22 it break down, or can you give any insight on

1 that?

2 MR. PEDERSEN: Well, I think I kind of
3 wish to look at it a little differently, because
4 at Ellepot, they try to work with sort of the
5 paper materials and the plastic materials as two
6 groups of materials, and the paper materials
7 could be any kind of plant fiber. Even the
8 modified rayon and lyocell fibers because they
9 are degrading in the same manner as the cellulose
10 fiber.

11 On the plastic side, that doesn't
12 really matter that it's oil-based or bio-based.
13 It's a different matter, and they really don't
14 want to put that into the paper that is going to
15 be used, especially in the organic sector but
16 also many other sectors because it's going to
17 stay there for maybe a thousand years, I don't
18 know.

19 I know that the lyocell and the rayon
20 would be considered synthetic. But still their
21 way of acting when they're put in soil is similar
22 to the cellulose fiber, and that is the view of

1 Ellepot, that they consider that to be the same.
2 The percentages of this is somehow also used to
3 design the product's life span for the user.

4 Right now, without anything else in
5 it, 35 days this organic grade that I showed you,
6 is too short. For many growers, the paper need
7 to sustain a certain strength for handling at
8 plant out situation, and most cultures are not
9 ready within 15 to 20 days.

10 So we are really looking for solutions
11 to prolong the life for at least two to three
12 months. Then most of the young plant cultures
13 would be stepped up or planted out into the
14 field.

15 CHAIR BEHAR: Emily.

16 MS. OAKLEY: Thank you. This was
17 really helpful and informative, and I was
18 wondering if the newspaper that you showed from
19 your coffee break room trial was a glossy
20 newspaper or a non-glossy newspapers, and
21 depending upon your answer I'll have to follow
22 up.

1 MR. PEDERSEN: It was a non-glossy,
2 and that is also why it quite surprised me that I
3 didn't really see -- I saw some -- on one of the
4 samples I had two vials going. One of the
5 samples I saw some fungus trying to a foot in,
6 but after a week or so it sort of stopped.

7 I'm actually over here collecting a
8 few newspapers to bring home, just to see,
9 testing more newspapers just to learn are there
10 differences in the market and why are the
11 differences together with the paper supplies.

12 They are making the analysis of the
13 products to understand what is in them, and we
14 can learn how do they degrade. I guess for this
15 local one I wouldn't recommend anyone wrapping
16 their fish and chips in it, certainly not.

17 MS. OAKLEY: So yeah, just to follow
18 up. I find that very interesting, and I think as
19 we struggle in the CS, we're certainly not
20 wanting to create an annotation for paper as a
21 planting aid. That would be more strict than the
22 current annotation that we have right now.

1 But our supplemental TR for
2 newspapers, while thorough in many areas, can't
3 be totally comprehensive, and I think this photo
4 that you show demonstrates some of the complexity
5 of this issue and knowing what's already allowed
6 in terms of synthetic fibers and adhesives, and
7 how that may compare with a product or a material
8 that could be used as a planting aid.

9 CHAIR BEHAR: I have just a quick
10 question. Have you tried either hemp or flax
11 linen as natural fibers? Those do tend to break
12 down more slowly in the development of your pots
13 along with the cellulose?

14 MR. PEDERSEN: We have. We had this
15 first test that I showed you part of here was
16 quite huge in range. I'm sorry I'm not able to
17 disclose all of the things. I have some non-
18 disclosure agreements with some of the suppliers.
19 But yes, we have tested several fibers and we're
20 bringing in more products to test, because
21 designing new papers for the future is viable for
22 Ellepot as the new single use directive in Europe

1 rules out plastics.

2 Being bio-based or oil-based doesn't
3 really matter, and paper pots being single use
4 products maybe are first in line for the
5 directive to date. But it is coming, and they
6 need to find solutions to rid out all the plastic
7 contents.

8 CHAIR BEHAR: Thank you. Thank you
9 very much.

10 MR. PEDERSEN: You're welcome.

11 CHAIR BEHAR: Okay. Next up is Jay
12 Kurtz with Harry Rice on deck. Jay, your name
13 and affiliation please?

14 MR. KURTZ: Good morning. My name is
15 Jay Kurtz, and I'm speaking today on behalf of
16 Devro. Devro is a maker of collagen gels for the
17 food industry, primarily used as the skin in the
18 making of sausages. I do appreciate the
19 opportunity to speak in today's session, to
20 follow our petition through the entire process.

21 I'd like to thank the Board and the
22 Handling Subcommittee for consideration of

1 Devro's petition, to include collagen gel on
2 205.606. We appreciate the level of research and
3 discussion put forth by this group, resulting in
4 a fair and accurate overview of collagen gel.

5 Today in the United States,
6 approximately 50 percent of the fully cooked
7 sausage category has transitioned from
8 traditional intestine casing and cellulose casing
9 in favor of collagen gel. The food safety of the
10 sausages made using collagen gel as the casing is
11 unparalleled, and the quality of the products is
12 of the highest standard.

13 As the market continues to evolve, the
14 ability to meet consumer demands for skin on
15 organic sausages is limited to intestine casings,
16 which is a significant barrier to organic growth.
17 If the Board accepts the Subcommittee's
18 recommendation to add collagen gel to 205.606, it
19 is our hope that the ability for organic products
20 will be more available for consumers, shifting
21 toward the now widely-accepted co-extruded
22 sausages.

1 I'm aware that there were questions
2 raised by Board member Asa Bradman to Jim Paskind
3 of Salm Partners in the recent webinar on April
4 the 18th, in relation to adequate supply of raw
5 material to make an organic gel. Currently due
6 to the absence of an identify preservation system
7 in place and the low population of organic
8 options that meet required specification, there
9 is not a position to take presently to make
10 organic collagen co-extrusion gels.

11 As the availability of potentially
12 organic skins grow, the ability to make a gel
13 from organic-sourced skins should grow as well.
14 At this time, growth assumptions enabling a
15 market large enough to make a certified organic
16 gel are unknown and premature, but growth in this
17 category could certainly be a leading indicator.

18 However, I do want to point out it is
19 important to reiterate that it's not merely the
20 critical mass that we need to exist; it's the
21 right mass that can meet the right specification
22 to make a functional gel. Thank you for your

1 time this morning and for consideration of this
2 amended petition.

3 CHAIR BEHAR: Any questions from the
4 Board?

5 MR. BRADMAN: Yes.

6 CHAIR BEHAR: Okay, Asa.

7 MR. BRADMAN: I just want to follow up
8 on your comments and just kind of put this in the
9 context of larger discussions in the organic
10 community and on the Board related to 606, you
11 know. And of course there's the requirement in
12 606 to source organic materials if they're
13 available, and the long term goal and hopefully
14 not so long for many materials on that is that
15 ultimately there can be an organic source.

16 I think it would be, you know, I
17 understand the limitations you describe in terms
18 of availability. But it would also be I think
19 important to consider the future in how to
20 actively develop that source.

21 So there may be a business opportunity
22 there as well. If you heard the discussions

1 around celery powder yesterday, similar issues
2 there, and a commitment to find organic materials
3 down the road would be valuable.

4 MR. KURTZ: And I think our -- the
5 answer to that would be a yes, you know. We're
6 rookies to this process. We started about two,
7 two and a half years ago. But that in our
8 opinion would be the next step in the process, is
9 having that identity preservation and having that
10 critical mass.

11 So I guess you could say it's the
12 classic chicken or the egg scenario. Is there
13 going to be the market demand? Is there going to
14 be that critical mass? We don't know yet, but
15 that would be for us to identify as we go down
16 the weeks, the months, the years and say okay,
17 can we get the value chain to preserve these
18 skins in the right fashion, to have them organic
19 all the way through?

20 CHAIR BEHAR: Steve.

21 MR. BRADMAN: Thank you. Just one
22 general comment or response. The egg came first.

1 MR. KURTZ: I'll make note of that.

2 (Laughter.)

3 CHAIR BEHAR: Steve has a question.

4 MR. ELA: I guess the question follow-
5 up on Asa's, I mean one of our wonderments I mean
6 obviously yes, it is an egg and then a chicken.
7 But how -- if we approve this material, will that
8 actually inhibit, I mean because there won't be
9 as much incentive out of -- I guess I can say for
10 lack of a better word desperation for a product.
11 There won't be as much incentive to develop that
12 organic product line.

13 So how can we ensure that what you
14 just said, you know, if we approve it it provides
15 the bridge, so to speak, to an organic product or
16 an intervening time period. But we don't want to
17 delay the development of that organic product
18 either.

19 MR. KURTZ: I think that's a fair
20 question, and I think the answer to that is what
21 we have learned in working with our customers,
22 they do believe in transparency to the consumers

1 and their customers. So is this an in-perpetuity
2 listing? We certainly would not hope so. We
3 believe that our customers would take this and
4 use it as hopefully a stop gap to a better end
5 game of an organic gel that would be certified
6 organic, and to be not on 205.606 in perpetuity
7 or to before the sunset reviews per se.

8 CHAIR BEHAR: Thank you.

9 MR. KURTZ: Thank you.

10 CHAIR BEHAR: Next up is Harry Rice
11 with Gwendolyn Wyard on deck.

12 MR. RICE: Hello. My name is Harry
13 Rice and I am with a Global Organization for EPA
14 and DHA Omega-3s, which represents the worldwide
15 industry for EPA and DHA, the primary long chain
16 omega-3s found in fish oil. Our membership is
17 built on a quality standard unparalleled in the
18 market, and our mission is to increase
19 consumption of EPA and DHA, and to ensure that
20 our members produce quality products that
21 consumers can trust.

22 GOED understands you will be

1 discussing fish oil as part of the 2021 sunset
2 review, so I'm here to address the relisting of
3 fish oil on the National List. As mentioned in
4 our written comments, GOED continues to support
5 the inclusion of fish oil on the list of non-
6 organically produced agriculture products allowed
7 as ingredients in or on processed products
8 labeled as organic.

9 Consumers who prefers organic products
10 should have access to products made with non-
11 organically produced fish oil, since organic fish
12 oil does not currently exist and won't exist
13 until such time that the National Organic Program
14 adopts program standards for aquaculture.

15 With respect to sustainability, which
16 historically seems to be one of the most
17 contentious issues regarding the inclusion of
18 fish oil on the National List, GOED believes that
19 protecting our oceans and natural resources is
20 paramount. It is not only good environmental
21 stewardship, but also ensures sustainable growth
22 for the omega-3 industry as a whole.

1 Fortunately, most of the fisheries
2 from which fish oils are sourced have either been
3 certified or are currently pursuing certification
4 for sustainability. While GOED supports
5 sustainable fishing practices, it's important to
6 note there's no fish species in the world that is
7 caught primarily for fish oil production.

8 Fish oil is always a value-added
9 byproduct of fish meal or seafood production,
10 because the protein's value is much greater than
11 that of the oil. With respect to the 2015 fish
12 oil technical report being relied upon by the
13 Handling Subcommittee, GOED provided extensive
14 written comments on what we view as incorrect or
15 misleading information.

16 Due to time constraints, I refer you
17 to GOED's written comments for those specifics.
18 But I can't reiterate enough GOED's concern about
19 the quality of the technical report. With
20 respect to the annotation for fish oil, the
21 Handling Subcommittee has asked how the fish oil
22 annotation can be modified to control for the

1 noted conservation concerns.

2 In its written comments, GOED
3 suggested the following addition to the present
4 annotation. "From fish originating from
5 fisheries that are not classified as over-
6 exploited according to FAO guidelines," it has
7 been brought to GOED's attention that its
8 suggestion left a potential loophole, which I
9 assure you was not purposeful and I would like to
10 correct the recommendation.

11 In addition to fish not originating
12 from over-exploited fisheries, fish should not
13 originate from depleted or recovering fisheries.
14 Since GOED submitted its written comments and
15 other suggestions, I have discussed with a GOED
16 member who sells fish oil for use in products
17 labeled organic, is the addition of the following
18 to the annotation:

19 "Fish oil must be sourced as an
20 industry byproduct and not as the result of
21 direct fishing. Where regulatory definitions of
22 byproduct and direct fishing are not known to

1 GOED, we would consider a fishing byproduct to be
2 an incidental or secondary product made from
3 processing fish and fish products.

4 "In addition, we would consider direct
5 fishing to be the activities leading to and
6 resulting in the capture and harvesting of wild
7 fish." In conclusion, GOED encourages the NOSB
8 to retain fish oil on the National List.

9 Please do not ever hesitate to contact
10 GOED with any questions related to fish oil or
11 any other EPA/DHA product. We're always happy to
12 share our knowledge and experience. Thank you
13 for your time.

14 CHAIR BEHAR: Thank you. Any
15 questions from the Board? Tom.

16 MR. CHAPMAN: So oftentimes we
17 struggle to get answers to get answers to our
18 questions, so thank you for answering the
19 questions that we posed. I really appreciate
20 that. If you could also send those
21 recommendations in writing potentially to
22 Michelle, that would also be helpful, about the

1 wording.

2 MR. RICE: Yeah, absolutely.

3 MR. CHAPMAN: Do you have a sense --
4 now to my question. Do you have a sense of or
5 are you able to speak to what percent of the fish
6 oil industry are GOED members or that comply with
7 GOED voluntary monograph?

8 MR. RICE: Yeah. We've estimated this
9 to be between 85 percent and 90 percent. We have
10 170 members throughout the supply chain, and so
11 that's our estimate at this time.

12 MR. CHAPMAN: Thank you.

13 CHAIR BEHAR: Asa. That's it?

14 MR. BRADMAN: Tom covered it.

15 CHAIR BEHAR: Tom covered it. Okay,
16 thank you. Thank you, very much Harry.

17 CHAIR BEHAR: Okay. Next up is
18 Gwendolyn Wyard with Megan DeBates on deck. I
19 hope you took an animal.

20 MS. WYARD: All right, good morning.
21 My name is Gwendolyn Wyard. I'm the Vice
22 President of Regulatory and Technical Affairs for

1 the Organic Trade Association, and I'm sporting
2 squid. Today I'll be highlighting some top line
3 messages from our comments on three agenda
4 topics.

5 The first one is pullulan. The
6 Organic Trade Association is the petitioner of
7 pullulan, and it should be noted that we rarely
8 petition materials, and in the rare instances
9 that we have, it's been to further restrict or
10 remove materials from the National List.

11 In this case, although our petition is
12 to add a material to the National List it really
13 should be viewed as a move to further restrict
14 its use because pullulan has been allowed and
15 made with products in that 30 percent non-organic
16 portion for many years.

17 A full board recommendation to add
18 pullulan to the National List is our preference
19 because it will codify and restrict its allowance
20 to the made with category only for encapsulated
21 supplement products, and it will bring it under
22 your review every five years via the sunset

1 process.

2 Meanwhile any other product, any USDA
3 organic product will require the use of certified
4 organic pullulan, which is unavailable at this
5 time but development is well underway, and we're
6 strongly advocating for organic pullulan.

7 Number two, genetic integrity
8 transparency of seed grown on organic land.
9 Respectfully, this proposal needs more work,
10 perhaps starting with the title of the document.
11 We agree with the comments of Kiki Hubbard, and
12 our Organic Seed Task Force has been working
13 collaboratively with the Organic Seed Alliance on
14 this topic as well as on the organic seed
15 guidance proposal that we think should be passed
16 at this meeting.

17 On seed purity, we've long advocated
18 for first identifying the problem before
19 developing the solution. We called for the
20 formation of a USDA-appointed Seed Task Force,
21 and we requested the data collection to inform a
22 baseline. We've requested that that happen

1 outside of the certification system.

2 For our comments this round, we'd like
3 to draw your attention to our request for a very
4 related and we think actionable work plan item,
5 which is a recommendation to NOP to develop
6 guidance for certifiers and industry on GE
7 testing. We currently don't have that guidance.

8 Topic number three, celery powder.
9 You heard the excellent panel yesterday on our
10 ongoing efforts to develop organic celery powder.
11 It's hard to imagine what more I could add. I
12 was hoping to perhaps report out on the nitrate
13 content of my saliva, but I can't find those
14 strip tests.

15 But I will say in terms of commercial
16 availability, this clause in the organic
17 regulation continues to present challenges,
18 because really is it at odds with the law of
19 supply and demand. So how do we incentivize the
20 development of organic alternatives, and how do
21 we make the system work the way it was intended
22 to?

1 Number one, the demand absolutely
2 needs to be there. Number two, the supply chain
3 needs to be built, and that takes time and
4 resources as was explained yesterday. It's very
5 complicated. Number three, it takes more than
6 all of us just coming to NOSB meetings.

7 We're working really hard on the
8 supply chain part, and I hope through our
9 comments and yesterday's expert panel it's clear
10 that we are committed to and taking very
11 proactive and innovative steps to not only
12 develop organic celery powder, but also
13 developing a model that can be applied to other
14 materials on the National List.

15 So this graphic that most people
16 probably can't see, I can't see without my
17 glasses, we have a write-up on this model that
18 we've developed, the time it takes and the
19 various phases for developing organic and natural
20 alternatives to the National List.

21 This has really come out of our
22 National List Innovation Working Group, our

1 Celery Powder Working Group, and we hope that
2 this can help us in our process. Thank you very
3 much.

4 CHAIR BEHAR: Thank you, Gwen.

5 Questions?

6 MR. BRADMAN: I'd like to comment.

7 CHAIR BEHAR: Okay, Asa. Raise your
8 hand so that I know.

9 MR. BRADMAN: Sorry. Just in response
10 to your comments now and the panel yesterday, you
11 know, I think one of the benefits of the organic
12 system is that we have a public and private
13 partnership.

14 One of the things that struck me
15 yesterday was that there's been an investment on
16 the private side, and some on the public side
17 too, to address this issue.

18 But clearly there's a need for more
19 work, and I just want to kind of encourage more
20 effort to develop that partnership, and for the
21 -- on the public side, to really support the
22 research that we need to move this ahead.

1 MS. WYARD: Yeah. Thank you Asa, and
2 that's exactly what our National List Innovation
3 Working Group was formed. Celery Powder is the
4 first subgroup of that effort, but it is set up
5 for our industry to our members to financially
6 invest into the development of alternatives.

7 And then as you'll see in the model,
8 of course, you know working with universities and
9 looking for funding because, you know, we want to
10 pull obviously from all the sources and resources
11 that we can. So we're really excited about the
12 work that we're doing and what this can mean for
13 the future. So thank you very much.

14 CHAIR BEHAR: Thank you. Next up is
15 Megan DeBates, with Steve Walker on deck.

16 MS. DeBATES: Hi. I am Megan DeBates,
17 Director of Legislative Affairs and Coalitions
18 for the Organic Trade Association. Everyone here
19 is committed to maintaining the integrity of
20 organic, and we are very appreciative of the
21 collective efforts on improving oversight of the
22 organic supply chain.

1 You've read our comments and should be
2 familiar with our private sector initiative and
3 launch of the Organic Fraud Prevention Program
4 that organic businesses may voluntarily enroll
5 in. We have additional materials out on the
6 table if you would like to learn more. I will be
7 focusing on our legislative efforts to prevent
8 organic fraud, namely our work on the Farm Bill.

9 For the last two years, OTA and many
10 stakeholders in this room worked on solutions to
11 increase oversight of the organic supply chain in
12 the Farm Bill, which was signed into law this
13 past December. The 2018 Farm Bill provided
14 support and necessary funding for NOP to keep
15 pace with industry growth, and to carry out
16 compliance and enforcement actions in the U.S.
17 and abroad.

18 It strengthened the emphasis on NOP's
19 authority and capacity to conduct investigations,
20 and granted them the flexibility to conduct a
21 risk-based approach to oversight. We thank the
22 NOSB for your work on developing recommendations

1 to NOP on import fraud.

2 As NOP moves forward in implementing
3 the Farm Bill, the Board as well as the industry
4 will play a critical role in preventing fraud and
5 utilizing the new tools and authorities granted
6 in the Farm Bill.

7 One area I would like to highlight in
8 particular is that the Farm Bill provides \$5
9 million for NOP to invest in technology and
10 access to data, to improve tracking of
11 international organic trade and prevent fraud.
12 The Farm Bill language does not specify how the
13 funds should be used, which gives NOP flexibility
14 in exploring technology-based solutions.

15 We think it would be helpful for the
16 Board to put together some recommendations for
17 NOP, and how those funds could be best utilized,
18 and would encourage you to include that as you
19 work on your discussion document.

20 I also want to mention livestock
21 issues, another area where we have all been
22 united in the need for robust and consistent

1 standards. Thank you for passing a resolution
2 urging NOP to issue a final rule on the origin of
3 livestock standards. We agree with you and feel
4 very that a new proposed rule is not a real path
5 forward.

6 Nothing about this issue has changed
7 to necessitate a new rulemaking, which would take
8 years. The current standards are not being
9 enforced or applied appropriately, and this has
10 gone on for far too long. I want to draw your
11 attention to the letter OTA's dairy sector
12 council sent to USDA requesting a final rule.

13 The companies and farms on that letter
14 collectively represent over 90 percent of the
15 organic dairy market.

16 Lastly, we want to thank all the
17 former and current NOSB members that signed on as
18 declarants to OTA's lawsuit on the organic
19 livestock and poultry practices rule. We must
20 use all the tools we have at our disposal to
21 fight for the integrity of the organic standards.

22 Thank you for the opportunity to

1 provide comments.

2 CHAIR BEHAR: Any comments from the
3 Board? Thank you very much, Megan. Okay, next
4 up is Steve Walker with Alexis Randolph on deck.

5 MR. WALKER: Good morning. I'm Steve
6 Walker, Operations Manager at MOSA. I've been
7 involved in certification since pre-NOP. Early
8 on, many new certification questions exercised my
9 reason and passion. Through the years, weighing
10 letter and intents against many real cases, we've
11 defined boundaries and worked out a lot of bugs.

12 But innovation moves faster than
13 development of regs. New twists and sometimes
14 new sectors still require our best discernment as
15 to how our standards and values apply.
16 Navigating the gray in between regulatory lines
17 raises passion and hazards. It's best to travel
18 with friends.

19 So when we find something new, we seek
20 counsel, consensus or precedent from other
21 certifiers and from NOP. I appreciate guidance
22 and NOP's sensible take on regulatory discretion.

1 I used to be frustrated by answers like we don't
2 have a policy on that.

3 Then a few years ago, at certifier
4 training in Savannah, Jenny Tucker explained that
5 when there's no specific published policy
6 regarding an unforeseen practice, then ACAs are
7 empowered and expected to make reasoned, and I'll
8 add ethical, certification decisions.

9 We're skilled navigators on a changing
10 landscape. We tend to standards, organic values
11 and forward thinking. I value certifiers'
12 autonomy and ability to align, define boundaries
13 and improve. We're currently collaborating on
14 best practices for container production requiring
15 nutrient cycling, biological activity,
16 biodiversity enhancement and natural resources
17 improvement.

18 Organic choices in these systems must
19 meaningfully serve our ailing planet. But we
20 need NOP and NOSB to help develop applicable
21 regulations. This part of our house is still on
22 fire. We need action. Let's get this back on

1 NOSB work plans and consider requirements for the
2 farm system beyond the container.

3 Out here on the front lines defending
4 organic integrity, we see a lot of good work
5 inspiring hope. But there's also despair and
6 frustration. It's hard to maintain faith in
7 organic as a solution to global crises.

8 Some perspective. MOSA certifies 600-
9 some dairy farms averaging 64 cows per herd.
10 Failure to move forward vetted, agreed upon rules
11 hurts our farm families, rural economies and our
12 seal. Stagnation also disables the resolve
13 needed to heal our planet. Let's move forth the
14 origin of livestock final rule this year.

15 Certifiers navigate the gray and draw
16 boundaries every day. We're good, but today as
17 our community is threatened at its core, we need
18 clear guidance and teeth. Thanks.

19 CHAIR BEHAR: Comments or questions?
20 I have one. Oh Sue, you have something? No.

21 MS. BAIRD: Just a comment. Thank you
22 Steve, and you're right. You guys are good. You

1 do it every day. Appreciate it.

2 MR. WALKER: Thanks.

3 CHAIR BEHAR: And I want to thank you
4 for the request for container standards review.
5 Thank you very much for that.

6 MR. WALKER: You're welcome. Thanks
7 for all you do.

8 CHAIR BEHAR: Okay. Next up is Alexis
9 Randolph, and after her is Nate Lewis on deck.

10 MS. RANDOLPH: Hi good morning. My
11 name is Alexis Randolph and I am with QAI, an
12 organic certification agency based in San Diego,
13 California.

14 My comments are going to be very
15 brief. I'm here today just to provide the Board
16 with an appendix to our written public comment,
17 that identifies how many QAI handling operators
18 are using materials up for sunset review.

19 Please review the document Michelle is
20 circulating at your convenience. I only have one
21 material statistic for the Livestock Committee at
22 this time. Peracetic acid is widely used by

1 poultry operations to clean out water lines. It
2 is more difficult for us to provide statistics on
3 crop materials and in some cases livestock
4 materials because our operators rely heavily on
5 OMRI-approved products that are a blend of
6 generic materials, and therefore more difficult
7 to isolate in our own material approval system.

8 Before the fall vote, we will continue
9 to work with our crop and livestock clients to
10 try to get better data for NOSB on some of the
11 important questions you have asked regarding this
12 year's sunset materials.

13 We hope that there will be some type
14 of open docket system in which we can submit this
15 information, and if there's not, I would like
16 advice on how to get this information to you.
17 Thank you.

18 CHAIR BEHAR: Thank you, and just the
19 Board members. I believe it is all in your email
20 inbox that Alexis sent. Any comments or
21 questions? Emily.

22 MS. OAKLEY: Yeah. Just a

1 clarification, that I think absolutely please use
2 the open docket to continue to submit comments on
3 any of the sunset materials that you might need
4 more time to develop feedback on.

5 MS. RANDOLPH: Thank you.

6 CHAIR BEHAR: Okay, thank you, Alexis.
7 Next up is Nate Lewis, and then Rebekah Ritson,
8 and after that we will take our scheduled break.
9 We're about 20 minutes behind.

10 MR. LEWIS: Good morning, everybody.
11 My name is Nate Lewis. I'm here on behalf of my
12 own farm, Oyster Bay Farm. I also sit on the
13 Washington State Department of Ag's Organic
14 Advisory Board. I was elected to the Poultry
15 Committee at the Organic Farmers Association, and
16 I serve on OTA's Farmers Advisory Council.

17 These comments are my own, as I would
18 think this is the first time I'm unaffiliated and
19 speaking to you all.

20 So first I wanted to introduce you to
21 Peggy. She's my caged porch chicken, and the
22 irony I had to share with you, she's confined on

1 205.239(b)(5). She had an injury. She's going
2 to get better. She's going back to the flock in
3 a couple of days. But I mostly wanted to talk to
4 you all about the state of Washington, this great
5 state that we're all getting to participate in
6 this meeting in.

7 Washington is extremely unique. If
8 you go 100 miles to the west, you're in rain
9 forest with over 100 inches of rain per year. If
10 you go 100 miles to the east, you're in desert
11 with under 10 inches of rain. It's in this
12 desert that Washington State's organic production
13 is thriving.

14 We grow about 85 percent of United
15 States' domestic production of organic apples,
16 worth \$300 million a year. We grow about half of
17 the nation's organic blueberries. In 2016, on
18 1,600 acres we produced 19 million pounds of
19 blueberries. That's gone up by about 1,000 acres
20 over the last two years.

21 So I think if anyone's concerned about
22 a flood of blueberries drowning out the market,

1 they should be giving us the credit because we
2 are -- our berries are bumping.

3 I kind of wanted to bring these up
4 because our eastern Washington production is in
5 large part due to the ingenuity and the
6 dedication of our growers. But they have a lot
7 of help with the natural environment.

8 As I mentioned, it's a desert and the
9 desert means that fungal diseases, fungal and
10 other diseases are not as big of an issue. They
11 also are blessed with a tremendous amount of
12 irrigation. In order to kind of tell the story
13 about the development of this agricultural lands,
14 we have to go back about 12,000 years, when
15 Seattle was under about 2,000 feet of ice.

16 As those glaciers receded, you can see
17 the western part of Montana filled up with this
18 giant lake backed up by a ice stand. When that
19 ice stand broke, it flooded the entire Eastern
20 Washington, sending a 500 foot wall of water down
21 the Columbia Gorge, scouring everything in its
22 path.

1 But it also left behind these gigantic
2 coolies, which were used afterwards under the New
3 Deal and the resources from the federal
4 government to create the Columbia Basin
5 Irrigation Project, which still remains in my
6 understanding the single largest infrastructure
7 spending project in the history of the United
8 States.

9 It irrigates 670,000 acres. It's got
10 331 miles of canals with 1,300 miles of lateral
11 canals, and it has brought rain to the desert
12 where organic crops can flourish.

13 So I just wanted to use these three
14 minutes of your captive attention to showcase how
15 wonderful this state is, how diverse it is and
16 while we think a lot about Seattle and the trees,
17 there's this whole other aspect of the state
18 which is what's pushing forward our organic
19 production. So thank you all for your service.

20 CHAIR BEHAR: Thank you, Nate. Any
21 questions? Okay, thank you, and next up is
22 Rebekah Ritson, and after that we will take a

1 break.

2 MS. RITSON: All right. Since I'm
3 standing between everybody and break, good
4 morning. I am Rebekah Ritson. I'm the Organic
5 Regulatory Specialist for Grain Millers. Thank
6 you for the opportunity to provide public comment
7 today. Grain Millers is a whole food ingredient
8 manufacturer and merchandiser, and we'd like to
9 offer comment on the oversight improvements to
10 deter fraud discussion document.

11 I'm going to dive right into some of
12 the points that we really wanted to emphasize.
13 Point 8 suggests use of transaction import
14 certificates tied to an importer's commodity
15 databases. We fully appreciate the risk inherent
16 to importing organic ingredients, and we
17 voluntarily require transaction certificates for
18 all imports except Canadian.

19 That said, current verification
20 measures across certification agencies are
21 inconsistent and insufficient. If we're going to
22 rely on transactionary import certificates, but

1 they're not regularly compared to an operations
2 production volume historic product inventory,
3 they're meaningless.

4 Such assessments could easily be
5 incorporated into existing audit trail exercises,
6 but in our experience these are not routine or a
7 significant portion of inspections.

8 Therefore, we believe success in any
9 development of this type of program is also going
10 to be reliant on a concurrent development of
11 guidance document for certifiers, outlining
12 requirements for transaction certificate
13 validation, and then an NOP focus on following
14 this guidance at accreditation audits.

15 We also have concerns about the
16 practicality, implementation and objectivity of
17 an organic industry alert system based on
18 biorejection of products as outlined in Point 9.
19 A reporting system based on rejection of
20 unverified -- due to unverified sampling methods
21 and test results or minor correctable paper work
22 issues, could cause irreversible damage to both

1 individual businesses and entire supply chains.

2 So, instead, we would really like to
3 support Point 10, the immediate creation of a
4 positive pesticide residue test database, or
5 alternatively a comprehensive pesticide test
6 residue base -- residue test database, sorry.

7 This database would be a repository of validated
8 pesticide residue test results from certification
9 bodies.

10 These already exist. They're just not
11 available to the organic sector as a whole. So
12 access to these data would permit certified
13 operations to make more informed decisions about
14 our suppliers, and it would also provide
15 certifiers with a better basis for risk-based
16 sampling, testing, and unannounced inspections.

17 Then, the NOP could use this database
18 to rigorously analyze the data, and that would
19 serve as a foundation for an effective alert
20 system when transfer-specific commodities or
21 regions are identified.

22 Regarding Point 7 and the reporting

1 crop acreages and yields in the OID and
2 confidentiality issues, the majority of our grain
3 is purchased directly from the grower. Many of
4 our farmer-suppliers have voiced concerns that
5 disclosure of detailed crop and acreage
6 information could create an unfavorable marketing
7 environment and result in price fixing. We don't
8 really consider this to be an immediate risk, but
9 we don't wish to dismiss this concern in the long
10 run.

11 We're very concerned to see voluntary
12 acreage reporting, and we'd like this to
13 continue. And we'd suggest, to help protect the
14 suppliers, that we make the disclosure of an at
15 minimum the organic acreage per operation, and
16 that would allow us to do some calculations, come
17 up with basically a maximum production range, and
18 that would be more than we have to go on right
19 now.

20 CHAIR BEHAR: Tom.

21 MR. CHAPMAN: Can you talk in more
22 detail about the price fixing concern?

1 MS. RITSON: So that is a concern that
2 we've heard a lot more from our producers up in
3 Canada, where they don't do any amount of sharing
4 of crop or farm acreages, and basically there's a
5 perception that companies could take all of that
6 data and use it to determine how much corn is
7 going to be out there in the winter, spring and
8 then just decide amongst ourselves or
9 independently to only pay so much based on what's
10 available.

11 So they're very concerned it's going
12 to limit their income and marketing
13 opportunities.

14 MR. CHAPMAN: So they're concerned
15 about price fixing, even though similar -- in the
16 organic even though similar data is available on
17 the conventional side?

18 MS. RITSON: Yep. That is what we're
19 hearing.

20 MR. CHAPMAN: Okay.

21 CHAIR BEHAR: Sue, Dave.

22 MS. BAIRD: Thank you for your

1 comments, and we all agree that this is a huge
2 issue, including we're thankful that NOP does.
3 We've had a lot of written comments on this fraud
4 documentation, and I did a quantification, and it
5 appears that the number one person was that they
6 wanted a stop sale authority be given to NOP.
7 How do you feel about that?

8 MS. RITSON: Based on my experience
9 with grain millers, we haven't ever seen stop
10 sale authority exercised just in general.

11 (Off-microphone comment.)

12 MS. RITSON: Right. Well, not just
13 for organic but for conventional product as well.
14 So I think it's going to take longer than we
15 would like. I don't think it's something that we
16 should totally ignore. But to get the stop sale
17 authority, it could take a while to get set up.
18 It will also require a lot of collaboration with
19 state governments, I think, to effectively
20 execute.

21 So that will require a lot of training
22 and outreach to state governments that don't have

1 organic programs.

2 (Off-microphone comment.)

3 MS. BAIRD: Yes, and I would agree.

4 I know that I back many hundred years ago, I've
5 managed feed and seed programs for the Missouri
6 Department of Agriculture, and they do, state
7 agencies under the Feed and Seed Act, have stop
8 sale authority. So I'm wondering, and I do agree
9 that any time you implement change, it's a huge
10 issue.

11 But if the states have that authority,
12 why we cannot implement that under the federal
13 authority.

14 MS. RITSON: I mean if we can. I
15 think the collaboration is going to be effective
16 to actually exercise the stop sale authority. So
17 I think the states are going to need to be
18 involved, even if it's a federal authorization.

19 MS. BAIRD: Yeah, and I would agree.
20 I just was making that comment. It was the
21 number one comment.

22 CHAIR BEHAR: Dave.

1 MR. MORTENSEN: Rebekah, the fellow
2 that presented the NASS data, were you here
3 yesterday?

4 MS. RITSON: Yep.

5 MR. MORTENSEN: Yeah. There's an
6 additional data set out there that his shop and
7 others use, researchers use, where you can
8 actually get down to the field level and
9 calculate acreages by crop type. It's called the
10 Crop Land Cover data set. So you can link it
11 with the data that -- I think Adam was his name
12 was.

13 So I want -- the question is as we go
14 forward, I think talking with farmers who I
15 totally get how concerned they are about
16 revealing privately-held information about their
17 farms, more of this data about at least crop type
18 and acreage is quite available if various people
19 wanted to take the step with that.

20 So it would be interesting to be
21 talking with farmers about how, you know, the
22 fact that some data are available might help

1 inform their thinking about what they would share
2 and what they would be less willing to share.
3 Just a thought.

4 MS. RITSON: I appreciate that, and
5 I will keep it in mind during field visits this
6 summer.

7 CHAIR BEHAR: Rick.

8 MR. GREENWOOD: Yeah. Just a source
9 of information for you. I was on the Hass
10 Avocado Board, and we up a grower database with
11 numbers of potential crops for each year. You
12 might check with them because they went through
13 the process and so far I haven't heard of any
14 price fixing or anything else. That's part of
15 AMS. So just a good reference for you.

16 MS. RITSON: Can I respond to that?

17 MR. GREENWOOD: Sure.

18 MS. RITSON: We are not particularly
19 concerned about the price fixing, but we do work
20 with so many suppliers that I felt given the
21 number of times that I've heard that concern,
22 that I should use my time to make that public

1 record.

2 MR. GREENWOOD: All right, thank you.

3 CHAIR BEHAR: Okay. Yes, Jenny?

4 DR. TUCKER: I appreciate the
5 comments. I do want to clarify that the acreage
6 data gathering is incredibly helpful for
7 compliance and investigation purposes. What we
8 would publish would be much more aggregate data
9 set. So we'll be under this -- we're under the
10 same sort of privacy laws that NASS and other
11 federal agencies are under in terms of reporting
12 aggregate data from the database.

13 I'm not sure I've said that as much or
14 as loudly as I thought I should in terms of that
15 data that is summarized and reported to the
16 public is at an aggregate level. I know that
17 that doesn't address all the concerns that you're
18 raising, but I do want to just highlight that
19 this is an area that we're very aware of and
20 concerned about in terms of balancing data
21 availability for investigations versus data
22 reporting and protecting confidential business

1 information, which is critical.

2 MS. RITSON: Thank you.

3 DR. TUCKER: Thank you.

4 CHAIR BEHAR: Thank you. All right.

5 With that, we will take a break. I'm going to
6 say ten minutes, so we try to maybe catch up a
7 little bit, and everyone come back at 10:45.

8 (Whereupon, the above-entitled matter
9 went off the record at 10:36 a.m. and resumed at
10 10:50 a.m.)

11 CHAIR BEHAR: Okay. Thank you
12 everyone. We have Howard Whitney on next, with
13 David Hiltz on deck. So hopefully, and if
14 somebody could just tell the people in the
15 hallway that we're starting, that would be
16 appreciated.

17 Thank you, you may begin. Your name
18 and affiliation please.

19 Oh and one more thing. Please speak
20 into the mic. I know you're a little tall, so
21 you might have to kind of get --

22 MR. WHITNEY: Well, I've got it

1 pointing right at me. How's this?

2 CHAIR BEHAR: Oh that's pretty good.

3 MR. WHITNEY: Okay.

4 CHAIR BEHAR: And just so speak up.

5 Thank you very much.

6 MR. WHITNEY: I'll try not to move my
7 head too much. I'd like to thank the NOSB
8 members, NOP staff and the organic professionals
9 that are assembled here today. My name is Howard
10 Whitney. I am the principal scientist of Steen
11 Research. Steen Research specializes in air and
12 water pollution control, and environmental
13 remediation.

14 We have developed a pollution control
15 process that removes ammonium nitrogen pollution
16 from animal waste. We stabilize it in a non-
17 synthetic organic acid including citric acid. We
18 are now in the final stage of obtaining an
19 organic input material label from California
20 Department of Food and Agriculture.

21 Because of the pending label for a
22 non-synthetic, ammonium citrate clear liquid

1 fertilizer, we oppose the petition to list
2 synthetic ammonium citrate. Synthetic ammonia
3 production is responsible for three percent of
4 global carbon dioxide emissions. Livestock
5 operations are responsible for nearly 80 percent
6 of ammonia pollution, producing nearly two
7 million metric tons of ammonia per year in the
8 U.S. alone.

9 This constitutes more than ten times
10 the current U.S. organic fertilizer needs.
11 Preliminary studies indicate we can produce
12 ammonium citrate for a wholesale price similar to
13 fish emulsion on a nitrogen basis. We conclude
14 that by early 2020, a non-synthetic ammonium
15 citrate organic input material will be available
16 in large supplies and at reasonable cost.

17 We ask NOSB to reject the synthetic
18 ammonium citrate petition because it would
19 effectively kill our non-synthetic product by use
20 of a cheap synthetic. Thank you.

21 CHAIR BEHAR: Okay, thank you. Are
22 there any questions? Excuse me, want to come

1 back? We do have a question for you from Steve.

2 MR. WHITNEY: Sure.

3 MR. ELA: Would that be able to be
4 used as a foliar application, your -- what you're
5 developing as well as the soil application?

6 MR. WHITNEY: Yes, absolutely.

7 MR. ELA: Great. I appreciate that
8 information. That's very helpful.

9 CHAIR BEHAR: Okay, anyone else? Asa.

10 MR. BRADMAN: I think Emily was next.

11 CHAIR BEHAR: Oh, I'm sorry.

12 MS. OAKLEY: This may be an ignorant
13 question, but I'm curious how you came to know
14 that the ammonium citrate petition was before the
15 NOSB, and I appreciate you being here today.

16 MR. WHITNEY: Well thank you. Yeah,
17 I've attended -- this is my third meeting in a
18 row that I've attended. So I've been tracking
19 the agendas. Last summer I met with NOP staff
20 regarding our process, and they provided help to
21 the state of California to provide a framework
22 for them to process our application and other

1 applications similar to ours.

2 So I've been on an education process
3 for the last year and a half in organic, and I
4 really appreciate everyone's input to this. It's
5 been very helpful to me.

6 CHAIR BEHAR: Asa.

7 MR. BRADMAN: Could you describe a
8 little bit more the process for production and
9 kind of the source of the ammonium in nitrogen?

10 MR. WHITNEY: The source is from waste
11 products developed in all the forms of livestock
12 agriculture, and the process is proprietary and
13 patented, and so I really -- I can tell you that
14 we've made a very good case that our production
15 results in a non-synthetic product.

16 MR. BRADMAN: So this is being derived
17 from animal manures from potentially --

18 MR. WHITNEY: Anything you can think
19 of having to do with animal agriculture as a
20 source of ammonia pollution.

21 MR. BRADMAN: Okay. So it could be
22 poultry, it could be --

1 MR. WHITNEY: Yes, everything,
2 everything.

3 MR. BRADMAN: Okay, okay. So
4 potentially even from a CAFO type operation or a
5 large concentrated animal feeding operation? Is
6 there like a scale that you need to derive the
7 material?

8 MR. WHITNEY: Yes and, you know, we've
9 targeted a specific industry to get this thing
10 launched, and so we're going to start there. But
11 we would like to apply it more broadly. But we
12 hope that this will be a game-changing product
13 that I know there's been a lot of concern about
14 the fish emulsion, and we believe our product
15 could replace that without having to remove it
16 from the toolbox, but we could do it
17 competitively.

18 MR. BRADMAN: Okay, great. Thank you.

19 CHAIR BEHAR: Okay, and Rick has a
20 question.

21 MR. GREENWOOD: Yeah. Just to follow
22 up on Asa's question, you mentioned this process

1 is patented?

2 MR. WHITNEY: Well, the patent is
3 pending right now.

4 MR. GREENWOOD: Okay, because I was
5 going to say if it was patented, it's in the
6 public domain and you should be able to talk
7 about the process.

8 MR. WHITNEY: Right. No, it's
9 pending.

10 MR. GREENWOOD: Okay.

11 MR. WHITNEY: Yeah, we're fighting
12 with the lawyers right now at the Patent Office.
13 It's a very complicated process to get through
14 that.

15 MR. GREENWOOD: Okay, no. Thank you.

16 CHAIR BEHAR: One more question. So
17 are you saying that the state of California will
18 look at this as an approved for organic
19 production material?

20 MR. WHITNEY: Well, we've submitted an
21 application to the state of California, and we've
22 been through a long review process with them.

1 We've provided them additional information.

2 We understand they have contracted to
3 conduct a peer review of our application and the
4 chemistry behind it, and we have -- we are now in
5 the process of doing, getting ready to do the
6 final inspection and testing for CDFA.

7 CHAIR BEHAR: Thank you.

8 MR. WHITNEY: Thanks.

9 CHAIR BEHAR: Okay. Next up is David
10 Hiltz, and on deck is John Hendrickson.

11 MR. HILTZ: Good morning. My name is
12 David Hiltz. I'm the Director of Regulatory
13 Affairs at Acadian Seaplants. Acadian is a
14 global producer of marine plant products based in
15 Nova Scotia, Canada. We thank the NOSB and the
16 NOP for their ongoing efforts to refine organic
17 regulations, and we appreciate the opportunity to
18 once again comment on the topic of marine
19 materials.

20 Acadian Seaplants continues to be
21 committed to ensuring that our marine plant
22 harvesting activities are performed in a

1 sustainable manner, and that we do not have
2 negative impacts on the marine environment.

3 We continue to have our resource
4 science team engage with collaboration with other
5 stakeholders and groups like the Maine Seaweed
6 Council and the New Brunswick Rockweed Advisory
7 Group, to provide industry perspectives and
8 scientific info to these group as they develop
9 new regulations and policies.

10 As outlined in our written submission,
11 Acadian Seaplants is not necessarily opposed to
12 the suggestion that marine plants used in the
13 manufacture of crop inputs be certified in some
14 way. But we do wonder what precedent this may
15 invite for future evaluation of crop input
16 materials.

17 The Board may want to consider if they
18 have the -- or if they wish to use their limited
19 resources for future examination of the
20 environmental impacts of procuring raw materials
21 for other approved crop inputs.

22 One concern industry will certainly

1 have with whichever standard may be chosen or
2 drafted is that it be clear and achievable,
3 especially with respect to the statement such as,
4 quote, having no significant impact on the
5 biodiversity of the aquatic environment, quote.

6 While one group may be confident that their
7 research and history demonstrate that their
8 harvesting activities are sustainable and show no
9 evidence of environmental harm, other
10 stakeholders may not accept this position and
11 demand more studies be done.

12 Therefore, a defined level of scrutiny
13 must be clearly identified in the advance to
14 avoid the unrealistic expectation that it is
15 somehow possible to evaluate every possible
16 ecological outcome of an industrial activity.

17 Finally, Acadian wishes to again
18 address the suggestion that *ascophyllum nodosum*,
19 commonly known as rockweed, is being wildly over-
20 harvested and should be individually prohibited.
21 Rockweed harvesting is done in a manner where the
22 upper portions of the plant are removed, leaving

1 the hold fast and the lower portion of the plant
2 intact, so it can regenerate.

3 In many jurisdictions, there are
4 government-enforced regulations that limit the
5 amount of resource that can be removed. To be
6 clear, industry only harvests a low amount of
7 estimated total biomass of rockweed. In Maine,
8 Iceland and Norway for example, the annual
9 rockweed harvest removes about two to three
10 percent of the estimated amount on the entire
11 coastline.

12 In Nova Scotia, where rockweed
13 harvesting is well-regulated and has been
14 occurring for more than 40 years, approximately
15 ten percent of the estimated biomass is removed
16 annually by harvesting, and many scientific and
17 government publications has shown this harvest to
18 be sustainable.

19 For these reasons, Acadian Seaplants
20 would dispute the suggestion that *ascophyllum*
21 *nodosum* is being over-harvested and should be
22 prohibited, as a review of the facts would

1 suggest otherwise. Thank you.

2 CHAIR BEHAR: Any questions or
3 comments? I imagine Emily has one.

4 MS. OAKLEY: Thank you so much for
5 always coming in providing testimony. So I won't
6 try to ask too many questions, but I do want to
7 address the issue of precedent-setting, because
8 it's been raised multiple times and by different
9 commenters. And I understand that concern and
10 the intention of this discussion document is not
11 to create a precedent, but it's to look at the
12 very unique nature of the fact that we're
13 harvesting a living organism, a plant, from a
14 wild native ecosystem.

15 We don't have too many natural inputs
16 that meet that criteria, and to address your
17 question in terms of do we want to be focusing
18 our limited resources to the scrutiny of
19 naturals. I mean, you have to -- I'm sure you
20 understand that any natural material that's
21 allowed in organic production should also meet
22 the same criteria for no harm to human health or

1 the environment.

2 Do we have the time to sort through
3 every single one? No, we don't. But this is a
4 topic that has just come before the Board
5 repeatedly. So we have an obligation, I think,
6 to examine it based on stakeholder comments and
7 feedback.

8 And then this is just a question. I
9 thought you mentioned that about ten percent of
10 the rockweed in Nova Scotia was harvested, and I
11 thought I remembered from the webinar a commenter
12 stating that the harvesting in Nova Scotia was
13 limited to hand means rather than mechanical. Do
14 you think that that is partially attributable,
15 that ten percent number would be attributable to
16 the fact that it's hand-harvested rather than
17 mechanically?

18 MR. HILTZ: Okay. Let's see if I can
19 -- so just back to your first comment. Emily, we
20 appreciate all the work you've done on this. It
21 obviously is a huge issue to pull that document
22 together, and while I understand your perspective

1 that this is a unique situation, I would
2 respectfully maybe disagree with that, in the
3 fact that the whole issue around looking at the
4 harvest of rockweed is the ascertainment that
5 somehow this is damaging the environment.

6 And if that is going to be a
7 consideration, I would argue that that same
8 consideration could be used for the mining of
9 leonardite, which is used to produce humic acid.
10 What is the environmental impact of that, you
11 know, the catching of fish to produce liquid fish
12 products.

13 I really don't see how the Board could
14 go in this direction and not have that same
15 criteria applied to other crop inputs.

16 Regarding your second question yes, in
17 Nova Scotia we do harvest all of our material by
18 hand at the moment. I don't know that that's so
19 much an issue of mechanical versus hand-
20 harvesting. It really gets down to the
21 government regulations that are imposed in Nova
22 Scotia and New Brunswick, and as we expand around

1 the world, we try to bring those same types of
2 regulations to other areas where again, we go in
3 and establish, establish resource-based studies
4 to find out how much material is in a certain
5 sector, working with the Department of Fisheries,
6 to establish how much ascophyllum is there.

7 And then we apply the model that we've
8 used successfully in Nova Scotia for almost 40
9 years now, to make sure that we limit that
10 harvest. Certainly by doing it by hand, it gives
11 us a bit more control. But I would equally argue
12 that, you know, investigation of new mechanical
13 technologies do not necessarily mean that
14 mechanical harvesting is any more destructive
15 than hand-harvesting if it's done in a proper
16 manner.

17 MS. OAKLEY: Can I just do a quick
18 follow-up, sorry.

19 CHAIR BEHAR: Yeah.

20 MS. OAKLEY: We've had a difficult
21 time hearing from other harvesters of other
22 marine algae ingredients, especially globally.

1 Do you by any chance have a way to reach out to
2 other harvesters, to try to get them to comment
3 on this process as well?

4 MR. HILTZ: Certainly, and you have
5 seen some comments from companies like Ocean
6 Organics, for example, in Maine I know has
7 submitted comments to the Board.

8 MS. OAKLEY: Thorvin.

9 MR. HILTZ: Thorvin as well has
10 submitted comments. Some of our other large
11 marine plant companies probably have not, because
12 I find a lot of them are not aware of the
13 discussion around this, and it's something that
14 I've tried to promote it a bit within our
15 industry organizations, where we try to raise the
16 attention that's been given to this, to say you
17 know, you really need to come and talk about the
18 same things that we've been coming and talking
19 about to the Board since 2003.

20 I think as you get more information
21 from some of the companies on exactly what
22 they're doing, hopefully they're doing as good of

1 a job as we are, in my opinion, and can provide
2 you with the information that we are able to
3 provide.

4 MS. OAKLEY: Well, any help you can
5 give us in getting the word out would be great.

6 MR. HILTZ: Yeah, absolutely.

7 MS. OAKLEY: Thank you.

8 MR. HILTZ: Again, I'll continue to
9 raise that with my peers at some of the industry
10 organizations.

11 CHAIR BEHAR: Okay, Steve.

12 MR. ELA: I guess that kind of falls,
13 I mean that kind of leads into my question. I
14 hear and believe that you're doing a great job
15 and maybe your peer companies. But I guess, you
16 know, one of my concerns would be those people
17 that aren't you, and worldwide given that we have
18 agreements and certified people outside your
19 immediate area.

20 So I mean to me, having you know,
21 oops, excuse me, the proposal covers then makes
22 it a fair playing field for everybody, so that

1 somebody doesn't come in and doesn't view it the
2 way you do it and spend the money and apply the
3 model and whatever, that they don't come in and
4 undercut you just by stripping something.

5 So I guess how do we, without some
6 standard or guideline, how do we prevent that?

7 MR. HILTZ: I guess, and well, what we
8 hope for as a company is that the areas in which
9 those operations are harvesting, impose the same
10 government regulations like that we encounter as
11 we work around the world.

12 In Nova Scotia and New Brunswick, as
13 I said, this is a highly regulated industry
14 there, where we've worked extensively with the
15 Department of Fisheries and Oceans in those
16 provinces to make sure that what we're doing is
17 sustainable and is in accordance with what
18 they're looking for from us.

19 As we move into other areas around the
20 world, we try to take that model elsewhere, and
21 we try to work with local governments and some of
22 the advisory boards in those areas to try to

1 again put safeguards in place to exactly what you
2 described doesn't happen. Because it's in the
3 interest of no one, it's not in our interest to
4 destroy the resource that we're depending on for
5 our company.

6 So it's important that we and others
7 all do a good job harvesting this material,
8 because it's the future of the growth of our
9 company. So we want to make sure that we and
10 others take this seriously, and that's where we
11 again try to go and promote the model that our
12 resource science team has developed in Acadian
13 globally.

14 CHAIR BEHAR: Okay. I have one quick
15 question. As one of the environmentalists on the
16 Board, when you talk about sustainable harvest,
17 are you only looking at the regeneration of the
18 rockweed, or is there also some oversight and
19 review of the other plant and animal life that
20 depends upon that rockweed that has been
21 harvested? Is that also under review?

22 MR. HILTZ: Sure, that's a great

1 question, Harriet. I mean for sure, the majority
2 of the work that Acadian has done has focused on
3 the majority or focused on studying the
4 regeneration of the rockweed. But in accordance
5 with that, we have worked with other groups and
6 you've heard from some of them in some of the
7 comments over the past years, where we worked
8 with some of the scientists in Maine to look at
9 some of the bycatch, and we've worked with again,
10 industry, with government association in Nova
11 Scotia as well to understand what possible
12 implications there could be, you know, on other
13 areas of the fisheries.

14 That's where -- that's one of my
15 comments that I have given this morning. As I
16 said, we are happy to try to meet any criteria
17 that's put forward. But it has to be --
18 something has to be well-defined, where you can't
19 just say well, that's not enough. We need you to
20 go study this.

21 I mean okay, you've done that. But
22 that's not enough. We need you to go study this.

1 You will drive industry completely into the
2 background if you keep demanding more and more of
3 that. So as long as the terms are well-defined
4 and are reasonable, I don't think that we or any
5 other company should have any problem with
6 meeting those. But it has to be well defined and
7 it can't just be an ongoing --

8 Certainly, we're going to continue to
9 do science, but we can't be held to some waiting
10 until we have all of the science out there.

11 CHAIR BEHAR: Thank you. Sue.

12 MS. BAIRD: I'm wondering if you have,
13 and I'm sure you do, so I should not even phrase
14 that by saying I'm wondering, a matrix for how a
15 percentage that you can harvest at that time?

16 MR. HILTZ: So just to give you a
17 brief overview of the system that we use, and as
18 I mentioned, we will go out and we will use
19 things like aerial photography, satellite mapping
20 to estimate amounts of ascophyllum. We then have
21 our resource science team go out and study those
22 areas, where they'll actually do trans-sects

1 across the beach to understand, you know, based
2 on the photography we estimate there's 1,000 tons
3 in this sector. Is there really a 1,000 tons
4 there based on plant density?

5 We will then work with the local
6 authorities to look at the harvest, at the
7 harvest limitations. So for example in New
8 Brunswick, if there was 1,000 tons of ascophyllum
9 in a given sector, under the rule there we could
10 harvest only 170 tons of that. The exploitation
11 rate is 17 percent.

12 In Nova Scotia, that rate is a little
13 higher. I believe it's 21 percent I think in
14 Nova Scotia. I should know that, but I'm not
15 sure of that.

16 MS. BAIRD: Sure, sure.

17 MR. HILTZ: But that's what we will
18 do, and then we will monitor the landings that
19 our harvesters are bringing in and watch what
20 comes out of that sector of the beach. Once we
21 hit that landing number, we will then shift our
22 harvesters to a different area.

1 Even while we're harvesting, we're
2 making sure that when the guys are out there,
3 they're not just going to one corner of a beach
4 area and taking all of it from there, because
5 that again defeats the purpose of the idea of the
6 exploitation rate.

7 MS. BAIRD: So what I'm understanding
8 you to say is that it's already a well-defined,
9 regulated amount percentage of the colony that
10 you can harvest?

11 MR. HILTZ: It is in some areas. New
12 Brunswick and Nova Scotia, again especially Nova
13 Scotia. The industry has been -- where our
14 company is based, the industry has been working
15 there for a long time. So there was a lot of
16 back and forth initially with the Department of
17 Fisheries and Oceans to establish an exploitation
18 rate.

19 As we moved, or you know I'm just
20 thinking, talking only of our company, but as we
21 moved into New Brunswick for example, when we
22 worked with the government there, they were very

1 cautious. That's fine. You know, we probably
2 should be. Even though we had years in data in
3 Nova Scotia, they were a little more cautious.

4 So they established a slightly lower
5 exploitation rate there, and we've been working
6 at that rate for years. We have asked the
7 government to, you know, to look at the
8 possibility of increasing that to match what we
9 do in Nova Scotia.

10 When we expanded into Maine a number
11 of years ago, that was the same type of a system
12 that we tried to bring to regulation in Maine.
13 Again, we've worked extensively with the Maine
14 Seaweed Council to again try to bring that, that
15 I guess exploitation rate or that harvest limit
16 in place there as well.

17 It hasn't been fully implemented in
18 Maine. There is one area of the state of Maine,
19 I believe Cobscook Bay is under an exploitation
20 limit like that. The rest of the state is not,
21 and then with the lawsuit that just occurred
22 there, the whole harvesting application in Maine

1 is a little bit up in the air right now.

2 CHAIR BEHAR: So it would appear that

3 we --

4 MS. OAKLEY: I have Dan next.

5 MS. BAIRD: I'm sorry?

6 CHAIR BEHAR: Are you still asking

7 questions?

8 MS. BAIRD: You're right, I'm sorry.

9 I should have asked if I could follow up.

10 CHAIR BEHAR: Go ahead.

11 MS. BAIRD: No, that's fine.

12 DR. SEITZ: What happens if you have
13 multiple companies exploiting the same area? How
14 do they share the exploitation rate?

15 MR. HILTZ: That's a good question,
16 Dan. That's why in the written comments you will
17 notice that one of the things that we had
18 suggested that really makes the effect of the
19 system work well is not to have that system. So
20 in Nova Scotia, for example, the sectors that
21 have been awarded to Arcadian Seaplants for
22 harvest, no one else harvests it.

1 There are other sectors, like the
2 coastline is divided into sectors, and there are
3 other companies that harvest there. But they
4 don't harvest in the same sector that we do. So
5 it's impossible to have that type of an overlap.
6 In Maine, that's again where there in some areas
7 there is no licensing per se, that becomes
8 challenging.

9 That's why we as a company, as we go
10 worldwide, we try to promote the idea of
11 licensing of the areas of the shoreline to
12 individual companies, or at least a collective
13 where, you know, sectors are distributed to
14 companies and only in that way can you really
15 carefully control what's being taken out of a
16 given area of the beach.

17 CHAIR BEHAR: Okay. Emily has a
18 question.

19 MS. OAKLEY: No, just a quick follow-
20 up. One of the other commenters presented that
21 it's 25 percent in Nova Scotia. But also I like
22 that suggestion, of course. I think that makes a

1 lot of sense, but it's so far beyond the purview
2 of anything that we could suggest or implement
3 regulate, and that's up to local and regional
4 governments and authorities. But it does speak
5 to the broader problem.

6 I mean that is where I think you
7 address the issue. There are some things that
8 are beyond the purview of a review like this, and
9 that unfortunately is probably one of them,
10 simply because we don't have that authority.

11 MR. HILTZ: I will say, just to point
12 out one last thing, is again look at the overall
13 number of how much resource is being taken out of
14 the environment. In Maine, for example, where a
15 lot of the opposition to rockweed harvesting
16 comes from, we removed two percent of the
17 standing stock. Not we, all of the harvest
18 removes about two percent of the standing stock
19 of ascophyllum a year, and that's using a very
20 conservative estimate of the amount of
21 ascophyllum.

22 I think some people envision this that

1 we're out mowing down the entire coastline. That
2 is absolutely not the case.

3 CHAIR BEHAR: Okay. I just have one
4 very quick question. Is it typical that that the
5 harvesters all work for one company, or are
6 people individuals and they harvest and sell to
7 many different companies?

8 MR. HILTZ: That's a little bit
9 depending on the area, to be honest, Harriet. In
10 Nova Scotia, our harvesters work exclusively for
11 us. In other areas, in Maine, I believe our
12 harvesters are all associated with individual
13 companies as well.

14 In some of our operations that we're
15 starting in Europe, we're finding there that the
16 harvesters are more independent and because
17 again, there's no licensing, they can go to the
18 seashore and harvest and sell to any one of a
19 number of producers.

20 CHAIR BEHAR: Okay, thank you. I'm
21 going to move on to the next speaker.

22 MR. HILTZ: Thank you all for your

1 work on this.

2 CHAIR BEHAR: It was very good to have
3 your expertise here. Thank you very much. John
4 Hendrickson is next, with Doug Currier on deck.

5 MR. HENDRICKSON: Is this good?
6 Great. John Hendrickson, organic farmer, Stone
7 Circle Farm and owner of Small Farm Works, a
8 business dedicated to providing innovative tools
9 for small farms, including the paper chain pot
10 transplanting system. I'm commenting today on
11 paper pots.

12 I first want to thank the Committee
13 for the action they all took at the fall 2018
14 meeting, and thank the NOP for their decision to
15 allow the use of paper pots on organic farms,
16 while the complicated issue of paper as a
17 production aid is reviewed and researched and
18 voted on by the NOSB.

19 In thanking you, I speak for many,
20 many farmers who rely on paper pots as an
21 integral part of their business and their effort
22 to farm in a sustainable manner. With the

1 possible exceptions of community-supported
2 agriculture, hoop houses and the current
3 microgreen craze, few innovations have had the
4 impact of paper chain pots on small and medium-
5 scale vegetable farms in terms of profitability
6 and viability.

7 The economic viability is all organic
8 farms is heavily dependent on efficiency,
9 precision and successful conversion of seeds to
10 marketable crops. The paper pot transplanting
11 system dramatically increases the success rate
12 for many crops that are suitable for planting
13 paper chain pots.

14 As the many public comments
15 demonstrate, the paper chain pot transplanting
16 system is not just a super-cool tool. It has
17 direct and indirect environmental benefits
18 including, but not limited to, reducing or
19 eliminating the use of disposable or limited use
20 plastics, reducing the use of fossil fuels as a
21 hand-pulled implement, reduced soil disturbance
22 from weed cultivation as compared to the same

1 crops being direct seeded, enhanced productivity
2 allowing farmers to grow and sell more food off
3 fewer cultivated acres, and keeping small,
4 diversified operations in business through
5 reduced labor costs and reduced back-breaking
6 labor.

7 The petition I submitted last year
8 addressing the issue of paper pots has prompted
9 the NOSB to take a broader look at paper products
10 used as production aids in organic agriculture.
11 I applaud this effort because the existing NOP
12 rule does not address the many uses or potential
13 uses of paper-based products on organic farms.

14 While I am glad this happening, I hope
15 this broader examination does not delay a vote
16 and new rulemaking. A technical review has been
17 requested to investigate an array of potential
18 paper ingredients. The company that makes the
19 paper chain pot system that I sell is committed
20 to developing a product that is in compliance
21 with organic standards.

22 They just need to know to what

1 standard they need to work. Hence, my desire to
2 see a vote happen at the fall 2019 meeting. The
3 manufacturer of the paper chain pot system has
4 been actively working to develop new types of
5 paper pots that use natural fibers rather than
6 any of the synthetic fibers that are currently
7 the subject of the technical review.

8 It is my sincere hope that we will
9 have clear guidance on what ingredients are
10 allowed and not allowed in paper products
11 following the fall meeting, in order for us to
12 develop and offer products to organic farmers as
13 quickly as possible. Thank you very much for
14 your work and opportunity to comment.

15 CHAIR BEHAR: Steve, Emily, Dave.

16 MR. ELA: So I think this comes back
17 to the egg and the chicken debate. You're asking
18 for clear guidance on fibers that can be used and
19 we're asking for clear thoughts on what fibers
20 must be used and what are needed.

21 I don't know how -- I guess, you know,
22 I would turn the question back to you. What is

1 the minimum amount of synthetic fibers and what
2 are those fibers composed of, that are needed for
3 the -- for example, for the paper pots. I mean
4 we heard from Ellepot, you know. They're using
5 rayon cellulose-based materials that while
6 synthetic, probably are fairly breakdown very
7 similar to newspaper. I would ask that same
8 question for the paper chain pots as well.

9 MR. HENDRICKSON: Sure.

10 MR. ELA: Do we need plastics, or can
11 we use a rayon material or where can we go? We
12 need that information. You want us to give
13 guidance, but we need to know what's necessary to
14 start with.

15 MR. HENDRICKSON: Yeah. Well, I think
16 I've been clear that the company that I represent
17 is committed to develop a paper pot without any
18 of those synthetics. They are pursuing hemp and
19 other natural fibers to achieve a commercially
20 viable product. So that is -- our hope is that
21 we won't have to deal with the synthetic fibers
22 at all.

1 MR. ELA: Can I follow up, Harriet?

2 CHAIR BEHAR: Sure.

3 MR. ELA: But you also told us that
4 the hemp pot wasn't commercially available yet --

5 MR. HENDRICKSON: No, it's under
6 development.

7 MR. ELA: So --

8 MR. HENDRICKSON: They're trying to
9 determine how much hemp fiber is needed to
10 achieve the same quality product.

11 MR. ELA: So it still hasn't answered
12 my question. If you want us to vote on something
13 in the fall, what are we -- what do we have to
14 include in terms of --

15 MR. HENDRICKSON: I'm not asking you
16 to include any of the synthetic fibers.

17 MR. ELA: Okay. So even though you
18 don't have that product, you're fine with us
19 saying no synthetic fibers?

20 MR. HENDRICKSON: The company that I
21 represent is committed to developing a product
22 using all natural fibers.

1 MR. ELA: Okay.

2 CHAIR BEHAR: Emily.

3 MS. OAKLEY: Okay, that's interesting.

4 But I also think we have to be clear that we
5 can't create a double standard within these
6 standards in terms of the newspaper allowance
7 that's already there. I don't think there's any
8 interest in creating an imitation or a new
9 listing for paper as a planting aid that is more
10 strict than the existing listing, because I don't
11 think we're at all able to go into what synthetic
12 fibers are in all of those paper materials, what
13 adhesives and start coming up with percentages or
14 restricted materials.

15 And if we want to do that, that's a
16 whole other discussion and that supplemental TR
17 definitely gave a lot of us pause for concern.
18 But that's a whole other issue. Hopefully that
19 wasn't too convoluted but --

20 MR. HENDRICKSON: Was there a question
21 in that, or was that a comment?

22 MS. OAKLEY: That was a comment. I

1 just don't think --

2 MR. HENDRICKSON: Okay, I thought so.
3 I just wanted to make sure.

4 MS. OAKLEY: I don't think we are --
5 that's okay, yes. I don't think we are looking
6 for this TR to give us standards that we would
7 then put out to the industry, simply because
8 unless we do that for the other paper listing,
9 you would be creating a double standard within
10 the standards.

11 CHAIR BEHAR: Okay, and Dave. Okay.
12 I just have one question. Do you think the
13 development with the hemp will be completed
14 sometime in mid-summer, or I mean, when will we
15 have an idea if the hemp actually seems like a
16 viable option? I think at one point you did say
17 that there was some concern about enough in the
18 supply chain to the manufacturer to actually make
19 a product that they could produce.

20 MR. HENDRICKSON: Yeah. That's why
21 I'm encouraged by the current booming interest in
22 hemp production and expansion of farmers and

1 states being allowed to grow hemp, because that
2 will hopefully increase the supply of hemp fiber
3 internationally.

4 We tested the first samples of paper
5 pots using hemp fiber last summer. It was not
6 successful, but a new batch of paper pots are
7 apparently coming my way this summer for testing
8 again.

9 So you know, the R&D process
10 continues. I can't tell you exactly when I will
11 -- when the company will be satisfied that
12 they've come up with a product that meets their
13 standards in terms of it being a commercially
14 viable product for farmers to use.

15 CHAIR BEHAR: Okay, thank you very
16 much.

17 MR. HENDRICKSON: Thank you.

18 CHAIR BEHAR: Next up is Doug Currier,
19 with Kanaga Sabapathy on deck. I hope I said
20 that right, Kanaga Sabapathy. Thank you, Doug.

21 MR. CURRIER: Okay. Thanks, Harriet.
22 Thanks to the Board. My name is Doug Currier.

1 I'm with the Organic Materials and Review
2 Institute, and I'm here today to discuss the
3 marine materials discussion document and the
4 discussion document on paper and other crop
5 production aids.

6 First, OMRI continues to monitor the
7 work of the Materials Subcommittee on the use of
8 marine materials in organic crop production. The
9 current recommendation from the Subcommittee is
10 for NOP to amend annotation language at 205.601
11 and 602, so that marine materials used as crop
12 inputs must be certified organic.

13 As included in the discussion
14 document, OFPA includes a provision that inputs
15 substances must not be harmful to the
16 environment. Amending the National List and
17 requiring organic certification of marine
18 ingredients in order to address the OFPA
19 provision may be appropriate for this specific
20 agricultural ingredient.

21 However, as discussed today and
22 yesterday during public comments, there are many

1 other substances where that approach would not
2 work. For example, mine minerals and liquid fish
3 products are two examples of substances whose
4 procurement methods may violate that specific
5 OFPA provision that natural materials not be
6 harmful to the environment, but which currently
7 fall outside of NOP's scope in regards to organic
8 certification.

9 It is unclear whether using multiple
10 approaches to address that specific OFPA criteria
11 is required, or whether a singular approach could
12 be used to address both agricultural and non-
13 agricultural substances. Also in preparation for
14 the meeting, a survey of the OMRI list was
15 conducted, and a limited number of marine algae
16 substances were identified as certified organic.

17 This includes both final products on
18 our list that are certified, and products on our
19 list that formulate with products that are
20 certified. For comparison, there are products
21 and six livestock feed additive products
22 currently listed that OMRI considers marine algae

1 products.

2 With that said, hundreds of other
3 blended fertilizers and soil products could
4 formulate with marine algae ingredients.

5 Okay. On to paper. The Crop
6 Subcommittee discussion document on paper asks
7 whether there were other paper-based production
8 aids not mentioned in the discussion document
9 beyond mulch, compost feedstocks, pots, seed
10 tape, hot capture collars.

11 In our review of brand name products,
12 OMRI has allowed the recycled paper as a
13 component of potting mixes and as a top dressing
14 for soil. OMRI currently approves newspaper and
15 other recycled paper for these purposes under the
16 205.601(c) allowance for the material as a
17 compost feedstock.

18 The rationale for doing that is that
19 when applied to the soil, it will degrade and
20 therefore it's in line with the spirit of the
21 205.601(c) compost feedstock allowance. Thank
22 you to the Board. I welcome any questions if

1 there are any.

2 CHAIR BEHAR: Any questions? At some
3 point, I do want to talk to you about coconut
4 coir and the possible use of calcium nitrate as a
5 buffering agent. But that's not on our docket,
6 so, but maybe we can find some time later.

7 MR. CURRIER: Sure.

8 CHAIR BEHAR: Okay. Oh, Emily, go
9 ahead.

10 MS. OAKLEY: Sorry. One quick
11 question.

12 MR. CURRIER: Yeah.

13 MS. OAKLEY: So should ultimately it
14 be determined that organic certification for the
15 marine algae ingredient was a viable option, can
16 you explain how a certifier or a farmer would be
17 able to use the organic certificate as a
18 verification means?

19 Like using the Organic Integrity
20 Database or that ingredient being listed as
21 certified organic, but clearly there's no purview
22 or ability to list the product itself as organic.

1 MR. CURRIER: So, marine algae is
2 interesting because it is so commonly used as a
3 crop input. But it is also certifiable and is
4 certified for human use. And so I guess from an
5 input material review perspective, we would
6 accept an organic certificate as proof of
7 compliance as a crop input.

8 And so we have ways of verifying an
9 organic's status in our reviews. So yeah, I
10 think from an input material review perspective,
11 that's how we would look at it. Okay, thanks.

12 (Off-microphone comments.)

13 CHAIR BEHAR: Kanaga Sabapathy? Okay.
14 Next up is Julie Weisman with Anne Bikle on deck.

15 MS. WEISMAN: Good morning. My name
16 is Julie Weisman. I thank the program and the
17 NOSB for the opportunity to provide comment
18 today. The two companies I represent, Elan Mill
19 and Flavorganics have been developing and
20 bringing to market organic flavor ingredients for
21 use by organic food companies and organic
22 consumers for over 20 years.

1 I served on the NOSB from 2005 to 2010
2 in the handling position, during which time
3 commercial availability was my passion.

4 Developing a market for a certified organic minor
5 ingredient in the absence of a regulation that
6 required its use has been a continuing challenge.

7 By my rough estimate, only about half
8 of organic products that use flavors are
9 currently using certified organic flavors. The
10 remaining products have been instead relying on
11 what conventional flavor industry refers to as
12 NOP-compliant natural flavors, and many have
13 built businesses around that.

14 Anyway, so I want to thank the NOP for
15 the fact that this December, the use of a natural
16 flavor will only be permitted in organic product
17 when a certified organic flavor is not
18 commercially available. Yay.

19 Converting that other half, though, is
20 not going to happen magically at the stroke of
21 midnight on December 27th, and likely not without
22 the attention of ACA and perhaps additional

1 guidance from the front of this room.

2 Why do I say that? The needle will
3 not move at all until companies using natural
4 flavors in their certified organic products are
5 made aware that the bar has been raised, but
6 certainly by their certifier and hopefully by
7 their trade associations or even their flavor
8 supplier.

9 And there will be many products for
10 which an effective case will be made that there
11 is no organic X say strawberry flavor that tastes
12 quite like the NOP-compliant flavor that we're
13 currently using. I don't mean me. And I can
14 share thoughts on ways to address this, but I am
15 most concerned that a significant portion of
16 flavor ingredients could fall through the cracks
17 because they are often not called flavor. They
18 may be referred to as extract or concentrate
19 because they conform to a specific legal standard
20 of identity, and sound better in a clean labeling
21 environment.

22 It's very important that we understand

1 that these part -- these are part of flavors non-
2 synthetic listed on 605(a), and they are also now
3 subject to the commercial availability
4 requirements. This is where I think additional
5 guidance might be helpful.

6 It is not my intention to rain on this
7 parade. To be sure this rule change is a success
8 I celebrate it. I thank the OTA for filing this
9 petition. I thank the NOSB for working on it and
10 passing the petition, and the NOP for making it a
11 final rule.

12 It is a step forward in the continuing
13 improvement of organic integrity. I welcome the
14 opportunities that it opens up for companies like
15 mine, and like everything else in organic, the
16 product will not be realized without vigilance,
17 and with the same clear understanding of what is
18 to be regulated, that the NOP and the NOSB can
19 provide. Thank you all for your service.

20 CHAIR BEHAR: Any questions from the
21 Board? Dan.

22 DR. SEITZ: Yesterday there was a

1 consumer who testified, who asked the question,
2 why is it that you even allow natural flavors in
3 organic foods, and I'm just curious from just a
4 naive standpoint. If you have other substances
5 that are organic, why is this category necessary
6 for organic foods?

7 MS. WEISMAN: Because when the
8 regulations were originally crafted, that's
9 getting to be back in ancient history now. But
10 when we were originally, I was -- when that was
11 originally being crafted, there were no certified
12 -- there were no organic flavors, and there was a
13 great desire to be able to make food products
14 beyond raw vegetables and that consumers would
15 recognize as analogous to other things that they
16 were already using.

17 And so we were actually the first
18 company to offer a certified organic, any kind of
19 flavor, and that took a while to develop. That's
20 a -- it's continuing a whole other discussion,
21 but so -- and they were placed on the list. It
22 was assumed that natural flavors for the most

1 part were not what anyone would consider
2 agricultural products.

3 So they couldn't be -- and also 606 at
4 the time wasn't -- this was pre-Harvey. So 606
5 wasn't even being used. It was assumed that any
6 agricultural product could be used. It didn't
7 need to be on the list. That's where things were
8 at then. So have I -- so there was on 605(a),
9 there is no commercial availability requirement.

10 So we've been pushing organic flavors
11 for the last 20 years to people who say but a
12 non-organic flavor is cheaper. I'd rather use
13 that. There was no, there was no requirement.
14 Now there is. Now certifiers are going to have
15 to ask like well, did you -- what other suppliers
16 have you checked with? Have you tasted these out
17 against the other ones?

18 CHAIR BEHAR: Okay, thank you Julie,
19 an alumni of the NOSB. Okay. Anne Bikle and
20 then Robert Mensonides is on deck. Thank you,
21 Anne. Oh, we have pictures.

22 MS. BIKLE: Thank you. Hello. My

1 name is Anne Bikle, and by way of introduction,
2 I'm a science writer as well as an organic
3 gardener. I'm also the co-author of this book,
4 The Hidden Half of Nature, which I wrote with my
5 husband, David Montgomery. The book in part is
6 the basis for my comments today.

7 It explores the burgeoning new field
8 of microbioscience and the implications for
9 agriculture and medicine. I was peripherally but
10 not fully aware of the range of soil stewardship
11 practices allowed under the NOP. However a
12 recent event where I was speaking prompted me to
13 look into the matter, and what I discovered
14 troubles me.

15 These images are from an organic
16 blueberry farm that includes a social media video
17 stating, you'll notice we have tunnels. We grow
18 in black pots. We have black ground cover.
19 Indeed, I can see that as I think everybody else
20 can. And this is a bird's eye view of same
21 organic blueberry farm from a magazine article,
22 noting that the blueberry plants are grown in

1 virgin soil media and why that practice is
2 advantageous.

3 Now, my intent is not to pick on this
4 farm, as there are others with the same practices
5 and more coming. The crux of the issue I believe
6 is this. These practices are wholly inconsistent
7 with at least five sections of the OFPA and NOP
8 that pertains to soil. Here are just two
9 examples.

10 Section 651(3)(b)(i) of the OFPA
11 states in part, an organic plant shall contain
12 provisions designed to foster soil fertility.
13 And Section 205.205 of the NOP states in part,
14 the producer must implement a crop rotation to
15 maintain or improve soil organic matter content.

16 I find it farfetched that covering
17 soil with semi-permanent plastic fabrics could do
18 anything to foster soil fertility. These
19 practices suffocate and starve the soil
20 microbiome, which in turn cripples the nutrient
21 cycling that creates and maintains soil fertility
22 and plant health.

1 Deadened soils are the chief outcome
2 of conventional agriculture. Why are some
3 organic farms now headed in the same direction?
4 In addition, how is confining crops to pots
5 filled with soil-less media that is routinely
6 thrown away after production, along with the
7 pots, the plants and the plastic sheeting, doing
8 anything to productively manage soil organic
9 matter through crop rotations? I find this
10 implausible, as well as a planetary calamity.

11 In closing, I believe there's a high
12 level of cognitive dissonance between what the
13 OFPA and the NOP rules state, and what is
14 happening on some organic farms. Shall and must
15 as quoted above are not words with a gray or
16 vague meaning. These words mean required. And
17 so is it too much to ask that required practices
18 needed to safeguard soil be implemented?

19 I don't think so, and that's why I'm
20 asking this body, the NOP and certifiers to more
21 effectively address the issue of long-term soil
22 health. Thank you.

1 CHAIR BEHAR: Thank you, Anne. Any
2 comments, questions? I have -- I'm not sure.
3 Did you say how many acres this operation is that
4 we're looking at? Do you know?

5 MS. BIKLE: No, that information is --
6 I believe this is 20 acres, but that information
7 was in the magazine article.

8 CHAIR BEHAR: Okay, and sorry for not
9 pronouncing your name right.

10 MS. BIKLE: That's okay, it happens.

11 CHAIR BEHAR: Thank you very much.

12 MS. BIKLE: Uh-huh.

13 CHAIR BEHAR: Okay. Next up is Robert
14 Mensonides with Mary Chramiec on deck. Okay,
15 Robert are you -- no, there's going to be a
16 change. We have a little switcheroo here. Oh, I
17 know who he is. Richard Mathews will be
18 speaking. Okay, you may start. Whoops, you may
19 start.

20 MR. MENSONIDES: Can you hear me?
21 Thank you for letting us to come to you this
22 afternoon, and my name is Rob Mensonides. I'm

1 the new executive director for WODPA, and I live
2 here in Washington state, in Eastern Washington.
3 I'm also an organic farmer that is directly
4 affected by the organic dairy producers.

5 Richard has a long history of dealing
6 with what we're going to talk about, so I'm going
7 to let him hit on some points here, and then
8 we'll be here to answer questions.

9 MR. MATHEWS: Richard Mathews of
10 WODPA. Thank you to Abbie Youngblood, National
11 Organic Coalition, Kate Mendenhall, the Organic
12 Farmers Association, Laura Batcha, Megan DeBates,
13 Johanna Mirenda, Organic Trade Association for
14 your support in calling for publication of the
15 origin of livestock final rule.

16 Thank you to the NOSB Board for your
17 St. Paul origin of livestock resolution. I now
18 see a ray of sunlight penetrating the dark clouds
19 over the organic sector. Thank you Dr. Tucker
20 for your words of support for organic dairy
21 families. It is now time for USDA to completely
22 drive away the dark clouds by completing the

1 origin of livestock rulemaking.

2 The proposed rule was published four
3 years ago. The final rule could have and should
4 have been published three years ago. Andrew,
5 B.J., Ryan, Tony, you heard them yesterday. They
6 are not here today and will not be in organic
7 dairy much longer if USDA does not complete the
8 final rule soon.

9 There is no need for a new import
10 analysis. The plain language of the preamble is
11 clear. Once a herd has been converted to organic
12 animals -- or once a herd has been converted to
13 organic, all future animals must be last third of
14 gestation. Unfortunately, through a structural
15 error in the reg text created by the -- which
16 created the two track system.

17 And now due to the lack of
18 enforcement, this two track system has morphed
19 into a multi-track system that allows clear
20 violations of the regulations. Think antibiotics
21 followed by one year transition. Think removing
22 organic calves from the organic operation for

1 conventional grazing, and conversion back to
2 organic.

3 The origin of livestock rulemaking is
4 intended to make the regulation consistent with
5 the clear intent of the preamble. That is your
6 justification for moving directly to the long,
7 painfully long overdue final rule.

8 CHAIR BEHAR: Okay. Are there any
9 questions from the Board? Ashley.

10 MS. SWAFFAR: Thank you for your
11 passion on this. I know it's you guys'
12 livelihood, but I actually have questions about
13 materials, sorry.

14 MR. MATHEWS: Okay.

15 MS. SWAFFAR: Not going to get away
16 with that. So on the vaccine document, you had
17 said, I think you had went with what we had said
18 Option 1, just to list or to have vaccines
19 available, regardless of if they're excluded --
20 made from excluded methods or not. So just
21 wanted to clarify that.

22 MR. MATHEWS: Yes.

1 MS. SWAFFAR: And then on the iodine,
2 we're hearing some folks kind of wanting to
3 annotate that with no MPEs. Do you guys see an
4 issue if we were to annotate that?

5 MR. MATHEWS: I believe that you would
6 probably eliminate most of the iodines.

7 MS. SWAFFAR: We were -- we saw in
8 some public comment that some of the dairy, the
9 people that they supply milk to are requesting
10 that they use iodine that don't have MPEs in
11 them.

12 MR. MATHEWS: Yeah.

13 MS. SWAFFAR: So that's kind of where
14 that was coming from. But you're saying it would
15 -- you don't see an iodine source available?

16 MR. MATHEWS: That was the concern
17 that I didn't want to raise, because I'm afraid
18 of the extent of the impact and the future
19 availability of iodine.

20 MS. SWAFFAR: Okay, thank you.

21 CHAIR BEHAR: Did Dave have a
22 question?

1 MR. MATHEWS: If you all don't change
2 the rule, it really won't matter for some of
3 these producers.

4 CHAIR BEHAR: Dave.

5 MR. MORTENSEN: I think mine is just
6 in an assertion and an observation. I just
7 wanted to thank you and your colleagues today and
8 yesterday for being here. I sense that when we
9 have this kind of -- I mean how could we not hear
10 it? That this will drive a tipping point that I
11 have to believe will happen almost immediately.

12 I think some of us on the Board, maybe
13 many of us on the Board are wondering about some
14 of the other things that we could be doing.
15 Being a newcomer to this process, it is
16 enormously and I know that I speak for the Board,
17 enormously frustrating when we work on things
18 together, and pass things that you work on for
19 years together and then they're not implemented,
20 it just doesn't make any sense.

21 And when we hear about how it's
22 impacting folks, it's heartbreaking. So we will

1 do whatever we can to be sure that the message of
2 the Minneapolis meeting is as clearly heard in
3 Washington, D.C. as it can be. So thank you for
4 coming.

5 MR. MATHEWS: Yeah, and the two track
6 system that we ended up with, it was a structural
7 problem to the regulation. It's very clear in
8 the preamble what the intent was, and what it did
9 was you had an exemption for the dairy animals,
10 and those people that had only used that first
11 exemption, they were allowed to continuously
12 transition because of the structure.

13 Because when you move into the second
14 exemption, that is the exemption for feed. So
15 the people who take advantage of either the
16 80/20, the old 80/20 that's now gone as of 2007,
17 or those who are taking advantage of the third
18 year, feeding of third year transitional crops
19 and pasture, they -- all of them are confined to
20 last third of gestation.

21 It's because the requirement for the
22 last third of gestation was thrown into that as

1 triple I of that second exemption. It should
2 have been its own stand-alone issue, applicable
3 to those who did just the first exemption and to
4 those who did both.

5 What we've seen in recent times is that that
6 two track system, which is clear enough, the
7 Department has been saying for 17 years they were
8 going to fix it. I remember working on a
9 proposed rule in 2007 that went nowhere. Then we
10 finally got one out in 2015, and the Department
11 dropped the ball.

12 Nobody wants this. But it's killing
13 the small and medium-sized dairy farmers. It
14 really is, and we need that final rule today.

15 CHAIR BEHAR: Okay. I just want to go
16 back to the vaccines. Would it be acceptable to
17 have the vaccines if we had a commercially
18 available list, to do it that way, or you just
19 want to completely remove any annotation that's
20 currently present in the rule, which says that
21 vaccines have to currently be on the National
22 List in an individual way?

1 But just kind of basically approve
2 vaccines as a class that are from excluded
3 methods. Which way would you prefer?

4 MR. MATHEWS: Well, in reality --

5 CHAIR BEHAR: Or could you live with
6 both?

7 MR. MATHEWS: Probably could live with
8 both, as long as the farmer still had the tools
9 they needed to meet federal requirements and to
10 make sure that their animals are healthy. That's
11 the issue for us.

12 CHAIR BEHAR: The Subcommittee has no
13 intention of taking vaccines away from livestock
14 production. Okay, thank you. Next up is --

15 MR. MATHEWS: Thank you.

16 CHAIR BEHAR: Mary Charmiec. Maybe
17 you'll say your name for me and --

18 MS. CHARMIEC: Charmiec.

19 CHAIR BEHAR: On deck is Dain Craver.

20 MS. CHARMIEC: Do I need to -- okay.
21 My name is Mary Charmiec. I am a senior
22 certification specialist at CCOF or California

1 Certified Organic Farmers. Today I will be
2 commenting on the sunset review of nutrient
3 vitamins and minerals, and also on the National
4 List petition for pullulan. Pullulan. Okay, I
5 got it. I'll just say it once.

6 25 CCOF certified operations currently
7 use nutrient vitamins and minerals within their
8 organic system plan. These vitamins and minerals
9 are used in a wide variety of organic products.
10 CCOF supports the continued listing of nutrient
11 vitamins and minerals.

12 However, we feel that the annotation
13 should be revised. The winding history of this
14 listing has brought forth an often confusing
15 playing field for all parties involved. CCOF
16 supports Option 2 with proposed Annotation 4 from
17 the 2016 Handling Subcommittee discussion
18 document, which reads:

19 "205.605(b), Vitamins and Minerals,
20 Synthetic, for food, minerals including trace
21 elements and vitamins identified as essential in
22 21 C.F.R. 101.9. For infant formula, vitamins

1 and minerals as required by 21 C.F.R. 107.100,
2 or/and 107.10 are allowed for use in agricultural
3 products labeled organic and made with organic-
4 specified food ingredients or food groups."

5 Option 2 provides succinct and clear
6 standards that are critical for ensuring long
7 term compliance. Furthermore, Option 2 best
8 aligns with the 2012 NOP proposed rule, and is
9 the strongest basis for moving forward on this
10 issue.

11 It is the most likely to be
12 consistently enforced because certifiers --
13 because it clearly cites where to find the
14 allowed list of essential nutrients. Consistent
15 application and enforcement are of course key.

16 Switching gears to pullulan briefly,
17 10 CCOF certified operations currently use
18 pullulan capsules within their organic system
19 plans, to manufacture vegetarian dietary
20 supplements. CCOF supports the additional of
21 pullulan to the National List at 205.605(b) as
22 non-agricultural non-synthetic substance.

1 We encourage the NOSB to add an
2 annotation restricting the use of pullulan to
3 dietary supplements, supplement products labeled
4 "made with organic." The addition of pullulan to
5 the National List will support the continued
6 allowance of pullulan capsules, as well as help
7 ensure consistent application and enforcement.
8 Thank you for your time, service and
9 consideration.

10 CHAIR BEHAR: Any questions? Thank
11 you very much.

12 MS. CHARMIEC: Thank you.

13 CHAIR BEHAR: Next up is Dain Craver,
14 and then Paul Vandenberg on deck, and I believe
15 he is a fermented beverage man.

16 MR. CRAVER: Okay. Well, I would like
17 to thank you guys. I know how hard it is to be
18 on a Board and Commission. You guys have a lot
19 on your plate and you have to go through a lot of
20 things. I'm a really passionate organic grower
21 and I have been for over 26 years.

22 Today, I'd like to talk about

1 something that we've already heard a little bit
2 about, but it's a major component in growing
3 fruit, and that pheromones. A lot of people ask
4 what are pheromones. Well pheromones are just
5 basically this. This is a plastic pheromone that
6 we hang on the top of the tree. And the way
7 pheromone works is a lot like if you've ever seen
8 a female dog in heat, how the male's kind of
9 attract around her?

10 Well, the same thing happens in the
11 insect world. Codling moth go through four
12 stages. They overwinter as a pupae. The pupae
13 drops to the ground in the spring, about this
14 time, right, when we're starting to get blooms in
15 our trees.

16 And the male codling moth, of course,
17 smells her out and goes and mates. She then lays
18 eggs on the leaves or on the front, and the worms
19 will go through in the second part of their life
20 cycle inside the fruit. They'll pupae it out and
21 this can happen three or four times.

22 The first time that I was ever

1 involved with mating disrupter was with Dr. Jay
2 Brunner. I was leasing a WSU research orchard in
3 Othello, and mating disruption was just coming
4 out. This had a really bad codling moth problem,
5 and they were spraying a lot of different things.

6 Well what happened is when we used
7 this mating disruption, all of the sudden we had
8 predators and parasitoid wasp. A lot of bugs I
9 had never even seen before, and that really
10 inspired me that there was a way to do it without
11 spraying. When we used these mating disruptors,
12 we're not going up and down our rows 10 or 15
13 times spraying with things that don't work very
14 well.

15 Ryania was the stuff that we used to
16 use before we got the pheromones in. Because of
17 the pheromones, I get a lot more of these,
18 ladybugs, and it's just -- it's a great way to
19 control it. Is it 100 percent effective? No.
20 What happens is that sometimes we'll get hot
21 spots or moths will mate outside of our orchard
22 and come into it, and there we then we use

1 viruses which are certified.

2 What we've seen happening in Europe is
3 that these viruses, the insects are getting
4 resistance to them. So they're going to a higher
5 potency. We've already seen this a little bit in
6 our state, and so we're using that. And probably
7 a third one you could use, which I don't like to
8 use at all is Entrust.

9 I know it's certified organic, but it
10 really kinks on my predators and I just feel like
11 it gets everything out of whack. And so I do use
12 it in my cherries, but I don't like to use it in
13 my apples. I hope that you'll consider to keep
14 these in use. I heard the question earlier about
15 was -- are they sprayed on the trees? No,
16 they're not.

17 We do, however, have misters. I don't
18 personally use any, but a couple of my growers do
19 and they actually just spurt out the pheromone at
20 the certain time. There's only about an hour
21 time when the moths fly. So I hope you guys will
22 take into consideration and keep it alive for us

1 organic growers. Thanks.

2 CHAIR BEHAR: Any questions? Steve.

3 MR. ELA: I'll just ask the one. I
4 mean are there any sprayable formulations out on
5 the market now?

6 MR. CRAVER: For? Can you repeat?

7 MR. ELA: For pheromones.

8 MR. CRAVER: For conventional, they
9 are. They've been working on some. Our Shuford
10 Research Commission (phonetic), they're adding it
11 with their conventional products, and the
12 organics, there's nothing that we're using right
13 now. There's just a lot of add me to the tank
14 and let's see if it works stuff Steve.

15 MR. ELA: Yeah. I mean that's --
16 yeah. You and I know that. I just wanted to get
17 it on the record, so thanks.

18 MR. CRAVER: Okay.

19 CHAIR BEHAR: Okay, thank you.

20 MR. CRAVER: Right, thanks.

21 CHAIR BEHAR: Next up is Paul
22 Vandenberg, and on deck is Jackie DeMinter.

1 MR. VANDENBERG: Good morning. I'm
2 Paul Vandenberg, wine grower and chief scientist
3 for Paradisos del Sol. We are an estate winery
4 and certified organic vineyard. My primary
5 reason for coming today was to thank you for the
6 rather challenging tasks you all take on in
7 helping us figure this out, and to encourage you
8 to keep the standards high.

9 Some of the things previous speakers
10 spoke about blueberries. I often look at
11 blueberries in my neighborhood and wonder how
12 that can possibly be certified organic. Confined
13 animal feed operations, that shouldn't even be in
14 your arena in my view. You should send that back
15 to the Secretary of Agriculture.

16 One of the things being discussed,
17 hydroponics. Absolutely contrary to the
18 fundamental basis of organic. We are supposed to
19 be building our soils. That's something we feel
20 like we've done quite successfully. We have just
21 completed six years of the zero use of any inputs
22 on our farm other than labor, water and manure,

1 no pesticides of any sort.

2 Vitis vinifera, the wine grape, has a
3 natural problem in the world today, and that is
4 originated in Eurasia, where there was no powdery
5 mildew. Powdery mildew is native to the
6 Americas. We believe we are the only commercial
7 vineyard on earth who is not using chemical
8 treatments for the prevention of powdery mildew.

9 So these things are possible if people
10 really pursue them. So I'm going to encourage
11 you to continue maintaining the high standards,
12 and to try and avoid some of the pressures from
13 the large corporate farms who are trying to
14 pursue organic as a profit thing and want to use
15 things that perhaps they shouldn't, and are not
16 required to provide proof of soil building and
17 increased biodiversity on their farm.

18 I don't have an insect problem because
19 I have today five species of flowering plants in
20 bloom in my vineyards, providing a pollen and
21 nectar source for a lot of the important
22 predatory insects. They control the pests in my

1 vineyard. You cannot find leafhoppers in my
2 vineyard. You cannot find grape mealybug in my
3 vineyard.

4 Sprays may not be necessary. So
5 anyway, thank you for your work. I appreciate
6 your efforts on our behalf, and please continue
7 to keep the standards high.

8 CHAIR BEHAR: Rick.

9 MR. GREENWOOD: Thanks. So tell me
10 how you control the powdery mildew?

11 MR. VANDENBERG: Most vineyards use a
12 trellis system that in my view has been obsolete
13 since 1975. There is this area we call canopy
14 management. Powdery mildew theoretically will
15 not survive in strong, direct, ultraviolet light,
16 which is something we have in Yakima Valley.

17 I'm not finding that entirely true.
18 There are some varieties, some cultivars we have
19 that it's not working so well. So I have a
20 couple of cultivars we're starting this year.
21 We're going to try and control powdery mildew
22 with a single application of stylet oil at bloom.

1 But I have a number varieties, angelasian
2 semillon (phonetic) that have not a problem with
3 it, as long as we keep the canopy and well-
4 exposed to sunlight, which also makes better
5 wine.

6 MR. GREENWOOD: I have a small
7 vineyard, and the leaves sometimes get together
8 and there's shade between them and moisture, and
9 where you still don't get --

10 MR. VANDENBERG: Labor is a really big
11 input for us. There's these things called shoot
12 thinning and leaf pulling.

13 MR. GREENWOOD: Okay.

14 MR. VANDENBERG: Thank you.

15 CHAIR BEHAR: Sue, Steve and Asa. No,
16 no. We're not done with you. Sue, Steve and
17 Asa.

18 MS. BAIRD: What is your average
19 humidity, because in Missouri, we just cannot
20 grow organic grapes. I'm sorry.

21 MR. VANDENBERG: Well you know, the
22 fundamental rule as proposed by Sir Howard in

1 Rodale way back when I was a child reading
2 organic gardening magazine in 1960, is you first
3 have to choose the right thing to grow in the
4 right place. So I chose the farm I'm on
5 specifically because I thought it was possible to
6 grow grapes without these inputs.

7 It's taken me a while to get there.
8 I had a lot to learn. But yeah. In our
9 neighborhood, if the thermometer hits 95 degrees,
10 the humidity is below 20 percent and the heat
11 index is 92 or 93.

12 MS. BAIRD: Yeah, and absolutely in
13 Missouri if it hits 95 we've also got 85 percent
14 humidity.

15 MR. VANDENBERG: Well, there's a lot
16 of work being done at Cornell at other places on
17 cross-breeding the Native American species with
18 resistance to powdery mildew with the European
19 *Vitis vinifera*. What's going to happen east of
20 the Rockies in the next few decades is going to
21 be really amazing.

22 There are -- there's a lot of work

1 being done in France, where a third of all the
2 pesticides in France are believed to be used on
3 the three percent of the farmland that's
4 vineyards.

5 CHAIR BEHAR: I'd just ask the Board
6 that if you're looking to the speaker as a crop
7 consultant, maybe you can do that afterwards.
8 But if you're specifically asking questions about
9 what's before us on the docket, that would be
10 okay. So next I have Steve, then Asa and Emily.

11 MR. ELA: Just you're not done yet.
12 I just want to say there are unsprayed orchards
13 in Colorado. So I don't want you to be the only
14 one but --

15 MR. VANDENBERG: Vineyards or
16 orchards?

17 MR. ELA: Vineyards, I'm sorry.

18 MR. VANDENBERG: Oh, yes. We've been
19 hesitant about making the claim. I've been
20 saying the world's first zero pesticide vineyard,
21 in the hopes that there would be others. And
22 yes, Colorado should be able to do it all the

1 time.

2 MR. ELA: Similar, similar climates,
3 so yeah.

4 MR. VANDENBERG: Right.

5 CHAIR BEHAR: Okay, Asa.

6 MR. BRADMAN: So just to confirm, you
7 aren't using sulfur or --

8 MR. VANDENBERG: Sulfur is a
9 pesticide.

10 MR. BRADMAN: Right. So you're not
11 using it?

12 MR. VANDENBERG: Our only inputs for
13 six years is labor, water and manure.

14 MR. BRADMAN: Thank you.

15 CHAIR BEHAR: Emily.

16 MS. OAKLEY: So we have this petition
17 before us hopefully for body alcohols, and one of
18 the points that has been raised is that it's
19 necessary because there's a tremendous amount of
20 labor in desuckering the tobacco, and I'm
21 wondering based on your comments on the amount of
22 labor that it takes to do shoot thinning and

1 pulling, what your thoughts are on materials like
2 that one.

3 MR. VANDENBERG: I think as we stand
4 now, people tell me what I do is totally
5 impractical and it probably is, because we do --
6 it's my labor primarily. We're a small vineyard.
7 I do believe, however, that things are changing,
8 just as the apple growers are all preparing for
9 robotic picking.

10 I think the technologies that are
11 coming down the line for thing like mechanized
12 shoot thinning, a machine that can shoot thin the
13 way I do. Right now there are mechanical ones
14 that just knock out a certain percentage, whereas
15 we remove very selectively for shoot thinning and
16 leaf pulling.

17 I actually wish I had one of the leaf
18 blasting machines I call them that uses air to
19 disintegrate leaves in the fruit zone, because we
20 spend a lot of time doing that by hand. But
21 there's not one of those machines in my
22 neighborhood; otherwise, I would very happily

1 rent that.

2 So what I do right now is not
3 practical I think for a large-scale commercial
4 operation, because labor just doesn't work. But
5 I think in a few years that robotic pruning and
6 robotic shoot thinning can make it possible. So
7 yeah. I don't think everybody can get away from
8 using spray materials for powdery mildew. I
9 don't think it's possible on some varieties.

10 Don't grow tempranillo, don't grow
11 chardonnay if you want to avoid powdery mildew.
12 Those will probably need something, until we
13 create some genetic alternatives to those.

14 CHAIR BEHAR: Okay. I have just one
15 comment. I've often said when people have
16 problems with insects and diseases on their
17 organic farms that we're the ones with the big
18 brains, and so we should be trying to figure it
19 out. So I applaud you for the elegant system
20 that it sounds like you have on your farm.

21 MR. VANDENBERG: Thank you.

22 CHAIR BEHAR: Now we're finally done

1 with you.

2 MR. VANDENBERG: Sure, because I've
3 got to go back to farming.

4 CHAIR BEHAR: Jackie DeMinter is next,
5 with Winston Rost on deck. Hello Jackie.

6 MS. DeMINTER: Good morning. My name
7 is Jackie DeMinter. I am the Certification
8 Policy Manager at MOSA. We certify about 2,150
9 organic operations through the United States. I
10 will be commenting on vaccines, seed guidance and
11 paper pots.

12 Of the 870 livestock operations
13 certified by MOSA, approximately 500 use
14 vaccines. MOSA has categorically allowed the use
15 of vaccines and because of this, we only have
16 about 50 different products recorded in our
17 materials database.

18 If verification of non-GMO status is
19 to become a requirement, we'd appreciate a
20 resource to reference for quick answers, and a
21 phase-in period to gather all of the necessary
22 information from farmers and to enable us to

1 approve the products in use, or to redirect them
2 to allowed products, if any are found to be
3 unacceptable.

4 We do not want to see a disruption of
5 the tools organic farmers have come to rely on.
6 There are at least a couple of paths the NOSB
7 could take in making a recommendation to achieve
8 the goal of minimizing the use of vaccines
9 produced using excluded methods.

10 MOSA could align with a direction to
11 continue business as usual, but with attention
12 toward addition of any concerning vaccines as
13 prohibited to the National List, or we could
14 align with a more thorough review process with
15 established resources to ensure consistency in
16 decision-making.

17 Seed guidance. MOSA certifies 1,875
18 operations for crops. We encourage you to pass
19 the proposal at this meeting, to enable the NOP
20 to take up revision suggestions and enable
21 additional public comment. We support the
22 majority of the new and revised updates for

1 strengthening the seed guidance.

2 Additional clarification is needed,
3 write this down, on additions to 4.1.6,
4 4.2.1(b)(3) and (b)(6) and in Section 4.4.4, we
5 think you should remove the reference to
6 transplants and minor edits are also needed in
7 (a). Our written comments detail our requests
8 for clarification.

9 Paper pots. MOSA certifies
10 approximately 500 vegetable and transplant
11 growers. While we support the inclusion of paper
12 pots to the National List for use as a crop
13 production aid, we also think the NOSB process is
14 sound, and are looking forward to seeing the
15 results of the technical review on the fibers.

16 In the meantime, we'd like clear
17 guidance regarding the approval of new products,
18 but similar to those that we are currently
19 allowing. I'll end by stating our continued
20 support for NOSB process and the work you do, and
21 to the program we'll add our voice, which is
22 representative of several hundred small family

1 dairy farms to the many comments you've already
2 received. Please move forward with a final rule
3 on origin of livestock.

4 Sue, MOSA does not allow organic dairy
5 animals to be removed from organic production and
6 then later returned to the organic herd. Thank
7 you. I'm happy to answer any questions you have.

8 CHAIR BEHAR: Thank you. Any
9 questions from the Board? As usual, MOSA is very
10 complete and thorough I've noticed in the
11 comments.

12 MS. DeMINTER: Thank you.

13 CHAIR BEHAR: Okay. Next up is
14 Winston Rost.

15 MR. ROST: Rost, yeah.

16 CHAIR BEHAR: And Kyla Bedard is on
17 deck.

18 MR. ROST: My name is Winston Rost.
19 I'm a certification specialist for Vermont
20 Organic Farmers, the USDA accredited certifier
21 owned by the Northeast Organic Farmers
22 Association of Vermont. We certify over 700

1 organic producers in Vermont. 200 of those are
2 maple producers. Washington does apples; we do
3 maple syrup.

4 I would like to thank the Board for
5 all of its hard work and for the opportunity to
6 give comment today on two agenda items. We
7 support -- number one, we support the
8 Subcommittee's work toward genetic integrity
9 transparency of seed grown on organic land.

10 We appreciate that the Subcommittee
11 has expressed the tolerance levels for seed
12 contamination will not be created at this time.
13 This proposal will be most successful if used as
14 a tool for collecting information and determining
15 levels of contamination, as opposed to being a
16 means to determine compliance.

17 We do not feel that this proposal, if
18 implemented, would be a burden to organic
19 producers in Vermont. However, we do not have a
20 significant group of producers who grow organic
21 corn. In addition, the suppliers of organic corn
22 seed in the state have multiple varieties of

1 organic feed corn available to producers.

2 Number two, we appreciate the NOSB
3 starting the process of developing specific
4 criteria and questions for assessing cleaning and
5 sanitation materials used in organic production.
6 Cleaning and sanitation materials are an
7 important tool for organic processors, crop and
8 livestock producers.

9 We also support the Subcommittee's
10 request for a technical review of cleaners and
11 sanitizers. At the same time, it is essential
12 that certifiers and producers have guidance about
13 how to review and use these materials. We
14 support the ACA's practical comments and feel
15 their suggestions will help to improve the
16 discussion document. Thank you.

17 CHAIR BEHAR: Thank you. Any comments
18 from the Board? All right, thank you very much.
19 Next up is Kyla Bedard with David Moore on deck.

20 MS. BEDARD: All right. My name is
21 Kyla Bedard. I'm a certification specialist for
22 dairy for also Vermont Organic Farmers or VOF.

1 I'd like to thank the NOSB for all of your hard
2 work and opportunity today to comment on paper
3 pots and use of excluded method vaccines.

4 We appreciate the NOSB adding paper
5 pots to their work agenda in a timely manner.
6 VOF continues to stress the importance of this
7 product to small-scale vegetable producers in
8 Vermont. We request that the NOSB reviews this
9 material that virgin paper be included as part of
10 that review.

11 This may mean requesting that the
12 technical review includes virgin paper as well as
13 recycled paper. If additives such as synthetic
14 fibers are concerned, then allowing virgin paper
15 may offer better control over what additives the
16 paper contains.

17 In addition, we ask that the NOSB take
18 a practical approach to reviewing this material,
19 understanding that paper is already widely used
20 in organic systems such as mulch and pots.

21 We agree with the Subcommittee's
22 emphasis on the importance of vaccines to organic

1 livestock producers. Vaccines play a critical
2 role in preventing disease. We believe that the
3 current regulations prohibit the use of vaccines
4 produced with excluded methods, unless they are
5 on the National List.

6 Currently, VOF reviews all the
7 vaccines used by our producers to determine if
8 those vaccines have been produced with excluded
9 methods. We have not found that the livestock
10 producers we certify, primarily dairy and small-
11 scale beef, pork and poultry operations, have
12 needed a vaccine produced with excluded methods.

13 However, we do not certify large
14 poultry or pork operations and we understand that
15 there may be vaccines needed by livestock
16 producers in other parts of the country that are
17 not needed in Vermont. Therefore, we support the
18 change proposed by the Subcommittee that would
19 allow producers to use vaccines made from
20 excluded methods when alternatives are not
21 commercially available.

22 For clarity, we suggest using a

1 definition of commercial availability that is
2 similar to seeds and planting stock, quality,
3 quantity and specific to a disease or health
4 issue. Documentation of commercial availability
5 could include statements from a vet and
6 statements from suppliers of vaccines.

7 To close, since we have Dr. Tucker's
8 ear, VOF would like to stress the importance of
9 implementing the final rule of origin of
10 livestock. We cannot delay on this and further
11 negatively impact our small dairy farmers. I
12 hear of changes in the industry. If anything,
13 the biggest change has been this drastic growth
14 in western dairies enabled by the NOP's inaction
15 to publish the final rule.

16 We greatly appreciate the opportunity
17 to express our concerns, and thank you all for
18 your time. Any questions?

19 CHAIR BEHAR: Any questions? Ashley,
20 Dave. Okay, Ashley.

21 MS. SWAFFAR: So since you've been
22 kind of doing the ground work of asking on

1 vaccines, are you seeing them as difficult for
2 producers to gather that information if vaccines
3 are available? Or if vaccines are made from
4 excluded methods or --

5 MS. BEDARD: We actually -- well, our
6 materials -- I don't do the materials review, but
7 we do have a staff person dedicated to that, and
8 they're actually doing all the reviewing. We
9 don't require the producer to do that. If there
10 is a vaccine that we have not approved, then they
11 can -- and they'd like to use it, then they are
12 allowed to request us to review it. Does that
13 answer it? Go ahead.

14 MS. SWAFFAR: So your staff inspector
15 or your staff reviewer is making the
16 determination if the vaccine is genetically
17 modified or made from excluded methods or not?

18 MS. BEDARD: Yeah.

19 MS. SWAFFAR: What information do they
20 use?

21 MS. BEDARD: That's a good question,
22 and I'm not the person to answer that. But I can

1 have them be in touch.

2 MS. SWAFFAR: Please do.

3 MS. BEDARD: Yeah.

4 CHAIR BEHAR: Okay. Next is Dave.

5 MR. MORTENSEN: Yeah. Kayla, I just
6 wanted to thank you for your directing some
7 comments at the regional diversity across the
8 country, you know. It's really striking when we
9 look at some of these things for a certain region
10 or a certain scale of operation. It's helpful to
11 put the comments into context and that was
12 helpful in your written comments and in what you
13 said. So thanks.

14 MS. BEDARD: Yeah.

15 CHAIR BEHAR: Thank you.

16 MS. BEDARD: Thank you.

17 CHAIR BEHAR: Next up is David Moore,
18 with Dolana Blount on deck. And remember there
19 are animals over there on the table.

20 MR. MOORE: Good afternoon. Thank you
21 for this opportunity. I'm Dave Moore. I'm a
22 California licensed agricultural pest control

1 advisor and qualified applicator. I work for
2 Neudorff, and I'm here today to encourage you to
3 vote for the continued listing of ferric
4 phosphate as a molluscicide on the National List.

5 Your votes are simply yes or no on a
6 simple question, does ferric phosphate continue
7 to meet all the required criteria for continued
8 listing? Simple question, simple answer, it's
9 yes. You're not voting on the NOP-compliant,
10 OMNI list of finished product or any other
11 individual ingredient.

12 Ferric phosphate continues to meet all
13 the required criteria for inclusion, and no new
14 information has emerged since the last sunset
15 review to the contrary. Therefore, there is no
16 reason under the law or the regulations to vote
17 to delist.

18 The Crops Committee raised four
19 specific questions in their request for comment.
20 Our detailed answers are posted in posting of
21 4/3/2019. Here again, no new information. The
22 unfounded and unattributed assertion that ferric

1 phosphate is somehow more toxic than previously
2 known is untrue. No citation or verification is
3 offered and the Committee notes the request for
4 comment on either document.

5 This assertion is further refuted by
6 EPA required toxicity testing of all pesticide
7 products. The LD50 of Sluggo is in excess of
8 5,000 milligrams per kilogram, has always carried
9 a caution signal word on the EPA label. Of 872
10 comments posted, only 15 contained the word
11 "ferric." None of those came from unaffiliated
12 members of the public.

13 They came from accredited certifiers,
14 growers and grower groups and trade associations,
15 plus Neudorff. Four stakeholders took no
16 position. Of eight that did, seven plus Neudorff
17 were in support. There was a single comment in
18 opposition from the advocacy group Beyond
19 Pesticides. It cited discredited arguments that
20 had been before this Board for review and
21 rejection three times in the last decade.

22 Further, Beyond Pesticides in their

1 own paperwork attributed zero categories of harm
2 to ferric phosphate use in organic agriculture.
3 Ferric phosphate continues to meet all the
4 required criteria for inclusion on the National
5 List. Please vote accordingly.

6 I'm David Moore. I work for Neudorff,
7 and I appreciate your time and attention. Thank
8 you very much.

9 CHAIR BEHAR: Any comments from the
10 Board? All right, thank you.

11 MR. MOORE: Thank you.

12 CHAIR BEHAR: Next up is Dolana
13 Blount, with Brian Baker on deck.

14 MS. BLOUNT: Thank you. My name is
15 Dolana Blount and I'm with PURE Bioscience.
16 Thank you for the opportunity to again present
17 the Board with comments supporting the addition
18 of silver dihydrogen citrate, referred to as SDC,
19 to the National List.

20 I defer to the written comments
21 submitted by PURE Bioscience earlier this month
22 and other comments during the webinars to support

1 our position that SDC is not nanotechnology, that
2 the concerns over anti-microbial resistance do
3 not outweigh the benefits from SDC's use, and
4 that the concerns over environmental impact have
5 been addressed by the EPA and FDA in their
6 reviews of SDC.

7 I want to focus on the essentiality of
8 SDC in organic processing. Including SDC for use
9 as an optional anti-microbial intervention will
10 support processors and effectively reduce the
11 pathogen populations on inanimate and food
12 surfaces, and can help mitigate the potential for
13 resistance through rotation practices and
14 alternative intervention steps.

15 PURE is aware of many processors who
16 are eagerly anticipating the ability to use SDC
17 in organic processing. For a variety of reasons,
18 many of these processors are unable to comment
19 publicly, but their desire to have SDC allowed
20 for use is strong.

21 One major produce processor has been
22 investigating the use of SDC on non-organic fresh

1 cut leafy greens during processing. The results
2 demonstrate that SDC effectively yields non-
3 detectable pathogen concentrations on treated,
4 processed produce. These results currently are
5 being validated in studies coordinated with the
6 U.S. government.

7 This level of pathogen reduction is
8 not common in fresh cut produce, and represents a
9 significant advancement in food safety. Another
10 processor struggling with the negative effects of
11 acidified chlorine on strawberries was planning
12 to discontinue strawberry processing, in order to
13 protect their brand reputation.

14 Using SDC as an alternative to
15 acidified chlorine, this processor observed twice
16 the pathogen reduction and was able to use half
17 the amount of chemistry to achieve the result.

18 In regard to surface sanitation, we
19 are frequently contacted by organic processors
20 who want alternatives to PAA and chlorine
21 compounds, citing worker safety concerns due to
22 off-gassing and employee complaints as their

1 greatest concern, followed closely by the damage
2 and deterioration to their equipment from these
3 chemistries.

4 SDC is odorless, does not off-gas and
5 is less corrosive. Moreover, unlike other hard
6 surface sanitizers, SDC meets the advocacy
7 performance standards for disinfection and
8 sanitization at the same use level. Processors
9 currently using SDC for surface sanitizing on
10 their non-organic lines wish to get the same
11 benefit on the organic lines and have a cohesive
12 process in their sanitation and FSMA compliance
13 plans.

14 It's important that this level of
15 protection is available to both organic and
16 traditional processors. We remain confident that
17 SDC is an essential tool to supporting organic
18 processors in meeting food safety goals, and will
19 be a valuable addition to the National List.

20 I encourage the Board to approve the
21 addition of SDC to the National List as an
22 allowed substance at this meeting without further

1 delay. Thank you for your time and all of your
2 dedication to this program.

3 CHAIR BEHAR: Thank you. Questions,
4 comments from the Board? Emily.

5 MS. OAKLEY: Hi. Can you help me
6 understand whether some processors who hesitate
7 to comment on this material, because I find that
8 confusing?

9 MS. BLOUNT: I do too, because when
10 they contact us and when do you have organic and
11 are you working on it, we give them the
12 opportunity and they have corporate policies
13 against making public comments that could
14 potentially seem as though they were endorsing
15 one thing over another.

16 Contrary to what they want, but that's
17 their corporate policies. That's what they're
18 sharing with us.

19 CHAIR BEHAR: Anyone else? Tom,
20 Ashley.

21 MR. CHAPMAN: Thank you for your
22 detailed public comments and for addressing items

1 specifically raised in our proposal. I know you
2 didn't plan to comment on it in here and other
3 folks commented on the webinars. But can you
4 talk a little bit about concerns raised about
5 anti-microbial resistance and why you don't think
6 that's a concern that should prevent this
7 listing?

8 Also, I want to know if you in the
9 approval or in the application or manufacturing
10 of this process, in your sale or manufacturing of
11 this, has it been -- or the development of it,
12 have you ever been contacted by CDC, World Health
13 Organization, American Medical Association or any
14 other medical community that's, you know,
15 struggling with the challenge of anti-microbial,
16 antibiotic resistance, and have any concerns
17 about your application of this material been
18 raised?

19 MS. BLOUNT: I've got both of your
20 questions. I'll start with the last one. So
21 anti-microbial resistance that's been raised in
22 the comments recently and just the literature

1 that's out there, it's stemming from treatments
2 through wounds, persistent wounds that are
3 treated with silver-impregnated bandages and
4 topical applications.

5 These applications are designed to
6 release very small amounts of silver over time.
7 But that is also not a controlled release. For
8 bandage as an example, the wound juices, for lack
9 of a non-technical term, will interact with the
10 bandage and then release silver ions. But it
11 could release a couple of PPM, it could release
12 more, it could release less.

13 These are where there have been some
14 clinical isolates of resistance. But what
15 They've also found in research is that it's
16 transient resistance, and when silver is removed,
17 they don't continue to express those genes. No,
18 I have not been, the company has not been
19 contacted about resistance or concerns with
20 resistance whatsoever in regard to SDC.

21 The beauty of SDC is that yes, silver
22 ion is the primary active ingredient, but it is

1 coupled with citric acid, and the citric acid is
2 a food source. It's almost blinding the silver
3 when it's applied, and so organisms will bring it
4 in.

5 So while silver has multiple modes of
6 action, resistance is difficult for organisms to
7 obtain and maintain, but the citric acid as a
8 side component also helps reduce that potential
9 for development.

10 MR. CHAPMAN: And then on the
11 nanomaterial front, you know, we have a previous
12 recommendations that hasn't been adopted formally
13 or it will not be adopted formally given the
14 NOP's response to it, stating our concerns with
15 nanomaterials, engineered nanomaterials being
16 used in organic applications.

17 This has been codified in several
18 international organic standards to an extent that
19 it hasn't happened here domestically. Is there,
20 is there language you could recommend if this
21 material went back that -- because you claim this
22 is not a nanomaterial that could help mitigate

1 the concerns of the community that this isn't a
2 nanomaterial, that nanomaterials would be
3 prohibited, you know.

4 We attempted that in the language the
5 first time that we were told would not allow this
6 material. So is there some other compromise
7 language that PURE Bioscience could recommend to
8 mitigate that concern?

9 MS. BLOUNT: So yeah. The challenge
10 with what you proposed, and I appreciate what you
11 are trying to do, is that you assigned a particle
12 size constraint to a technology that has no
13 particles. And so you can't prove a negative,
14 and so then there's a challenge for certifiers to
15 say that folks that are using it fall within that
16 limitation.

17 You could say that it contains no
18 particles, you know, that silver dihydrogen
19 citrate, which only my company makes. So we
20 could say that that makes no, contains no
21 particles whatsoever. The challenge then would
22 be and I would ask you, the Board and, you know,

1 certifiers in the room, what would then be
2 acceptable proof to a certifier so that a
3 processor could use that and show that it doesn't
4 contain particles?

5 We've shown you that. I have given
6 you imaging and I've given you dynamic light
7 scattering and if that data is sufficient for the
8 product as a whole. But having to run those
9 tests on every batch every time is not -- that's
10 prohibitive.

11 MR. CHAPMAN: The general practice for
12 determining compliance, the annotation
13 requirements on National List items is an
14 affidavit from the seller or the manufacturer of
15 the item --

16 MS. BLOUNT: Perfect.

17 MR. CHAPMAN: That states compliance
18 with, with what's been required.

19 MS. BLOUNT: So I think some sort of
20 annotation that it is not nanotechnology and
21 contains no particles is acceptable.

22 MR. CHAPMAN: Okay. That would be

1 something you'd be willing to work with us on if
2 this material is brought back in?

3 MS. BLOUNT: Certainly, absolutely.
4 Great. Thank you all.

5 CHAIR BEHAR: Oh, sorry. Next up is
6 Brian Baker, with Beth Unger on deck, and then
7 after that we will take our lunch break and we'll
8 see how long that will be, depending on what
9 happens to the next two speakers.

10 MR. BAKER: Thank you. The National
11 Organic Program, members of the NOSB, Madam
12 Chair, thank you for the opportunity to provide
13 public comment to the National Organic Standards
14 Board. I'm Brian Baker, president of IFO North
15 America. IFO Organics International is the
16 organic agent of change for true sustainability
17 in agriculture value chains and consumption.

18 We are working on behalf of its
19 membership, the global organic movement in over
20 120 companies, countries sorry. IFO North
21 America is a regional body of its members in the
22 United States, Canada and the English-speaking

1 Caribbean. Our purpose is to educate the public,
2 serve as a forum to exchange ideas, engage in
3 activities to advance organic agriculture and its
4 principles.

5 IFO North America wants to speak to
6 you on three topics today, fraud in international
7 trade, harmonization of international standards
8 and organic 3.0. IFO has been engaged in
9 protecting organic integrity for over 40 years.
10 Fraud is a global issue. It's nothing new. It's
11 been around for as long as there's been organic.

12 International cooperation through
13 public-private partnerships are essential to
14 protect organic integrity. We're pleased to hear
15 the USDA is working with the International
16 Organic Accreditation Service on country
17 commodity studies and organic supply chains.

18 IFO offers help in providing greater
19 transparency in international supply chains and
20 data sharing. In making recommendations and
21 setting standards, the NOSB and NOP should be
22 aware how our trading partner standards compare

1 to the U.S. Harmonization is important to avoid
2 trade distortions.

3 The organic market provides many
4 opportunities for small holders in developing
5 countries. Some of them are trading with both
6 the -- or having products shipped both to the
7 U.S. and Europe. Farmers are required to comply
8 with all standards. The international reputation
9 of USDA is undermined when it falls short of
10 international norms.

11 No other standard permits hydroponic
12 production. IFO's standards require terrestrial
13 plants to be grown in soil, explicitly prohibits
14 hydroponic systems. There's a global consensus
15 that organic animals are born and raised on
16 organic farms and managed organically from birth.

17 IFO has published a position paper on
18 compatibility of new genetic techniques. We
19 advise precaution. The NOSB plays a crucial role
20 in protecting organic integrity. However, you
21 can't do it all and you can't do it alone. Thank
22 you.

1 CHAIR BEHAR: Questions from the
2 Board? Thank you very much, Brian. Next up is
3 Beth Unger.

4 MS. UNGER: Where's your cow? It's
5 appropriate. Thank you and I'm not going to keep
6 you from lunch for very long. But I do have a
7 few things I want to say, not too much about
8 what's on the agenda so far are two things.

9 First of all, I want to approach the
10 NOP with our sincere appreciation for your
11 efforts in the dairy compliance project. I think
12 that's a critical project. We need to find a
13 clear path to clear and consistent application of
14 the final rule.

15 I don't believe that we're there, and
16 it's creating a lot of difficulties within the
17 entire community, much of which you've heard over
18 the last two days. So one of the areas about --
19 that really excites me is I believe that you're
20 setting a great path to ensure that certifiers
21 are perfectly clear on what it takes to verify
22 compliance with the pasture rule for all

1 certified operations, you know.

2 This is an area that is very important
3 to us. Also, I'm going to echo the same
4 sentiment you've heard over and over and over
5 again, and that is the importance of getting a
6 final rule on the origin of livestock out there.
7 It's one of those very inconsistent areas which
8 really isn't a part of you doing a compliance
9 project but --

10 And staying on that same theme of this
11 clear and consistent application of the rule,
12 it's really disheartening to see things like the
13 organic livestock and poultry practices final
14 rule withdrawn. That said, I am so happy that
15 the Accredited Certifiers Association took this
16 up and took it in their own hands to create a
17 best practices guide that really was more or less
18 an implementation of that.

19 It was not a new regulation. It was
20 never intended to be a new regulation. It was
21 only clarified the existing regulation and never
22 should have been withdrawn. So I applaud the ACA

1 for doing that work because this is the industry
2 saying we want this to be equal across all areas.

3 About your agenda items, our opinion
4 is iodine does not need MPE. I believe the
5 conventional dairy industry has moved away from
6 iodine with MPEs, and they have MPEs puts organic
7 products that was at risk because those do show
8 up in tests when you're exporting dairy products.
9 So yes, they have to get rid of the MPEs, and
10 that's all I have. Let's go to lunch.

11 CHAIR BEHAR: Ashley, Tom.

12 MS. SWAFFAR: Following up on that, we
13 heard earlier that if we were to annotate it,
14 there would be a little bit of concern of supply
15 of iodine without MPEs. Do you see that being an
16 issue.

17 MS. UNGER: I do not.

18 MS. SWAFFAR: Thank you.

19 CHAIR BEHAR: Tom.

20 MR. CHAPMAN: Once I see that fish oil
21 before, we all have some fish for lunch. You
22 guys commented in support of fish oil, noting

1 that it supports nine million pounds of milk
2 sales?

3 MS. UNGER: Uh-huh.

4 MR. CHAPMAN: Do you have an idea of
5 what that equates to in terms of farms supported?

6 MS. UNGER: Well, it depends upon the
7 size of the farm. But --

8 MR. CHAPMAN: Average, bigger?

9 MS. UNGER: You know, that's an
10 interesting question. I cannot give you an
11 answer to that, and I, you know, kind of push
12 back on you to say that yeah, it supports some
13 level of milk supply that, you know, is in dire
14 straits right now. So you don't want to take
15 products off of the shelf that are, you know,
16 utilizing organic milk.

17 And also you don't want to take away
18 the choice of consumers who want to purchase, you
19 know, a product that has this addition to it.
20 And it is on 606, which has the commercial
21 availability clause, and since we have no
22 aquaculture standards, you can't find it

1 organically.

2 MR. CHAPMAN: So you hit my second of
3 three questions, which is that you don't think
4 it's -- given what's coming on the dairy market
5 right now, given what we've heard these last few
6 days, it's not the right time to take dairy
7 products out of the marketplace?

8 MS. UNGER: Yes.

9 MR. CHAPMAN: And then is -- in your
10 products that contain fish oil, how are they
11 labeled? Is it clearly labeled? Does the
12 consumer know what they're buying?

13 MS. UNGER: Absolutely.

14 MR. CHAPMAN: Thank you.

15 CHAIR BEHAR: Anyone else? Okay. So
16 we will take a break for lunch, but I first want
17 to say that Amy van Saun, Dave Carter, Nathan
18 Frizzell and Marshall Talbot will be all on deck
19 in that order. So you think about, you know, how
20 close you are going for lunch, so you can be back
21 in time. We will get back at 1:45 p.m.

22 MALE PARTICIPANT: And a reminder to

1 everybody. We've got a reception from WSTA and
2 Tilth Alliance tonight on the -- I forgot my crib
3 sheet -- fourth floor in the Northwest room.
4 There's flyers out front to remind you of that.
5 Thank you.

6 CHAIR BEHAR: Fourth floor reception
7 tonight.

8 MALE PARTICIPANT: In this building,
9 yes.

10 (Whereupon, the above-entitled matter
11 went off the record at 12:36 p.m. and resumed at
12 1:47 p.m.) CHAIR BEHAR: So I do want
13 everyone to know that we are actually right on
14 time at this moment. So if we all behave, that's
15 the caveat, we can pretty much stay on time.
16 There are a few people on the waiting list, and
17 I'm hoping to get to them. So that's why I want
18 to start on time.

19 Looks like we have enough Board
20 members present to start the public comment. So
21 first up is Amy van Saun with Dave Carter on
22 deck.

1 (Pause.)

2 CHAIR BEHAR: Amy went somewhere for
3 lunch and didn't get back. I did see Dave
4 Carter. Dave? Oh. Are you ready go, and then
5 we'll come back for Amy later.

6 MR. CARTER: Madam Chair, members of
7 the Board and Dr. Tucker, I don't see her here
8 yet but --

9 CHAIR BEHAR: Not yet.

10 MR. CARTER: My name is Dave Carter.
11 I wear a number of hats literally and
12 figuratively. I'm Director of the National Bison
13 Association. I am a bison rancher. I am the
14 principal in Crystal Springs Consulting Company
15 and a NOSB survivor. I'm here today as a
16 consultant on behalf of Merck Animal Health. But
17 before I get into their comments, I want to say
18 two things from a principal standpoint.

19 A is to thank you for all of your
20 work. Been there, done that, know this is a
21 tremendous investment of time and energy, and I
22 appreciate all that you do on behalf of the

1 organic community. I also was pleased to hear
2 the words "pet food regulations" uttered at the
3 beginning of this meeting.

4 Unfortunately, they were uttered in
5 connection with unfinished business, and it's
6 only been 15 years since the Secretary of
7 Agriculture said that there ought to be pet food
8 regulations, and those have been written and they
9 need to get over the finish line.

10 Now on behalf of Merck, Merck are the
11 folks that brought us fenbendazole, which we were
12 pleased was put on the National List in 2012. We
13 think it needs to stay on the National List.
14 It's a much better tool, much more eco-friendly
15 to earthworms and dung beetles than what was on
16 the list at the outset.

17 It's interesting to note though in
18 your Board packet on page 68, when there are the
19 comments, the report from the Subcommittee, I
20 just want to read. It says "Parasiticism may be
21 the weakest link in the organic livestock
22 production. Outbreaks of disease due to nematode

1 parasites can happen even in well-managed
2 flocks."

3 It's interesting the use of the word
4 "flocks" when parasiticides are allowed in dairy
5 stock and fiber animals. And as one of the
6 previous commenters said this morning in response
7 to a question about scale in poultry production,
8 he said one of the biggest barriers to getting
9 birds out on pasture is the parasite load.

10 Well, I just want to do a little
11 foreshadowing that Merck has a product,
12 fenbendazole product that is made for poultry,
13 and we are in the process of preparing a petition
14 that will be coming before the program and before
15 you to allow fenbendazole as an emergency
16 treatment in organic laying flocks.

17 So we want to provide those pasture
18 producers with another resource. Again thank you
19 very much, and I'm here to answer any questions,
20 and I'm a little disappointed though. I don't
21 see a bison over there so --

22 CHAIR BEHAR: I was just about to

1 apologize, yeah. And by the way, sheep are in
2 flocks.

3 MR. CARTER: Okay.

4 CHAIR BEHAR: Okay. Any comments or
5 questions from the Board for Dave Carter? Always
6 wonderful to see you Dave.

7 MR. CARTER: Thank you.

8 CHAIR BEHAR: Okay. Is Amy van Saun
9 here yet? Okay. Nathan Frizzell? I see
10 somebody walking, and then up on deck is Marshall
11 Talbot.

12 MR. FRIZZELL: Good afternoon. My
13 name is Nathan Frizzell, the Director of
14 Operations for our family owned calcium
15 supplement and sun shade product manufacturing
16 company, Full Measure Industries.

17 We manufacture two products, Full
18 Measure Cow, which is a ground applied calcium
19 supplement, and Reflections, which is a calcium-
20 based foliar applied shade product and field
21 temperature regulator.

22 Calcium is widely used in agriculture,

1 and is considered the number four production
2 ingredient behind N, K and P. Calcium is an
3 essential building block for cellular growth and
4 for cellular development. It's also important in
5 absorbing and the availability of other minerals
6 and nutrients into plants.

7 I'd like to respectfully request that
8 calcium acetate be added to the National List of
9 approved substances for organic production under
10 vitamins and minerals and as a production aid.
11 Calcium acetate is naturally occurring in nature,
12 and although it's been discussed as being listed
13 as a synthetic, it is not artificial and I'd
14 remind you that there is -- there are no perfect
15 materials.

16 The formulation of calcium acetate in
17 nature is a process whereby non-soluble calcium
18 becomes available and soluble through microbial
19 activity and through the introduction of acidic
20 materials. The EPA has placed calcium acetate on
21 the safer chemical ingredient list for processing
22 aids and additives, as a safer replacement for

1 traditional ingredients.

2 EPA has verified calcium acetate to be
3 of no concern based on experimental and model
4 data. EPA has also identified no toxic end
5 points for birds, plants, aquatic or soil
6 organisms. The joint FAO/WHO Export Committee on
7 Food Additives has authorized calcium acetate for
8 human consumption without limitation.

9 The FDA has also granted calcium
10 acetate GRAS status as a sequestrant and direct
11 food substance. Other calcium options that are
12 approved for organic production have limitations.
13 Calcium chloride is toxic to plants and animals
14 in small quantities. Calcium nitrate is a good
15 way to provide calcium and nitrogen plants, but
16 it's not recommended for finishing crops as the
17 calcium promotes growth which is not desirable.

18 I have some independent research
19 supporting calcium acetate uptake and some Full
20 Measure industry-sponsored research supporting
21 the efficacy of both Full Measure Cow and
22 Reflections calcium acetate as a shade product

1 and as a field temperature regulator.

2 It's to benefit for organic growers as
3 pruning and shade gloss have their limitations.
4 I thank you for the opportunity and welcome any
5 questions.

6 CHAIR BEHAR: Steve.

7 MR. ELA: So obviously in the write-up
8 on calcium acetate, I was the lead on that. I
9 mean it's obviously a pretty benign product, no
10 dispute on that.

11 MR. FRIZZELL: Sure.

12 MR. ELA: I think the biggest issue I
13 see is we have not heard from a single grower in
14 the public comments. I think there were only
15 three public comments in total on the material in
16 this docket. It's really hard to document
17 essentiality that growers need and want this when
18 we don't hear from any growers, and we've had
19 other petitions before us that we voted down
20 based on that.

21 So that's a tough one for me, and I
22 guess would you like to comment on that?

1 MR. FRIZELL: Sure. Well, we've got
2 some organic watermelon growers who have
3 requested an organic product, and I can get you
4 some statements from them. But like I said,
5 we're a relatively small company. We're just
6 getting started so --

7 MR. ELA: Yeah. I think our -- I mean
8 and they may be out there, but we haven't heard
9 of them. So that, I mean that like say for me,
10 that makes it just really hard to say people
11 really want this when there's just nothing in the
12 docket that shows that. So I just want to give
13 you that heads up.

14 CHAIR BEHAR: Anyone else on the board
15 have a comment or question? Thank you very much.

16 MR. FRIZZELL: Thank you.

17 CHAIR BEHAR: Okay. We'll try Amy van
18 Saun again. Okay. Marshall Talbot is up, with
19 Sandra Mays on deck.

20 MR. TALBOT: Well thank you for the
21 opportunity to talk today. My name is Marshall
22 Talbot. I'm a field man for McDougall and Sons,

1 an apple, cherry and pear grower-packer- shipper
2 in Wenatchee, Washington. I'm also a third
3 generation farmer. Under my management, my
4 family's apple orchard went organic in 2009.

5 Growing organic is fun and
6 challenging, and some of the tools organic
7 growers have are some of the same as conventional
8 growers, like these loppers I brought here today.
9 And everyone seems to use them a little
10 differently, but it gets the job done.

11 But overall, organic growers just
12 don't have as much or as full of a tool box as
13 some conventional growers, and that's why I'm
14 here today, is that some of our important
15 integrated pest management tools are on the
16 sunset list.

17 So the first one is calcium chloride,
18 you know. It's an efficient product. I've kind
19 of gone back and forth a little bit on it. But
20 recently I found some research that it has
21 benefits for post-harvest decay, and that's been
22 done by Dr. Sugar, and it's used by most growers.

1 Another product on the list is
2 pheromones. I brought a NoMate CM Spiral that
3 was used a couple of years ago. It's a pretty
4 small little product. It's used organically and
5 conventionally, and you know, darnit if this
6 doesn't just really work well.

7 It reduces the amount of sprays that
8 are needed for codling moth protection on apples
9 and pears, and you know, on the high density
10 plantings, you only put one of these guys in the
11 top third of the tree every four trees. So
12 there's about -- there's not a lot of them per
13 acre. They don't affect but beneficial insects,
14 but they confuse codling moth, one of the primary
15 pests of apples and pears.

16 In my opinion, this is a home run tool
17 and it would be disappointing if we lost this
18 product. Another one is horticultural oil. It's
19 a huge part of organic IPM programs for apples,
20 cherries and pears. A dormant application of
21 this oil is one of our number one things for
22 aphid control.

1 Potassium bicarbonate is used for
2 powder mildew control, and that's primarily on
3 organic cherries and dang it, growing organic
4 cherries is hard, so we need to keep this
5 product. Peracetic acid is used in the McDougall
6 and Sons packing facility, and it's an important
7 tool in the toolbox for a process where we just
8 don't have enough tools right to lose a product
9 like this.

10 I'd like to thank you again for the
11 opportunity to talk, and kind of end with a final
12 story. Just yesterday my wife and three of my
13 kids were out for a drive, and my four year-old
14 daughter was looking out the window, and she said
15 hey daddy, look at the pear trees. I looked out
16 the window and sure enough those were pear trees.
17 So fourth generation, here we come so --

18 CHAIR BEHAR: Okay, thank you. Any
19 comments or questions from the Board? Steve.

20 MR. ELA: I'll just comment it's great
21 to have -- a number of you have come. I mean I
22 used pheromones. I use oils, all the same

1 things, and yeah they're critical. It's really
2 helpful. Even though I don't think there's much
3 question about the necessity and that they're --
4 I mean I can't speak for the Board, but they're
5 probably going to be relisted without much
6 problem.

7 But this kind of comment really helps
8 with that process because it shows us, I mean
9 just like my comment to the last speaker, it
10 shows us yes, these are important. We need to
11 continue to have these in our toolbox. So thank
12 you for taking the time to come and tell us that.
13 That does help.

14 CHAIR BEHAR: And put it on the public
15 record. That's really important, so those in the
16 future can see that yes, there was support for
17 these materials.

18 MR. ELA: And our process says this is
19 a review meeting. Fall meeting this is going to
20 come up again for a vote. So I know it's a pain
21 to comment twice, but please put those comments
22 into the fall again, because that's when the vote

1 comes up. I mean we take these into account too,
2 and I know fall's not too busy, but you know,
3 positive comments and industry's done a really
4 good job on that on these materials. So thank
5 you.

6 CHAIR BEHAR: Okay, thank you. Next
7 up is Sandra Mays with Miles McEvoy on deck.

8 MS. MAYS: Good afternoon. I'm Sandy
9 Mays. I'm with --

10 CHAIR BEHAR: Can you please put the
11 microphone closer.

12 MS. MAYS: Sure. I'm Sandy Mays. I'm
13 a senior associate and partner with Wolf DiMatteo
14 and Associates. Wolf DiMatteo and Associates
15 serves many clients that use cleaning and
16 sanitation materials as required by law to ensure
17 food safety. We applaud the Materials
18 Subcommittee for lending their support to all
19 NOSB Subcommittees in reviewing substances.

20 However, we're confused as to the
21 necessity and purpose of this discussion
22 document. Why question that these substances are

1 essential? Why request technical reviews before
2 new or alternative substances are petitioned or
3 current materials undergo sunset reviews? Why
4 create a new system and framework for reviewing
5 substances for the National List when there are
6 required evaluation criteria and processes
7 already in place, and why introduce the EPA's
8 Safer Choice List?

9 The evaluation criteria suggested,
10 toxicity, persistence, compatibility, ancillary
11 ingredients are typical of any National List
12 review. The criteria of application and use does
13 not apply to other material reviews, and would
14 introduce inconsistency to the process. How do
15 these criteria relate to the principles of
16 organic and the requirements of OFPA and the NOP?

17 EPA's Safer Choice List includes brand
18 name products used in households and offices, not
19 commercial manufacturing and handling operations,
20 livestock operations or crop production. The
21 formulas are held confidential, which is
22 inconsistent with the NOSB petition process.

1 NOSB experience with EPA on the inert ingredients
2 list should be considered before relying on
3 cooperation with the EPA now.

4 Cleaning and sanitation materials are
5 constantly changing in this business. Certifiers
6 take note in organic system plants for these
7 materials, and then review these materials
8 whether or not they're on the National List.
9 Materials not on the list must be thoroughly
10 reviewed. Some tested to zero parts PPM when
11 used, with the results recorded, and do not have
12 contact with the final product. The system isn't
13 broken. We recommend that the Materials
14 Subcommittee not continue with this initiative.

15 On another note, we urge you to
16 approve the use of pullulan in made with organic
17 products. Adding pullulan to the National List
18 as a non-agricultural substance allowed for use
19 in products labeled made with organic allows the
20 existing market established before the
21 reclassification of pullulan to continue, and
22 brings a substance under the review by the NOSB

1 and the National List sunset process.

2 Last, thank you for volunteering your
3 time and hard work.

4 CHAIR BEHAR: Any questions from the
5 Board? Thank you.

6 MS. MAYS: Thank you.

7 CHAIR BEHAR: Next up is Miles McEvoy
8 and Jessica Walden is on deck.

9 MR. MCEVOY: Hello. I'm Miles McEvoy.
10 It's really fun to be on this side of the table.
11 Thank you for all the work that you do, amazing
12 work that you do. A lot of people I don't think
13 understand the depth of work that goes into all
14 your deliberations between meetings, all the
15 countless conference calls and deliberations that
16 you have. So really quite a testament to the
17 organic community and you guys are doing great.

18 So I'm Miles McEvoy, former Deputy
19 Administrator of the National Organic Program. I
20 have a consulting business called Lacewing
21 Auditing and Consulting. What I do is do
22 internal audits of certifiers in different

1 places. I do training and do assessment of
2 supply chains.

3 So a lot of fun work. It's great to
4 be working in this community and helping to
5 improve the systems. I want to -- I have a few
6 different comments. One is I want to praise the
7 National Organic Program and Jenny Tucker in
8 particular for all the work that they've done.
9 They've done amazing stuff over the last few
10 years.

11 If you look at the enforcement stuff
12 that NOP is doing, oversight of certifiers, the
13 new training system that is being launched,
14 really, really important stuff. The Organic
15 Integrity Database continues to get better. So
16 there's a lot of really great things that
17 happening. Always room for improvement, but I
18 really think that the National Organic Program
19 and Jenny Tucker at the lead really deserves a
20 lot of praise for that work.

21 I think we forget how lucky we are
22 here in the United States compared to other

1 countries in regards to the robustness of the
2 National Organic Program and what USDA does to
3 protect organic integrity, the amount of audits
4 that occur, the enforcement.

5 If you compare it to what happens in
6 the EU or Canada, we're way, way ahead of those
7 control systems. So we have to keep that in
8 mind. But we also want to not forget that NOP
9 has very limited ability to amend standards. So
10 my comments that I submitted to the public record
11 have to do with the concept of moving standards
12 out of USDA, to form some kind of independent
13 commission.

14 It could be through the American
15 National Standards Institute. You could form
16 something like Canada has, the Canada Organic
17 Standards Boards which actually has control over
18 the standards rather than just an advisory
19 committee. You look at all the standards that
20 have not been implemented. Pet food was just
21 mentioned. Aquaculture, apiculture. A lot of
22 things have been written, but there's stuck by

1 USDA's political process.

2 So recommend that NOSB should
3 recommend an independent standard-setting
4 authority that you guys can write a letter, make
5 a recommendation to explore that concept to move
6 standards forward, because they're pretty stuck.
7 They have been for quite a while. 15 years for
8 pet food and many years for other things as well.
9 So thank you very much.

10 CHAIR BEHAR: You're a popular guy.
11 Sue, Asa, Steve, Emily.

12 MS. BAIRD: Thanks Miles.

13 MR. MCEVOY: Sure.

14 MS. BAIRD: And thank you for putting
15 me on and then you leaving.

16 MR. MCEVOY: Yeah. That was the
17 Secretary, not me.

18 MS. BAIRD: Yeah, yeah. I wanted to
19 know, I really am fascinated with this idea, this
20 concept that you put forth and think it has a lot
21 of merit. What would be our step as NOSB to
22 implement that or to help that happen.

1 MR. McEVOY: Well, it would have to be
2 changed to OFPA, because these standards are set
3 through the organic, or the authorization to USDA
4 is through the Organic Food Production Act. So
5 it would have to be Congress that would make that
6 change.

7 So the NOSB has very little ability to
8 make that happen, but a recommendation from the
9 Board could start the community to think about
10 it. I mean there's a lot of work that would have
11 to go into it of what makes the most sense, and
12 this is a long term concept that should be
13 discussed by the community and come to consensus
14 of how do we create standards that represent the
15 interests of the community five, ten, fifteen
16 years in the future, because there's a lot of
17 things that haven't happened.

18 CHAIR BEHAR: Okay. Next is Asa.

19 MR. BRADMAN: Just related comments.
20 I'm thinking of like the ASHRAE standards for
21 building ventilation or there's any number of
22 organizations that set standards for operating

1 systems.

2 MR. McEVOY: Exactly.

3 MR. BRADMAN: But I'm always concerned
4 with those about accountability and who gets to
5 make the decisions, and how would they be able --
6 how would it function independent of the
7 political system we have, and could we end up
8 with the same situation? So again like Sue, this
9 is a very interesting idea, but I'm wondering how
10 it would -- how would it move forward or how
11 would there be accountability?

12 MR. McEVOY: Yeah. Well, I think you
13 would need to explore a couple of different
14 models. One would be to have a federal organic
15 commission that had the regulatory authority to
16 set standards.

17 The other would be through more of a
18 private standard-setting body like the American
19 National Standards Institute that is in the
20 business of setting standards with stakeholder
21 involvement.

22 There would still be politics

1 involved. There would still -- you'd still have
2 to figure out the whole governance of who gets to
3 decide what the standards are. So that wouldn't
4 go away, but at least you'd be able to -- to be
5 able to establish standards that the community
6 wants, and not have them repealed like your
7 organic welfare standards or just stop completely
8 like origin of livestock, or have standards
9 written and not implemented like pet food and
10 apiculture and aquaculture.

11 CHAIR BEHAR: Steve.

12 MR. ELA: Miles, somebody asked me
13 earlier and actually I've already asked you this
14 question privately. But I just -- again from the
15 record, they said what are other examples of
16 groups that would have federal rulemaking, I mean
17 kind of rulemaking capability and federal
18 enforcement, but not direct residing within the
19 agency and in that political structure? Are
20 there other examples in government of groups like
21 that?

22 MR. McEVOY: Yeah. I think that's

1 where there's research -- study that needs to
2 happen. The Federal Trade Commission would be
3 something to look at because they enforce
4 standards that are not -- for consumer protection
5 that are not necessarily codified as much.

6 The NOP did do some work with the FTC
7 for organic enforcement of non-agriculture
8 products. Well, for textiles and products like
9 that. So there are some concepts that could be
10 explored. So I haven't done the research to be
11 able to answer that question in any depth, but I
12 think it's worthwhile looking at what those
13 options are and whether there is a model that
14 would serve the community better than the current
15 system.

16 CHAIR BEHAR: Okay, Emily.

17 MS. OAKLEY: I found your letter very
18 interesting as well, and have had some thoughts
19 as well about the difficulty of housing a
20 standards body within a government system. But I
21 was curious to note that you thought that
22 enforcement should stay with USDA, and you also

1 said that in your verbal comments as well.

2 I'm curious if you think there's ever
3 a conflict in terms of interpreting the standards
4 within USDA and then enforcing them, or if you
5 think there might be room for that to also move
6 with the standard board as well.

7 MR. McEVOY: Yeah. Well, I think
8 looking at the Canadian model would be a very
9 good thing to do, because they have the Canadian
10 Organic Standards Board, which is a lot larger.
11 I think it's about 40 members. It represents
12 different sectors as well as different parts of
13 Canada that serve on the board.

14 But then they also have a standards
15 interpretation committee that's not -- that's
16 part of the Trade and Community more and not -- I
17 think there is government representatives on the
18 standards interpretation committee, but it's not
19 governed by CFIA.

20 So that could be a model for the
21 interpretations and the standards, that they're
22 kind of linked together. And then the government

1 in Canada is the one that's responsible for
2 enforcement and oversight of certifiers. Now the
3 Canadian model is not good on the enforcement
4 side because they don't do much on the
5 enforcement side, so that would not be a good
6 part to look at.

7 But the standard-setting part is maybe
8 a model that could be looked at. I would think
9 that the interpretation of the standards should
10 be welded with the standards-setting body, and
11 not with the body that does the enforcement.
12 It's very common for auditors to have a standard
13 that they audit to, and so that inspection
14 auditing can be a separate regulatory body that's
15 expert at doing auditing and inspections and
16 sampling and seeing whether or not the standard
17 is being met. So I don't think that's -- that's
18 not much of a stretch.

19 CHAIR BEHAR: Okay, Rick.

20 MR. GREENWOOD: How would you think
21 this could be funded? Would it be the industry
22 funding the group or would it be through federal

1 funding?

2 MR. McEVOY: Yeah, it would be through
3 federal funding. So for instance, the Federal
4 Trade Commission is federal funded. The
5 International Trade Commission's federal funded.
6 There's like there's a bunch of different small
7 federal commissions.

8 There's like a marine transport
9 commission, and they get, you know, like 50 to
10 100 million dollars a year. So it's a sizeable
11 amount that they -- the NOP's budget currently is
12 15 million. So it's not unreasonable to think
13 about a smaller standard-setting body having
14 enough money to keep the board functioning.

15 That is one of the problems that
16 Canada has, is that Canada has not funded the
17 Canadian Organics Standards Board, and so they
18 haven't been able to meet as regularly as they
19 would like. But I would definitely see this as a
20 federally funded standard-setting body.

21 CHAIR BEHAR: Okay. I have a
22 question. I'm wondering if because we're really

1 basically a pretty young program within the USDA,
2 if part of that is some of the reason that we're
3 playing catch up on so many of our standards, you
4 know. When it was first written, pet food,
5 apiculture, mushrooms, and a lot of these were
6 not necessarily thought of when the rule first
7 came out.

8 And as of course as the organic
9 industry grows, then we have need for more
10 standards. So I'm just kind of wondering if at
11 some point we might not need as much standard-
12 making as we do now, and I'm a little bit
13 concerned about the Canadian model. Of course,
14 we can always model it however we want because
15 there's not a lot of public input into that
16 model, or not like this at least.

17 MR. MCEVOY: Yeah.

18 CHAIR BEHAR: So there's some concern
19 that I have there. But I'm just kind of
20 wondering, going into the future, is this a model
21 that works for the future as well as the present?

22 MR. MCEVOY: Well, I'm not sure

1 exactly what the model is. I think it's a
2 discussion about how do you form standards in the
3 future when recommendations from this body from
4 15 years ago have still not been implemented into
5 standards? So definitely there's a problem here,
6 right?

7 You're making recommendations on
8 practice standards, nothing happens. Or they get
9 repealed. So you've got to -- I think we start,
10 we have to start thinking about a different model
11 of creating those standards that are so important
12 to the future of the earth, and all our
13 livelihoods.

14 So we can't make progress through the
15 regulatory process at USDA because of internal
16 politics or, you know, they're too busy or
17 there's lots of reasons why it doesn't work at
18 USDA, but it hasn't been working. So let's think
19 about some other models.

20 CHAIR BEHAR: Yeah. I think you're
21 expressing a lot of the frustration that the vast
22 majority of people in the community feel.

1 MR. MCEVOY: Yeah.

2 CHAIR BEHAR: I mean I think the
3 program is quite responsive on materials.

4 MR. MCEVOY: Right, exactly.

5 CHAIR BEHAR: But in practice
6 standards, there's some areas where we're
7 suffering because of the lack of implementation.
8 Any other questions? Tom.

9 MR. CHAPMAN: I just wanted to take
10 the opportunity since you resigned your post
11 while I was chair and then didn't show up again
12 until right now, I'd feel remiss if we didn't
13 thank you for your service, your eight years,
14 tilting at windmills, trying to move this
15 community forward in the USDA. Thank you Miles.

16 MR. MCEVOY: Thanks Tom.

17 MR. CHAPMAN: Thank you very much.

18 (Applause.)

19 CHAIR BEHAR: Next up is Jessica
20 Walden and Garth Kahl is on deck.

21 MS. WALDEN: How do you follow that?

22 CHAIR BEHAR: You're an NOP alumni.

1 MS. WALDEN: I chose an ass. I need
2 one. I'm Jessica Walden. I work with QAI. I'm
3 an organic certifier. Today I'll discuss the
4 handler sunset materials, L-malic acid and
5 nutrient vitamins and minerals.

6 With regards to L-malic acid, I just
7 want to stress the importance of the NOSB taking
8 the National List materials through the NOP's
9 classification of materials decision trees when
10 you're doing your sunset reviews. The reason is
11 because we certifiers need to know that there's a
12 consistent way to use those decision trees. L-
13 malic acid, several certifiers as well as
14 material review organizations, we took malic acid
15 through that decision tree.

16 And it's -- the second part of it
17 created through defermentation, but it actually
18 sort of originates from a synthetic source, the
19 one that's commercially available anyway, that's
20 used by everybody. So I just -- we just
21 recommend that it is looked at again and
22 recommend you add it to the National List in

1 605(b) as a synthetic allowed.

2 It's the one that was allowed
3 initially and the one that was reviewed
4 initially, but it's just not from a non-synthetic
5 source.

6 With regard to nutrient vitamins and
7 minerals, this is a very complex topic. On the
8 one hand because of the interim rule published in
9 September 2012, organic manufacturers of products
10 like infant formulas are currently able to
11 provide organic options that are nutritionally
12 equivalent to non-organic products, and consumers
13 are able to purchase organic product that meets
14 the nutritional needs.

15 On the other hand, there's
16 inconsistent interpretation and application of
17 the use of nutrient vitamins and minerals in
18 organic products. This causes consumer confusion
19 and can weaken the confidence in the organic
20 label.

21 Implementing the January 2012 proposed
22 rule citing 21 C.F.R. 101.9 and 107.100 and

1 107.10 for infant formula would give the industry
2 a specific list of nutrients to reference.

3 However, the restriction of only using those
4 nutrients listed in 107 for infant formulas that
5 are in those CFRs, other than those recommended
6 by industry experts, puts organic products in a
7 competitive and nutritional disadvantage to non-
8 organic products.

9 The FDA essentially allows anything
10 that's GRAS into infant formulas that is backed
11 up by scientific research, and the FDA has
12 sponsored studies as well to determine the
13 nutrient levels found in human breast milk and
14 it's changing all of the time. So one way to
15 resolve the issues might be to implement the
16 January 2012 rule, and in addition create a
17 subcategory as a part of the nutrient annotation
18 for optional ingredients used in infant formulas
19 or products that are unique foods that are often
20 the sole source of nutrition for an infant or
21 toddler.

22 So it's a sub-ingredient on the

1 National List only for infant formulas. Those
2 nutrients would have to be repeticioned.

3 CHAIR BEHAR: Okay. Any questions?
4 Tom.

5 MR. CHAPMAN: Can you finish your
6 sentence and then I'll ask the question.

7 MS. WALDEN: Sure, I'm going to do a
8 run-on sentence, and a task force could be
9 developed. There would need to be changes to 600
10 as well in terms of evaluation criteria. It's
11 much like the pet food proposed rule, whereby
12 it's a specific food type. We've got a specific
13 consumer base that needs a required nutrient.

14 CHAIR BEHAR: Steve.

15 MR. ELA: You brought it up, but I
16 think a number of public comments noted that, you
17 know, we have these fairly useful decision trees
18 now, which I certainly use, but that the
19 fermentation side of things is, you know.

20 As we've worked through some of these
21 other synthetic/non-synthetic, agriculture or
22 whatever, suddenly fermentation falls somewhere

1 in between and we keep getting some confusing
2 classifications based on that. So I'm assuming
3 you would support working on it, on a
4 fermentation decision tree.

5 MS. WALDEN: Well, I think the problem
6 with some of these materials is that there's
7 several -- there's maybe a source material or two
8 source materials that come together. Then after
9 that there might be fermentation or further
10 processes that happen.

11 So it's a long, drawn-out process
12 that's using a lot of different materials to
13 create one at the end of the day. So it's really
14 just understanding exactly the source material
15 and how that source material is made to begin
16 with, and are we starting off with a synthetic
17 already.

18 Fermentation is probably okay. In the
19 decision tree, it's considered biological. So
20 it's considered to create something that's non-
21 synthetic. But you have to look at sort of the
22 full chain all the way back to the starting

1 point.

2 CHAIR BEHAR: Tom.

3 MR. CHAPMAN: Two questions. One, you
4 noted -- you're talking foods for sole source of
5 nutrition, but you noted infants and toddlers. I
6 assume that that could also be extended to
7 enteral feeding for adults, medical foods that
8 people can't eat?

9 MS. WALDEN: Yeah. I mean I would --
10 I would that possibly, you know, that that's the
11 sort of thing that could be looked at if this was
12 delved into a little bit deeper. I mean
13 something has to happen with this whole nutrient
14 vitamins and minerals.

15 But I think that those are good, you
16 know. That would probably be lumped into the
17 sole source feeding.

18 MR. CHAPMAN: And as a follow-up, so
19 you talk about a need to repetition materials,
20 because I guess the chicken and the egg question
21 for you, what should happen first. Should we --
22 should we incur it to the adoption of the 2012

1 proposed rule, or should the materials be
2 repeticioned first?

3 MS. WALDEN: I think that probably the
4 adoption of the 2012 rule as a first -- I think
5 that would be a good idea, just at least to get
6 the right references for us, because we're
7 talking about like the whole organic industry,
8 all of the products that are produced. It would
9 be great to have the true reference point.

10 And then in addition to that, you
11 know, sort of -- I suppose I wouldn't, you know,
12 we wouldn't -- there would be no enforcement
13 action against those that are creating these sole
14 source products. But they would have the
15 opportunity to petition, to be a grandfathering
16 in sort of thing, kind of like what happened with
17 sodium lactate and potassium lactate.

18 CHAIR BEHAR: Okay. Thank you,
19 Jessica. Next up is Garth Kahl, and then we are
20 going to move into the waiting list folks, and we
21 are four minutes early.

22 MR. KAHL: So thank you. My name is

1 Garth Kahl. I brought the branching coral this
2 afternoon to remind us that synthetic nitrogen is
3 a major source of greenhouse gases. It acidifies
4 the oceans and hurts coral and causes dead zones
5 in the Gulf of Mexico.

6 I've been an organic farmer for over
7 30 years and an organic inspector for over 22. I
8 want to thank sincerely all the members of the
9 Board for the sacrifices and daunting commitment
10 of time that you make, and I'd also like to thank
11 the members of the NOP who are here.

12 I think the recent government shutdown
13 should make us all aware of how much work you do
14 for us, and I hope you got your garden built
15 Michelle.

16 So you have my -- already received my
17 written comments, and other than making a quick
18 plug to list oxalic acid, please vote to list
19 oxalic acid, those items, I don't really want to
20 talk about those. I want to talk about fraud.

21 As members of the Board consider
22 laudable, proposed changes to the NOP rule, I

1 would ask that you please review and reaffirm the
2 concept of sound and sensible, while at the same
3 time remembering that every National List change
4 or additional requirement, no matter how
5 laudable, adds significant time to the workload
6 of inspectors, reviewers and of course organic
7 operators.

8 Right now there is a massive super-
9 tanker sized threat bearing down on the organic
10 movement. That supertanker is named the SS
11 Fraud. Fraud is the threat to organic integrity
12 that risks swamping our little boat and drowning
13 everything we have been working to build since
14 the days of Sir Albert Howard, William Albrecht
15 and Lady Eve Balfour.

16 It is important to remember that the
17 amount of time spent on inspection and review of
18 organic operations is limited, and it's basically
19 a zero sum game. All the hours spent on
20 addressing relatively minor issues equate to less
21 hours that can be spent performing additional
22 mass balance, traceback and feed audits, and

1 cross-checking with other CBs, i.e. activities
2 that stand a chance of detecting potential fraud.

3 One of my favorite quotes comes from
4 the organic revolutionary and pioneer Masanobu
5 Fukuoka, author of the book One Straw Revolution.
6 He famously said most farmers ask what I need to
7 do. I ask what can I avoid doing? I submit that
8 the NOSB and the NOP need to ask themselves the
9 same questions.

10 Where can our allies in government and
11 other movements take the lead on things like
12 over-harvesting marine organisms and the
13 mandatory labeling of GMO vaccines, both for
14 human and veterinary use. When I train and
15 mentor organic inspectors, they will often hear
16 me ask where is the real threat to organic
17 integrity here?

18 So I would submit that we in the
19 organic policy community need to stop and ask
20 ourselves where is the real threat to organic
21 integrity, and then act accordingly. Thank you.

22 CHAIR BEHAR: Comments. Sue?

1 MS. BAIRD: Thanks Garth. So I'm
2 turning that question back on you. Where is our
3 realest, most risk factor.

4 MR. KAHL: So I think -- so yeah. I
5 think the biggest, the biggest risk is fraud. I
6 think the program has come up with some good
7 steps to address fraud. I think that inter-
8 collaboration between CBs in a real time manner
9 to assess sales, to assess volumes, particularly
10 large volumes, particularly imports.

11 The certification of non-certified
12 handlers and elements of the supply chain is
13 critical. We need to move forward on those
14 issues. Training is obviously important, but I
15 think that that's the biggest, that's the biggest
16 thing. We can talk about all these laudable
17 things all we want, and if we have fraud pouring
18 in, our brand, our trademark, our movement is
19 swamped.

20 So those are the things I would -- you
21 know, if I were -- if I were sacrificing like you
22 are, and in your position those are the things I

1 would be highlighting more than, more than other
2 laudable things.

3 CHAIR BEHAR: Thanks. Scott.

4 MR. RICE: Thanks Garth. You spoke
5 very forcefully about oxalic acid being a useful
6 tool, and I can appreciate that. But there's
7 been a lot of conversation also this week about
8 materials with a lack of standards or production
9 methods being certified in the absence of
10 standards.

11 So I wonder if you had any thoughts on
12 listing a material for which there's no
13 standards. We have a recommendation of course,
14 but not a rule.

15 MR. KAHL: Right. Well, we have
16 guidance of course, which is better than some
17 practices and materials that are being certified.
18 But I would say that the global situation is that
19 there are multiple other international standards
20 that certify honey. So the default standard
21 worldwide, since most honey is grown in
22 Argentina, Mexico and Brazil, organic honey, it's

1 the EU standard.

2 So most of the world's honey is
3 produced under the EU standard, which permits
4 oxalic acid. So we actually currently have, you
5 know, a conflict between standards. You have a
6 lot of honey that is coming into the U.S., that's
7 basically certified under those standards, and
8 then there's a de facto equivalency that's taking
9 place, and in many cases oxalic acid is a
10 stumbling block, because they're using oxalic
11 acid because it's allowed under those standards.

12 I think that yes, we need to have --
13 we need to have apiculture standards created.
14 But in the absence of that, we need to accept
15 that there are very strong apiculture standards
16 both in the EU, which we have equivalency
17 agreements with, and in the Mexican organic
18 standard, which we're moving towards equivalency
19 with.

20 So by de facto it exists and it is
21 coming into the country and it's being labeled by
22 the USDA, and the listing of oxalic acid might

1 actually serve to create an impulse to create a
2 domestic apiculture, you know, production.
3 Because right now, foralmite's (phonetic) the
4 single biggest issue for domestic and
5 international producers.

6 CHAIR BEHAR: Ashley.

7 MS. SWAFFAR: So you're saying we
8 should list a product to create a group of people
9 that will now produce honey to a standard that we
10 do not have?

11 MR. KAHL: Well again, we have
12 guidance that says we can use our existing
13 standard. I would absolutely admit that, you
14 know, we don't have clear standards. But at the
15 same time you can -- again, you can look at the
16 existing livestock standard and we have, we have
17 guidance that directs us to it. We have guidance
18 that directs CBS to prevent contamination and
19 there's a lot of evidence, you know.

20 A producer can submit an OSP that
21 says here's how I'm going to prevent
22 contamination. I mean I'm a pre-NOP person, so I

1 believe that you can certify things in the
2 absence of a huge standard. We did it prior to
3 NOP, and you can think outside the box.

4 We have a standard that says they're
5 livestock, we can certify livestock. We have a
6 standard that says the producer needs to present
7 an OSP that clearly delineates how they're going
8 to prevent contamination. So they present that
9 OSP together with the, you know, the appropriate
10 science and there's a lot of science and
11 obviously Harriet's aware of this in terms of,
12 you know, the area, the forage area for beef.

13 So an operator submits an OSP. They
14 say here's how I'm going to do this. I mean
15 we've done this with a myriad of materials like
16 soaps, like, I mean go down the line. We don't
17 have specific standards for health and beauty,
18 and yet we have shelves full of product that is
19 certified NOP to health and beauty.

20 I think it's possible to certify
21 things using the existing standards, but you have
22 to be -- you have to trust that CBs are going to

1 do so in good faith and are going to keep organic
2 integrity in mind. And I actually trust CBs. I
3 think there's good people working for CBs, and we
4 don't have to have a standard for every little
5 thing.

6 CHAIR BEHAR: Emily.

7 MS. OAKLEY: Just to the point of how
8 the NOSB spends its time, because you're right,
9 there is a limited amount of time. But we're
10 also a very diverse organic community, and the
11 priorities that we all see are very different.
12 But I think one of the cornerstones for organics
13 is continuous improvement.

14 Now how we all interpret that, of
15 course, is very different. But I just want to
16 put it out there that I think we're all working
17 towards that goal of continuous improvement. How
18 that gets interpreted might be differently. But
19 I think the NOSB, as it allocates its time on
20 various different topics, is working towards that
21 goal.

22 MR. KAHL: No, and if I can respond to

1 that. I totally agree with you and I think that
2 the concept of continuous improvement is key, and
3 you all do just amazing yeoman work and it's
4 great. We need to have those wider-ranging
5 policy discussions. I just would argue that
6 right now, we need an all hands on deck alert to
7 focus on fraud, and maybe we need to prioritize,
8 you know, put aside the other more lofty things
9 and basically really focus on fraud.

10 Because for the next two or three
11 years, until we get this under control, like the
12 whole, the whole thing is under attack.

13 MS. OAKLEY: Just a quick response.
14 I don't disagree with you. I just think because
15 we're so diverse, a livestock producer and a
16 dairy producer might say well, the most urgent
17 thing right now is origin of livestock. There
18 are just so many different entities here that
19 it's -- that I don't want us to forget the bigger
20 picture.

21 MR. KAHL: I agree, and I would say
22 that yeah, origin of livestock is right up there

1 with fraud too, and we've heard it this week.

2 CHAIR BEHAR: Okay, Dan.

3 DR. SEITZ: I can't resist asking this
4 question, since you made the sweeping statement
5 about whether we need standards in areas that are
6 not yet fully regulated. There seem to be very
7 diverse potential practices out there around
8 hydroponics, and there's a real split in the
9 community obviously, or at least on the Board,
10 between those who think it's appropriate or not.

11 But given that it is a very different
12 production system, wouldn't that be one area
13 where you would need pretty extensive work on
14 standards to define what that actually means in
15 practice, for someone in your position who's out
16 there potentially certifying these?

17 MR. KAHL: Well yeah absolutely, and
18 I think that that's -- that's a practice that's
19 really run ahead of itself. It's a practice
20 where people took the 2010 NOSB recommendation
21 and ran with it. And you know, maybe we do need
22 at this point some standards to rein it in.

1 I mean I would just throw out there we
2 have equivalency with Canada. Canada has some
3 very detailed container growing standards, you
4 know. Just throw it out there. A quick
5 solution, yeah we'll accept Canada. I mean
6 again, there may be reasons why we wouldn't want
7 to do that.

8 But there is -- there's a good
9 starting place. Well, let's adopt Canada's
10 standards on container growing. Would that help
11 to salve the wounds of this split? I don't know.
12 But it would be a potential starting point.

13 CHAIR BEHAR: Okay. Thank you, Garth.
14 Amy van Saun? Has she showed up yet. Okay.
15 With that, we're going to move to the waiting
16 list. We are going to go a little over time, so
17 let's try to, you know, stay a little short maybe
18 on the questions here. It's Tina Ellor first.
19 Lee Frankel will be on deck. Gabriel Flores is
20 third, and then there's two more after that.

21 MS. ELLOR: I seriously didn't think
22 I'd get a chance to address this group. So thank

1 you very much for what you do and this
2 opportunity. I don't have any written comments,
3 but I would like to say that through working with
4 certifiers and the NOP through the years, the
5 crop standards are working really well for
6 mushrooms. Some day we can have a mushroom
7 standard, but there's no urgency there.

8 I want to speak to hydrogen peroxide.
9 It's one of the few things that we use, that we
10 depend on on our farm. We try not to use
11 anything at all, but that's one thing that we do
12 find that we need to use to control some diseases
13 in our mushroom crops.

14 I was going to talk about soil, but
15 I'm not going to. I'm going to pass this on to
16 the next commenter.

17 CHAIR BEHAR: Any questions for Tina?
18 Another NOSB alum. Okay, thank you. Lee Frankel
19 is here. Thank you.

20 MR. FRANKEL: Thanks Harriet. My name
21 is Lee Frankel. I'm the executive director of
22 the Coalition for Sustainable Organics, and I

1 guess I wanted to share some observations and
2 comment on some of the things that I've heard at
3 this meeting. They have not been vetted by my
4 board or my membership, so they're my opinions,
5 but so I do appreciate the time.

6 As I enjoyed the analogy to the shot
7 put at the high school track meet, and I think
8 the container issue is, you know, somebody has
9 now come up with Fosbury Flop in the high jump
10 and it's something very different the western
11 role and the scissors approach.

12 And so, you know, it is something
13 that's so follows the same rules. It's solely
14 kind of human powered, but it's something that
15 looks different than what's come before. So you
16 know, I am pleasantly surprised at the number of
17 people that were actively against containers in
18 general are now supporting kind of work to get to
19 a rule or a guidance document or some common set
20 of language and regulations that we could have,
21 to make things clearer.

22 I did want to just kind of bring to

1 everybody's attention some of what I saw are
2 maybe the problems the last time we attempted to
3 address this, particularly just kind of feel like
4 the hydroponic and aquaponic task forces maybe
5 shortchanged a little bit by kind of not letting
6 them get to the point where there could be a
7 common set of definitions between the Section 1
8 and Section 2 people, and then just even giving
9 them a chance to kind of make sure there's
10 internal editing consistency within the sections.

11 The other portion is a number of the
12 proposals the last time around were, in essence,
13 kind of de facto bans on the production systems,
14 even though they were kind of couched in a way to
15 make it seem like a standard.

16 So hopefully we can find a way to get
17 some more public input and dialogue, so that
18 there's a chance actually to address those items.
19 Let's see. I guess I did also want to kind of
20 follow up with the -- what was brought up by MOSA
21 in terms of kind of the farm system.

22 You know, we kind of got into some

1 hypotheticals. But I think if we take things
2 back to the farm system, that we're not kind of
3 going practice by practice but we're looking at
4 just different ways growers can demonstrate that
5 they are meeting, you know, conservation of
6 resources, cycling of nutrients and doing things
7 and taking into account enhancing your
8 environment and habitat where those operations
9 are located.

10 So I look forward to working with
11 Board and answering any questions.

12 CHAIR BEHAR: Any questions from the
13 Board? Asa.

14 MR. BRADMAN: I just have a comment,
15 and I communicated this when the discussions were
16 going on a couple of years ago and I said it
17 earlier today. I think it would be really useful
18 to see some written proposals for specific
19 standards. We've heard concerns today which I
20 share about, you know, covering ground with
21 plastic, runoff, soil ventilation, things like
22 that.

1 You know, we grow organic strawberries
2 and we seal the ground with black plastic. It's
3 not like, you know, there's in-soil methods that,
4 you know, are full of these materials too and
5 really seal off the soil, at least for much of
6 the year.

7 But I think some of the issues that
8 have been raised are really legitimate, and it
9 would be nice to see some concrete proposals on,
10 you know, container systems, hydroponic systems
11 that kind of address the concerns that are being
12 raised. In my mind, you know, I don't think that
13 a container system is wrong, you know, for going
14 into a city lot in Oakland that has high lead in
15 the soil or, you know, you can't really use that
16 soil.

17 I don't think they should be denied
18 the opportunity to have some sort of organic
19 production. At the same time, when we look at
20 the goals of the Organic Foods Production Act and
21 I think in the heart of people involved in
22 organic, it is a little disturbing to me when I

1 see pictures of, you know, acres of ground
2 covered in plastic.

3 For me, that's also true for
4 strawberries in the soil, as much as it is for,
5 you know, containers sitting on landscape cloth.
6 But it would be interesting to me and I think to
7 others to see kind of some really detailed,
8 written proposals that -- I think that would
9 further the discussion.

10 MR. FRANKEL: And I think what could
11 really help with that discussion is if we kind of
12 flip it around or start it, the first principles
13 to say -- and I guess using some, getting into
14 some of the hypothetical examples. We talked
15 about the herd, and we don't like people leveling
16 their land or what the other one, where we have
17 to certify the entire operation and, you know,
18 just be aware.

19 I live in the winter, mean winter
20 production area for broccoli and leafy greens,
21 and you know, other commodities. It would be
22 irresponsible for the organic growers to not make

1 sure it has the exact right grade to use their
2 flood irrigation systems so that water is being
3 consistently applied across the whole lot.

4 I'm excited to see more acres get
5 certified each year in the valley where I live,
6 but those growers have very large non-organic
7 acres as well and they, kind of as the market
8 grows and they can develop the market, they
9 switch more acreage into organics.

10 And so I think, you know, if we kind
11 go back to saying well, what are you trying to
12 address. Is it, you know, what's your farm
13 system, how do you -- where are you inputs coming
14 from? Are you taking kind of waste materials out
15 of kind of the fish processing and other meal and
16 blood meal and giving it a new and higher use
17 through finding a home for that in organic
18 container production systems?

19 And so I know what you're looking for,
20 but I think kind of chicken and the egg. If you
21 guys can say these are the principles that are
22 really important to us, that you don't think are

1 being addressed by certifiers, then we can try
2 and come up with other examples that help growers
3 say how they're meeting those principles, or
4 different guidelines.

5 So hopefully there's some way to get
6 that established, so we know kind of what's even
7 -- what we're trying to address.

8 CHAIR BEHAR: Steve.

9 MR. ELA: We've heard a lot of public
10 comments about the three year transition period
11 that all soil growers have to go through, and you
12 know, three years of non-use of prohibited
13 substances. I mean do you have -- I guess that
14 to me is important. Is that a level playing
15 field for land that containers or others might go
16 on, to go through that same transition period?

17 MR. FRANKEL: Yeah. I know we're
18 quick on time, so I won't give a bunch of
19 stories. I'm going to try to get right to the
20 point. But I think if we go back to some of the,
21 again kind of the first principles of why do we
22 have the three year transition period, and it's

1 to give the vast majority of synthetic chemicals
2 that have a half-life where they can break down
3 in that three year period, and that contamination
4 won't be present.

5 But the other portion is, you know,
6 there's a conversion of the biology in the
7 systems. If you're using synthetic sources of
8 nitrogen and have readily available nitrates,
9 then that's a different biology that takes a few
10 years to get reestablished.

11 So if you eliminate the contamination
12 and you are -- have that correct organic biology
13 to begin with, you know, are the ultimate needs
14 being addressed and does it just seem unfair? So
15 for example like a vulture producer that has a
16 healthy population of hawks and eagles in their
17 area needs to put up, you know, some kind of
18 productive netting to keep the birds safe.

19 But maybe a grower in a less healthy
20 habitat doesn't have to do it. But should every
21 grower have to put up that protective netting in
22 the outside space for the poultry, to avoid

1 predators? Do we want to impose the cross on
2 everybody, even though we're addressing an issue
3 that's already kind of been addressed with the
4 production approach?

5 So I don't know the answer. I just
6 wanted to -- again, if we can draw up first
7 principles, we can lay the arguments on the table
8 and the community can evaluate what makes sense
9 and what doesn't.

10 CHAIR BEHAR: Okay, Emily. Short
11 please.

12 MS. OAKLEY: Sorry, I was a little
13 confused. So are you saying that maybe that
14 through your transition period wouldn't be
15 necessary if the objectives of a three year
16 transition period is supposed to be meeting,
17 could be met in a shorter period of time? I
18 don't know. I might have misunderstood.

19 MR. FRANKEL: Yeah.

20 MS. OAKLEY: I'm sorry. I was just
21 not clear on what you were saying.

22 MR. FRANKEL: Yeah. I'm trying, I

1 guess I'm trying to study and understand why do
2 we have the three year transition period? Is it
3 to punish growers or is it to accomplish certain
4 organic objectives? So I'm saying if those
5 objectives are being accomplished through a
6 selection of the growing medium, the growing
7 material, and through finding a clean
8 environment that hasn't been contaminated in the
9 past and those objectives are being met.

10 So maybe there's others I'm not
11 seeing, but I just want to make sure we're
12 dealing with the same set of facts, and then
13 again the community can make some final decisions
14 one way or the other. So I'm saying that I don't
15 see -- I see container producers can meet the
16 objectives of what's trying to be accomplished by
17 the three year transition period in soil faster.

18 CHAIR BEHAR: Okay, thank you.

19 MR. FRANKEL: You're welcome. Thanks
20 for your time.

21 CHAIR BEHAR: So we have Gabriel
22 Flores next, Ed Brown and David Will, and that

1 will be the end of the public comment.

2 MR. FLORES: Well first of all thank
3 you for working late tonight. My name is Gabriel
4 Flores. I'm the Director of Sales and Marketing
5 for Westmar Company. We are a food safety
6 company. We approach food safety through
7 chemistry, training and consultation. We are a
8 PURE Bioscience distributor. We've actually
9 helped introduce the PURE Bioscience product Hard
10 Surface Sanitizer into the Pacific Northwest.

11 We're a Pacific Northwest-based
12 company. We're a family company. We have 14
13 representatives in the entire Pacific Northwest,
14 more than all our competitors combined. I'm here
15 to basically plead with you. Our customers,
16 which is about 30 percent of our base, does
17 organic and they have been asking for the last
18 six months for the PURE Bioscience ASDC product
19 to be organic certified.

20 It is one of the only products, so it
21 is essential to the Pacific Northwest, to food
22 safety, that the PURE Bioscience product be

1 approved. It is a ready to use product. It is a
2 -- it sanitizes on a disinfectant level, which
3 does not have to be rinsed. It is non-corrosive,
4 and again it is unavailable to about 30 percent
5 of our market.

6 That is unlike the current products
7 that are approved for organics, which is chlorine
8 bleach, which comes in at about 20, 12.5 percent.
9 Degrades almost immediately once upon opened to
10 10.5 percent. It can be used up to 100 parts per
11 million, 200 parts per million. It is dependent
12 upon a workforce which is -- the cleaning and
13 sanitizing industry relies on a workforce which
14 is high school level or less.

15 We are dependent upon them to actually
16 mix the products, to validate the products and
17 then use these products to sanitize. Chlorine
18 dioxide is the other product which needs to be
19 generated through a process of mixing chlorine
20 and the acid together, and then we have PAA.

21 Any chlorine-based product is
22 corrosive, and I think what's ironic about these

1 chlorine-based products that are corrosive is
2 that it actually starts degrading the surface of
3 these food processing facilities, and it actually
4 creates another problem, which is it begins --
5 because it begins degrading the surface which
6 PURE Bioscience products does not, it creates
7 harborage for other and for more bacteria and
8 pathogens.

9 CHAIR BEHAR: That's your time.

10 MR. FLORES: That's my time, okay.

11 Any questions?

12 CHAIR BEHAR: Asa.

13 MR. BRADMAN: I just have a couple of
14 questions and a comment. Some of the proposed
15 uses for SDC are for equipment and surface
16 sanitizing, and then also product rinses. When
17 you say people are begging for it, could you
18 clarify what purposes and, you know, it's
19 described as a no rinse material, but I'm curious
20 about how that would work for equipment versus
21 fresh cut --

22 MR. FLORES: These are food contact

1 surfaces. So they make direct contact with the
2 food. So if you're disinfecting with any of the
3 other products, they have to be rinsed.

4 MR. BRADMAN: So you're saying the SDC
5 is a no-rinse product?

6 MR. FLORES: It disinfects and does
7 not need to be rinsed.

8 MR. BRADMAN: Okay. So it's not wiped
9 off or anything?

10 MR. FLORES: No.

11 MR. BRADMAN: If you put it on the
12 surface or --

13 MR. FLORES: It is, correct.

14 MR. BRADMAN: Okay, and I just want to
15 also go back to your point about just chlorine
16 compounds. I know in my experience with working
17 with farm workers and food processors, the
18 interactions we've had, you know. They complain
19 bitterly about chlorine compounds and, you know,
20 the sanitizing field is a challenging one. Even
21 hydrogen peroxide has its own issues, although I
22 think it's one of the least toxic, certainly

1 environmentally, of the materials.

2 But the chlorine compounds are
3 definitely a challenge here. In some of the
4 comments, you know, there's an assertion that
5 really on acute basis this is probably less toxic
6 than the chlorine compounds. Can you talk more
7 about that?

8 MR. FLORES: It's in -- I'll talk
9 about the safety part of it. We do training, and
10 most of our training is on chemical safety, and
11 most of the chemical safety is on chlorine-based
12 products. Most of the complaints we get from the
13 companies is how do we get the perception of the
14 smell from PAA and a chlorine-based product?

15 Employees complain of headaches, and
16 a lot of times they're calling us in to lower the
17 amounts to the lower end of the scale. For
18 example, PAA runs from 90 parts per million to
19 500 parts per million on a sanitation level. We
20 are asked or being asked to actually lower it
21 down to the lower end of it.

22 So my question is, just out of

1 curiosity, is since we're going all the way down
2 from 500 to 90, what are we -- what are we
3 sacrificing? How, why are we -- why are we being
4 required because of the smell to lower the
5 sanitation level that much?

6 In the case of PURE product, it is
7 odorless, it is colorless and it is non-
8 corrosive, as opposed to a chlorine product which
9 is corrosive. In a chemical cage, you have
10 almost up to 20 products. You have acids and
11 chlorine. You have to have them by rule on
12 opposite ends of the cage.

13 But the cage is maybe 10 by 10, 20 by
14 20. Any of those chemicals that spill from
15 dilution, hand to hand dilution on the surface of
16 and go into any cage and you'll see it on the
17 ground, a drop. They drop chlorine, they drop a
18 mixture of a chlorine-based product on that
19 surface. You now create a gas, you know.

20 Any chlorine-based product mixed with
21 an acid is, becomes immediately gases and it
22 becomes toxic and you have to evacuate that room.

1 CHAIR BEHAR: I'm going to cut you
2 off. So we're about a half an hour beyond time,
3 and we have two more speakers. Is that okay?

4 MR. FLORES: I'm done, okay.

5 CHAIR BEHAR: Okay. Thank you very
6 much. Edward Brown, David Will and that will be
7 it, and hello Edward.

8 MR. BROWN: Hello, Madam Secretary.
9 Deputy Tucker, NOSB members and NOP members, I
10 want to thank each and every one of you for the
11 hard work that you do. I know at times it's got
12 to be a thankless job, and I do appreciate it.
13 I've been in this community for 45 years. I've
14 done every position from being a migrant worker,
15 wholesaler, retailer, production.

16 Currently, I'm the executive vice
17 president for Pilgrim's Market in Coeur d'Alene,
18 Idaho and it's going to be basically some general
19 comments. I want to first of all thank you for
20 the Organic Integrity Database.

21 I think that is an excellent tool for
22 retailers to look at, for retailers and consumers

1 to look at the organic community as a whole. I
2 see that as a unique database that's open to the
3 public, and I do appreciate that work greatly.

4 I also have a concern about the origin
5 of livestock rule. I just see -- I've been --
6 I'm from Madison, Wisconsin, the livestock state
7 for dairy, and I would sure like to encourage the
8 AMS or the NOP and the NOSB members, to just
9 encourage the AMS to adopt this as a final rule,
10 to accept the final rule and they do pass that.

11 I believe that we are in need. I
12 think there's been a lot of comment on that, and
13 I believe it's time to pass that. Another --
14 when using the Organic Integrity Database, I do a
15 lot of private labeling at the store, and looking
16 at the integrity of that is a key.

17 But I'm noticing more and more stores
18 are using private labeling, and since retail
19 stores are exempt from the certification, I mean
20 from the certification if they sell it in their
21 own brick and mortar stores. So I'm a little
22 concerned about fraud here.

1 I actually developed an organic
2 systems plan, called a lot of the certifiers
3 checking on it, and almost all of them said you
4 know what? No retailers do this, and so it gave
5 me some concern for fraud there.

6 The other thing I have is that with
7 OFPA, when I was at the Wedge Food Co-op, I was
8 there for quite a few years, and we were crying
9 for the Organic Food Production Act in 1990. My
10 understanding was that the USDA NOP was the
11 accreditor and the certifiers were accredited by
12 the USDA.

13 And so that, my understanding was that
14 they actually set the rule, and they accredit
15 these certifiers to that rule. So my confusion
16 here is that how did the expansion of the OFPA,
17 which is in the hydroponics, how they can expand
18 it some 15 years ago and the organic community
19 never really understand it?

20 Doesn't the USDA accredit the
21 certifiers, and shouldn't we, the organic
22 community, know about this ahead of time? Those

1 are my general comments. I thank you for taking
2 these comments. I appreciate that.

3 CHAIR BEHAR: Any questions? Thank
4 you, Edward. David, you're next.

5 MR. WILL: Thank you Madam Chairperson
6 for allowing me to speak. Michelle, would you do
7 me a favor and please put Miles McEvoy as one
8 more person I don't want to follow ever to speak,
9 okay? It's a list of three.

10 I'd like to thank you all very much
11 for your time and dedication. I want you to know
12 it was not missed on me at all and the audience,
13 noticing that in your discussions and you
14 constantly mentioned the egg, I've realized,
15 which doesn't surprise me I guess, that all of
16 you are evolutionists versus creationists. So I
17 think that speaks well for us as an industry and
18 a board and a group. So I appreciate that very
19 much.

20 My name is David Will. I'm general
21 manager of Chino Valley Ranchers. We're an
22 organic or cage-free egg marketer in California.

1 I'm also the chair of the California Shell Egg
2 Board Committee. I sit on the California Organic
3 Program. Since they're here, yea California, and
4 I am the chair of the Methionine Task Force, and
5 that's what my quick comments are going to be
6 based on.

7 Yesterday, I didn't get to give you
8 quite the update I wanted to for our 2019-2020
9 plans. We currently, like I said, we just funded
10 and finished the UC Davis study.

11 We've been looking at having some
12 small, very small field trials on high methionine
13 corn in the Midwest that one of our producers has
14 used for years. So we're hopefully going to
15 gather his flock records at the end of this year
16 and his yield records from the corn, and have
17 those available for you.

18 We're also going to do an in depth
19 dive literature review through Penn State
20 University, and also having them do a quick check
21 through European uses in the law, so that we're
22 actually clear what's going on in Europe with the

1 change now as of the first of the year, and they
2 no longer have the five percent exemption.

3 Just to let you know, we are an
4 industry-funded group. We have about 25 members
5 that actually are on the Methionine Board. But
6 those members either source through or represent
7 about 12 million laying hens of the 14 million
8 that the USDA says are active in the United
9 States currently, and we have three broiler
10 people on there too. No turkeys. So if you know
11 anybody that does turkey, we're looking for some
12 turkey people.

13 We are very small. We have farms that
14 represent anywhere from 1,000 birds all the way
15 out to some of the larger, bigger, complex farm
16 people. Our goals for 2021, we're going to look
17 at funding some more research. I think it became
18 very apparent to you yesterday, in listening to
19 Heather's comments, that we probably need to do
20 some what's available on pasture areas as far as
21 insects and the feeding and the selection.

22 Again, we thank you very much for your

1 work. We will definitely take a look into
2 Methiomax as well. Unfortunately, we've seen
3 some other things of this. There's been a few
4 other things out of India that have come, that
5 are just about guaranteed to cure everything.

6 In fact, if you go to the NOP or the
7 National Organic Program show and you go to the
8 upper floor, they pretty much have a pill there
9 that will cure everything. Somebody left their
10 coral behind, I don't know who that was. But I
11 thank you all for your hard work, and if there's
12 anything else that we can answer, we'd be happy
13 to.

14 CHAIR BEHAR: Any questions? Thank
15 you very much, and I hope you got your chicken.

16 MR. WILL: I can't take one back
17 because we're in D&D quarantine.

18 CHAIR BEHAR: Oh Emily. Oh, oh, okay.

19 MR. WILL: Oh no, it's not funny.

20 CHAIR BEHAR: Thank you.

21 MR. WILL: Okay.

22 CHAIR BEHAR: Okay. Well, we're not

1 ready for the Materials Subcommittee yet.

2 MS. OAKLEY: Can I ask a question,
3 like a point of clarification on your question?

4 CHAIR BEHAR: Okay.

5 MS. OAKLEY: Is it ever possible to
6 call a public speaker back if you have a question
7 that you didn't answer or ask at that time?
8 Okay.

9 CHAIR BEHAR: Okay next, I'm going to
10 call on Paul Lewis to give us -- Oh, okay. Thank
11 you all.

12 (Applause.)

13 CHAIR BEHAR: Thank you for still
14 being in the audience.

15 DR. LEWIS: Let me just echo that. I
16 appreciate the public commenters being here the
17 past day and a half, and all your work preparing
18 for the meeting today.

19 We're now going to the next part of
20 the meeting as we're moving toward the NOSB
21 Subcommittee work. And I'm pleased to announce
22 the upcoming publication of another National List

1 rule.

2 We just learned from the Office of the
3 Federal Register that sometime next week, the
4 final rule, the National List rule responding to
5 the fall of 2017 recommendations from the NOSB
6 will be published next week. And this addresses
7 two materials. One, you may recall, adding
8 sulfur to organic livestock, and then
9 reclassifying potassium acid tartrate.

10 And I just want to spend a moment
11 talking about this. This is, again, part of our
12 ongoing activity of being responsive and timely
13 to NOSB recommendations. I want to again thank
14 the Board for all your work with that. But I'd
15 be remiss in terms of not thanking my colleagues
16 around the table with the National Organic
17 Program Materials Team, Clarissa Mathews, Devon
18 Pattillo and others with our Standards Materials
19 team, that have really put together this effort
20 of being responsive to the Board in 18 months,
21 preparing a proposed rule, reviewing the
22 comments, preparing a final rule. Let's give

1 them all a round of applause.

2 (Applause.)

3 CHAIR BEHAR: Okay, with that Emily,
4 I'm going to turn this over to the Materials
5 Subcommittee and Emily Oakley, chair.

6 MS. OAKLEY: Thanks Harriet, but I
7 will obviously be turning it quickly back over to
8 you. So we have five documents. I'm going to
9 look at the time, because we have an hour and
10 we're going to take an hour.

11 So we have one proposal. We have four
12 discussion documents, and Harriet, I'll turn it
13 back over to you for the proposal on Excluded
14 Methods Determinations, April 2019.

15 CHAIR BEHAR: Okay. So this is a
16 continuing document. It's kind of like a soap
17 opera saga. I don't know if we'll ever be done
18 with it, but we are working through a list of
19 methods to determine if they should be excluded
20 or not, using criteria and evaluation points to
21 determine if they should become excluded. Okay,
22 thank you Michelle.

1 So based on the public comment, there
2 was a lot of public comment that supported this
3 proposal, that transposons developed via use of
4 in vitro nucleic acid techniques, are not -- the
5 transposon itself is not a method, and that we
6 need to be clear that it's via use of in vitro
7 nucleic acid techniques. That is the method.

8 So all we did was just make it clear
9 in the box that the method is transposons
10 developed via use of in vitro nucleic acid
11 techniques. Then there was, you know, some
12 concern that perhaps, you know, we didn't quite
13 have this one right, that transposons that were
14 developed through environmental stress such as
15 heat, drought or cold, were we being clear enough
16 on that.

17 So we're just going to remove that and
18 put it off to the future, the next time we look
19 at transposons again. And so that is the change
20 to that. When we didn't change this, there was a
21 lot of good public comment that supported it, and
22 so that was a pretty short and sweet little

1 proposal there.

2 Let's see here. There was also a
3 suggestion to change the wording on transposons
4 activated or directed through in vitro
5 techniques, but it seemed that the word developed
6 covered both of those words and more better, so
7 that's why we chose that wording.

8 So the actually in the -- what the
9 Committee actually voted on was that wording,
10 transposons developed via in vitro. So I'm not
11 100 percent sure. We of course can have a
12 comment, but I'm not sure if we need to have a
13 motion for -- probably for removing the other
14 one, and putting that wording into that box.

15 I mean there was a change there, as
16 you saw, so I will go back to that so everyone
17 can see it, because you don't need to look at the
18 things we didn't change. You need to look at the
19 things that we did change. So that's really the
20 main change right there.

21 So I just moved from the notes, and I
22 moved it into the method, the red. Has everybody

1 got that? So the red is what got changed.
2 Before, it just said transposons, and now it
3 includes the words developed via use of in vitro
4 nucleic acid techniques, basically just moving
5 over the language from the notes section, so it's
6 clear that it's that method of producing the
7 transposon.

8 So I guess with that, I will open it
9 up for discussion, and then we'll -- and then we
10 can decide if we were ready to go to a vote to
11 approve this change. You want to go to the next
12 slide.

13 MS. OAKLEY: Can I jump in Harriet?

14 CHAIR BEHAR: Yep.

15 MS. OAKLEY: So this was in response
16 to public comment, saying that these were natural
17 processes. They were not -- it was not a method.

18 CHAIR BEHAR: Just trying get it right
19 in here.

20 MS. OAKLEY: Are there any questions
21 or comments for Harriet?

22 MR. MORTENSEN: I would -- I would

1 just say that I think it's also done a good job
2 of capturing the points that were raised multiple
3 times, that transposons do arise naturally under
4 stressful conditions of the kind that were in
5 there, and now that's been removed. I think the
6 document's ready to go.

7 MS. OAKLEY: Any other comments or
8 questions? Looks of confusion? No, we're good?
9 Asa.

10 MR. BRADMAN: I would move that we
11 accept the change, the amendment that the
12 transposons arising from environmental stress
13 such as heat, drought or cold be removed, struck
14 from the document before we vote on it. So
15 that's a motion.

16 MS. OAKLEY: There's a motion from
17 Dave to accept the wording change.

18 CHAIR BEHAR: Can I do a friendly
19 amendment --

20 MS. OAKLEY: Okay.

21 CHAIR BEHAR: --that we also add the
22 wording in the Methods box, developed via use of

1 in vitro nucleic acid?

2 MR. MORTENSEN: Yep, certainly.

3 CHAIR BEHAR: Is that okay?

4 MR. MORTENSEN: Yep.

5 CHAIR BEHAR: So then all the change
6 is in one motion.

7 MS. OAKLEY: So there's a motion to
8 move the wording from the notes section to the
9 transposons method and synonym section of the
10 box, and then to remove the section describing
11 transposons developed through environmental
12 stress such as heat, drought or cold. Is there a
13 second for that motion?

14 DR. SEITZ: Second.

15 MS. OAKLEY: Dan will second that.

16 Any further discussion?

17 (No response.)

18 MS. OAKLEY: All right. So we should
19 start the vote.

20 CHAIR BEHAR: I believe I take over
21 from here.

22 MS. OAKLEY: I believe you do.

1 CHAIR BEHAR: Okay, so we'll see.

2 Scott, are you ready?

3 MR. RICE: I'm good to go, I think.

4 CHAIR BEHAR: Okay. We will start --
5 wait a minute. I'm on the wrong page. Get the
6 page right. There we go. So the motion is to
7 accept the changes and we will start with Ashley.

8 MS. SWAFFAR: Yes.

9 MR. CHAPMAN: Yes.

10 MS. BAIRD: Yes.

11 DR. SEITZ: Yes.

12 MR. MORTENSEN: Yes.

13 MR. BRADMAN: Yes.

14 MR. RICE: Yes.

15 MR. ELA: Yes.

16 MS. OAKLEY: Yes.

17 MR. BUIE: Yes.

18 MS. ROMERO-BRIONES: Yes.

19 MS. DE LIMA: Yes.

20 MR. GREENWOOD: Yes.

21 CHAIR BEHAR: And the chair votes yes.

22 So I have a unanimous vote that's 14 yes, 0 no,

1 no abstentions, no absence. Does that sound good
2 to you Scott?

3 MR. RICE: You read it.

4 MS. OAKLEY: All right. So now we
5 have a motion to accept the proposal on Excluded
6 Methods Determinations, April 2019. Motion in
7 the Subcommittee was by Harriet, seconded by
8 Dave. Is there any further discussion? Harriet.

9 CHAIR BEHAR: I'm just happy to keep
10 pecking away at the list, and I hope as future
11 NOSB Board members get on, that we continue to
12 work on the list. So thank you for being patient
13 and going through this fairly scientific
14 determination.

15 MS. OAKLEY: Thank you for your work
16 on this. Any further discussion?

17 (No response.)

18 MS. OAKLEY: Okay. Then I think we're
19 ready to move to a vote.

20 CHAIR BEHAR: Okay. We will start
21 with Tom.

22 MR. CHAPMAN: Yes.

1 MS. BAIRD: Yes.

2 DR. SEITZ: Yes.

3 MR. MORTENSEN: Yes.

4 MR. BRADMAN: Yes.

5 MR. RICE: Yes.

6 MR. ELA: Yes.

7 MS. OAKLEY: Yes.

8 MR. BUIE: Yes.

9 MS. ROMERO-BRIONES: Yes.

10 MS. DE LIMA: Yes.

11 MR. GREENWOOD: Yes.

12 MS. SWAFFAR: Yes.

13 CHAIR BEHAR: And the chair votes yes.

14 I have 14 yes, 0 no's, 0 absent, 0 abstentions, 0
15 recusals. How many of you have transposons? So
16 it passes.

17 MS. OAKLEY: Great, thank you. So we
18 did really well on our time. Our next item is
19 also with Harriet. It is a discussion document,
20 Induced Mutagenesis and Embryo Transfer in
21 Livestock. Harriet.

22 CHAIR BEHAR: Okay. So there was some

1 discussion and public comment. I really
2 appreciate the expertise in the organic community
3 on this somewhat confusing and detailed issue.
4 There was excellent comment, especially since
5 there's so many methods of induced Mutagenesis,
6 and that there are some seeds currently used in
7 organic agriculture that originated from some of
8 these methods that caused induced mutagenesis.

9 The Materials Subcommittee will
10 continue to research this issue and work to
11 clearly define which method or methods might be
12 considered to be excluded, with careful research
13 to not remove access to important seeds. This
14 may or may not be done in the fall. It's hard to
15 know, because it is fairly complicated. But we
16 will work on it and hopefully we can have a
17 proposal by then. If not, we will give you an
18 update.

19 Then on the embryo transfer. Many
20 certifiers weighed in on this method. I did not
21 see a single grower, however, weigh in. I
22 believe WODPA might have weighed in on this.

1 With most considering the use of hormones only in
2 the donor animal for the embryo allowable, but
3 not in the recipient animal.

4 The possibility of narrowing the gene
5 pool if this method becomes more used was not
6 considered to be an issue by most commenters,
7 especially since this is already occurring with
8 artificial insemination when farmers choose
9 specific genetics to improve their herds.

10 And so you have, you could have many
11 different herds in a neighborhood all using the
12 same semen from the same bull. There was some
13 feeling that farmers should have access to this
14 as a tool, to improve their herds not only from
15 the male side but from the female side, and there
16 are times when there is a cow who cannot
17 conceive, and so then they use her for embryo
18 transfer.

19 There was not much comment on the
20 possible effect of the use of the hormones on the
21 young animals born from these embryos, with more
22 research needed on the small amount of

1 information that I have seen, that both the
2 original young animal and subsequent generations
3 could be negatively affected by the hormones
4 given to the donor cow.

5 And of course this would be for sheep
6 and goats and any mammal, but I've only seen it
7 used mostly in dairy animals. This method is not
8 used regularly within organic agriculture, both
9 due to its cost and the lack of need for this
10 expensive procedure.

11 This method does not technically meet
12 our criteria for genetic engineering, since there
13 is no compromise of the nucleus through in vitro
14 manipulation. However, the use of prohibited
15 hormones led the Materials Subcommittee to look
16 at this material, and a future proposal might or
17 might not continue to keep this method within
18 this excluded method's framework, or provided as
19 a separate issue because it doesn't really seem
20 to be, to fit within the criteria.

21 Except for the fact that with some of
22 the research that I saw and heard from others,

1 that some of the -- there is a genetic pass-down,
2 okay. So the super-ovulation hormones given to
3 the mother do change some of the genetics of that
4 embryo, and then it is passed down through the
5 generations.

6 And so in a way, that is a type of
7 genetic engineering. So we just have to see
8 where that all fits, and if it's significant
9 enough to consider it a problem or not. And so I
10 reach out to the public to continue giving us
11 information, to help us through this issue.

12 And again like I said, I didn't hear
13 from a lot or really from any individual farmers
14 that this was an important tool that they either
15 used now and many certifiers do allow it, or one
16 that they feel is important for the future.
17 That's it.

18 MS. OAKLEY: Is there any discussion
19 or question, questions for Harriet?

20 (No response.)

21 MS. OAKLEY: I have a question. As
22 you near the end of your term, which is super-

1 sad, I think it's important that members of the
2 Materials Subcommittee start helping you with
3 these documents in more detail over the course of
4 the summer and the fall, so that everyone is
5 prepared to help take on many of the tasks that
6 you're working on now.

7 And I'm wondering if you feel that
8 listening to public comment, this is something
9 that should come out as a proposal in the fall,
10 or if it's something that you feel needs more
11 time and more development before going forward?

12 CHAIR BEHAR: I think the embryo
13 transfer livestock we could go forward on. But I
14 need to look a little bit closer with the
15 Subcommittee, if it really fits under the heading
16 of an excluded method document that might go
17 somewhere else, because it's really somewhat of a
18 prohibited material use that then might affect
19 genetics, you know, into the future generations,
20 which is somewhat complicated.

21 MS. OAKLEY: Any other questions or
22 comments for Harriet, or any volunteers to take

1 this on? All right.

2 CHAIR BEHAR: I like to look at Dave

3 --

4 MS. OAKLEY: I was looking right at

5 Dave too. I think that's a natural progression.

6 All right. We continue to do well on time, so we

7 will move into the next discussion document,

8 which is Marine Materials and Organic Crop

9 Production, which I was the lead on.

10 So at our administrative meeting as a

11 Board a few days ago, we talked about the benefit

12 of having dialogue amongst ourselves about

13 topics. So in that spirit, I want to not go

14 through an exhaustive list of the public

15 comments, which I can do in more detail in the

16 future or my response to them.

17 I'd rather have a dialogue amongst

18 ourselves and open this up to conversation,

19 because we're tackling or at least looking at,

20 you know, a very challenging issue. It's very

21 helpful for the Subcommittee to hear the full

22 Board's thoughts on these topics, because we are

1 a much smaller subset of the full Board.

2 So I will give a very brief sort of
3 overview and kind of road map for how we might
4 discuss this over the next 10 to 12 minutes, and
5 then I hope we can just kind of open up and I'd
6 love to hear people's thoughts. So just a quick
7 summary of some of the comments that I think
8 should be taken to heart is that I do think and I
9 hope we will be able to have a fall expert panel
10 on this topic.

11 It was requested that we keep this
12 document on the open docket throughout the
13 summer, to allow for additional comments and I
14 think that that is a good idea. There is not
15 enough consensus within the community about how
16 to move forward to come forward with any sort of
17 proposal this fall.

18 So I look forward, all the
19 stakeholders that are out there that said they
20 wanted more time, to hearing more comments, and
21 especially if those comments can be targeted
22 towards the most consensus-building path forward

1 that we can achieve, that would be ideal.

2 There was a lot of comment, as I
3 mentioned before, that was sort of spontaneous
4 from different stakeholders about their request
5 for a task force, largely because this is such a
6 complicated issue. It's beyond the purview of
7 many of us in terms of our, you know,
8 professional expertise, and even beyond the
9 purview of the professional expertise of many, I
10 think, at the NOP, and that a task force may be
11 best suited to try to flesh out some of the
12 issues and how we might sort of address
13 environmental harm, especially if we were to look
14 towards guidance or any sort of standards.

15 So that's all I'm going to say about
16 the public comments. To just frame the
17 conversation, I would say that, you know, the
18 goal and the reason this came before the Board
19 was the question of whether or not we're meeting
20 this criteria of avoiding environmental harm with
21 this material.

22 So that's sort of our overarching

1 goal, and then the question is what's the best
2 way of addressing that? I think there are
3 basically two options, maintaining the status
4 quo, which some people might favor. They might
5 feel that the status quo does adequately address
6 environmental issues.

7 And then there are those that
8 obviously don't think that it does. So then
9 creating a means of defining, measuring and
10 verifying the extent to which that's possible,
11 and trying to find out which method would be the
12 best means of ensuring that no environmental harm
13 or limited environmental harm was being created.

14 So some of the concerns are the issue
15 of precedent-setting, which we have heard from
16 commenters. I think the discussion document, as
17 I've said, tries to address that issue, but I
18 don't think that's going to resolve everyone's
19 concerns on that topic.

20 So is there a way that we can frame
21 this as a wild crop material, that might help
22 assuage or some of those precedent-setting

1 concerns and not create such a precedent? And
2 then there's the concern about the ability to
3 apply certification to this marine material.

4 That sort of spans a spectrum from
5 those who say that certification wouldn't be
6 strong enough to achieve the goal of environment,
7 of no environmental harm, to those who say that
8 certifiers don't have the expertise to carry out
9 certification, although we do know that it is
10 happening now.

11 So I guess my question for the Board
12 is how can we meet this goal? Are we meeting it
13 currently and what are the best ways that Board
14 members see of addressing these concerns? So I
15 know that's a very broad discussion point, but I
16 know we don't have a lot of time.

17 But I think it's really important for
18 the Materials Subcommittee as we determine our
19 next steps. So anybody feel like the excited
20 person to open up their thoughts on this topic?
21 Dave?

22 MR. MORTENSEN: I first would like to

1 thank you, as a number of people have, for the
2 amount of time that's been put into this
3 document.

4 We've read the drafts, but you've put
5 an enormous amount of time into this, as actually
6 also having sat in on a number of breakfasts over
7 the last number of years since I've been on the
8 Board, have many folks in the community that have
9 been helping provide information and data.

10 I think that when we have a panel of
11 experts speaking to the Board, and this kind of
12 goes without saying, but I think some of them
13 have been better than others in my opinion in
14 terms of really helping us. I thought the second
15 integrity panel was excellent, and really helped
16 us to see where some of the problems lie.

17 I think that it would be really
18 helpful to be very, very deliberate about how we
19 decide who we would decide could help us to see
20 this problem more clearly, and do that by
21 committee maybe, so that we could have some
22 pretty rigorous discussion about how we set such

1 a panel up.

2 I, for example, would be really
3 interested in understanding better how some of
4 the certification processes that are in place
5 now, Emily, that you know more about, how those
6 are working. I also think that we have a
7 tendency here, when folks like -- and I thought
8 David, I have always thought that David Hiltz's,
9 presentations have been very helpful.

10 But we don't usually hear from the
11 marine folks that are concerned about fishery
12 depletions in the Northern Atlantic, for example,
13 speaking to the Board about how changes in
14 habitat alter the sustainability of the fisheries
15 of the Northeast, for example. But that's just
16 one example.

17 So that's, those are my thoughts on a
18 panel. I think it's a great idea, and I
19 definitely think we need to keep working on this,
20 because I think it's a very, very important
21 issue.

22 MS. OAKLEY: Lisa.

1 MS. DE LIMA: So one thought I have is
2 before we try to move forward with a task force
3 or a panel, try to narrow the scope a little
4 bit. So a couple of certifiers, this time and
5 past times, have brought up the concern about
6 whether it's -- if we put something forward,
7 that it's not legally enforceable for OFPA.

8 So I think narrowing in on some of
9 those comments and figuring out the validity of
10 those and what's behind that before we go to task
11 force, so that we don't have them going down a
12 path which then we can't actually pursue. So I
13 don't really have any answers, just questions.

14 MS. OAKLEY: Either of you guys?
15 Scott.

16 MR. RICE: In terms of panels, I
17 agree. I think we've had some good successes and
18 agree with Dave that, you know, with a sort of
19 more curated panel we can definitely have more
20 success. I reiterated an idea I had of just even
21 splitting the panel in two, of having -- which
22 might also speak to some of Lisa's concerns of

1 one looking at sort of the regulatory kind of
2 certification angles that we're interested in
3 learning, and then another looking at the ecology
4 and environment questions that are concerning us,
5 and maybe that would help guide further work.

6 You could even potentially do that at
7 the same meeting, and just kind of be -- a lot of
8 information, but I think you could do it well and
9 help shape the discussion further.

10 (Off-microphone comment.)

11 MR. RICE: A panel of regulatory and
12 certification angles and topics, and one of kind
13 of ecology and environment.

14 MS. OAKLEY: Steve.

15 MR. ELA: I'm trying to catch that
16 thought, because otherwise I'll be in a very
17 short memory. I agree with what's been said,
18 that you know, this is a very complex topic and I
19 remember when I came on the Board and the various
20 marine materials documents were floating around.

21 I was kind of like oh my goodness.
22 That may not have been the exact words, but I

1 mean incredibly complex. And yet, I mean I think
2 one of the issues we struggle with on this Board
3 is, you know, somebody said we do really well
4 with materials because that's very concrete, and
5 it's concrete for a reason and the more complex
6 issues, which really are why we are organic
7 growers, we deal with complex systems, are much
8 harder to nail down and find consensus on.

9 So I don't want to let it go. I don't
10 want to take it on. I want somebody else to take
11 it on. But I see real needs, you know. In
12 hearing the public comments, I think there are
13 some very good things happening out there by
14 companies, and with protocols.

15 I still have a real worry that the bad
16 actors, you know, the regulations don't go after
17 the good people, they go after the bad people. I
18 worry, especially with climate change and other
19 issues, that bad actors out there that may not,
20 you know, take the system into account, I don't
21 want to be using those materials accidentally. I
22 want to support the good people.

1 But it's hard to know as a grower I
2 can't do that research. So I feel somewhat
3 compelled as a Board to keep following up on
4 this. I really thought, you know, your document,
5 you know, it became clear to me we shouldn't, you
6 know, certifying somebody else's protocol like
7 the Maine standards, probably not a good idea
8 because we don't have control over that.

9 Plagiarizing that maybe, with
10 permission. I guess that's not plagiarism, but
11 you know maybe, you know, in starting that may be
12 a good starting point. But I think we, you know,
13 reading the initial documents on all the seaweeds
14 and all the materials around the world and those
15 beds, it was fascinating, and I had no clue. But
16 it also, you know, it did show the fragility of
17 that system.

18 So I agree with what Scott said. I
19 think, you know, a panel with two sets, I think
20 that was a really good, really good suggestion,
21 and maybe that's the starting point. I'm not
22 sure about a task force yet, but I thought your

1 document was really, really good, laid out the
2 questions and still the wild harvesting thing, I
3 think I could still be in favor of it.

4 MS. OAKLEY: Harriet and then Rick.

5 CHAIR BEHAR: So I think we got here
6 because in our rule, it does state that we have
7 to, you know, protect the natural resources, and
8 it doesn't -- so I think there was this feeling
9 too that, you know, well wild kelp is used in
10 conventional agriculture too, that organic
11 farmers care more widely about the greater
12 environment and, you know, we talked about carbon
13 sequestration.

14 That's not just for the rainfall on
15 our own farms; it's around the planet. So I
16 think there was a little bit of concern about
17 like a black eye for organic if what we are
18 requiring on our farms is actually despoiling the
19 seas and causing species to go extinct, and
20 that's not something we want to see.

21 But on the other side, we have to be
22 somewhat practical in how far can we really save

1 the planet. I mean we'd like to think we could,
2 but you know, I'm wondering with some kind of
3 annotation, you know, like -- but organic
4 certification is going to require some ramping
5 up.

6 But that said, you know, there could
7 be a phase-in period or whatever, and that's why
8 I think it's a good idea what Scott said, to have
9 the regulators talk about it and then get some
10 background. I was asking the question about do
11 the harvesters mostly work for one company,
12 because I kind of was thinking about having them
13 be like a grower group, because between Arcadian
14 Seaplants and Ocean Organics I believe that's
15 their system, where they have protocols that they
16 even check up on.

17 So they already have kind of a grower
18 group internal control system in place for the
19 harvest of kelp, which means that not everyone
20 who's got a boat going out there would have to be
21 certified, and that would be somewhat helpful as
22 far as what kind of cost, right, having the kelp

1 become certified. Would it add to the cost? It
2 would be a lot more addition if every boat had to
3 have an inspector versus, you know, dealing with
4 it like a grower group.

5 I know that the NOP is looking at
6 grower groups, so we'll see what comes out of
7 that and that will maybe inform our future
8 discussion.

9 MS. OAKLEY: Rick.

10 MR. GREENWOOD: Yeah. I also like the
11 idea of splitting the two panels, and I think the
12 area that I'm least comfortable with and where
13 I'd like more information is obviously the ocean
14 ecology. I think we can't set standards until we
15 understand what's going on.

16 We heard some numbers today, where we
17 only harvest ten percent. Well I don't know if
18 ten percent is a good number. I mean maybe over
19 time ten percent destroys things. Not initially,
20 but maybe 15 years later. So we really need some
21 expertise.

22 I don't know that. I think I had

1 mentioned at the last meeting I helped build a
2 reef as a mitigation and it's really hard, and
3 it's got to be followed for 30 years by federal
4 law, to see if it actually works.

5 So we need, we need real information.
6 Then we can get to the certification, what we do.
7 Otherwise, we're measuring to a standard that may
8 not be of any value at all.

9 MS. OAKLEY: Dave, then Asa.

10 MR. MORTENSEN: Right, and I was also
11 struck by something that David Hiltz said this
12 morning, that just reveals the fact that how this
13 plays out is quite context-specific, where he was
14 talking about, you know, zones of the oceanfront
15 that were, you know, this group can work in that
16 area, that the Canadian government is managing.

17 I just moved into Hampshire and I was
18 thinking about what he was saying, that that's
19 largely unregulated in Maine. It seems to me
20 that how that plays out, how it's managed, how
21 it's overseen and when we have a panel therefore.
22 Let's get to the point of the panel. It would be

1 helpful to have somebody that knows something
2 about regulating what goes on in the intertidal
3 zone along the coast, west and east coast and
4 maybe even other places around the world.

5 Because clearly if you have a
6 carefully managed process in Canada and an
7 unregulated process largely, in at least in New
8 England, that's a very different set of concerns
9 I think.

10 MS. OAKLEY: Asa.

11 MR. BRADMAN: Excuse me. David
12 actually just said some of the things I was
13 thinking. But just to reemphasize, I think this
14 is a very important issue, and from what I can
15 see the status quo is not acceptable at this
16 point, or at least we really need to have a lot
17 of discussion before we can even consider that as
18 an option.

19 It sounded like today in Canada they
20 actually have pretty good rules. But in some
21 cases there's probably not; in other cases, the
22 government agencies really may be promoting

1 economic activity and potentially at the expense
2 of the environment. This is a very unique
3 situation, where we're taking nutrients from
4 essentially a native ecosystem and then
5 transferring them as really a pure input into,
6 you know, an agricultural ecosystem for people.

7 I think that just -- you know, there's
8 a special kind of responsibility to support that
9 activity.

10 MS. OAKLEY: Thank you. Are there any
11 further questions or comments? Tom.

12 MR. CHAPMAN: So I share Lisa's
13 thoughts that we should clarify what authorities
14 we could potentially utilize with standard-making
15 before we go down that road. I've been somewhat
16 reticent to comment on this because I think you
17 should come with solutions, and unfortunately I
18 don't have solutions.

19 I have a lot of concerns around
20 certifying inputs and the precedent-setting on
21 there, and precedents can be set no matter how
22 many disclaimers you place on something. On the

1 flip side, I don't like referring to third party
2 standards. And so, you know, that's not a
3 solution I'm particularly drawn to, and you know,
4 but I think something needs to be done.

5 So I'm not bringing solutions, which
6 I don't, you know, like X against me on that one.
7 I'm sorry. But so far I also have concerns about
8 some of the solutions that have been proposed. I
9 do think -- this is also where I'm going to be
10 somewhat speaking out of both sides of my mouth.

11 I do think that a panel is probably
12 the best way to do it, but I struggle with the
13 priority of this item over some of the other
14 items that we have before us. I agree heavily
15 with the comments that Garth had made about how
16 fraud is really the big issue before us, and you
17 know, there are limited resources.

18 And so in the absence of looking at
19 limited resources, this seems like a great panel
20 to proceed to in the fall. But if you look at it
21 as a tradeoff decision amongst all the other
22 various panels we could potentially bring in on

1 integrity, on international recognition and
2 conformance agreements, on seeds, on livestock
3 practices and what's going on in the marketplace
4 there, like there's a ton of issues that seem
5 more pressing than this one, which also I am
6 struggling with because I know I can't ask for
7 ten panels. That's just not realistic.

8 So we only have so much time. Is this
9 the one we want to use in the fall? At the same
10 time Emily, I know you put a ton of work in this,
11 and this goes on prior to your time. It goes,
12 you know, traces back to Jean. She put a ton of
13 work into this, so I have respect for that. I'm
14 just, you know, I'm pulled in a lot of different
15 directions on this.

16 MS. OAKLEY: Yeah. So in the interest
17 of time, unless there are other pressing
18 comments, I'll close it there and thank you Tom
19 for that last point, because I do want to say
20 that this is -- so many other Board members put
21 in so much more work, so just a small thing.

22 But this did come from others who had

1 done much, a lot of work. I want to just thank
2 all the stakeholders who have put in a ton of
3 time on this, and for your really helpful
4 comments because each of them really does help
5 improve the process.

6 So with that, we will move on to the
7 next discussion document. Harriet.

8 CHAIR BEHAR: I'm here.

9 MS. OAKLEY: Which is genetic
10 integrity, transparency of seeds grown on organic
11 land.

12 CHAIR BEHAR: Okay. So I guess I want
13 to somewhat apologize. I put out this discussion
14 document kind of as a second to the one that was
15 out at the last meeting, and didn't -- in the
16 interest of just not throwing more paper at
17 everyone, I should have probably included the
18 other one with this. I did get some comments
19 like where is this coming from? Don't expect us
20 to look at the previous thing, and it's okay.

21 So I didn't do that, so apologize, you
22 know. I guess we'll just think about that again

1 for the future. So it does refer to the previous
2 one though about what the public comment was. To
3 give some background, this came from -- seed
4 purity was the original name for it.

5 There's been a call for a task force
6 to try to understand about the genetic
7 contamination of seed used on organic land, and a
8 lot of discussion about thresholds, more
9 tolerance or whatever and just -- and of course
10 there was no agreement across the organic
11 community on that.

12 And so when I took it over from Zia,
13 I kind of thought about what are we really trying
14 to get to here, and what I saw in my neck of the
15 woods in the upper Midwest was the fact that
16 there were farmers who were, through no fault of
17 their own, having crop rejected and not knowing
18 if it started at the seed, if it was their own
19 problem with genetic contamination.

20 But this is a significant loss, and
21 especially in the past few years when the corn
22 price was a little bit higher, they would be

1 expecting to get \$14 a bushel for their organic
2 corn. They would ship it two or three hours and
3 it would arrive and it would be rejected, and all
4 of the sudden it gets sent off to the
5 conventional mill or elevator, you know, and it
6 was \$3.50 a bushel.

7 You can do your math on that. Very
8 significant, and these are not new farmers who
9 are growing, you know. These are farmers who
10 have not had that problem before and are starting
11 to see that occur. Long time farmers, good
12 organic farmers.

13 And so I thought well really what we
14 need to know is what is the integrity of that
15 seed, and on the genetic level that's grown on
16 organic land. So that's where I took it. It
17 actually also came from going to the Organic Seed
18 Alliance conference and discussing this with seed
19 producers, who said they were already doing quite
20 a bit of testing and that they were happy to be
21 transparent.

22 But of course as this moved along, you

1 know, the organic seed is more than just the
2 Pacific Northwest and the Upper Midwest. It's
3 the whole country, and actually our rule is
4 international. So there are complications to
5 trying to set some kind of program together,
6 where we try to provide the information to the
7 farmers.

8 With that, I have been speaking with
9 Kiki Hubbard and the Organic Seed Alliance, and
10 they will be doing some reaching out, as Kiki did
11 say in her public comment, to organic and non-
12 organic seed producers that typically sell to
13 organic producers, to determine if this type of
14 genetic transparency program and the accompanying
15 testing is practical, doable, you know, legally,
16 although I think we've taken care of that
17 question, and that it is legal to test final
18 product that may not be legal, to test foundation
19 seed that hybrid seed is made from.

20 But any seed that a farmer would buy
21 to grow a crop. It is legal at this time to test
22 for genetic contamination. What are the type of

1 costs? What's the availability of the testing,
2 and to determine if there's any other unintended
3 negative consequences if a pilot project does
4 move forward.

5 We look forward to their research,
6 which hopefully will be completed so we can move
7 ahead with some sort of proposal this fall.
8 Let's see. There were quite a few public
9 comments on the previous document about, you
10 know, how do we put this together.

11 There was quite a few comments that it
12 wasn't clear which entity had to do what thing of
13 the 18 items in the list. So I have that in my
14 head and would put that together, you know, if we
15 did move forward with a proposal.

16 So make sure that, you know, I will
17 have a list and then I will clearly somehow,
18 either in a table or whatever, and point out this
19 is what's expected of the organic seed producer.
20 This is what's expected of the organic farmer.
21 This is what's expected of the organic certifier,
22 and this is what's expected or could be asked of

1 the non-organic seed producer.

2 Because I truly do not feel it's fair
3 to only ask organic seed producers to have the
4 burden of testing on them. We really need that
5 if there's non-organic seed being planted on
6 organic land, that there is some background
7 information. You know, perhaps this could be a
8 way to push organic producers more towards using
9 organic seed, although there is not quite enough
10 out there for them to use.

11 But again, we should be working with
12 organic seed. That's what the rule says, and I
13 don't think it's necessarily fair to the organic
14 producers when a non-organic seed supplier is not
15 transparent about what's in their seed, and it
16 could end up then causing a great monetary loss
17 to the organic producer, by not knowing what
18 they're starting out with.

19 So why is that happening? That's
20 because the marketplace has -- does have
21 thresholds on GMO contamination, and many times
22 the farmer either signs a contract or is aware

1 that they need to bring, you know, no more than
2 .9 percent. So if they don't know if their seed
3 has 1.1 percent genetic contamination, they can't
4 meet their contract, and they don't even know if
5 there's no transparency.

6 Okay. So numerous comments were put
7 forward to remove the collection of the data from
8 the proposal, and also to make the testing of the
9 seed strictly voluntary, with no collection of
10 data that then would go into a large database,
11 all the way to we should just require no
12 detectable levels of GE in any seed planted on
13 organic land.

14 So we had all and everything in
15 between pretty much. Most commenters, though,
16 were positive about the need to move ahead with
17 some sort of system to aid farmers in knowing
18 what the unintended genetic engineering
19 contamination levels their seed may contain, and
20 the public generally does not want us to move
21 forward until we have more information from the
22 seed producers and farmers.

1 There's concern about the GE
2 contamination that's occurring, that disrupts the
3 supply chain, resulting in lower prices to the
4 farmers, but also to the processors. This is
5 stressful for the processors when they're
6 expecting to process something and to then be
7 able to sell it on, and then all of the sudden
8 they have three semi loads of corn that they
9 can't use, and they have to then scramble to go
10 find other product.

11 I did speak with the Organic
12 Ecological Food Farming Association's Grain
13 Farmer Group on a conference call, as well as the
14 O Farm Board, twice in person and once on a call.
15 They were generally supportive. They did not
16 want to see a lot of financial burden, but they
17 really wanted the information.

18 One thing that they -- that stuck with
19 me is that they felt that they should be really
20 protecting the organic integrity of the crops
21 that they are growing, and having this
22 information would help them do that.

1 The discussion document brought
2 forward the comment that the NOSB and the NOP
3 should aid certifiers with clear guidelines on
4 what type and number of testing they should do to
5 determine unintended genetic engineering presence
6 in seed and final crop, as part of the
7 comprehensive guidance on this subject, that
8 there's kind of a gap there that some certifiers
9 are testing for genetic contamination, others are
10 not, and there's no clear guidance on who's doing
11 what and what should be done so that it is
12 consistent across all certifiers.

13 For those that were positive on this
14 issue, they stated that they want the pilot
15 project to be practical and cost effective, and
16 they also see this as a way for the marketplace
17 to incentivize seed producers themselves, to
18 lower the GE contamination, because if there's
19 sunshine on what the contamination is, then
20 there's thought and hope that the seed producers
21 will try to lower the GE contamination, when
22 nobody knows there's just not that incentive.

1 The farmers want to see us raise the
2 bar, because there's concern that without
3 transparency, many producers will continue to
4 lose access to markets due to this genetic
5 contamination that's no fault of their own.
6 There were some very good comments given on
7 building a practical pilot program.

8 I know I went on pretty long, but
9 there were a lot of comments, so I thank you for
10 that.

11 MS. OAKLEY: Thank you, Harriet.
12 There were a lot of comments. Are there any
13 comments or questions for Harriet from the Board?
14 Dave.

15 MR. MORTENSEN: I have a couple of
16 thoughts. One of those is several people at the
17 -- well, lots of the written comments and then at
18 the NOC meeting I was sitting in the background
19 quietly listening while you and Kiki and others
20 were talking thoughtfully about this subject.

21 It seems to me, so I'm going to just
22 reveal my bias here, and pardon if I upset anyone

1 in the audience or on the Board. I get the sense
2 we're afraid to know what the state of the seed
3 supply is. That's my opinion. I think we need
4 to know the state of the seed supply, period.

5 I thought there were some very helpful
6 suggestions made by folks about how we answer
7 that question. What is the state of the seed
8 supply with regard to purity, and one of those
9 suggestions that was made repeatedly by several
10 different folks and groups was that we have some
11 sort of group of individuals that would conduct a
12 study, where people were very sensitive to not
13 smearing anybody in the process, that this would
14 be some sort of autonomous but pointed set of,
15 you know, look and see how are we doing with
16 maize, corn.

17 The fellow from Texas today was
18 talking about cotton is a big problem, and we all
19 know that any GMO crop that is either bee
20 pollinated or wind pollinated when it's grown in
21 a matrix that is overwhelmingly GMO transformed,
22 there's a risk of that happening.

1 Whether you're a breeder or you --
2 unless you're going to do your breeding in a
3 country or an island where GMO crops of that
4 species are not grown. So I liked the suggestion
5 that some sort of group, and I don't want to call
6 it a task force, a group of folks working
7 collaboratively would actually set out to
8 determine the state of the seed supply with
9 regard to purity.

10 And then it could be shared with this
11 group, this community and then discussed with the
12 idea, which I think is totally the intent of this
13 document, this part of it is in my reading of it
14 and my discussions with the Subcommittee. We
15 could then be looking at what are the problems
16 that give rise to hot spots of impurity by, you
17 know, asking those kind of questions of the data.

18 So that's one thought. Should it
19 remain in a discussion document. I don't know if
20 it should remain in a discussion document or
21 handled outside of a discussion document format.
22 I do think that our farmers deserve to know what

1 they're dealing with on the front end, because
2 most all of our farmers, organic farmers are
3 concerned about genetic modification
4 contamination of their seed, those that grow
5 crops that are crops at risk.

6 So that's just a thought I have coming
7 away from listening to more of the discussion,
8 and looking at the document and discussing this
9 with the Subcommittee.

10 MS. OAKLEY: Yes, Tom.

11 MR. CHAPMAN: I just had a question
12 for Harriet's summary. You mentioned O Farm was
13 supportive of this? But then I also -- I thought
14 I read a letter that they sent on saying that
15 they had some strong concerns, and so can you
16 clarify that?

17 CHAIR BEHAR: Yeah. They stated that
18 they did not want it to cost them a lot more.
19 But the last sentence was we are supportive of
20 this, that I saw.

21 MR. CHAPMAN: I think that was the
22 Crops. Are you confusing the Crops piece with

1 this piece?

2 CHAIR BEHAR: No.

3 MR. CHAPMAN: Okay, because they said

4 --

5 CHAIR BEHAR: I can look that up.

6 MR. CHAPMAN: Yeah.

7 CHAIR BEHAR: But no, they were
8 supportive of having the information, and they
9 were supportive if they could get the information
10 from their seed suppliers up front before they
11 even purchased the seed.

12 They didn't particularly like the part
13 where if they couldn't get the information from
14 their seed supplier, that they had to go out and
15 do the test, because of the cost. If somebody
16 else would pay for the test, then they would be
17 fine with that.

18 MR. CHAPMAN: Yeah.

19 CHAIR BEHAR: There was concern about
20 saving seed, which I did address and took that
21 out, made that more of a best practice instead of
22 a mandate. I know that there were a few

1 certifiers that wish that farmers would save
2 their seed, but got a lot of pushback from that
3 so that was pulled out.

4 MR. CHAPMAN: Yeah. I mean I had read
5 the letter from NOC. I just, it didn't seem like
6 the summary coincided with what I had read in the
7 comments. But maybe I misread it myself, so just
8 let's make sure that we're -- if you could follow
9 up on that before we move forward.

10 CHAIR BEHAR: Okay.

11 MR. CHAPMAN: Yeah.

12 MS. OAKLEY: Just noting the time,
13 we're closing in on our hour. Are there any more
14 comments on this before we move to the sanitizers
15 discussion document?

16 (No response.)

17 MS. OAKLEY: All right. Well then our
18 final item is assessing and cleaning sanitation
19 materials used in organic crop, livestock and
20 handling discussion document. Harriet.

21 CHAIR BEHAR: Okay. So sorry Tom, I
22 can't search the -- busy. Okay. So while the

1 Subcommittee clearly stated that our goal was not
2 to limit sanitizer use in organic agriculture,
3 but instead the NOSB really feels it needs a
4 reference to aid them in current -- for the
5 current NOSB and for future NOSBs, to better
6 evaluate the petitions as they come to us, to see
7 where the sanitizers that we are receiving
8 petitions for fit in the constellation of
9 sanitizers.

10 Not to change the OFPA criteria. We
11 will still get TRs for individual sanitizers.
12 But we don't always understand how they work
13 with, you know. What is the difference between
14 this one and that one, and this active ingredient
15 and that active ingredient?

16 It seems there's still a concern that
17 the work on this topic is somehow secretly being
18 done, to remove the use of needed and in some
19 places legally mandated sanitizers. So as the
20 lead on this document, I just want to make it
21 clear that I am an approved Produce Safety
22 Alliance trainer, helping produce growers meet

1 FSMA requirements.

2 I have taken both basic and advanced
3 trainings. I have written numerous articles and
4 fact sheets. I have given many trainings to
5 growers, and I do not hate sanitizers, okay. So
6 everybody, you just need to know that. I
7 understand about biofilms and pathogens and where
8 they hide and how hard they are to get rid of and
9 how they can grow, and exponentially and cause a
10 food safety crisis.

11 So please, I am not lying to you. I
12 am not secretly trying to do something else. So
13 I hope that's clear. You can go on the Produce
14 Safety Alliance website, see my name there. I
15 want you all to know too that the NOSB struggles
16 with the review of these direct contact materials
17 to decide what is truly needed and what is not.

18 Sanitizers by definition kill
19 biological life, and can have a wide range of
20 negative consequences. We are hoping that this
21 TR will provide that reference to us and to the
22 public, to determine what sanitizers, what active

1 ingredients in sanitizers best meet the OFPA
2 criteria, and that that reference to the safer
3 choice was really to kind of show there is
4 something out there already that kind of gives
5 maybe not the food processing industry, but has
6 an overview of these sanitizers choosing certain
7 ones that meet a criteria.

8 We agree that this should only be
9 limited now to those that have direct contact,
10 but many of the sanitizer active ingredients are
11 also used in cleansers. So that's partially why
12 the word cleanser was put in there, not that we
13 were going to review items that are washed off.
14 We're only going to review those with direct
15 contact, but they are also found in cleansers.
16 So we didn't want to ignore the fact that they
17 would be there too.

18 There was some public comment about
19 asking for clarity on the use of these materials
20 that have contact with organic food in post-
21 harvest handling, since there's no consistency
22 between certifiers on this issue. Some do not

1 allow the 100 percent organic label if there's no
2 rinse after an approved National List sanitizer,
3 and others do allow the 100 percent organic
4 label.

5 So I don't know if that's something to
6 discuss with the NOP, but it's really kind of
7 beyond the purview of this TR and issue. But it
8 was brought up and I think it is a good question.

9 On the question of uniqueness, that
10 uniqueness was meant to discuss the activity or
11 mode of action of the product, not the product
12 itself. So there could be numerous products that
13 have the same unique quality in its mode of
14 action.

15 So we're not -- and we're not saying
16 that if numerous products have that mode of
17 action, that we will only accept one. But we
18 want to know what is that unique activity of that
19 product through the TR.

20 We did discuss the need for rotation
21 of products in the document, which shows that we
22 understood that there could be more than one

1 sanitizer used in a situation, and that we -- it
2 is our intention to provide these options. But
3 many times, we are not given that information,
4 and we really feel that this TR will give us some
5 reference to be able to assess that.

6 The NOP has used the word ancillary
7 ingredients in the past for materials that are
8 either not inert or excipients. So I know there
9 was some question about the use of ancillary
10 ingredients, and that I suppose we could have
11 defined better. But it's basically everything
12 except the active ingredient in the product, and
13 maybe we should look for another word.

14 So we are hoping that the TR will give
15 us some basic information. If the Materials
16 Subcommittee feels that a discussion document or
17 a proposal would help others access this
18 information in an easier way, including
19 manufacturers and users of sanitizers, to
20 identify and petition new materials for the
21 National List, we would do something besides the
22 TR.

1 We don't know what the TR looks like.
2 Depending what that looks like, we may come out
3 with a discussion document or something else that
4 makes it a little bit more accessible to the
5 public, to then use for helping us find the gaps.
6 With that, I am done.

7 MS. OAKLEY: Okay, thank you Harriet.
8 I just want to note that we have met our hour
9 allotment and slightly exceeded it. So if you
10 want to open it up for questions we can. Are
11 there any questions or comments for Harriet?
12 Ashley, are you nodding your head yes.

13 CHAIR BEHAR: Steve was first.

14 MS. OAKLEY: Okay.

15 MR. ELA: I find it interesting that
16 for the whole time I've been on the Board, our
17 stakeholders have asked us to figure out a
18 comprehensive review of sanitizers so that we
19 don't just willy-nilly put them on the list,
20 knowing that we all need them.

21 And then -- and then we propose this
22 and suddenly it seems like, you know, OFPA

1 criteria are perfect. And that's not -- it's a
2 little bit of a frustration. It's just a note.
3 I think it's a complex topic that, you know, none
4 of us want to lose tools. We all want more
5 tools, but yet kind of fundamentally the
6 sanitizers go against OFPA in that they're
7 widespread biologics.

8 For anything else, we might kick that
9 out. And so I think we really do need to
10 continue to figure out classes of chemistries
11 that are active so that we have rotation against
12 resistance, and I have no problem with multiple
13 compounds within a class.

14 But in the insecticide world, there
15 are the neonics and there are the
16 organophosphates and there are the biologicals,
17 and we have multiple materials in those. Each
18 one may have a specific use, even though they
19 fall in a single class.

20 So I think we need to keep moving
21 forward on it. I personally have some
22 reservations if we do have -- know what to ask

1 for in a TR at this point, in terms of getting
2 something that's really valuable. So I'm kind of
3 tempted to take this process slowly. But I also
4 don't know how to move forward to resolving what
5 we might want to ask. It's a -- I chase my own
6 tail on this one.

7 MS. OAKLEY: Why don't you come join
8 us on our Subcommittee calls?

9 MR. ELA: Oh, I'm busy.

10 MS. OAKLEY: You are? Ashley.

11 MS. SWAFFAR: So that person that asks
12 all the time in their public comments for that
13 comprehensive review of sanitizers, also in their
14 public comments really ask us to remove a whole
15 lot of sanitizers. That's my concern with this
16 document, is you know that potential. I think we
17 heard from so many of the growers and packers
18 that sanitizers are critical and they feel like
19 they don't even have enough.

20 So that's where my reservations are on
21 the whole like whittling down and uniqueness of
22 certain things. I would like to see us have

1 options for especially the produce industry. So
2 I hope that this document can do that, and I
3 think there could be some really good ground work
4 on adding new substances, you know.

5 That's where I think this could really
6 help us, not looking at taking things off the
7 list. So I hope that the TR can focus in that
8 area specifically. Thank you.

9 MS. OAKLEY: You too are welcome on
10 our calls. Tom.

11 MS. SWAFFAR: I'm a senior. I'm not
12 accepting new committees.

13 MR. CHAPMAN: I have a couple of
14 questions and then maybe a statement or two. So
15 the first one, has the TR gone out? Has it been
16 contracted?

17 DR. LEWIS: No, it is not. It's still
18 in development in terms of understanding the
19 scope of the TR in that case. So we've been in
20 conversations with Emily and Harriet in terms to
21 finding the scope of the TR and in terms of the
22 boundaries we should be --

1 MR. CHAPMAN: So I'm under the
2 assumption the Subcommittee is open to taking the
3 feedback from this meeting and incorporating that
4 into the TR as well? Is that fair? I see head
5 nodding, so I'm going to say yes.

6 MS. OAKLEY: Yes, yes. We will look
7 at that at our next meeting, which is in a couple
8 of weeks.

9 MR. CHAPMAN: Great, getting right
10 back into it. I share some of Steve's concerns
11 around whether or not right now is the right
12 timing for a TR, and I guess the concept that
13 would be in my mind is potentially a technical
14 panel, that would be able to explore what we're
15 looking for here, mostly made up of various types
16 of food safety experts, that could then help us
17 flush out what we could expect to find in
18 research out there, to help answer the questions
19 we may have.

20 But I don't think we right now know
21 the questions even maybe to ask, to get the most
22 that we could get out of a technical review. So

1 maybe working in a more collaborative environment
2 first, with the intention of moving to a
3 technical review after that might get some more
4 results.

5 I also want to speak to the -- we did
6 hear from stakeholders asking for this review.
7 We also heard over the years stakeholders asking
8 us or stating that they didn't think this was
9 necessary, sharing the concerns that people have
10 that this is an attempt to remove sanitizers.

11 So I just want to make sure that
12 people realize that while we did hear from some
13 stakeholders supporting this concept, we also
14 heard from stakeholders not supporting the
15 concept. So that then doesn't surprise me when
16 we hear then when the, it goes forward, you're
17 hearing from people that are now resistant to the
18 idea speaking up a little bit more.

19 I also think the Subcommittee needs to
20 consider ancillary substances in a lot more
21 detail, and I refer you back to the peracetic
22 acid sunset from the San Diego meeting, so spring

1 2015, where we actually -- the NOSB in that
2 proposal noted that inert ingredients in a
3 sanitizer are not ancillary substances subject to
4 review.

5 So there's a conflict now from what
6 was just said versus what was done previously by
7 the NOSB. So that's an issue I think probably
8 that we should dive into too before we send out
9 the TR and go into those details.

10 MS. OAKLEY: Harriet, sorry.

11 CHAIR BEHAR: I thought I said that we
12 were not going to look at ancillary substances.
13 Did I say we were?

14 MR. CHAPMAN: I think there was a
15 comment that they overlap with other substances.
16 So inerts are completely out, not at all looked
17 at.

18 CHAIR BEHAR: Correct.

19 MR. CHAPMAN: Okay. Well inerts and
20 ancillary substances?

21 CHAIR BEHAR: Yes.

22 MR. CHAPMAN: Because we said the

1 ancillary substances were everything else that's
2 in the product?

3 CHAIR BEHAR: No, I was defining them.
4 I wasn't saying -- I was -- the question was
5 what do we mean by ancillary substances?

6 MR. CHAPMAN: And inerts are not
7 ancillary substances.

8 CHAIR BEHAR: Then I said well, we
9 have categories of inerts. We have categories of
10 excipients, and then we had a category of
11 ancillary substances like used in handling
12 products, and perhaps that was the wrong word.
13 But this was basically everything else besides
14 the active ingredient.

15 That's what I was referring to in the
16 document, but that we were not going to look at
17 those ancillary substances, or should I say all
18 the other things besides the active ingredients.

19 MR. CHAPMAN: Yeah, probably all the
20 other things, just because we previously noted
21 that there's -- in handling, there's inerts and
22 ancillaries.

1 CHAIR BEHAR: Right, right. So I'm
2 sorry if you didn't understand that. But no, I
3 was just trying to define what ancillary meant in
4 this context, and then it meant everything but
5 the active ingredient, and that we were not going
6 to be looking at those in the TR.

7 MS. OAKLEY: Sue, anybody else? And
8 Asa. Okay. Sue, then Asa, oh and Jenny. Okay,
9 sorry Jenny. Sue, Asa.

10 DR. TUCKER: Oh, I just wanted to
11 follow up briefly on what Paul said about the TR,
12 because that follows immediately on what Tom just
13 said. To do a TR contract, we really need to
14 have a very clear scope, because a consultant has
15 to take that statement of work and determine how
16 many hours it's going to take to answer the
17 questions, to do that work in order to come up
18 with a fixed price.

19 So I hate to get mundane about
20 contracting, but that's why we keep on
21 emphasizing the importance of a very clear,
22 specific defined scope for that technical report.

1 So I would encourage the Board to make
2 sure you know what you really want a contractor
3 to do before we spend money to get a contractor
4 to do it, because we don't want a contractor for
5 a technical report come back and say well, we
6 wish we would have asked all these other things,
7 because then we have to do another contract, and
8 the price of those -- this is worthwhile
9 expenditures, but the better we can define it up
10 front, the more cost effective it will be. I
11 just want to make that point.

12 MS. OAKLEY: So I'm just going to
13 interject myself really quickly and say that yes,
14 we have been in that discussion with members of
15 the NOP staff during our Subcommittee calls and
16 through emails, and we will continue that
17 process, especially when we come back with the
18 public comments and make any changes that we
19 would be making. So yes, thank you for that.
20 Sue, Asa, Tom.

21 MS. BAIRD: Yes. Thank you for this
22 work, and I do appreciate it. I think Jenny did

1 address something that I was going to say. But
2 there is another concern, observation, and I
3 appreciate Harriet's, all of her vast stuff that
4 she has going on in her life, including the fact
5 that she is a FSMA trainer.

6 But I have heard the concern from some
7 of the stakeholders that says, you know, I'm
8 afraid that you're going to say this uniqueness
9 will now limit us, or you're going to use this as
10 a criteria to prevent -- either to take things
11 off or prevent new materials being put on. There
12 has been precedent I've heard in even the short
13 time I've been on board, for using that very
14 criteria.

15 Well, we've already got one like this;
16 why do we need to add another one? Got the same
17 mode. So just as a caution, let's don't go down
18 that way.

19 MS. OAKLEY: Asa.

20 MR. BRADMAN: Just in terms of the
21 more mundane, you know, I think there is value
22 here, and if nothing else given how important

1 sanitizing and food safety is, just having kind
2 of a matrix of allowed materials, potential
3 materials, stuff under review.

4 I think having an organized system to
5 categorize that information and evaluate it would
6 be valuable. That's where I see this functioning
7 here. I would add to the evaluation criteria
8 comparative toxicity. So if you have a new
9 material, comparing it to the other ones and
10 also, you know, what the end points are.

11 I mean I can picture kind of a table
12 that would have different checkoffs there, so
13 there could be a quick summary. So just a detail
14 here, but I think this could be really valuable
15 and useful.

16 MS. OAKLEY: Thank you. Tom.

17 MR. CHAPMAN: Sorry to continue to
18 belabor the point on ancillaries, but I see that
19 that was in the technical review request, and so
20 I know you're telling me the ancillaries are out,
21 but I see that it's in.

22 MS. OAKLEY: I'm going to interrupt

1 you and say that that is something that got
2 removed before or after this was already
3 submitted, because we heard from the program on
4 that in particular saying that it was too broad,
5 and that it would expand the cost of a technical
6 review beyond something that was feasible.

7 So although it's in this document
8 before the public, it is not in the document that
9 would go forward as a technical review request.

10 MR. CHAPMAN: Okay. So it was the
11 intent of the Subcommittee to review it. They
12 just, the finances prevented it from being --

13 MS. OAKLEY: Harriet.

14 CHAIR BEHAR: This was something that
15 had been brought forward by the public, to look
16 at the ancillaries, and so we put it in there.
17 And then in the discussion with the NOP, we came
18 to a consensus that really we wanted to focus on
19 the actives.

20 It was really kind of a timing thing.
21 But yes, this was -- it was removed. But you
22 know how it is? I mean how many weeks has it

1 been since we submitted the materials, and we did
2 not stop working on it.

3 (Simultaneous speaking.)

4 MS. OAKLEY: Okay, yeah. Speaking of
5 timing, we're, you know I'm that person. So we
6 are late, but I'll let Dave have the final
7 comment, since you raised your hand, and then
8 we'll end the discussion on this.

9 MR. MORTENSEN: Yeah. I guess I just
10 would like to reiterate that it was never the
11 intention that this was going to be used to -- I
12 completely agree with the point that Harriet made
13 at the very outset and has, I think said at least
14 ten times during the course of the last three
15 days: It was not intended ever to be eliminating
16 things.

17 To me after listening to the food
18 safety -- the excellent presentations that our
19 commenters made on the importance of food safety,
20 it seems to me it's all the more important that
21 we have a more systems-oriented approach to
22 evaluating some new things. Where does it fit,

1 under what circumstances would it be used, and I
2 think the point that Asa just made is an
3 excellent one.

4 So I think this strengthens our
5 capacity to evaluate the fit of new things, and
6 the fit of old things as we go forward with
7 sunset and new petition materials. So I, that is
8 clearly the spirit of this, and that's what I
9 think we want to try to accomplish with it, and I
10 think I'll finish there.

11 MS. OAKLEY: Paul.

12 DR. LEWIS: Just one additional
13 comment, and we're looking at the 16 evaluation
14 criteria that's listed here. In terms of the
15 conversation by the Board here, I'm looking
16 forward to kind of working again with the
17 Subcommittee in terms of refining. That's what
18 we've been saying all along in terms of looking
19 at the scope of having a TR and what will the TR
20 look like. So again, looking forward to working
21 with the committee in this case.

22 MS. OAKLEY: Harriet, do you have any

1 concluding remarks?

2 CHAIR BEHAR: Yes, I do. So we have
3 already worked with Clarissa and Devon on this
4 and cut it back quite a bit actually, kind of
5 lumped some of them together. The reason really
6 why the Materials Subcommittee came to this is
7 that we felt frustrated in trying to evaluate
8 sanitation materials.

9 We felt that we needed a reference and
10 we felt if we needed a reference, future NOSBs
11 also needed a reference. So I know there has
12 been discussion about having a panel, but we felt
13 that a panel would not be something that would be
14 present for future people to use as a reference
15 to help them through, unless they wanted to sit
16 and read the transcript.

17 So that's why we wanted to do a TR,
18 and have that information there, and that also
19 makes it more available to the public, to see are
20 there any gaps. Where do we see that, oh, here's
21 a specific mode of action that we don't have
22 anything on the National List that has this mode

1 of action.

2 So that's what that was all about, and
3 I think Livestock Subcommittee, are we frustrated
4 when we get, you know, a teat dip every, you
5 know. Of course there's nothing this time
6 around, but you know --

7 But we've looked at a lot and we're
8 lost, and we were like we wish we understood how
9 it all works, and how each of those active
10 ingredients work within a system and what's
11 useful in which way. So that's why there's that
12 long list, right, what works in rotation, all of
13 those things.

14 MS. OAKLEY: Thank you everyone for a
15 very robust discussion. I knew we needed more
16 than an hour, that's all I'm saying. I do just
17 want to add before we conclude the Materials
18 Subcommittee that there was one comment from
19 public comment to add to our work plan the
20 development of criteria for evaluating products
21 of fermentation processes.

22 So we can go back and discuss that

1 later in Subcommittee, but thanks everyone for
2 the discussion and that concludes the Materials
3 Subcommittee.

4 CHAIR BEHAR: So there was some
5 thought that maybe we should take a break now.
6 Yes. Everybody is saying yes, and then come
7 back. No more than 15 minutes. So it is right
8 now 4:27. Let's go until 4:45. So you get 18
9 minutes.

10 (Whereupon, the above-entitled matter
11 went off the record at 4:27 p.m. and resumed at
12 4:47 p.m.)

13 CHAIR BEHAR: Okay. So we are back,
14 and we are now on the Compliance, Accreditation
15 and Certification Subcommittee. Sue Baird is the
16 chair.

17 MS. BAIRD: Yes, hi. The CAC
18 Subcommittee has compiled a summation document
19 from the past two panel discussions that has
20 taken place, both in '17 and '18, and so that was
21 compiled by Harriet Behar. We've had a lot of
22 public comment asking for us to address organic

1 agriculture impact of energy infrastructures.

2 We're cognizant that there are a lot
3 of subcategories to the impacts from energy
4 infrastructures that could come. It impacts
5 water quality and which would transfer into
6 several different governmental agencies. It
7 could impact soil quality.

8 So we've been asked, it's been
9 requested that there would be a panel compiled to
10 determine what all of the impacts are to the
11 organic agriculture. We've asked NOP if this
12 could be put on our working agenda, and they are
13 considering it at this point. So with nothing
14 more to say, Harriet would you want to discuss
15 your summation document?

16 CHAIR BEHAR: Thank you. I've been a
17 little busy bee. Okay. So this Compliance
18 Accreditation Subcommittee oversight of
19 improvements to deter fraud discussion document
20 basically was a way to put in writing a summary
21 of the excellent import fraud panel that we had,
22 as well as the many public comments that we

1 received during that meeting, where we really
2 focused on this really important issue.

3 There was a lot of approval for the
4 direction and items listed in this document, with
5 numerous responses to the questions on which
6 items should be prioritized. I encourage the NOP
7 and I actually have already done that directly
8 with NOP staff, to review the excellent comments
9 received on this topic, since they are currently
10 involved in rulemaking on this issue.

11 These public comments could then aid
12 them in targeting the issues that certifiers and
13 the trade see on the ground as really needing the
14 most attention. The community is very interested
15 in having rulemaking that will be as effective as
16 possible, with a strong focus on items that can
17 make the most difference.

18 There was expansion of tariff codes
19 mentioned, which I don't believe is something
20 that NOP would put into rulemaking. But I
21 encourage NOP, and Jenny can speak to that after
22 I'm done, and hopefully the NOP can facilitate

1 that activity.

2 Specifically, and I actually offered
3 to help the program with this, OTA, OFARM, Food
4 and Water Watch, Oregon Tilth and Organic Produce
5 Wholesalers Coalition had especially good
6 comments on this subject. Some of the public
7 comment that we received verbally also I took
8 some notes on.

9 There was a request for better product
10 labeling that correlates to the information on
11 the certificate, including the certifier, the
12 actual name of the product and that's sort of
13 documentation that a lot of times it's hard to
14 verify that what you have in your hand is
15 actually being certified by the certificate in
16 your other hand.

17 And as well, the Organic Integrity
18 Database should also then be integrated with that
19 as well. So there's real clear nomenclature and
20 semantics, and it's just -- it's not like you're
21 playing, you know, find the needle in the
22 haystack.

1 A lot of times that it's almost like
2 you are being a detective when you're trying to
3 figure out is this product really certifies, and
4 is this really the product being represented by
5 the certificate I've just been handed?

6 Another point that was made was that
7 import certificates need to be tied to the
8 production capabilities and stock on hand,
9 similar to the transaction certificate system
10 that we actually did have in the past, where
11 certifiers kind of got in the middle of the
12 trade.

13 And when someone wanted to sell
14 something, they went to the certifier and asked
15 for a certificate on that transaction, known
16 officially and fondly as the TC. There are some
17 certifiers that are still doing this, but then
18 they would look at what the producer had in
19 stock, what they said they were going to produce,
20 and then they could subtract the amount that had
21 been sold and keep track of it that way.

22 So there's some kind of system like

1 that that was suggested by a public commenter.
2 There was also discussion of a pesticide residue
3 testing database. Since testing is already done
4 but it's not collated and available to others or
5 the general public, I'm not sure where that would
6 all go.

7 And that there really was a strong
8 push for having acreage per operation as a way to
9 estimate the amount an operation could produce.
10 I believe that most certifiers do collect that
11 acreage information, and a lot of them also put
12 it directly on the certificate, but it doesn't
13 end up in the Organic Integrity Database.

14 There was some concern that stop sale
15 authority might take too long for the NOP to do,
16 but a general encouragement that they should
17 start working on it so it could occur, and that
18 we do need collaboration between certifier,
19 states and federal authorities in that stop
20 authority, I mean stop sale authority.

21 I'll just give a short personal. I
22 went to -- I did an organic inspection, it was

1 many years ago, where I found fraud and there was
2 product about to be sold. I knew it was
3 fraudulent and the farmer knew that I knew it was
4 fraudulent. I contacted the certifier and I
5 contacted the state it was in who had an organic
6 certification program, not a state organic
7 program with enforcement capabilities. But that
8 state also had a certification.

9 I called both certifiers and informed
10 them of what I found, and neither of them could
11 stop that sale. I didn't, I don't know if the
12 certifier I told who the sale was going to go to,
13 but there are times when we really do need that
14 authority to get in there when we see something.

15 Now, you know, we're not talking about
16 a boatload, but it was a couple of semi loads of
17 grain that was -- had been grown using prohibited
18 substances. So with that, I am done.

19 MS. BAIRD: Any discussions? Please.
20 No, that's not what I'm supposed to say? Oh Jen?
21 Yes, please.

22 DR. TUCKER: First, I want to thank

1 everybody that submitted public comments on this
2 issue. I know we've been hearing for the last
3 couple of days that most of the groups
4 represented here today do have fraud and import
5 oversight as their top priority. So I do
6 appreciate when that -- I appreciate the
7 investment and comments that people have made.
8 This has been an ongoing work and discussion has
9 been enormously helpful to hear from the
10 community.

11 An awful lot of what is being
12 discussed here will be reflected in some way in
13 the proposed rule. So when those comments come
14 in, again I encourage folks to really read them
15 and respond. On the tariff codes, that will be
16 something that we wouldn't do through rulemaking.
17 So that was correct.

18 However, we have recently updated our
19 memorandum of agreement with CBP, Customs and
20 Border Protection, to fundamentally rework how an
21 AMS, our agency overall, accesses information in
22 the automated commercial environment, so that

1 it's not tied, it doesn't have to be tied to a
2 very specific code.

3 We get to look at cross-code
4 categories rather than specific codes. That will
5 down the road make an enormous difference for us.
6 Once we have more visibility into organic
7 imports, I have a feeling that this tariff code
8 issue will every time you solve a problem, new
9 problems emerge and it will become much more
10 clear how badly these are needed. So I think
11 that will be a work in progress.

12 My final comment was on sort of stop
13 sale. I just want to be really clear that this
14 is not something that the NOP would have the
15 authority to do on its own. So this is not an
16 NOP project that we could even take on. This
17 would be something that would have to be a change
18 in the Organic Foods Production Act.

19 It is something that has been
20 discussed in the past. There are lots of
21 intricacies about it. But I just want to be up
22 front in terms of what the limitation would be of

1 that. We've had a few comments on notification
2 systems.

3 NOP is currently working on building
4 out our accreditation system, to allow alerts
5 more easily to certifiers. So that when
6 something does happen, for example with the
7 change of the certification or accreditation
8 status of a certifier, all the certifiers would
9 get an alert in their dashboard.

10 So that's an immediate step we're
11 doing to communicate with certifiers. We'll then
12 figure out how to expand notifications as
13 appropriate and with respect to due process to
14 trade. So wonderful, thoughtful comments and
15 feedback. I appreciate so much the Subcommittee
16 continuing this dialogue. So thank you.

17 MS. BAIRD: Thank you. Tom.

18 MR. CHAPMAN: I had a question for
19 Jenny and then a question for the Subcommittee.
20 Jenny, you just talked about changing the MOU to
21 be able to cross-codes. I'm not sure if I'm
22 following what you meant by that. Is that like

1 you're trying to embed organic status outside of
2 the HS coding, or are you trying to be able to
3 get multiple codes all related to organic at the
4 same time, or am I completely interpreting what
5 you said wrong?

6 DR. TUCKER: Let me try again, because
7 it's actually -- it's complicated, and so maybe
8 if I explain it again I'll get it right. So
9 right now, it has to do with how AMS accesses
10 data. And so right now, at the former MOU of how
11 AMS as an agency accesses data was at a very
12 specific code level.

13 Instead, we now are organizing it by
14 categories. So instead of having to identify
15 every single code that we might be able to see
16 related to organic, we get to see the entire
17 category, which means it doesn't have to have an
18 organic code in the tariff code for us to be able
19 to see it.

20 Once we have -- and that doesn't --
21 honestly, that's useful now kind of, but it will
22 be really useful once we have import

1 certificates. So once we have import
2 certificates and we can look across categories,
3 it will just -- so much more data will be
4 available to us than otherwise.

5 So I think this is work that's going
6 to take a long time, but putting this kind of
7 infrastructure in place will help us once we have
8 the electronic import certificate. So it's a
9 huge domino game, but we're trying to set up the
10 dominos appropriately, while also stopping the
11 bad guys in the meantime. And so it's a
12 balancing of projects.

13 MR. CHAPMAN: Okay, question and then
14 probably a statement after that. The question is
15 what's next for the Subcommittee? What's the
16 next areas of work that they should be focusing
17 on on the subject matter, and you know, the
18 question to Jenny as well, you have depending at
19 this point, but also to the Subcommittee or other
20 members.

21 MS. BAIRD: I'm new to this committee,
22 so it's hard for me. It would seem logical to me

1 that there are many different facets to fraud.
2 We've heard, we've heard domestic fraud. We've
3 heard import fraud. We've heard fraud in
4 livestock. We've seen fraud in vegetable
5 production.

6 And perhaps we might take bites at a
7 time. I think that we can't address all of them
8 at one time. It's just not time. There's just
9 too much time constraint. I know, I feel like
10 that NOP's doing an incredible job of
11 implementing procedures for imports.

12 I would make a comment, Jenny, and
13 I'll get to you. I'm not ignoring you. But you
14 have MOUs for some things and you said you don't
15 have stop sale authority, and we understand that.
16 We know that is absolutely true. But would it be
17 possible to do a MOU to another agency that does
18 have stop sale authority such as grain agency,
19 grain -- what's the title of the grains? I've
20 lost their agencies.

21 But they do have stop sale authority.
22 So perhaps that might be something to at least

1 look at.

2 DR. TUCKER: Do you want me to
3 respond?

4 MS. BAIRD: Yeah, sure, sure.

5 DR. TUCKER: You know, we're having
6 that conversation with APHIS right now. You
7 know, APHIS has its own set of regulations. You
8 know, how we could have APHIS do some of our
9 enforcement. It really does come down to the
10 authorities that they have their regs.

11 I do think in working with the CBP
12 working group, we're going to get a much better
13 of, you know, how far their authorities can come,
14 how far our authorities come, and how we could
15 leverage some of their authorities differently.
16 That's why I'm really -- I'm excited about the
17 work group of ways of raising possibilities we
18 don't even really know about yet. So that's a
19 point very well taken and I agree with.

20 MS. BAIRD: Thank you. Harriet.

21 CHAIR BEHAR: I'm just wondering since
22 they're working on some pretty robust rulemaking

1 to come out in the fall, if we should wait and
2 see what they've done and then continue work
3 where we feel that there's the next steps to
4 take.

5 MS. BAIRD: Emily.

6 MS. OAKLEY: Yeah. I mean I think
7 what helped us last year was having Jenny on our
8 calls and getting some guidance about where it
9 was most useful for the Committee to focus its
10 attention. So I think inviting her back to our
11 next call or, you know soon so we can be prepared
12 for the fall would probably be helpful.

13 MS. BAIRD: Dave.

14 MR. MORTENSEN: In response to Tom's
15 question, which was to the broader board what are
16 some of the next steps, I first should have said
17 yesterday, I think it was, that I was really
18 impressed with the integrity presentation that
19 Jenny made at the morning of the first day,
20 whatever day that was, yesterday. Sorry.'

21 Really, given where we were only a
22 year ago or a year and a half ago. So thank you

1 for that team. One of the things that I was
2 thinking about after the presentation is that it
3 would be helpful, I think, for the Board to get a
4 little bit deeper into the weeds of what are the
5 data telling us about how well we're doing.

6 I think you presented some encouraging
7 signs, and I'm sure you made it clear, Jenny,
8 that some of that data can't be revealed because
9 it would reveal how the risk analysis and all of
10 that helps identify problem spots.

11 But it would be some of the things
12 that I think got us concerned about this in the
13 first place a couple of years ago, were that
14 fraud was undercutting the price of grain.

15 We were losing confidence in our
16 ability to know that we were catching the problem
17 entries of grain, that we were concerned about
18 even knowing what country the grain was coming
19 from, were some of the things people were arguing
20 and presenting to us.

21 It would be really interesting if we
22 could maybe at the next meeting, or maybe during

1 phone calls, as Emily was saying, if we could get
2 into some of the, you know, sort of outcomes of
3 the early phases of the data dive that you're
4 doing. That would be something I would like to
5 have a greater sense for.

6 MS. BAIRD: Tom.

7 MR. CHAPMAN: I think I had three
8 areas that I would suggest to the Subcommittee as
9 well. Let's hope I can remember all three right
10 now. The first one is, you know, a quarter of
11 enforcement activities, roughly at least that's a
12 stat I heard at one time from the USDA, is
13 handled by the California State Organic Program,
14 and we haven't heard from them about enforcement
15 challenges and opportunities, what's working for
16 them, what's not.

17 The different party that's going
18 through the same thing with the USDA is I think
19 they would -- I think it would be great to bring
20 them in and give them some time to talk about how
21 they manage it, what they're going after, what
22 the challenges they face, what tools could

1 potentially help them to be more effective.

2 That's an area we haven't explored.

3 So I would encourage reaching out to the
4 California state organic program. -- I knew I
5 wasn't going to remember all three, but like you
6 stirred them all up and I'm pulling that.

7 The second one, and this is -- I was
8 going to save this one for the last, because this
9 is the one I care the most about, is the Organic
10 Integrity Database is an amazing tool. As the
11 sourcing manager who leads a lot of the anti-
12 fraud initiative work that Clif Bar does, that's
13 an amazing tool to use.

14 Now its biggest shortcoming is
15 operations that are not in it. I know we've
16 raised this up in the past and it's part of other
17 things. But I think understanding potentially
18 the items aren't in it are recognition agreements
19 and equivalency agreements. I understand the
20 challenges to putting those into the OID, or at
21 least the equivalency agreements into the OID.

22 But I think further exploration on

1 that could be helpful, both understanding what
2 goes into a recognition anti-equivalency
3 agreements and what opportunities that are --
4 could potentially add criteria over time to
5 those, to encourage our international partners to
6 become more robust in tracking their own
7 certified entities.

8 And particularly challenging on
9 recognition agreements who are certifying to NOP
10 standards, to have those in the OID. I don't
11 fully understand the challenges there, and I
12 think that's maybe a closer install potentially,
13 but something that could be explored by the
14 Subcommittee is how do you sew up those gaps in
15 the OID system, because if I'm looking at a
16 supply chain domestically, it's amazing. And
17 then I go across the board to Canada and it
18 becomes a black hole.

19 Or I'm exploring a supply chain in
20 Southeast Asia and it's amazing, and then I end
21 up in India and it's a black hole. And so right
22 now it's biggest constraint is not having other

1 opportunity areas. And so I think that's -- we'd
2 be remiss to not continue to explore
3 opportunities and constraints and what could be
4 done next in that area. I guess I'm going to
5 stop at two, because I took up a ton of time.

6 MS. BAIRD: You don't know what three
7 is anyway, do you? Okay, Emily.

8 MS. OAKLEY: Yeah, I just wanted to
9 echo that, and I thought that was one of the very
10 helpful things that came out of public comments
11 as well, and obviously this is not an area of my
12 expertise. But it's something that I immediately
13 honed in on as a potential area that could be
14 improved.

15 So I don't know Jenny. It looked like
16 you were trying to maybe raise your hand right
17 before I talked. So did you --

18 DR. TUCKER: I get so excited by the
19 technology stuff. You know, I think this would
20 be -- it would be really cool for the
21 Subcommittee to talk about a more -- one of the
22 things -- so there was a public comment about the

1 Subcommittee getting involved in this
2 incremental, the Farm Bill funding and
3 understanding what that is.

4 So one of the things we've been kind
5 of considering is you have all these countries.
6 It was mentioned yesterday that don't have any
7 kind of public registry and they are -- we've
8 started to have conversations with them. Okay,
9 what would it take for you to get a registry?

10 I think sometimes we underestimate the
11 technology infrastructure that we have and are
12 able to deploy. One of the things we have been
13 looking at is how -- we have the integrity
14 database.

15 How could we create an open source
16 organic integrity database that other countries
17 could either have -- they could deploy in their
18 own environment or we could have in a U.N. cloud
19 or something like that, where these countries
20 could use an open source version of the integrity
21 database to load their own data in.

22 The main reason -- the difficulty

1 with, you know, the equivalency arrangements and
2 the recognition is I don't want Stacey Swartwood
3 to become an international help desk. I mean
4 honestly it really comes down to that. She
5 spends a lot of time on the phone with certifiers
6 helping them get their data into the system, and
7 so it's really how do we manage that kind of --
8 it's hard enough with certifiers whose first
9 language is English, right, and trying to explain
10 how to do all of this.

11 So that is a challenge. But if we
12 were able to deploy a system that they could then
13 use, if it were a version of our database, it
14 would already be mapped technologically, which
15 would then immediately allow some data exchanges,
16 all the way into import-export systems. So just
17 looking down the road.

18 So I think it would be really exciting
19 as a board to talk about these kinds of
20 possibilities, of where is the biggest bang for
21 the buck in terms of protecting all of the
22 integrity, not only in the U.S. but around the

1 world, a global system. I get really worked up,
2 so I'm going to stop now.

3 MS. BAIRD: I did want to commend you.
4 Quite a few of the commenters were saying, you
5 know, we just need more training for our
6 inspectors and certifiers. So I think you've
7 addressed that well.

8 Just some anecdotal and not wanting to
9 take time up, but I've had a lot of certified
10 entities when you go and inspect will say well,
11 I've never had this kind of audit. Why are you
12 trying to audit all this stuff?

13 And that I think is a key, although
14 I'm not sure if someone is truly intent on
15 cooking the books if any true, any inspector can
16 find that. I say that because I was one of the
17 inspectors for one who just got busted, and in
18 fact FBI would actually did it. They didn't find
19 it either.

20 So I'm not sure, but I do think the
21 training is critical and thank you for that. Tom
22 had his hand up. He's remembered his third

1 point.

2 MR. CHAPMAN: Fresh produce supply
3 chains. They're unique, they're different. We
4 got a lot of public comment on those. I imagine
5 some of the rulemaking touches that area, so
6 there could be reason to pause on that one. But
7 it's so unique and it's so diverse, and I think
8 there's a lot of opportunity to go deeper in that
9 realm as well.

10 MS. BAIRD: Scott.

11 MR. RICE: Thanks. There was also
12 some good suggestions in the comments from the
13 certification community about the desire to have
14 more training on, and kind of best practices on
15 communicating between certifiers on confidential
16 information and feeling comfortable doing so, and
17 how to have parameters around how to do that and
18 do it efficiently and responsibly.

19 Especially I think with some of our
20 international partners is where, to Tom's point,
21 that kind of breaks down on our side of things as
22 well. And just to an overall work plan, I think

1 I do see this Subcommittee having a big role once
2 that proposed rule comes out, and I think we'll
3 really be able to sink into areas that we can
4 build recommendations and move from there, and
5 kind of help in that process.

6 MS. BAIRD: Did you have your hand up
7 Steve?

8 MR. ELA: I just want to say this is
9 most animated I've seen Jenny the whole meeting,
10 which is cool. I mean thank goodness you're
11 working and this excites you, because I mean it
12 really does have such meaning to our community
13 and to our price structure, and to our consumers.

14 MS. BAIRD: No, it's great. I think
15 it's wonderful that you're so animated about
16 protecting organic integrity, so thank you. Any
17 other comments? No, okay. Back to you.

18 CHAIR BEHAR: So with that, thank you
19 Sue. We're not having another break, forget it.
20 But so we go to the Livestock Subcommittee.
21 Scott, you are the chair. So take it over.

22 MR. RICE: Thank you. Got my notes up

1 here. We have got one proposal today on oxalic
2 acid, which was petitioned to us and a number of
3 -- excuse me, and one discussion document, and a
4 number of sunset items.

5 I think what we're proposing to do
6 today is just move through those sunset items
7 without our usual kind of formal presentation of
8 describing each of them and move into each of our
9 respective assigned materials, and offer a round-
10 up of comments and use in brief, to try and keep
11 us a little closer to schedule.

12 So just as a heads up to folks as we
13 move forward. But our first item is, as I noted,
14 oxalic acid, and I will turn that over to the
15 lead who is Harriet.

16 CHAIR BEHAR: Harriet again. Okay, so
17 it was kind of a no brainer that I take this
18 material since I'm the beekeeper, right, and we
19 did not receive very many comments. But I'm
20 looking at Garth, who gave really very important
21 comments to this.

22 There were comments that echoed the

1 information in the proposal, that there was no
2 NOP apiculture standards, and then felt that
3 adding materials to the National List should not
4 be done if there's not an overall standard to
5 oversee this.

6 However, in response to that, we are
7 in a place where there are organic honey
8 producers, a few of them being domestic. I know
9 there are a few in the Upper Midwest. There's
10 quite a few I think in Hawaii in comparison to
11 other places.

12 I believe there's somebody in North
13 Dakota and I don't know all the honey producers.
14 I did not research the Organic Integrity
15 Database. But in Garth's very good comments, he
16 did note that there are foreign producers. So I
17 just want to read a little bit of what he said,
18 if you didn't have your chance.

19 This material is allowed under the EC
20 or the European Union, since the largest
21 consumers of organic honey in the world are EU
22 member states. Most of the organic honey

1 projects in South America are already certified
2 to this standard, with NOP certification coming
3 to them as an added overlay.

4 Because of the lack of harmony between
5 the EU and the NOP standards with respect to
6 synthetic materials allowed in apiculture, there
7 exists much confusion on the part of the
8 producers and managers regarding allowed
9 materials for the control of varroa mites.

10 He says that he's seen several
11 projects fail to obtain NOP certification due to
12 the confusion over what materials are allowed or
13 not. He also recently taught a course to organic
14 inspectors on organic apiculture, and the lack of
15 harmony between the two standards was a major
16 topic of conversation.

17 In his experience, and I know he is a
18 beekeeper as well as myself, beekeepers tend to
19 prefer oxalic acid over formic because it is less
20 irritating to both the bees and the beekeepers.
21 In addition, the ability to vaporize the oxalic
22 acid in the hive without opening up the hive

1 bodies is particularly attractive to beekeepers,
2 and for those of you that are not beekeepers, you
3 probably would not want to open up a hive.

4 And especially in the cooler climates
5 where opening the hives especially in early
6 spring could chill the brood and even the queen,
7 and that is not a preferred activity. The point
8 that I made in the proposal too was that it can
9 be used in a sugar syrup and drizzled over
10 packaged bees, and that is a great need.

11 I personally have received packaged
12 bees that arrive full of mites, and I don't have
13 a tool to deal with that, and then I put them in
14 my hive and then I'm just -- they just explode.
15 So the fact that -- and formic does not have that
16 mode of action. So this is a special and needed
17 activity.

18 As far as not having a standard, I
19 feel -- this is my personal view -- I am not an
20 organic beekeeper. I don't get my hives
21 certified, but I do manage them organically, so
22 I've never used oxalic acid. That because there

1 is not a standard, I don't think that we should
2 punish the organic beekeepers and not give them a
3 material that they need. That's it.

4 MR. RICE: We can open it up to
5 discussion. Comments, questions for Harriet?

6 MR. MORTENSEN: Harriet, I was
7 wondering if you could just give us -- the vote
8 was, there was one against and five in support in
9 the Subcommittee. Could you just give us just a
10 thumbnail sketch of the thinking that underpinned
11 the vote?

12 CHAIR BEHAR: Yes, and that was
13 mentioned in the proposal. That was because
14 there were no apiculture standards. That was the
15 reason that the person mentioned that they would
16 not vote for this, because without standards
17 there should not be materials. I think you --
18 okay, okay. Ashley.

19 MR. RICE: Ashley.

20 MS. SWAFFAR: Okay, good. Yeah. So
21 I was the no vote on this one, just based on that
22 whole no standards. I understand that bees are

1 classified as livestock, but I do question kind
2 of how some folks are producing -- if anybody
3 really is producing organic honey in the U.S.

4 Just a few folks I think are. I
5 really don't have any objection to this material,
6 but that's just kind of the basis of where I was
7 on that no vote.

8 MR. RICE: Emily.

9 MS. OAKLEY: Yeah. So oddly enough,
10 I find myself conflicted as well, just because
11 I'm not clear about why there aren't apiculture
12 standards. I'm not clear why there aren't more
13 organic honey producers, and I was just hoping
14 Harriet could expand on that.

15 Like if there are only a few
16 producers, why is that? Why is it that people if
17 they're technically allowed to certify to the
18 existing standards not doing so?

19 CHAIR BEHAR: Okay. So there are no
20 standards specifically to apiculture, but the
21 NOSB did pass an apiculture standard twice. The
22 first one went through and then it was redone,

1 and actually I and Garth and some other people in
2 the audience were on the task force under the
3 Accredited Certifiers Association and actually
4 pretty much handed the standard to the NOSB. I
5 think they changed two words from our
6 recommendation.

7 Honey is concentrated flour nectar,
8 and so we felt quite strongly that the honey
9 needed to come from land that had not been
10 treated with prohibited substances. And so we
11 have a 1.8 circular diameter forage zone, 1.8
12 miles, with an extension going out to four miles
13 of what we called a review zone or something,
14 where like --

15 MALE PARTICIPANT: Observation zone.

16 CHAIR BEHAR: Observation zone, yeah.

17 So we couldn't, there wouldn't be like dumps or
18 golf courses or something that was highly
19 attractive to the bees. Most bees will stay
20 within the 1.8 miles. Those that go further,
21 many times they don't make it home, so they're
22 not even bringing back nectar to the hive or

1 pollen.

2 So that has been one of the areas. So
3 and if you're in an agricultural area, try to
4 find 1.8 mile diameter where you don't have any
5 prohibited substances in the United States. But
6 there are places out west where there's
7 rangeland. What I know of is up in the Upper
8 Peninsula of Michigan.

9 There are places actually. There is
10 a place near my house where I could produce
11 organic honey. The owner of Land's End before he
12 sold it to Sears has a large tract of land, and I
13 could put my hives there. He doesn't use any
14 prohibited substances. But I mean so there are
15 places you could find, okay, if you're
16 interested.

17 They also have quite a bit on
18 materials in there and about the wax in the hive
19 and all that. Now as for why the NOP did not
20 move forward with the apiculture standards, I do
21 know that I did receive quite a few phone calls
22 from NOP staff within the two years after those

1 standards were presented by the, as a
2 recommendation for the NOSB, and then it all when
3 dark.

4 And no more. I mean when Miles was
5 there he did mention that it was in process, in
6 process, and then now I have heard from the NOP
7 that it's not a priority, perhaps because there's
8 not a lot of domestic production. I don't know
9 if there is.

10 It is an important industry in Hawaii,
11 organic honey. So that is still a state in the
12 union, and actually on the mainland we do get
13 organic honey from Hawaii. So I can't speak to
14 that. I don't know if Jenny wants to say
15 anything. She has mentioned in the past that it
16 was not a priority and so it was not moving
17 forward. If you want to say more, go ahead.

18 DR. TUCKER: Yeah, I would say yeah,
19 our priorities are very much strengthening
20 organic enforcement, the fraud, import oversight
21 and dairy compliance. Those are our top
22 priorities right now. Origin of livestock

1 clearly a high priority moving forward. So
2 that's, those are the priorities where we're
3 really focusing on at this time.

4 CHAIR BEHAR: However, there are
5 numerous accredited certifiers here in the U.S.
6 that are certifying organic honey. There is
7 organic honey carrying the USDA seal in the
8 marketplace, and this material would be very
9 useful in perhaps growing that domestic market,
10 because varroa mites are one of the main parasite
11 issues. This invasive pest has been devastating
12 to the vitality of honey bees overall and to the
13 bee colonies.

14 MR. RICE: Okay. I've got Tom and
15 Emily.

16 MR. CHAPMAN: So while there is some
17 limited domestic production, there is a sizeable
18 amount of foreign production of this product,
19 particularly in areas that have tropical rain
20 forests that allow for a wide, certified
21 controlled wild forage areas for bees. If you
22 look, honey is one of those rare commodities that

1 actually have an organic tariff code so it's
2 imports are tracked.

3 In 2018, there was 23, over 23,000
4 thousand metric tons imported into the U.S., with
5 90 percent of that coming from Brazil. So
6 fortunately I hear there's other origins like
7 India, but India is a black hole, so it's a
8 little hard to find certified operators out
9 there.

10 But it is a big commodity, and there's
11 hundreds of people on the Organic Integrity
12 Database that are certified for honey bees and
13 livestock and crop scopes. The other thing to
14 keep in mind, I did another search in the OID for
15 just the word honey for people who have a
16 handling scope, and there were 609 operations.

17 This isn't a count of products, but
18 this is a count of operations that use honey in
19 some form. My company is a company that uses
20 honey in some form. It's a natural sweetener,
21 it's great, organic honey.

22 And just if you take that out of the

1 total of certified organic handlers, there's
2 1,800. That's 3.3 percent of certified handlers
3 have a honey product that they market. So it is
4 a large market that enables the sale of other
5 organic goods. Just because this isn't a wide
6 production item in the U.S. doesn't mean it's not
7 an item that organic consumers should have access
8 to.

9 MR. RICE: Emily.

10 MS. OAKLEY: So Harriet, that came
11 super-close to fully answering my question. But
12 are you saying that the main reason that there is
13 not U.S. organic honey is because certifiers
14 would follow the NOSB standard, even though it
15 wasn't passed as a rule, and therefore growers
16 don't have access to enough -- okay sorry, Tom.

17 You're both shaking your head. So I
18 still don't understand why there isn't a robust
19 U.S. production when people can find those
20 regions.

21 CHAIR BEHAR: I believe it's the
22 forage zone, but truly varroa mites are an issue,

1 and so there's, you know, it's not that easy. I
2 mean myself as a beekeeper, I do a lot of
3 cultural activities. I'm in my hives once a week
4 if not twice a week during the warmer months. I
5 mean, and when people come to me and I mentor
6 people as beekeepers, I say you have to be in
7 your hives every week.

8 They're like oh, you know, I don't
9 live up here and whatever. No, you cannot --
10 it's not like the old days when we didn't have
11 mites. You have to be in those hives. So it's a
12 lot more labor to not use chemical controls for
13 the varroa mites, and I say also the forage zone
14 is an issue why there's not.

15 But there are organic. There are
16 certifiers who are certifying to their own
17 standard. Many of them rely on the
18 recommendation that was passed but not
19 implemented by the NOP. I don't know what every
20 certifier's honey standard is. But I know that
21 there are beekeepers who would welcome oxalic
22 acid.

1 MR. CHAPMAN: And it's economics. So
2 in Brazil, you plop them down in one spot in a
3 single forage area, and they can forage 365 days
4 a year for tropical flowers. You plop them down
5 somewhere in the U.S. and the forage zone allows
6 them to forage while flowers are in bloom.

7 But when they're not, they need to
8 move. So the honey industry in the U.S. moves
9 around, which would mean you'd need multiple
10 forage zones year-round. So that kind of just
11 knocks you out in the U.S. If you notice they
12 move a lot. I didn't notice, but the honey
13 industry in the U.S. has mobile honey bees that
14 move from crop to crop and that --

15 You know, each of those forage zones
16 you move to and those economics are don't meet
17 the needs, then you're going to have a more
18 expensive or limited production environment, and
19 it just kind of makes you uncompetitive with
20 international honey bees from tropical areas.

21 MR. RICE: And I think it just
22 generally gets down to that, that large forage

1 zone that's required, forage and observation.
2 It's just such an extensive area that it
3 effectively makes it impractical. Harriet.

4 CHAIR BEHAR: For the honey producers
5 that sell regionally or direct to consumer don't
6 typically move their hives. It's just the larger
7 --

8 MR. CHAPMAN: Exactly, yeah. That's
9 why you don't see a more robust, because it's
10 kind of limited to that --

11 CHAIR BEHAR: Yep. To regional, yes.

12 MR. RICE: Okay Ashley, and then I
13 think we're going to need to wrap it up here.

14 MS. SWAFFAR: So sorry. So yeah. I'm
15 going to hold fast on my no vote on this, just
16 because we did not hear from producers. The only
17 person we really heard from that had a positive
18 on this was Garth, I'm sorry.

19 But we did hear from NOC and Beyond
20 Pesticides that, you know, echoed my sentiment of
21 we should not be voting on petitions for items
22 that don't have standards, and so I am going to

1 hold fast on my no vote on this one. Thank you.

2 MR. RICE: Tom.

3 MR. CHAPMAN: Just one. I mean the
4 one thing I want to say is deep in the Amazon, I
5 don't know how well the NOP docket penetrates, to
6 get the comment that you want to have on the
7 needs for some of these items.

8 MR. RICE: Are we ready to move this
9 forward? All right. This comes to us as a --
10 get my document open -- a motion. We need to go
11 with a classification motion. This was coming
12 from committee from Harriet, seconded by Ashley,
13 and our vote begins with -- and again this is
14 classification, with Dan or Sue.

15 CHAIR BEHAR: No Sue.

16 MR. RICE: Sue.

17 CHAIR BEHAR: We're voting on the
18 classification.

19 MR. RICE: This is classification.

20 MS. BAIRD: Yes.

21 MR. RICE: As a synthetic, excuse me.

22 MR. CHAPMAN: Can I ask for a quick

1 point of order? Can we read clearly what the
2 motions are and who made it and seconds before
3 the votes?

4 MR. RICE: Yes we may.

5 MR. CHAPMAN: Okay.

6 MR. RICE: The first motion is for --
7 to add, excuse me, I'm having trouble with Excel
8 cells here, to classify oxalic acid as synthetic.

9 CHAIR BEHAR: You might want to say
10 the full thing, oxalic acid dihydrate.

11 MR. RICE: Very well.

12 MS. BAIRD: Yes.

13 DR. SEITZ: Yes.

14 MR. MORTENSEN: Yes.

15 MR. BRADMAN: Yes.

16 MR. RICE: Yes.

17 MR. ELA: Yes.

18 MS. OAKLEY: Abstain.

19 MR. BUIE: Yes.

20 MS. ROMERO-BRIONES: Yes.

21 MS. DE LIMA: Yes.

22 MR. GREENWOOD: Yes.

1 CHAIR BEHAR: The chair votes yes.

2 MS. SWAFFAR: Sorry Harriet, I was

3 next.

4 CHAIR BEHAR: Oh, I'm sorry.

5 MS. SWAFFAR: Yes.

6 MR. CHAPMAN: Yes.

7 MR. RICE: There was --

8 MS. OAKLEY: Could I change my vote?

9 My brain was in the wrong place. That wasn't
10 abstain on this. That was yes.

11 MR. RICE: Okay. I'm glad this is
12 going so swimmingly. Okay, 14 yes. Let's hope
13 the next one's smoother.

14 The next motion is to add oxalic acid
15 dihydrate to 205.603(b) as topical treatment,
16 external parasiticide or local anesthetic as
17 applicable, with the annotation, excuse me, the
18 annotation for use as a pesticide solely for
19 apiculture. This motion was -- it was a motion
20 from Harriet, seconded by Ashley in Subcommittee.
21 Voting starts with Dan.

22 DR. SEITZ: Yes.

1 MR. MORTENSEN: Yes.

2 MR. BRADMAN: Yes.

3 MR. RICE: Yes.

4 MR. ELA: Yes.

5 MS. OAKLEY: Abstain.

6 MR. BUIE: Yes.

7 MS. ROMERO-BRIONES: Yes.

8 MS. DE LIMA: Yes.

9 MR. GREENWOOD: Yes.

10 MS. SWAFFAR: I like that abstain.

11 Yeah, abstain.

12 MR. CHAPMAN: Yes.

13 MS. BAIRD: I would love to say
14 sustain because I have -- but I'm going to say
15 yes.

16 CHAIR BEHAR: Chair votes yes.

17 MR. RICE: That was 12 yes, 2 abstain,
18 no recusals, no absence. The motion passes.

19 Okay. Next is a discussion document on the use
20 of excluded method vaccines on organic livestock
21 production. This goes back to Harriet, and just
22 a time check. We are at 5:37 and let's keep our

1 discussions relevant and on track here.

2 CHAIR BEHAR: Okay. This subject did
3 have numerous comments. There were three options
4 presented to the public for how to deal with this
5 issue, with the inconsistency in implementation
6 and even within the rule, because there's various
7 places where vaccines are mentioned, excluded or
8 not.

9 So the first one was to follow the
10 current rule entirely as it's written and start
11 reviewing known excluded method vaccines for
12 individual placement on the National List.
13 Approval of vaccines produced through excluded
14 methods as a class of vaccines, and place this
15 class of vaccines on the National List. Or, yes.
16 And then lastly to change 205.105(e) to state
17 that excluded methods except for vaccines are
18 prohibited, provided there are no commercially
19 available vaccines that are not produced through
20 excluded methods to prevent that specific animal
21 disease or health problem.

22 Then we also asked about what type of

1 documentation and how hard would it be to do the
2 commercial availability. Option 1 was not very
3 popular. Option, okay. Option 3, the commercial
4 availability, seemed to have the most people who
5 approved it. Most people approved Option 3 or
6 liked it.

7 However, they did say that they needed
8 more help in finding the commercial, you know,
9 what is commercially available as non-GMO to
10 serve that same disease if they are currently or
11 intend to use a GMO one. They really wanted an
12 easy way for themselves and their producers to
13 find it. There was some discussion of the narrow
14 and discrete allowance of vaccines from excluded
15 methods was something we need to do, but they
16 really didn't want to do that full class of
17 allowing just all of them.

18 Many noted that they need this
19 resource to find the non-genetically modified
20 vaccines or vaccines from excluded methods, and
21 there should be a phase-in period to bring the
22 system of finding commercially available non-

1 excluded method vaccines to some sort of
2 maturity, to handle that determination.

3 There were a few certifiers who did
4 like this, the commercial availability and
5 specifically said that the quantity, quality and
6 function that's typically used in commercial
7 availability would work for this type of product.
8 So that's it.

9 MR. RICE: Thank you, Harriet.
10 Opening up to discussion, questions, comments for
11 Harriet? All right. Ashley.

12 MS. SWAFFAR: Yeah, sorry. Yeah.
13 This is a very tricky subject because in the
14 vaccine community, I don't even think some of
15 them realize what, if their vaccine is kind of
16 made from excluded methods, because I've been
17 trying to nail one of them down and they keep
18 telling me that it's not.

19 But I really believe that it is. So
20 I think that's really a huge challenge for us if
21 go to Option No. 3, which is the middle ground
22 of, you know, of requiring a commercial

1 availability search. I just wonder, you know,
2 what those vaccines manufacturers, if they were
3 to sign off.

4 I know one certifier showed me a thing
5 that they have their clients talk to the vaccine
6 manufacturer to sign off on, and I just really
7 question like what if that vaccine manufacturer
8 signs off oh, we don't make our vaccines from
9 excluded methods but they really do.

10 So I think that's a real challenge in
11 going forward with Option 3. I myself like
12 Option 2, to just allow them as a class honestly,
13 because I think this is a huge issue and it's
14 opening a big can of worms. There are vaccines
15 in the poultry industry that we are required to
16 use, federally mandated by the FDA for some of
17 the salmonella vaccines, and those are the ones
18 that are made from excluded methods.

19 So it's not like we have a choice in
20 using those vaccines. So there's lots of other
21 agency issues, I think, if you were to not allow
22 vaccines made from excluded methods. So it's a

1 conundrum. But I do think that it's really
2 important that we do figure this out, to make it
3 fair across all certifiers, because I do hear
4 some certifiers do not allow vaccines made from
5 excluded methods to be used, period.

6 And then there are a lot of certifiers
7 that allow people to just use vaccines as a
8 class. So I think it's very important that we do
9 make a recommendation to kind of even the playing
10 field.

11 MR. RICE: Harriet.

12 CHAIR BEHAR: I just want to ask
13 Ashley. So the vaccines that are mandated, are
14 there any non-excluded method vaccines available
15 for that or not?

16 MS. SWAFFAR: That's the one where
17 that one vaccine manufacturer doesn't really
18 think that they make it from excluded methods,
19 but I think they do.

20 CHAIR BEHAR: But is there a non-
21 excluded --

22 MS. SWAFFAR: No.

1 CHAIR BEHAR: So then there's --

2 MS. SWAFFAR: There's two options for
3 a salmonella vaccination made by two different
4 companies. One definitely is made from an
5 excluded method; the other one I really believe
6 it's made from excluded methods, but they say
7 it's not. But their competitor also says that it
8 is.

9 CHAIR BEHAR: Right. So that would be
10 my next question. So you're thinking that
11 perhaps this other vaccine maker who is not
12 saying it's excluded might be trying to grab the
13 organic market by being the one that's not
14 excluded, and that commercial availability would
15 come into play?

16 MS. SWAFFAR: Yeah. But I think it is
17 made from excluded methods. That's the thing. I
18 think there trying to say it's not. I pulled up
19 -- I want to say it's also transposons too, so
20 that might throw them out if that terminology
21 gets through.

22 CHAIR BEHAR: Well, if it's in vitro.

1 MS. SWAFFAR: Yeah. Let me finish.

2 MR. RICE: Any other comments? Paul.

3 DR. LEWIS: Scott, so a question I
4 have. In the discussion for this discussion
5 document, you're looking at the issue of animal
6 health. So you're looking at the organic
7 regulations. Was there a discussion in other
8 areas of animal health about the use of vaccines?
9 Or was only the conversation focusing on
10 vaccines, or was it a broader issue of animal
11 health? So that's, that's the first question I
12 have.

13 CHAIR BEHAR: I believe it does say in
14 the document that we very much respect the place
15 that vaccines have in promoting animal health as
16 a prevention.

17 DR. LEWIS: Okay.

18 CHAIR BEHAR: And so we --

19 DR. LEWIS: So you were looking at the
20 broader issue of animal health, yeah.

21 CHAIR BEHAR: Yes. This really came
22 from the inconsistent implementation of the rule,

1 with some saying the rule as written, when you
2 read the whole rule, says that individual
3 excluded method vaccines have to be placed on the
4 National List individually. So meaning that it
5 would have gone through a review, whereas on the
6 actual National List it says vaccines allowed,
7 right? Biologics are allowed. It doesn't talk
8 about the excluded part.

9 But in the other part of the rule,
10 where it talks about excluded methods, it has
11 that caveat specifically for vaccines. So some
12 certifiers are choosing to only look at the
13 National List, some are looking at both and it's
14 very confusing. And so I, you know, I really
15 don't have -- I prefer the commercial
16 availability, you know. You'd think that Harriet
17 would have an opinion.

18 But I just really want it to be clear,
19 and I want it to be consistent. I don't want
20 farmers in Maryland to not have access to the
21 vaccines they need, when farmers in Missouri do.

22 DR. LEWIS: But under the broader

1 context of looking at the animal health issue?

2 CHAIR BEHAR: Absolutely. We
3 understand that vaccines -- we want to make
4 vaccines acceptable and clarifying the
5 inconsistency in implementation will do that.

6 DR. LEWIS: Okay, thanks.

7 MR. RICE: Ashley.

8 MS. SWAFFAR: Yeah. Paul, I just want
9 to clarify again, that animal health is critical
10 and important for the Livestock Committee. This
11 is no way wanting to take away any vaccine
12 whatsoever. It is clarification among
13 certifiers.

14 But I will say I didn't touch on
15 Option 1. I don't think Option 1 is a great
16 option because we would have to list vaccines by
17 brand name under the National List, and we do not
18 have anything as a brand name. We have generic
19 substances. So I don't think that's an option.

20 We alluded to that in this document.
21 So really it's between two and three on this.

22 CHAIR BEHAR: No one supported Option

1 1. But that is the way the rule is written.

2 MR. RICE: Tom.

3 MR. CHAPMAN: I hear some of the
4 concerns about Option 3, but I don't -- I
5 struggle with why it's still not the best middle
6 path put forward. I think it accommodates both
7 ways. The wording could potentially be adjusted
8 a bit to deal with the inability to find out
9 information, and then that would be also, you
10 know, considered an acceptable reason to continue
11 to use a substance, the vaccine. But it just
12 seems like a viable middle path.

13 The other thing I wanted to just point
14 out is, you know, the handling world lives in a
15 sea of affidavits that we get, and it is quite
16 common for us to get an affidavit answered by a
17 company for a decade one way, and then suddenly
18 that same item I'm buying the staff changed, and
19 I get an affidavit and it's got a different
20 answer that's not a good answer.

21 And you know, so like that's an issue
22 that exists already, but it's a technicality. I

1 think it works en masse generally, and when it's
2 discovered it gets fixed. That's what the
3 process is built upon. So I don't know if the
4 fact that it can be difficult at times is enough
5 reason to not move forward with this option,
6 because I do think it's still allows for all the
7 protections you have today.

8 MR. RICE: Ashley, and then Sue.

9 MS. SWAFFAR: So on that too, I do
10 think a lot of these vaccine manufacturers will
11 list confidentiality in their manufacturing
12 process. So I think that adds another layer to
13 it for concern. Yeah, I mean you do have that.
14 But I just want to point that out, that there is
15 a level of confidentiality in how they make their
16 vaccinations to some degree. But they do give
17 that information to APHIS.

18 MR. RICE: Sue.

19 MS. BAIRD: Yeah. I've as a past
20 certifier approved both by I would say two and/or
21 three, depending on which certifier I worked for.
22 Inherently number two is always going to be the

1 easiest, you know. You just say okay, vaccines
2 are allowed.

3 But I think that, and I'd love to just
4 go with number two. But I think if we do number
5 two, just say all class vaccines are allowed,
6 it's against the inherent intent of the law,
7 which is no genetically modified engineered
8 products are allowed.

9 Number three will be a little tougher,
10 I agree. It's going to be hard for those
11 vaccination manufacturers to give up that
12 information. It's going to have to be building
13 trust with the certifier. They're not going to
14 give it to producers and they don't have to. But
15 they can give it to the certifier just as Tom
16 says, the handlers do and it could be reviewed.

17 Or they can give it to OMRI or whoever
18 and it can be reviewed under confidentiality, and
19 have that list available. I think it's
20 incredibly important that that list would be
21 available, of which ones are approved and which
22 ones are not because a producer does not have the

1 ability or the credibility to get that
2 information from the manufacturer himself.

3 MR. RICE: Okay. Are we ready to move
4 on there? Okay. What? One moment. We have 11
5 sunsets to review here, and there's some
6 discussion of waiting until we're bright and
7 early or we're bright and fresh. Okay, here we
8 go.

9 MR. CHAPMAN: Are we doing it? Yeah.

10 (Off-microphone comments.)

11 MR. CHAPMAN: Point of personal
12 privilege, that is --

13 MR. RICE: Do I have a motion to
14 delay?

15 MR. CHAPMAN: That is the thing. It
16 doesn't need to be seconded, it doesn't need to
17 be recognized. I mean do we not have time to
18 delay this until tomorrow? We do.

19 CHAIR BEHAR: We have a lot on the
20 agenda tomorrow, and we have the Crop
21 Subcommittee chair has to leave, you know. He's
22 got a flight.

1 MR. CHAPMAN: We can make it do.

2 CHAIR BEHAR: So I really feel like we
3 need to get that. I mean I'm just -- we just --
4 how about if we just do a few?

5 MS. OAKLEY: How about a compromise
6 and we do half?

7 CHAIR BEHAR: Yeah. That's where we
8 were just discussing.

9 MR. CHAPMAN: Let's do it.

10 MR. RICE: All right. The crowd has
11 spoken. We're going to move on, and 2021 sunset
12 substances review. This is our first opportunity
13 at this. We are not voting on these at this
14 meeting. We are just first reviewing them, and
15 we are going to start with atropine, which the
16 lead is Dan.

17 DR. SEITZ: And Scott, I wasn't clear
18 on your direction. Did you want to do a very
19 quick summary of the, like a 30 second summary of
20 the material?

21 MR. RICE: Yeah. I think our usual,
22 just brief round-up and take into consideration

1 any highlighted public comment.

2 DR. SEITZ: Okay. So atropine is
3 approved under 205.603(a). It's a synthetic
4 substance allowed for use in organic livestock
5 production as disinfectant, sanitizer and medical
6 treatments. Atropine may be used under the
7 lawful written order of a licensed veterinarian,
8 and there's a meat withdrawal period of at least
9 56 days after administering the substance, and a
10 milk discard period of at least 12 days after
11 administering the substance to dairy animals.

12 Atropine is an anticholinergic derived
13 from atropa belladonna, otherwise known as deadly
14 nightshade. It's isolated through synthetic
15 extraction. It's a highly controlled substance.
16 Its primary use is as an antidote for
17 organophosphate poisoning, which most commonly
18 occurs through ingestion of pesticides. It does
19 have a couple of other medical uses.

20 It's allowed also under the Canadian
21 standards, but it's not a substance that is
22 allowed -- well, it's not referenced under Codex,

1 the European Economic Community Council
2 regulations, the Japanese standards or the IFOAM
3 standards. In terms of environmental
4 contamination, it's seen as being unlikely that
5 it causes much environmental contamination,
6 because it's used in very small amounts.

7 It can have an adverse effect on human
8 health. It is a powerful drug, so if misused of
9 course it can cause toxicological concerns.

10 There was a, in the latest technical report from
11 2019, there was one other substance mentioned as
12 a potential natural alternative, magnesium
13 sulfate, but this has not been really tested or
14 used.

15 And so there's currently no substance
16 that's considered to be a replacement for this.
17 This has been allowed for many years now, I think
18 since before 2002 or around that time. It was
19 also last renewed in 2017. There were only
20 several comments, four or five comments in favor
21 of continuing listing.

22 No one opposed the removal of it. It

1 does not appear to be widely used, but it is
2 nonetheless considered essential for the rare
3 times that it is needed.

4 MR. RICE: Thank you, Dan. Any
5 questions for Dan? Dave.

6 MR. MORTENSEN: Just really quickly.
7 I mean organophosphates are a very nasty class of
8 insecticides, and so I'm just trying to imagine
9 when this would be used by an organic animal
10 person. I know if you had a split operation. In
11 any case, it strikes me as odd that it's
12 something that we need.

13 DR. SEITZ: Yeah, and nothing I read
14 addressed that. But I imagine that if a fence
15 broke and your cow wandered into your neighbor's
16 farm where there were pesticides or whatever,
17 that would be the sort of circumstance.

18 MR. RICE: And I think we can focus on
19 the -- more closely on the comments that we
20 received. These are -- the Board has had an
21 opportunity to review these, as has the public,
22 of course, and given our time, I think we can

1 keep it even briefer. Emily.

2 MS. OAKLEY: Super brief, but I just
3 echo Dave's comments. It seems like a weird need
4 to have.

5 DR. SEITZ: In the interest of time,
6 I'm going to withdraw half of my summary. Let
7 the record reflect that. Okay. Moving on to
8 hydrogen peroxide. This is a material belonging
9 to Jesse.

10 MR. BUIE: Hydrogen peroxide, 205.603,
11 synthetic substances, allowed for use in organic
12 livestock production. Hydrogen peroxide is used
13 as a readily available disinfectant and broad
14 spectrum germicide. It's an important cleaning
15 agent for use on contact surfaces such as
16 equipment, calf pails, bottles and utensils.

17 It's been around since 1977, where the
18 EPA approved it. It's a -- hydrogen peroxide is
19 very simple molecule which basically consists of
20 H₂O₂. Environmental contamination is not
21 expected when purified forms of hydrogen peroxide
22 are released to the environment following normal

1 use.

2 Typical pesticide concentration,
3 hydrogen peroxide is expected to rapidly degrade
4 to oxygen gas and water. There were a few
5 comments, but as you noticed they were in person
6 here. We had some on the webinar had comments,
7 and they were overwhelmingly in favor of keeping,
8 of relisting hydrogen peroxide.

9 Hydrogen peroxide is recommended for
10 relisting based on the available technical
11 advisory panel October 1995, the technical review
12 of October 2015, the unanimous NOSB 2017 support
13 of this material, and no new scientific or
14 meritorious information. Are there any
15 questions?

16 MR. RICE: Thank you, Jesse. Seeing
17 no questions, we'll move to iodine, which is
18 Ashley.

19 MS. SWAFFAR: So there's two listings.
20 I'm going to do both of them together in the
21 interest of time, if that's all right with
22 everyone. So iodine is widely used as a teat dip

1 in the dairy industry; also used to clean wounds
2 and combat infections, and we heard from
3 commenters that iodine's anti-microbial qualities
4 make it a vital product for treating and
5 preventing health care issues.

6 I will note that we did hear from
7 several commenters that we should annotate the
8 iodine listing to exclude MPEs. I would like to
9 hear just a little more from the public on this,
10 since we did hear from a couple of different
11 commenters, one saying there was concern with
12 supply issues, one saying there was not.

13 So that's something I think we'll take
14 back to the committee and talk about, so we may
15 be bringing an annotation forward on that. Any
16 questions?

17 MR. BRADMAN: Just a comment. From
18 the COOP Cooperative, you know, they supported
19 relisting iodine. They agree that MPEs must go,
20 quote-unquote. It sounds like they have access
21 to iodine teat dips without MPEs, and just in
22 general MPEs are -- I mean they're kind of

1 controversial.

2 They're nonylphenol, how do they
3 pronounce it, nonylphenol polyethylene glycol
4 ether. So it's an ethoxylated surfactant. In
5 California, in the -- there's a safer chemical
6 program right now, and MPEs are actually on their
7 list to get taken out of laundry detergents and
8 things like that. There's a lot of issues with
9 this material environmentally too.

10 It's relatively small use probably
11 with teat dips, but something to discuss in the
12 committee is at least this CROPP statement and
13 perhaps others too, that there are available
14 formulations without MPEs, and I think that would
15 be a worthy goal.

16 MS. SWAFFAR: Yep, that's what I said.
17 We're going to get back to committee, because we
18 heard from them that it is available. But we
19 also heard from another commenter that he was
20 concerned about supply issues. So I just want to
21 flesh that out.

22 MS. OAKLEY: So would you be looking

1 for an annotation this fall, if you found the
2 correct information that you needed this summer?

3 MS. SWAFFAR: We can't, we can't do
4 it. We can't annotate at sunset.

5 MS. OAKLEY: We can't bring a separate
6 proposal at the same time?

7 MS. SWAFFAR: I don't think so, Tom?

8 MR. CHAPMAN: I mean it would need to
9 be an item approved, a separate item. You have
10 to go through all that with NOP, but if they
11 approved it and you had a proposal.

12 MS. OAKLEY: Right. It doesn't -- oh
13 it doesn't seem like it would necessarily
14 necessitate that much work, right? I mean I
15 don't know. I was just wondering if you would
16 try to get that, if you found the information
17 that you needed.

18 MS. SWAFFAR: We'll discuss it in
19 Subcommittee, yeah. Sorry, we can't talk -- I
20 can't talk for the whole subcommittee.

21 MR. RICE: Okay. We are going to move
22 ahead a little bit and cover methionine, since

1 we've got, as I understand it, some stakeholders
2 that are leaving today.

3 CHAIR BEHAR: Okay, that's me.
4 Producers and certifiers spoke in favor of
5 continued listing. Other groups felt that the
6 reliance on synthetic methionine did not
7 encourage producers to provide methionine through
8 pasture and a more systems-based approach.

9 We heard from the Methionine Task
10 Force panel of the continued need for DL-
11 methionine, and how difficult it is to blend
12 organic agricultural plant-based products and
13 come up with a healthy ration with the right
14 balance of methionine with other amino acids.

15 We also heard from them that it is
16 extremely difficult, if not impossible, to get
17 enough methionine from pasture alone, in order to
18 maintain a healthy bird. Organic Valley mentioned
19 in their comments about an enhancer called
20 Methiomax. I seem to be like stuck on this thing.

21 Made from herbs and that's probably
22 why, because I grow these herbs. Andrographis

1 tulsi and I don't grow neem. And I currently
2 have them growing in my greenhouse. So that's
3 why it's interesting.

4 This product is made in Belgium and
5 Organic Valley is working to get approval from
6 the FDA for use as a feed supplement for poultry,
7 and my interest in this is that if it does work,
8 which is questionable and we, you know, and it's
9 natural then it could be used right away.

10 I don't know any manufacturing process
11 or anything else yet. But the ingredients stated
12 100 percent herbs. So all we have is that. But
13 if it truly would make it so the birds did not
14 need as much methionine from a synthetic source,
15 that it might open the door for agricultural
16 products, because one of the problems with the
17 synthetic methionine now, trying to replace it
18 with agricultural products is that you need so
19 much of it that it then throws the whole ration
20 off balance because of the other amino acids in
21 the agricultural products.

22 So if we needed less, it might open

1 the door for using some agricultural products in
2 place. So I'm going to obviously keep up on this
3 one. Maybe I'll start feeding my birds tulsi,
4 see what happens, and that's it.

5 MR. RICE: Questions or comments for
6 Harriet?

7 CHAIR BEHAR: I just wowed them.

8 MR. RICE: Okay, go ahead Steve.

9 MR. ELA: Being a non-livestock person
10 and I mean this is one I've seen lurking, and
11 it's got, you know, I turned to all of you
12 livestock people for advice. I thought this was
13 really valuable.

14 The panel informed me as they -- I
15 mean really a lay novice person, and it made it
16 pretty clear to me what the choice was. So that
17 was really helpful. So my kudos to the Livestock
18 Committee and Harriet and Ashley and all for
19 helping inform those of us are not necessarily
20 very educated. So thank you.

21 MR. RICE: Thanks, Steve. I think with
22 that material -- oh, I couldn't see a hand.

1 Emily.

2 MS. OAKLEY: Sorry, just a quick one,
3 that I checked in with a couple of pastured
4 poultry producers that I know that also use this
5 material, certified organic.

6 MR. RICE: Ashley.

7 MS. SWAFFAR: Okay. So Harriet, I've
8 never seen to many chicken people Google one
9 thing in my life as that Methiomax. India's going
10 crazy. They think they have a hot new thing.

11 I just want to touch on -- there was
12 one comment that kind of stuck out to me. It's
13 the need for synthetic methionine is the result
14 of choices regarding management of organic
15 poultry and flocks in this country, choices
16 regarding breeds, stocking rates and outdoor
17 access.

18 I've been in the poultry industry my
19 entire career, and the majority of that has been
20 working for companies that truly are committed to
21 putting birds on pasture. We do -- I've done
22 pasteurized production for like nine or ten years

1 now, and that's 108.9 square foot per bird
2 outside in the south, where like birds really
3 probably should be out on pasture, not in cold
4 climate areas.

5 But, you know, we still see issues,
6 because our pastures go dormant in the winter
7 time. In the summer, we don't have bugs. Like
8 the bugs are smart. They know. They are outside
9 of the fence, because the chickens want to eat
10 them and chase them out. So you know we don't
11 -- you know, there's not this like great bugs.

12 But you know I spend so much time
13 trying to get birds to go outside, and creating
14 amazing environments for birds. I get really
15 passionate about that, and you know, it's still
16 really difficult to get every bird outside every
17 day. I'm talking from managed flocks from 800 to
18 20,000. There's a little bit of difference
19 between flock size, but it's really hard to get
20 them to go outside and, you know.

21 Like I say, I've created environments
22 for them, planting different shrubs and bushes

1 and things, and there's just a lot of chickens
2 that just don't want to go outside. So you know,
3 it's really hard if we were to lose this material
4 to get, you know, to make it up outside.

5 And then I just want to point out on
6 the breeds, you know, there's no commercial
7 available laying hen or broiler in this country
8 right now that we could change breeds to. You
9 know, we're a very small segment of the industry
10 is the poultry industry.

11 You know, 14 million organic layers
12 sound like a lot, but that's not very many in the
13 real grand scheme of things. We're an
14 afterthought that they don't really cater just to
15 us. So you know, there's some issues and I'm
16 very proud of the work that the Methionine Task
17 Force has done.

18 I think that's a -- them and the
19 celery powder folks have really looked at what
20 this Board has said in the past and realized that
21 they need to work on finding alternatives. That
22 is completely industry funded. They're spending

1 money on research to find alternatives. So I
2 think that's a really great thing that they've
3 done. So sorry I went so long. I'm very
4 passionate.

5 MR. RICE: That's great, thank you.
6 Any other comments? Questions? Okay. Now I
7 think we are ready to pause on the sunset review
8 for today, and we will pick this up in the
9 morning.

10 I would invite all of you to the third
11 floor, the Northwest Room, where we are honoring
12 Washington's David Granatstein for all of his
13 contributions over the years with some organic
14 beverages and food, so please join us.

15 Our program will start at 6:30. Brief
16 words. So you have a minute to run upstairs, but
17 keep that in mind. Thank you.

18 CHAIR BEHAR: Okay everyone. We'll
19 see you tomorrow and don't forget to get your
20 animal. Less for me to carry home in my suitcase.

21 (Whereupon, the above-entitled matter
22 went off the record at 6:11 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript


In the matter of: National Organic Standards Board
Spring 2019 Meeting

Before: USDA

Date: 04-25-19

Place: Seattle, WA

was duly recorded and accurately transcribed under
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UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

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SPRING 2019 MEETING

+ + + + +

FRIDAY,
APRIL 26, 2019

The Board met in the Courtyard Ballroom at the Renaissance Seattle Hotel, 515 Madison Street, Seattle, Washington at 8:30 a.m., Harriet Behar, Chair, presiding.

PRESENT

HARRIET BEHAR, Chair
STEVE ELA, Vice Chair
SCOTT RICE, Secretary
SUE BAIRD
ASA BRADMAN
JESSE BUIE
TOM CHAPMAN

LISA DE LIMA

RICK GREENWOOD

DAVE MORTENSEN

EMILY OAKLEY

A-DAE ROMERO-BRIONES

DAN SEITZ

ASHLEY SWAFFAR

STAFF PRESENT

**MICHELLE ARSENAULT, NOSB Advisory Board
Specialist, National Organic Program**
**DAVID GLASGOW, Associate Deputy Administrator,
National Organic Program**
**DR. PAUL LEWIS, Ph.D., Director, Standards
Division, National Organic Program**
CLARISSA MATHEWS, Ph.D., National List Manager
**DEVON PATTILLO, Materials Specialist, National
Organic Program**
**DR. JENNIFER TUCKER, Ph.D., Deputy
Administrator, National Organic Program;
Designated Federal Official**

ALSO PRESENT

MARKUS FLURY, PhD, Washington State University
RAMANI NARAYAN, PhD, Michigan State University

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Handling Subcommittee

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Dr. Markus Flury

Dr. Ramani Narayan

Crops Subcommittee

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

2 8:34 a.m.

3 CHAIR BEHAR: Thank you, everyone. We
4 are on to Day 3 of the 55th NOSB meeting. If you
5 haven't remembered that, you will now.

6 I want to also encourage people,
7 anyone who hasn't taken any animals or if you
8 want to take a few more you can over there. To
9 keep us in mind that we have more than just us
10 humans to be thinking about on this planet.

11 So we will continue from yesterday.
12 We are a little bit behind. So we do have a full
13 day ahead of us.

14 And with that I am going to turn over
15 the running of the meeting to Scott, the
16 Livestock Subcommittee chairperson.

17 MR. RICE: Thanks, Harriet. We're
18 taking up where we left off yesterday looking at
19 sunset materials for the 2021 cycle.

20 Our next to be reviewed is magnesium
21 sulfate. And that is Ashley.

22 MS. SWAFFAR: Magnesium sulfate or

1 better known as Epsom salt has lots of uses
2 including used to treat grass tetany, used as a
3 laxative, used to prevent hypoglycemia, used to
4 draw out deep infected lesions. And farmers also
5 use that to soak feet and things to reduce signs
6 of inflammation.

7 We heard from producers that this is
8 important to the humane treatment of organic
9 animals and we did not receive any comments
10 opposing the listing.

11 MR. RICE: Any comments or questions
12 for Ashley on magnesium sulfate? All right.

13 Seeing or hearing none we will move
14 onto parasiticides, fenbendazole and moxidectin.
15 We'll do those separately but those both belong
16 to Sue.

17 MS. BAIRD: Yes. Fenbendazole is a
18 parasiticide. Most of us that have livestock
19 understand the mode of action, but it is an
20 anthelmintic drug that is used to evacuate
21 internal parasites.

22 Fenbendazole was received from NOSB in

1 2007 and has been on the list effective 2012. It
2 was petitioned and NOSB made a proposed change in
3 2018 because fiber animal producers were needing
4 fenbendazole listed for it.

5 And so there was a proposed rule
6 change January 17, 2018 and our annotation change
7 was made 12/27/2018.

8 In your books that you received it was
9 put originally for public comment on the Federal
10 Register as saying fenbendazole milk or milk
11 products from a treated animal cannot be labeled
12 as provided for in Subpart D of this part for 2
13 days following treatment of cattle, 36 days
14 following treatment of goats, sheep and other
15 dairy species.

16 And you will notice up on the board it
17 has actually been listed in the Federal Register
18 not any change in intent, but wording is changed
19 which says allowed for fiber-bearing animals when
20 used a minimum of 36 days prior to harvesting of
21 fleece or wool that is to be sold, labeled, or
22 represented as organic.

1 So a little bit different wording than
2 what you had in your original book or your
3 original literature that went out to be commented
4 on, but no intent -- no change in intent.

5 So fenbendazole and do I go straight
6 into --

7 MR. RICE: Straight into the mike.

8 MS. BAIRD: Straight into the mike,
9 okay. So that's fenbendazole.

10 MR. RICE: Okay. Thank you, Sue.
11 Moving onto peroxyacetic/peracetic acid. That is
12 --

13 MS. BAIRD: Any questions?

14 MR. RICE: Excuse me. We've got
15 moxidectin. Excuse me.

16 MS. BAIRD: Moxidectin. Yes.
17 Moxidectin was reviewed at the same time as
18 fenbendazole, was put on the National List at the
19 same time.

20 Has a little bit different mode of
21 action. It's used in rotation with livestock
22 producers because it does have a different mode

1 of action.

2 It does the same thing. It is an
3 internal parasiticide that's used in animals.

4 Was reviewed all three including
5 ivermectin which has since been taken off the
6 list. Were reviewed in 2015 as one group because
7 they all are used in rotation for the animals.

8 Moxidectin does have a little bit
9 different mode of action. Any comments that we
10 heard from the public on all of these -- well,
11 not all of these now, these two parasiticides
12 were favorable.

13 All livestock producers say they're
14 almost critical to have. Otherwise we have
15 parasiticide loads that the animal could cause
16 death and does cause death in especially the
17 fiber-bearing animals.

18 The very same change was made that I
19 just pointed out for the fenbendazole. It was
20 listed on your public comments that says 36 days
21 following treatment of sheep, goats and other
22 dairy species which has now been just changed to

1 saying fiber animals.

2 So same mode, same comments. People
3 who said they wanted fenbendazole also say
4 they've got to have the moxidectin.

5 MR. RICE: Great. Thanks, Sue. And
6 now peroxyacetic and peracetic acid to Jesse.

7 MR. BUIE: Okay. Peracetic acid,
8 205.603(a) is a disinfectant, sanitizer, medical
9 treatment as applicable.

10 According to the TR the peracetic acid
11 is listed for use in organic livestock production
12 as a -- for sanitizing facility and processing
13 equipment.

14 According to the TR the reason for the
15 excellent and rapid microbial effect of peracetic
16 acid is this specific capability to penetrate the
17 cell membrane.

18 Once inside the cell peracetic acid
19 plays a role in denaturing protein, disrupting
20 cell wall permeability and oxidizing sulfhydryl
21 and sulfur bonds in enzymes and other proteins.

22 On the environment the peracetic acid

1 is considered to be an environmentally friendly
2 substance with very little potential to cause
3 contamination due to its rapid breakdown into
4 benign substances already present in the
5 environment.

6 There were very few comments, but they
7 were all overwhelmingly in favor of re-listing
8 peracetic acid.

9 Peracetic acid is recommended for re-
10 listing based on the available 2000 TAP. The
11 technical review from March 2016, unanimous NOSB
12 2017 supported this material and there is no new
13 scientific or meritorious information.

14 The NOP has reviewed few materials for
15 use in barns, stalls, stables, milking parlors
16 leaving relatively few options for producers.
17 Are there any questions?

18 MR. RICE: Comments or questions for
19 Jesse? Thanks, Jesse.

20 Moving onto xylazine we turn to Dan.

21 DR. SEITZ: So xylazine is a substance
22 that is allowed under 205.603(a) as a

1 disinfectant, sanitizer and medical treatments as
2 applicable.

3 It must be used by a lawful written
4 order of a licensed veterinarian. And there's a
5 meat withdrawal period of at least eight days
6 after administering the substance and a milk
7 discard period of at least four days.

8 It's been listed since the early two
9 thousands. There was a 2002 TAP report and then
10 a 2019 technical report on the substance.

11 Xylazine is used as a sedative,
12 analgesic and muscle relaxant in veterinary
13 medicine as a medical treatment. It can be
14 administered intravenously, intramuscularly,
15 subcutaneously, or orally.

16 It's allowed under the Canadian
17 standards, but it's not mentioned under Codex,
18 the European Economic Community, the Japanese
19 Agricultural Standard for Organics, or the IFOAM
20 standards.

21 There are some environmental concerns
22 associated with it, both its manufacture and also

1 its use. It can cause wastewater pollution in
2 the case of improper use or disposal.

3 Xylazine has a potent hypnotic and
4 muscle relaxing property and is not allowed for
5 human medical use.

6 There were about a half dozen
7 comments, brief comments in favor. It seemed to
8 be not widely used, but nonetheless seems to be
9 an essential substance in the uses when used.

10 There were no commenters who
11 recommended removal. Beyond Pesticides did note
12 that in the 2002 TAP report it was stated that
13 both xylazine and tolazoline, these are two
14 substances used in common, was not approved by
15 the FDA for use in food producing animals. So
16 they just pointed out that there may be something
17 of a disparity between FDA regulations and what
18 is allowed under our standards.

19 I did not see, however, that mentioned
20 in the 2019 TR. Any questions?

21 MR. RICE: Questions or comments for
22 Dan? Seeing none, thanks, Dan.

1 Moving onto trace minerals. This was
2 mine.

3 Trace minerals, 205.603(d) as feed
4 additives. Trace minerals used for enrichment or
5 fortification when FDA approved.

6 Trace minerals elements whether
7 naturally occurring in the diet or provided in
8 supplements important to the maintenance, growth
9 and reproduction and healthy production of
10 cattle, swine and poultry.

11 Forages and grains are good sources of
12 calcium and phosphorus. However, bioavailability
13 of minerals in forage varies on the mineral
14 content of the soil and level of pasture
15 fertilization.

16 Mineral premixes are therefore widely
17 used in livestock feed fortification to ensure
18 adequate intake.

19 The NOP has issued a guidance document
20 for the use of minerals in livestock feed which
21 spells out in more detail which minerals are
22 covered under this listing.

1 Manufacture varies because it is quite
2 a broad categorical listing. Individual mineral
3 compounds are produced on an industrial scale
4 through chemical synthesis and extraction from
5 either natural or reclaimed sources.

6 For a representative sample of common
7 production methods the 2013 TR includes some
8 specifics on that.

9 The trace minerals are included by
10 either direct reference or in feed additives in a
11 number of other international regulations.

12 NOSB has continually received comments
13 from the organic community supporting the
14 continued use of these noting their essentiality
15 to livestock health and welfare and importance in
16 offsetting seasonal variables in forage
17 nutrition.

18 I should note that we did get --
19 received a TR for trace minerals on April 16.
20 That was too close to our meeting here to take a
21 look at, but we'll be looking at that in the
22 coming months.

1 And a number of certifiers submitted
2 comments noting wide use on the operations they
3 certify.

4 Several producers noted as above and
5 in past reviews the continued need and necessity
6 to provide adequate nutrition.

7 A couple of organizations noted
8 organic production should not be dependent on
9 synthetic nutrients noting the current annotation
10 may not be restrictive enough to prevent reliance
11 on synthetic materials and recommended adding an
12 annotation that -- of when forage and available
13 natural feeds are of poor quality can these trace
14 minerals be used.

15 We did not receive much response on
16 our questions related to production through
17 excluded methods so we'll continue to look for
18 those moving forward.

19 Any questions or comments? All right.
20 Hearing none. Oh, Dave.

21 MR. MORTENSEN: Yes. I was just
22 curious, Scott, how much in the way of efficacy

1 data is provided with something like this?

2 How much -- sorry if you didn't hear.
3 How much in the way of efficacy data is provided
4 with a compound like this? I'm just curious how
5 it affects animal weight gain, performance,
6 health, behavior. Just curious.

7 MR. RICE: In comments or the TR? Or
8 both?

9 MR. MORTENSEN: Just that would
10 underpin the review.

11 MR. RICE: We'd certainly take a look.
12 As I said I haven't had an opportunity to take a
13 look at the TR. I wouldn't say the comments
14 pointed to efficacy per se more than just a
15 necessity in the absence of consistent pasture
16 conditions. I'm not sure if that specifically
17 answers what you were looking for.

18 MR. MORTENSEN: I guess I was just --
19 I mean, to me that would require in order to
20 assess the extent to which a pasture delivers
21 enough you would have some sort of -- see data to
22 compare it against. I was just curious. Maybe

1 it will be reviewed in a technical report review.

2 MR. RICE: Yes. I'll keep that in
3 mind as I take a look. Thanks.

4 Okay. Moving on we've got lastly
5 vitamins with Sue.

6 MS. BAIRD: Thank you. Vitamins have
7 been listed since the beginning of time. Has
8 gone through several sunset recommendations,
9 1995, 2005, 2010 with the latest in 2015.

10 And NOP allows vitamins from 205.603
11 which says synthetic substance allowed for use in
12 organic livestock for enrichment or fortification
13 when FDA approved.

14 They are listed by AAFCO which is the
15 American Feed Official -- I can't remember what
16 AAFCO stands for. It's the controlling for all
17 feed, livestock feeds.

18 Vitamins are combined with your grain
19 rations, your bean oils, your other meals that
20 they use to provide the nutrients that the animal
21 needs.

22 There are 15 essential vitamins that

1 are currently allowed that has been noted by the
2 National Research Council for the needs for an
3 animal.

4 So that was further clarified in
5 238(a)(2) which says livestock feed rations must
6 meet nutritional requirements including vitamins,
7 minerals, proteins, other amino acids, fatty
8 acids, mineral sources and fiber for ruminants.

9 So it's pretty clear that we need the
10 vitamins in our feed for livestock, for humans,
11 for anybody.

12 But as we've become more diligent I
13 think perhaps it was determined that some
14 vitamins are being made from a fermentation
15 production which uses genetic modification.

16 And that had been in the past accepted
17 just as if it's a vitamin, it's a vitamin.

18 And the TR said that genetic
19 modification was commonly used in productions of
20 vitamin A, B2, B5, B6, C, E and B12.

21 So accordingly NOP published a
22 Guidance 5030 which was called Guidance

1 Evaluating Allowed Ingredients in Sources of
2 Vitamins and Minerals for Organic Livestock Feed
3 which instructed the certifiers to be diligent in
4 reviewing the vitamins for the presence of those
5 excluded methods.

6 And specifically NOP wrote the USDA
7 organic regulations also prohibit use of excluded
8 methods at 205.105(e) and thus vitamins and
9 minerals -- vitamins used for livestock feed
10 should be reviewed for excluded methods.

11 And then OMRI also acknowledged that
12 vitamins may be produced using excluded methods
13 in their generic list. And they published a
14 decision tree for evaluating GMO inputs in
15 organic livestock feed on page 85 of the generic
16 listing. And you can find that on the OMRI
17 website.

18 So, there's not been any environmental
19 issues that's been found for soil-dwelling
20 organisms. As we said, health impacts, they're
21 absolutely essential for those vitamins to be
22 added into the livestock feed. So any questions?

1 MR. RICE: Questions for Sue?

2 Harriet.

3 CHAIR BEHAR: I've heard some
4 certifiers question the source of some of the
5 vitamins that they might be from genetically
6 modified sources or things like that. Was there
7 any consideration of that? I don't know if true
8 or not. I don't know. But I know there's been
9 discussion.

10 MS. BAIRD: Yes. I think that they
11 would be questioning it. They're instructed by
12 NOP to be questioning the sources.

13 So we did ask to further question what
14 documentation are the certifiers and material
15 review organizations using that would document
16 that they have done their search. And we didn't
17 get any response to that.

18 But I think that is a valid question.
19 And I've been a reviewer for certifiers and I do
20 know that they are asking those questions, or the
21 ones that I did reviews for were. They were
22 cognizant of this issue.

1 MR. RICE: I would offer, I think we
2 did get one comment on requiring as often
3 certifiers do for things like this a non-GMO
4 affidavit.

5 MS. BAIRD: You're right, I'm sorry,
6 I forgot that. Thank you.

7 MR. RICE: Ashley?

8 MS. SWAFFAR: And I'll point out that
9 we did receive a comment that that language says
10 that certifiers should verify, but it does not
11 say that they must verify. So there's a very
12 distinct difference in that language.

13 MS. BAIRD: There's a lot of
14 difference in that language and I didn't catch
15 that. Thank you.

16 MR. RICE: Dave.

17 MR. MORTENSEN: So just so that I'm
18 clear the sentence that you read from, Sue, that
19 says in the technical review in 2015 fermentation
20 production using genetic modification is commonly
21 being used in production of A, B2, B5, B6, C, E,
22 B12.

1 And then later, quote, it says the
2 USDA organic regs should be -- should prohibit
3 the use of excluded methods.

4 I'm just actually not quite sure I'm
5 following what that's saying. It reads as though
6 they're all being produced, or those are being
7 produced through genetic modification. And then
8 below it says they should be reviewed to
9 determine if they're being produced using
10 excluded methods.

11 It seems internally inconsistent.
12 Unless I'm just not following what the intent of
13 that wording is.

14 MS. BAIRD: I apologize for that. If
15 I'm understanding you're saying that you think
16 that because of this technical review that all A,
17 B2, B5, B6, C, E and B12 are produced with
18 genetically modified organisms.

19 I think that they said they're
20 commonly used. It doesn't say that they are all
21 -- the fermentation method is always used. It
22 does say that some are done by chemical changes,

1 chemical synthesis or partial synthesis.

2 So, I really am not totally sure that
3 all -- according to NOP's direction they're
4 saying that you should be reviewing to that.

5 So I'm assuming by that direction that
6 there are A's and B's and all these things that
7 could be done by chemical synthesis. And it's
8 something that I will certainly do a little more
9 follow-up for the fall before we vote on it.
10 Thank you for bringing that to my attention.

11 MR. RICE: Thanks, Sue. Any other
12 comments? All right. That completes our initial
13 review of the 2021 sunset substances for the
14 Livestock Committee and brings the Livestock
15 Committee to the end of its business for this
16 meeting. I turn it back to Harriet.

17 CHAIR BEHAR: Thank you. Okay, so we
18 are going to move on to 8:30 in the morning of
19 today to the Handling Subcommittee, Asa Bradman,
20 chairperson.

21 MR. BRADMAN: Thank you. We have a
22 very full agenda this morning and I think we'll

1 just start right out with the proposals.

2 The first one to consider is the
3 silver dihydrogen citrate and Steve, I believe
4 you're the lead on that.

5 MR. CHAPMAN: I thought we shared it.
6 You didn't prepare?

7 MR. BRADMAN: I was going back to the
8 emails.

9 MR. CHAPMAN: I guess I'll have to
10 wing this one. I'm joking, I'm joking. You can
11 strike that from the record.

12 MR. BRADMAN: Sorry, Steve.

13 MR. ELA: It's fine. I actually
14 hadn't conferred with Tom. I assume he had it
15 ready.

16 MR. BRADMAN: There was an email
17 history from before I took over as chair.

18 MR. RICE: I'll treat Steve for his
19 mild heart attack right now.

20 MR. CHAPMAN: Does the program do any
21 reading into the record? Sorry, senioritis here.
22 I don't remember. No? I'm seeing program heads

1 shaking no.

2 All right, then I will get started.
3 Silver dihydrogen citrate is being petitioned by
4 PURE Bioscience as an antimicrobial processing
5 aid for poultry carcasses and fruits and
6 vegetables excluding citrus and grapes for wine-
7 making, as a disinfectant and sanitizer for food
8 contact surfaces and for food processing
9 equipment.

10 So this would be a petition to the
11 National List 7 CFR 205.605(b).

12 The petition was received in January
13 of 2017. It was amended twice in August of '17
14 and June of 2018.

15 And the technical review was received
16 and found sufficient in May of 2018.

17 We considered this proposal, this
18 petition as a proposal in our fall 2018 meeting
19 but ultimately voted to send it back to
20 subcommittee for a further review after receiving
21 substantial public comment. And we brought it
22 again forward in 2019.

1 The comment received this time was
2 similar in nature, at least areas of concern as
3 were raised in the fall of last year. And I'll
4 just go into those major areas.

5 The first one which I think is one
6 that's the easiest to say is mitigated was the
7 concerns around sodium lauryl sulfate in the
8 formulations of these products.

9 There was a question related to the
10 patents about how this product is being used. Is
11 it being used as a detergent or a stabilizer. We
12 received comments from the petitioner and an
13 argument that this is akin to inert materials
14 used in formulated sanitizing products and that
15 the board has used that justification before to
16 not look at those substances in detail which is
17 true.

18 When you look at substances like
19 peracetic acid and all the additional inert
20 ingredients that are used to stabilize that.

21 So considering SLS as an inert
22 ingredient it would not be part of this review at

1 this time.

2 The next issue that was brought up was
3 compatibility, particularly due to the use of
4 engineered nanotechnology.

5 This is an area, frankly, that the
6 subcommittee struggled with, hearing arguments on
7 both sides around whether this should be
8 considered a material of nanotechnology or not.
9 And we heard further comment this time in that
10 area.

11 It seems like this issue could be --
12 this issue revolves around the fact that this is
13 an ionic form of this material and whether or not
14 this ionic form counts as an engineered nano
15 material. And it's not really clear from the
16 previous NOSB recommendation whether or not that
17 was included in that review and what impacts that
18 interpretation would have on various other
19 materials on the National List.

20 Additionally, it seems like this is a
21 concern that could potentially be mitigated via
22 annotation if the board wanted to move forward

1 with this material.

2 The subcommittee did not make an
3 attempt at revising the previous annotation given
4 at the time the subcommittee was not recommending
5 this material for listing.

6 So if that view has changed then I
7 believe the subcommittee would take an attempt to
8 again address the nanotechnology concerns via an
9 annotation.

10 Human health concerns were raised both
11 related to the nanotechnology issues noted
12 previously and then also into the use of silver
13 in wound management and studies that have been
14 released about the growing or potential growing
15 resistance to silver in wound management.

16 Information again was presented on
17 both sides related to this issue and there was
18 also some discussion here and on the webinar
19 about differences between medical and food
20 applications and what's going on in this area.

21 The subcommittee did not particularly
22 find the use in medical applications as violative

1 of the OFPA criteria for human health.

2 It also should be noted there are
3 other substances approved as sanitizers also used
4 in medical contexts.

5 Most of those who cited this issue
6 also cited the Centers for Disease Control
7 calling out that pathogen resistance is one of
8 the world's most pressing public concern issues.

9 However, in doing research with CDC
10 they maintain the National Antimicrobial
11 Resistance Monitoring System database and in my
12 searches I didn't find anything related to silver
13 or silver resistance in that database.

14 I also queried FDA, World Health
15 Organization, American Medical Association, who
16 also do similar -- raise similar concerns around
17 the growing concern of antimicrobial resistance
18 and similarly did not find anything related to
19 silver in those areas.

20 So this is an area that I think we
21 have to consider, but I'm curious to know how
22 other members feel in this regard, if this is a

1 concern related to the criteria.

2 Environmental toxicity was another
3 area that was raised, particularly about silver
4 in the environment and impact on waste effluent
5 systems.

6 I don't feel like we received much new
7 information about silver in the environment.
8 It's really do you -- on an absolute basis do you
9 support the potential addition of more silver
10 into the environment through this application or
11 do you look at it on the dilution basis that it's
12 probably not raising on a diluted basis because
13 it's being released at lower levels and
14 background levels, silver in that environmental
15 context.

16 The concerns around various locations
17 of use of silver dihydrogen citrate was responded
18 to by the petitioner. And I'll read it here that
19 the scopes of SDC's regulatory approvals are far
20 narrower and would not cover these uses as
21 identified. SDC is not currently approved for
22 use in field or post-harvest handling

1 applications for raw agricultural commodities.

2 Those applications are the ones that
3 the Handling Subcommittee raised as a concern and
4 SDC is approved for FDA, EPA on food contact
5 applications only on hard, non-porous surface,
6 sanitizing, disinfection, and by FDA only for use
7 in facilities that process produce for poultry.

8 So it seems like that issue is
9 mitigated just by its own licensing currently
10 although again it also could be further mitigated
11 if we wanted to via an annotation on this
12 material. If we wanted to move forward.

13 The last area of concern that was
14 raised was around essentiality. And I'm going to
15 interpret that actually under the necessity
16 because I don't know if essentiality applies to
17 this material.

18 But under necessity of whether this is
19 actually a needed additional material and most
20 commenters noted that they thought that the
21 petitioner failed to make that argument around
22 its necessity.

1 We did receive comments from industry,
2 particularly produce wholesalers on the west
3 coast and a couple of other as well as some
4 sanitation supply companies asking for -- or
5 reviewing its use.

6 We did receive one written comment
7 from Organic Produce Trade Association which
8 recommended against its use although in verbal
9 conversations here at the board they also seem to
10 think that it could use further consideration and
11 be brought back to the subcommittee given some of
12 the additional public comment that was received
13 this round.

14 Moving back to essentiality. So the
15 essentiality piece did seem to also in a lot of
16 comments obfuscate in my opinion -- this is
17 opinion I guess at this point -- the difference
18 between cleaning and sanitation in facilities.

19 And several of these comments cited
20 two different papers, one from the Food and
21 Agriculture Organization of the United Nations
22 and one, a USDA one both related to meat

1 processing stating that sanitation begins having
2 a clean facility, and that clean facilities self-
3 negate the need for chemical sanitation.

4 And while I think most people who have
5 experience in this area would agree that cleaning
6 is a necessary step prior to sanitation that they
7 are two distinct separate steps with separate
8 purposes.

9 And if you go into detail on both of
10 those papers cited both of them also go into
11 detail about the importance of chemical
12 sanitizers as well as the need for multiple
13 chemical sanitizers.

14 So, the subcommittee did not recommend
15 listing this item this time, the three major
16 concerns being location, use and the impact on
17 the environment.

18 That seems like it can be mitigated
19 via potential annotation.

20 Its compatibility with organic
21 production given concerns around nanotechnology,
22 also potentially mitigatable by annotation.

1 And then the concerns around sodium
2 lauryl sulfate which does not seem to be a valid
3 concern at this time.

4 So in light of this my opinion on this
5 material has changed. I would like to have the
6 subcommittee consider it further and see if via
7 annotations if this could be acceptable for use
8 in organic processing for some or all of the
9 scopes that's been petitioned for.

10 I've noted in the comments that
11 particularly for hard surfaces that is what
12 industry was looking for a sanitizer to use.

13 And then I guess I would be somewhat
14 -- I think most people on this board have
15 realized that from the amount of discussion on
16 this, but this does as a material its true
17 interest to I think most processors is around its
18 different mode of action, that it's a unique mode
19 of action separate from the oxidative or acidic
20 modes of action that we currently have as
21 sanitizers on the National List.

22 Steve, do you have anything to add?

1 MR. ELA: No, I think that -- probably
2 a pretty good summary. I mean, I think Tom and I
3 -- it's probably good we kind of co-worked on
4 this because there's a fence and we probably fall
5 on each side of the fence just a little bit.

6 But I would say you gave a pretty good
7 summary of the disposal. Still I mean the public
8 comment gave about sewage disposal systems and
9 pumping, that sludge goes into a treated
10 facility.

11 Living in a rural area I guess I think
12 that's great in theory, but I'm not sure that all
13 -- I think there's a considerable variation in
14 quality of treatment systems across the nation
15 especially in rural areas. So I am not totally
16 satisfied that -- I understand on the surface
17 answer, but I'm not totally convinced on it.

18 Sodium lauryl sulfate, yes, you've
19 answered that. The hard surfaces versus contact
20 with actual produce or poultry, you've covered
21 that pretty well.

22 Mode of action certainly. And I know

1 there's been a lot of discussion in the
2 committee.

3 I tend to come down -- you tend to go
4 let's go back and annotate and I kind of come
5 down there's still these continuous niggling
6 questions that I'm not completely sure we can --
7 especially on the nanoparticle side.

8 I get very clearly that it's ionic.
9 I also could see where it could form
10 nanoparticles as it precipitates. Because we're
11 talking about a precipitating sewage sludge and
12 other areas. So it's not always ionic.

13 So I tend to fall a little bit on the
14 side of with all these niggling questions I'm not
15 quite as excited about it as I initially was.
16 You've come down on the other side so I think
17 that -- I suspect a lot of people on the board
18 are that way, but I think it's -- I look forward
19 to the discussion. Thanks for the summary.

20 MR. BRADMAN: Emily.

21 MS. OAKLEY: Are we open for questions
22 now?

1 MR. BRADMAN: Yes. Let's open this
2 for discussion.

3 MS. OAKLEY: So then maybe this is a
4 question for everyone on the subcommittee. How
5 do you grapple with varying public comments in
6 terms of the nano material aspect and the fact
7 that they're conflicting information?

8 And I also would echo Steve's comment
9 about rural areas. I don't think that has been
10 adequately resolved.

11 And I know it's not the petitioner's
12 problem to deal with variations in rural versus
13 urban areas, variations in regulations across
14 states, but it does pose a problem in terms of
15 what we can expect end users to know about the
16 material.

17 But my real question is how do you
18 resolve conflicting public testimony about the
19 nano material aspect.

20 MR. ELA: I don't think there's a
21 great answer for that. I mean, it is conflicting
22 and I think that's -- I guess my side comes down

1 on precautionary.

2 Once you start receiving conflicting
3 things then I tend to err on the side of
4 conservatism in saying I don't want to put it on
5 the list. I think Tom falls on the side -- and
6 you should speak for yourself, but I also
7 recognize the view that we do need more modes of
8 action and food safety is paramount.

9 And risk to public health by
10 environmental releases versus risk to food safety
11 of an outbreak. We have to balance that.

12 But I don't know there's a great way
13 to resolve inherently there's conflicting public
14 comment on it. And that's real. We have to try
15 and sort that out ourselves. But I don't know
16 there's a great process for that except our own
17 knowledge base.

18 MR. BRADMAN: Tom, do you want to
19 respond and then Lisa?

20 MR. CHAPMAN: Yes. I mean, I guess
21 there's conflicting information. There's almost
22 always conflicting information on almost anything

1 we ever deal with so that's -- I'm not sure if I
2 like discount the precautionary principle.

3 I think I look at the totality of the
4 evidence and then try to weigh it out.

5 My biggest concern with this is on a
6 technical side this is just way above. This is
7 way above my pay grade. My YouTube
8 certifications don't qualify me for making these
9 determinations.

10 And so you have to rely on these
11 experts. Unfortunately -- I mean, the ideal
12 thing would be to have I guess a third party
13 independent expert that we fully trusted that
14 didn't have an agenda.

15 But I don't think we're going to get
16 that on a material that's manufactured by a
17 single processor because you're pretty much going
18 to have to rely on them. That's the reality of
19 the world and we're not going to trust that
20 information because it came from a petitioner
21 that it's not biased or it's their opinion.

22 So to the extent that I'm qualified or

1 at least I have the right to vote on this
2 material. I've looked at the evidence as
3 provided and I'm leaning towards the -- what the
4 petitioner has provided because I think they've
5 responded to most of the concerns.

6 However, I -- I'm not an expert in
7 this area.

8 MR. BRADMAN: Lisa and then Rick.

9 MS. DE LIMA: I think Tom and Steve
10 pretty much covered it pretty well, but just so
11 folks know where I fall I'm kind of in line with
12 Steve with yes, there's the fence. The lines
13 pretty -- could go either way.

14 But in those cases I kind of feel the
15 opposite of Tom. I'm not an expert and I don't
16 feel comfortable voting yes. There's too many
17 lingering questions for me.

18 MR. BRADMAN: Rick.

19 MR. GREENWOOD: Tom, when you looked
20 at the databases for antimicrobial resistance one
21 of the things that I'd caution about that is
22 silver isn't used that much. And so not having

1 resistant organisms, there hasn't been
2 environmental pressure on them where there would
3 be if we start putting vast quantities. And I
4 assume they'd end up being vast quantities of
5 silver into the environment.

6 The other issue that Steve talked
7 about is sludge. We talked about that a little
8 bit on the webinar, but sludge goes somewhere. I
9 mean we talked about moving it from rural places,
10 but eventually it gets into the environment and I
11 think that's the other area that concerns me as I
12 mentioned on the webinar is the bioaccumulation.

13 There are papers about its toxic
14 effect on some of the microorganisms, the one-
15 cell animals.

16 MR. BRADMAN: Dave.

17 MR. MORTENSEN: Yes. I also am on the
18 side of being concerned about the environmental
19 impacts.

20 I think there is evidence of
21 bioaccumulation in the microbial community. And
22 the issue of sludge management is definitely a

1 concern of mine as well as in the water. So
2 that's how I am leaning.

3 DR. SEITZ: I too believe that we
4 should err on the side of conservatism.

5 But I also want to add to that that
6 once a substance is on the list the fact that it
7 takes a two-thirds vote to remove it from the
8 list I think is an added reason why we need to be
9 very cautious with a substance where there's so
10 many ambiguities.

11 The other thing that was mentioned by
12 a couple of commenters is that we may want to
13 revisit the question or the NOP may want to
14 revisit the question of whether nanotechnology
15 should be looked at as a class of things that we
16 may want to prohibit.

17 And I think that that may be a very
18 good idea just because in a case like this where
19 there really is some question that the chemistry
20 involved with this points to nanotechnology
21 issues, even if it's asserted that it's not being
22 used.

1 If we have to work through that every
2 time and there's ambiguity again I would say it's
3 incumbent upon us to be very cautious about
4 approving anything where that may be an issue.

5 MR. BRADMAN: Harriet.

6 CHAIR BEHAR: I agree with the first
7 part of what Dan said about there's so many
8 issues.

9 And the thought of we need to annotate
10 for this and we need to annotate for that. If we
11 have to keep narrowing and narrowing and
12 narrowing the use because we have a concern I
13 think that there's more chance for abuse out
14 there once it's on the list.

15 I've seen that, that people don't read
16 the annotations as quickly and it's confusing to
17 them. So I am not for this material.

18 And also I thought there was some
19 compelling information from Consumer Reports on
20 the resistance issue.

21 MR. BRADMAN: I just want to interject
22 a point here. I'll call on myself and then Tom.

1 I have concerns about this material
2 too, particularly as petitioned. I think it's
3 reflected in some of the discussion.

4 One thing to also think about though
5 too is that we have some very nasty materials
6 that are currently on the list, particularly
7 chlorine compounds.

8 I've mentioned this before. In my
9 experience with farm workers and people working
10 in processing plants you hear just bitter, bitter
11 complaints about chlorine compounds.

12 Chlorine compounds are osmogens,
13 they're respiratory, ocular irritants. They
14 produce materials that cause cancer.

15 And I think actually from a worker
16 point of view there might be some uses of this
17 material that could prevent other kinds of
18 exposures.

19 I do have some concerns about the
20 concept of a food contact material that's going
21 to have essentially an unlabeled residue.

22 So anyway, but I just want to throw in

1 the worker health piece.

2 And certainly on an acute basis it's
3 probably safer than some of the other materials
4 that we currently allow.

5 MR. CHAPMAN: And that was definitely
6 echoed in comments from a large organic produce
7 handler in the 2018 comments that noted that
8 their sanitation workers on their conventional
9 lines vastly prefer this material if you take
10 them at their word which you know, I do because I
11 don't expect sanitation workers are particularly
12 reading the regulations.gov waiting to comment to
13 us.

14 That being said, it seems quite clear
15 from the comments here today that we know the
16 fate of the votes that we're about to have. So I
17 don't want to belabor that point in the interest
18 of time.

19 However, I guess a question I do have
20 to members of the board. The subcommittee noted
21 concerns and then noted that there's potential
22 with this material and invited -- when we voted

1 it down, invited the petitioner to potentially
2 re-petition in the future state when these
3 concerns could be mitigated.

4 And I guess my question in the
5 interest of providing accurate information, what
6 if anything could the petitioner do to develop
7 further evidence that would mitigate concerns
8 that are preventing us from supporting this
9 material now.

10 MR. BRADMAN: Before we go to Emily,
11 Scott had raised his hand.

12 MR. RICE: Thanks. I guess to answer
13 Tom's question first I would think having, you
14 know, we struggle with the impartiality on the
15 nanotechnology so somehow having impartial
16 information on that if that's even possible would
17 be helpful for me personally.

18 But I also wanted to speak to the idea
19 of annotations. I think annotations can be very
20 helpful and they're very helpful to certifiers.

21 I think if someone isn't reading the
22 annotation carefully there's ways for certifiers

1 to deal with that. At the end of the day the
2 annotation is there and that should be followed,
3 but I struggle with this as well.

4 I think some of these things, or at
5 least the location use could be addressed by the
6 annotation, but I kind of fall on that side of
7 being cautious in this instance and would like to
8 see the potential of this, but not there right
9 now.

10 MR. BRADMAN: Emily.

11 MS. OAKLEY: I mean, I think that's a
12 good question, Tom.

13 I think what I struggle with with this
14 petition and what I struggled with in the fall is
15 just the vastly conflicting information, not just
16 on nano particles but on human health as well.

17 And not necessarily disposal. I don't
18 think we've delved as deeply into that as we
19 might have.

20 I guess -- I don't quite know how to
21 answer the question but impartial information is
22 super important to me.

1 It's not that I don't trust the
2 petitioner per se, it's simply that they have a
3 perspective that is inherently inclined towards
4 wanting to see the material approved.

5 So how you obtain impartial
6 information on some of these questions as you
7 pointed out is challenging and I'm not sure, but
8 that's what I think would be necessary for me.

9 And then I did just want to echo Asa's
10 comment because one thing that has come up for me
11 is is there a question of residue on products
12 with this material, residual effects of it.

13 MR. BRADMAN: Is there any more
14 discussion? Jesse.

15 MR. BUIE: Yes, the urban versus rural
16 disposal is an issue with me. So I'm leaning
17 against it for that reason.

18 MR. BRADMAN: I don't see any more
19 comments. Tom, I don't know if you wanted to --

20 MR. CHAPMAN: I'm still going to try
21 to make the motion. We'll see what happens.

22 MR. BRADMAN: Okay.

1 MR. CHAPMAN: So I move to refer
2 sodium dihydrogen citrate back to the
3 subcommittee.

4 CHAIR BEHAR: Is there a second?

5 MS. SWAFFAR: Second.

6 CHAIR BEHAR: Ashley second.

7 MR. BRADMAN: So any final discussion
8 before we vote on that? I'm not sure where we
9 start on the voting cycle.

10 CHAIR BEHAR: Okay. I believe Dave.

11 MR. MORTENSEN: No.

12 MR. BRADMAN: Yes.

13 MR. RICE: Yes.

14 MR. ELA: No.

15 MS. OAKLEY: I told you I would
16 abstain but I'm going to say no. Sorry.

17 MR. BUIE: No.

18 MS. ROMERO-BRIONES: No.

19 MS. DE LIMA: No.

20 MR. GREENWOOD: No.

21 MS. SWAFFAR: Yes.

22 MR. CHAPMAN: Yes.

1 MS. BAIRD: Coming from a meat
2 processing background I am going to say yes.

3 DR. SEITZ: No.

4 CHAIR BEHAR: The chair votes no.

5 MR. RICE: That was five yes, nine no.

6 The motion fails.

7 MR. CHAPMAN: I just have a quick
8 point of order question. Did we classify this
9 last time before we sent it back? Anyone? Maybe
10 the former chair can answer the question. He
11 can't. Maybe the former secretary can answer the
12 question, keeper of the record.

13 MR. RICE: I've got the -- I think
14 these motions on my sheet are from subcommittee.
15 So I'm not -- I'd have to look back.

16 MR. CHAPMAN: Okay. So we'll classify
17 again.

18 CHAIR BEHAR: So we have a question if
19 it was classified as a synthetic at the last --

20 MR. RICE: Maybe the program can help
21 us.

22 MR. CHAPMAN: There's probably no harm

1 in just classifying it again. I assume we're
2 going to vote the same way if we voted last time.

3 CHAIR BEHAR: Well, if we've already
4 voted to classify it as a synthetic we don't need
5 to do it again.

6 MR. CHAPMAN: I know. Yes. But if
7 it's going to take us longer to figure out the
8 answer than to vote again maybe we just vote
9 again. Perfect, okay.

10 MR. BRADMAN: So --

11 DR. TUCKER: We would recommend re-
12 voting on this. It has gone through additional
13 work so -- not just for convenience purposes, but
14 for just the record.

15 MR. CHAPMAN: Yes, we have two votes.
16 The classification -- once we classify we
17 generally don't re-touch that piece. And then we
18 would vote on the proposal, the second piece
19 always. So it's just the classification piece I
20 was questioning. But it sounds like we didn't
21 vote on it.

22 MR. BRADMAN: Just for clarity let's

1 vote on the classification motion to classify
2 silver dihydrogen citrate as synthetic.

3 CHAIR BEHAR: Okay. Is there
4 discussion anyone?

5 MR. ELA: Just for the record that
6 would have been Tom as the first and Lisa as the
7 second. For the record.

8 MR. BRADMAN: I'm voting yes as a
9 synthetic.

10 MR. RICE: Yes.

11 MR. ELA: Yes.

12 MS. OAKLEY: Yes.

13 MR. BUIE: Yes.

14 MS. ROMERO-BRIONES: Yes.

15 MS. DE LIMA: Yes.

16 MR. GREENWOOD: Yes.

17 MS. SWAFFAR: Yes.

18 MR. CHAPMAN: Yes.

19 MS. BAIRD: Yes.

20 DR. SEITZ: Yes.

21 MR. MORTENSEN: Yes.

22 CHAIR BEHAR: Chair votes yes.

1 MR. RICE: And that's 14 yes. The
2 motion passes.

3 MR. BRADMAN: So the next motion is to
4 add silver dihydrogen citrate at 205.605(b) as
5 petitioned. And I guess I'll make a motion to do
6 that and we need a second.

7 MR. CHAPMAN: The motion's there. It
8 comes from the subcommittee.

9 MR. BRADMAN: Okay.

10 MR. CHAPMAN: So it was made by me and
11 seconded by Lisa as well.

12 MR. BRADMAN: I have to get the points
13 of order in order. Okay. I guess we can go
14 ahead with the vote then.

15 MR. CHAPMAN: Just as a point of
16 discussion on this if we can I'm going to abstain
17 from this item just because I don't think
18 straight out adding it is appropriate. It would
19 be better with annotations, but I guess we're not
20 going to have the opportunity to annotate it.
21 I'll be abstaining from this.

22 CHAIR BEHAR: Any other discussion?

1 Okay, I think -- do we start with Scott?

2 MR. RICE: No.

3 MR. ELA: No.

4 MS. OAKLEY: No.

5 MR. BUIE: No.

6 MS. ROMERO-BRIONES: No.

7 MS. DE LIMA: No.

8 MR. GREENWOOD: No.

9 MS. SWAFFAR: No.

10 MR. CHAPMAN: Abstain.

11 MS. BAIRD: No.

12 DR. SEITZ: No.

13 MR. MORTENSEN: No.

14 MR. BRADMAN: As petitioned, no.

15 CHAIR BEHAR: Chair votes no.

16 MR. RICE: That's 13 no, 1 abstention.

17 The motion fails.

18 MR. BRADMAN: So I think our next item
19 for discussion is a proposal to add pullulan if
20 I'm pronouncing that correctly. Pullulan.

21 MR. RICE: I think we just need a
22 recording of it so anytime we need to say it we

1 just press a button.

2 MR. BRADMAN: Exactly. So Lisa, I
3 think you're the lead on that.

4 MS. DE LIMA: I'm the lucky person
5 that gets to say this multiple times.

6 So a petition has been submitted to
7 add pullulan to the National List at 205.605(a)
8 as an allowed non-agricultural non-synthetic
9 ingredient used in tablets and capsules for
10 dietary supplements labeled made with organic.

11 A petition was submitted to the OTA on
12 behalf of its National List Innovation Working
13 Group and the petition stated that the purpose of
14 the petition was twofold, to continue the
15 production and availability of USDA NOP certified
16 dietary supplements and to support the commercial
17 development of certified organic pullulan.

18 So for dietary supplements the capsule
19 is considered an ingredient and must either be
20 certified organic or made up of ingredients
21 compliant with NOP's National List.

22 Since the early two thousands

1 certifying agents have classified pullulan as
2 agricultural and it was allowed in encapsulated
3 dietary supplements.

4 And then once the NOP's classification
5 of materials guidance came out in 2016 certifying
6 agents came to a different decision, that
7 pullulan should be classified as a non-
8 agricultural and non-synthetic substance. So in
9 that instance pullulan would need to be on the
10 National List to be allowed to be used.

11 There are no other NOP compliant
12 vegetarian options available for producing an
13 organic encapsulated supplement.

14 Organic pullulan is not commercially
15 available in the United States. And according to
16 the petition Capsugel, the owner of the pullulan
17 patent in the U.S., is in the process of
18 developing organic pullulan. We heard the same
19 thing in public comment on Tuesday.

20 The only alternative practice for
21 supplements manufacturers would be to use
22 gelatin. Gelatin is listed on 205.606 of the

1 National List but this would be again problematic
2 for consumers looking for a vegetarian, kosher or
3 halal product.

4 Based on the information in the TR
5 pullulan appears to be of low risk to the
6 environment and human health both in its use and
7 its disposal.

8 And the TR also pointed out that
9 although pullulan is not allowed or included in
10 international standards that's because unlike in
11 the U.S. international standards don't consider
12 dietary supplement capsules to be an ingredient.

13 As far as public comment we've had two
14 public comment periods for pullulan. We received
15 a fair amount of public comment at the last
16 meeting in favor of listing, mostly from
17 manufacturers and some certifiers.

18 And then this time again we heard
19 support from manufacturers, certifiers and
20 interest groups in listing pullulan.

21 We did hear a couple of different
22 public comments asking that when we vote on the

1 material for the listing motion that we're
2 specific as to its use. When we voted it out of
3 subcommittee the listing motion was motion to add
4 pullulan as petitioned so after our discussion we
5 are going to make a motion to amend the
6 classification -- sorry, not classification. To
7 amend the listing motion with the specific
8 language that I don't have in front of me but
9 we'll get to that.

10 That is pretty much it. So I open it
11 up for questions and discussion.

12 MR. BRADMAN: Harriet and then Emily.
13 Harriet.

14 CHAIR BEHAR: This seems like a pretty
15 innocuous material. There is a demand for it and
16 I don't see a problem with it.

17 I do agree to have a clear annotation
18 on the vote.

19 MS. OAKLEY: Yes, I also just am eager
20 to see the organic form developed as soon as
21 possible.

22 MR. BRADMAN: Any more discussion or

1 comment? Tom.

2 CHAIR BEHAR: So first it's the
3 classification. Once we've done the discussion.

4 MR. CHAPMAN: Well, do I need to make
5 the amending motion?

6 CHAIR BEHAR: -- classified first.

7 MR. CHAPMAN: Okay, yes, all right.

8 The amending motion is what's on the screen.

9 There you go.

10 MR. BRADMAN: So we're ready to vote.

11 No more discussion. Okay. So let's first then

12 go ahead with the classification motion. And I

13 think we're ready to vote on that.

14 CHAIR BEHAR: Start with Steve.

15 MS. DE LIMA: Point of order. Are we

16 going to read the classification motion?

17 MR. CHAPMAN: Yes, please.

18 MS. DE LIMA: Okay.

19 MR. BRADMAN: Okay, thank you.

20 Everyone just tell me what to do and I'll do it.

21 Let's see. Classification motion. Motion to

22 classify pullulan. I can't read that. As a non-

1 agricultural and non-synthetic. And it's a
2 motion by Lisa. It's been seconded by Scott.

3 MR. ELA: Yes.

4 MS. OAKLEY: Yes.

5 MR. BUIE: Yes.

6 MS. ROMERO-BRIONES: Yes.

7 MS. DE LIMA: Yes.

8 MR. GREENWOOD: Yes.

9 MS. SWAFFAR: Yes.

10 MR. CHAPMAN: Yes.

11 MS. BAIRD: Yes.

12 DR. SEITZ: Yes.

13 MR. MORTENSEN: Yes.

14 MR. BRADMAN: Yes.

15 MR. RICE: Yes.

16 CHAIR BEHAR: Chair votes yes.

17 MR. RICE: That's 14 yes. The motion
18 passes. Excuse me, 14 yes, zero no. Motion
19 passes.

20 MR. BRADMAN: Okay. So now we'll do
21 the -- hopefully I'll get it right this time.

22 MR. CHAPMAN: So --

1 MR. BRADMAN: We have an amendment.

2 DR. LEWIS: And you want to read that
3 into the record.

4 MR. BRADMAN: Okay. So we want to
5 read into the record the amended --

6 MS. OAKLEY: Can I make -- or can Tom
7 make a motion first?

8 MR. CHAPMAN: Can I make a motion?
9 All right. I'm a little torn on this item
10 personally because I support pullulan, but not
11 pullulan. So I just don't know how I'm going to
12 vote on this. I'm joking, all right.

13 So there was some concern raised about
14 the way the motion was written so for sake of
15 clarity we're going to make a motion to amend the
16 listing motion.

17 So it already read motion to add
18 pullulan as petitioned at 205.605(a). And I move
19 to amend it to include the words for use only in
20 tablets and capsules for dietary supplements
21 labeled, parentheses, made with organic -- sorry,
22 quotation marks, made with organic, parentheses,

1 specified ingredients or food groups,
2 parentheses, parentheses, quotation marks.

3 MS. OAKLEY: Second.

4 CHAIR BEHAR: I'll second.

5 MR. BRADMAN: Okay. So shall we now
6 vote on the amendment?

7 CHAIR BEHAR: Well, maybe -- any
8 discussion?

9 MR. BRADMAN: I think someday I'll be
10 smooth at this. So any discussion related to
11 this amendment?

12 MR. RICE: I'm tempted to add to the
13 amendment that we include the phonetic
14 pronunciation of pullulan. But I'll hold off.

15 MR. CHAPMAN: I think that might be a
16 significant change.

17 MR. ELA: I think we should annotate
18 to change the name.

19 MS. OAKLEY: Just for clarification
20 was that a motion by Tom and a second by Ashley?
21 Okay, thank you.

22 CHAIR BEHAR: Oh, Ashley. Okay.

1 MR. RICE: I believe the voting starts
2 with Emily.

3 MS. OAKLEY: Yes.

4 MR. BUIE: Yes.

5 MS. ROMERO-BRIONES: Yes.

6 MS. DE LIMA: Yes.

7 MR. GREENWOOD: Yes.

8 MS. SWAFFAR: Yes.

9 MR. CHAPMAN: Yes.

10 MS. BAIRD: Yes.

11 DR. SEITZ: Yes.

12 MR. MORTENSEN: Yes.

13 MR. BRADMAN: Yes.

14 MR. RICE: Yes.

15 MR. ELA: Yes.

16 CHAIR BEHAR: Chair votes yes.

17 MR. RICE: That's 14 yes, zero no.

18 The motion passes.

19 CHAIR BEHAR: Now we're on collagen
20 gel.

21 MR. CHAPMAN: No, we still --

22 MR. BRADMAN: So, now we're going to

1 -- next step, last step, see if I can get this
2 right. We're now going to vote on the motion to
3 add pullulan as petitioned at 205.605(a) for use
4 only in tablets and capsules for dietary
5 supplement labeled made with organic specified
6 ingredients or food groups. Close parentheses.
7 The motion is by I guess myself.

8 MR. CHAPMAN: No, go to the next
9 slide.

10 MR. BRADMAN: Okay. Is it by Lisa.

11 MR. CHAPMAN: There you go.

12 MR. BRADMAN: So, we're going to vote
13 on the National List motion to add pullulan as
14 petitioned at 205.605(a). The motion by -- I can
15 stop there.

16 MS. OAKLEY: I think you need to
17 clarify, right, that the motion is by Lisa and
18 was seconded by Scott in the committee. Is that
19 correct?

20 MR. BRADMAN: I was just going to say
21 that, motion by Lisa and seconded by Scott. Am I
22 getting it right here? When I took this job I

1 wanted to be like a worker bee, not in charge of
2 anything.

3 MS. OAKLEY: I second that.

4 MR. RICE: The voting -- I guess
5 discussion.

6 MR. BRADMAN: So any discussion before
7 the final vote? I think we can move to the vote.

8 CHAIR BEHAR: We'll start with Jesse.

9 MR. BUIE: Yes.

10 MS. ROMERO-BRIONES: Yes.

11 MS. DE LIMA: Yes.

12 MR. GREENWOOD: Yes.

13 MS. SWAFFAR: Yes.

14 MR. CHAPMAN: Yes.

15 MS. BAIRD: Yes.

16 DR. SEITZ: Yes.

17 MR. MORTENSEN: Yes.

18 MR. BRADMAN: Yes.

19 MR. RICE: Yes.

20 MR. ELA: Yes.

21 MS. OAKLEY: Yes.

22 CHAIR BEHAR: Chair votes yes.

1 MR. RICE: The vote is 14 yes, zero
2 no. The motion passes.

3 MR. BRADMAN: So I think now we can
4 move on to collagen gel. So, I think this is
5 actually going to warrant quite a bit of
6 discussion.

7 So collagen gel has been petitioned by
8 Devro, Inc., to be added to 205.606 as a non-
9 organically produced agricultural product allowed
10 as ingredient in a processed product.

11 Basically this proposal is for a
12 collagen material to use as a substitute for
13 intestinal casings for -- I like this term --
14 enrobing sausage products and providing an
15 alternative to intestines.

16 There's -- it's primarily made of
17 collagen which is a protein derived primarily
18 from animal skins, but it can come from a number
19 of sources including mammals, fowl and also fish
20 and other sources although probably the most
21 common sources are warm-blooded animals.

22 There's also cellulose powder as an

1 ingredient here. When we were evaluating this as
2 a subcommittee we considered that to be more of
3 an ancillary material. But we can go into some
4 more discussion about that.

5 Some advantages of this material is
6 that it provides a mechanism to produce meats of
7 uniform animal products. So in other words it
8 allows for producing kosher and other sausage
9 products more efficiently and it basically
10 extends the market for organically produced
11 material.

12 Collagen itself is a protein. It's
13 basically structurally similar to the gelatin
14 that's already on the National List.

15 There's no real toxicity or other
16 issues associated with this material.

17 We had a lot of discussion on the
18 committee about whether we should classify this
19 as synthetic or not because of some of the
20 processing steps. And we decided to list it at
21 606 as non-synthetic because the primary core
22 material is derived from an agricultural product.

1 But that's something that we kind of struggled
2 with.

3 Also by placing it on 606 there's the
4 specification that -- a preference going forward
5 for organically sourced material.

6 If we -- I should mention too that the
7 subcommittee voted unanimously to list this
8 material.

9 There's been fairly extensive public
10 comment on it this time around. We had a very
11 brief discussion document published at the last
12 meeting. There was almost no comment on it at
13 that point.

14 And this time there's been some more
15 extensive comments primarily from membership
16 groups and others concerned about -- raising
17 concerns about what they consider a violation of
18 organic integrity.

19 Some of the main concerns are, one,
20 well perhaps cellulose should not be viewed as an
21 ancillary material here, that it's part of the
22 structure and that this shouldn't be under 606.

1 Perhaps more importantly and we kind
2 of touched on this in the review that we're
3 talking about using collagen gel derived from
4 animals that are potentially raised in CAFO or
5 other kind of industrial agricultural settings
6 and that as such this source material is tainted
7 by that source.

8 So that was a real concern in our
9 discussions and that's something that's been kind
10 of universally raised by public comments.

11 In general the public comments are not
12 in support of listing this because of the
13 concerns I just raised, and also -- and this is
14 something that's come up with celery powder and
15 other discussions that 606 can stifle production
16 of new organic crops. It kind of provides a
17 stopgap that can go on for years and therefore
18 prevent the development of organic source
19 material for a product like this.

20 I think in the committee we felt that
21 given that gelatin is already on the list and the
22 similarity of this material to existing materials

1 on the list in terms of gelatin and also
2 intestinal casings which may also come from
3 similar sources as the collagen gel, that kind of
4 the opportunity here to expand the market for
5 organic meat could therefore ultimately expand
6 access to organic product.

7 Also it's a processed material and if
8 we're talking about 95 percent organic and 5
9 percent not, or made with organic that this
10 material kind of fits into that category of the
11 small percentage of non-organic materials.

12 So I think there's some rich
13 discussion here and I don't think I really have
14 anything more to add in terms of the summary of
15 the material or public comments so I think we
16 should open it up for discussion at this point.
17 A-Dae.

18 MS. ROMERO-BRIONES: Yes, I just want
19 to note that we also have gelatin in the sunset
20 review and that we had similar discussions about
21 gelatin and collagen gel because they're
22 essentially -- one is just further cooked than

1 the other. So they're very similar.

2 MR. BRADMAN: Lisa and then Harriet.

3 MS. DE LIMA: I think it's another one
4 of those -- I mean, I don't like where the
5 material is sourced from, but then I think about
6 that sort of chicken and egg problem of like what
7 comes first. Do you wait for availability and is
8 that even realistic that we're going to end up
9 with an organic cellulose and then be able to
10 produce a certified organic meat product, or do
11 we allow this so that we can continue to build
12 the certified organic meat market and take more
13 of that share away from the CAFOs and then the
14 material comes next.

15 MR. BRADMAN: Just to clarify, the egg
16 came first. Harriet.

17 CHAIR BEHAR: So, on the webinar we
18 did speak with a manufacturer of collagen gel and
19 we asked about what are the barriers to producing
20 organic collagen gel.

21 And so I specifically asked can you
22 save up enough of the organic in order to then

1 have enough to do a production run.

2 And he said that while it does have a
3 long shelf life under refrigeration, about six
4 months, that still would probably not get enough
5 for them to do a production run.

6 And that if you freeze it you
7 basically lose the structure of the collagen gel
8 to have the technical effect that you want it to
9 have in the enrobing.

10 So I think though as we -- I was
11 actually somewhat positive in the fact that at
12 least there's a six-month refrigerated shelf
13 life. That's better than something like whey
14 which has eight hours.

15 MR. BRADMAN: Tom.

16 MR. CHAPMAN: I want to echo A-Dae's
17 comment that this collagen material is a
18 precursor to gelatin. So if -- all the concerns
19 raised in that regard also apply to gelatin on
20 this list, at least from animal products.

21 I agree that while very strict reading
22 of classification may place this material on 605

1 I think 606 is truly the right home for this.

2 It's clear that synthetic and non-
3 synthetic based on production techniques and raw
4 materials could potentially be certified organic
5 products even though our decision tree may place
6 them in synthetic. Glycerin is a classic example
7 of this, that depending on the form of production
8 it could be agricultural, it could be non-
9 synthetic, it could be synthetic. And then if
10 you use organic inputs that synthetic version
11 could potentially be certified organic. I know,
12 confusing, right?

13 So, you know, to encourage that at
14 some point we have organic gelatin or organic
15 collagen I think 606 is the right home for it.

16 I also -- I disagree strongly with the
17 argument that placing items on 606 dissuades the
18 -- or slows down the creation of an organic
19 industry that can support this.

20 Personally, I mean once you put
21 products out there and then you make organic
22 collagen gel the only people you have to go to is

1 to the certifiers. Let them know that you've got
2 organic collagen gel and all of their operations
3 when they do their commercial availability
4 assessment every year need to reach out to you
5 and you're going to charge whatever you want.
6 And it'll be great for a couple of years and then
7 competition will bring in other folks and it will
8 go back to how it was.

9 But we've seen that happen time and
10 time again with materials that have come off 606.
11 606 is a shrinking list. There's not much left
12 on it.

13 And then in some cases there are true
14 supply chain challenges as we saw with the celery
15 powder, and I think that's applicable to this
16 material as well.

17 So I support it because I don't know
18 how I can support gelatin and not support
19 collagen gel given that they're produced the same
20 way. And I think this is the first step in
21 growing, continuing to grow the organic meat
22 market and will be important to grow it to a

1 point that then maybe collagen gel could be
2 available from animal skins, organic animal skins
3 on a regular basis.

4 The other thing I just really quickly
5 want to point out is organic is value-added at
6 the farm which means it starts getting more
7 expensive at the farm. That's part of what makes
8 organic great because it allows farmers to have a
9 better livelihood.

10 But that also means that byproducts
11 produced further in the stream add
12 disproportionately to the costs of those products
13 to consumers. So products that have a higher
14 fraction of byproducts, cheese for example,
15 disproportionately become more expensive on the
16 shelf. And there is a financial decision that
17 consumers have to make on how expensive an
18 organic product they can actually afford.

19 So finding homes, value homes for
20 byproducts is very important. And so in the meat
21 industry finding homes for the scraps of meat
22 that can't be sold as full products is very

1 important to keeping that entire product valuable
2 while also maintaining that value-add addition at
3 the farm.

4 MR. BRADMAN: I just want to respond
5 to one thing and then we'll go to Dan.

6 Another point you make about the
7 comparison to celery and 606. There's a
8 difference here with the material used to source
9 for collagen gel is really a byproduct of another
10 industry, livestock industry. It's not being
11 produced for organic.

12 And I think that's one of the unique
13 issues with celery powder when we go forward.
14 Here we're actually using a conventional method
15 to produce a product for organic. So we're
16 actually using field space.

17 But separate from that I think this is
18 a little different from the celery powder. Dan
19 and then Sue.

20 DR. SEITZ: I'd like to preface my
21 comments first with a quote from Otto von
22 Bismarck who said law and sausage are two things

1 you do not want to see being made. To retain
2 respect for sausages and laws one must not watch
3 them in the making. The making of laws like the
4 making of sausages is not a pretty sight. And I
5 never dreamed I'd be involved in a regulatory
6 process on the making of sausages. But that's
7 beside the point.

8 So, I just have to say as a consumer
9 member I am torn on this for a couple of reasons.

10 One, the sourcing of the materials.
11 I mean, I would think a consumer buying sausages
12 would not dream that part of the substances that
13 are necessary for the making of those sausages
14 come from CAFO operations, come from operations
15 where there are use of excluded methods. So I
16 actually -- I feel that from a consumer
17 standpoint there's a real question on this.

18 I think also the question of whether
19 we speed up the growth of the organic industry is
20 an interesting philosophic one. At the beginning
21 it certainly was seen as a slow build happening
22 on the foundation of very reputable practices.

1 So it's not always necessarily a good
2 thing to speed up production if it means -- and
3 use and market share if you're using an approach
4 that has -- is suspect.

5 On the other hand good point that we
6 already approved gelatin.

7 And I just want to say from the
8 standpoint of my two boys who love sausages I see
9 -- actually I'm not going to go there.

10 But just to say I think there are
11 really some deep questions around whether it's
12 useful bringing in materials that are so suspect
13 in order to increase market share. So I'm not
14 sure yet how I'm going to vote on this.

15 MR. BRADMAN: Sue, Tom, Emily and
16 Steve.

17 MS. BAIRD: I agree with Tom that this
18 should be on 606. And I would point out that 606
19 actually says that you can only use it and you
20 have to do a commercial availability search
21 before you can use it, a non-organic form rather
22 than using organic form.

1 I think it's been fairly well
2 established that at the moment at least we don't
3 have a sufficient amount of organic form.

4 But by putting it on 606 you limit the
5 producer, final producer/processor to having to
6 do a commercial search.

7 I think instead of limiting a producer
8 from using it as non-organic it actually -- I've
9 seen in the past it actually builds that market
10 for organic because they have to go through the
11 process.

12 So I like the fact that it's going to
13 be moved to 606 other than the fact that I think
14 physiologically it needs to be there.

15 That's all. I just think putting it
16 on 606, they have to go through that commercial
17 availability search which inherently adds to the
18 restricting. We've seen that in the past.

19 The other point that I like that Tom
20 made was I am the executive director of Mid-
21 America Missouri Organic Association and in
22 Missouri, at least in our region we have a very

1 small but trying to grow organic meat producer
2 group.

3 And the one thing that stops those
4 producers from being certified organic instead of
5 just telling them it's grass-fed is the fact that
6 there's a real market for the steak or the pork
7 chop, but you can't ever get rid of the rest of
8 the product.

9 So by creating the ability through 606
10 that the processor has to try to find commercial
11 availability organic maybe we will help those
12 small producers to find a market for the
13 byproducts.

14 I like this. I'm totally in favor of
15 it.

16 MR. BRADMAN: Tom, Emily and then
17 Steve.

18 MR. CHAPMAN: I hear the concerns
19 about CAFO operations. I'm pretty certain that
20 this is not a make or break for the CAFO
21 industry, whether or not organic adds it doesn't
22 really impact them one way or the other.

1 But I guess I'd also be remiss in not
2 pointing out that this is not -- while this is
3 acute to this material here, you should also, you
4 know, if that's the concern to block this
5 material I think we should heavily look at adding
6 manure to 205.602 if it comes from a CAFO
7 operation because in farming practices manure is
8 widely used in farming as a source of nitrogen
9 and it can come from any sort of source. And
10 CAFO operations are a big source of that right
11 now.

12 So this is -- that concern is not
13 alone in a small additive used to find market
14 homes for meat products. It also goes all the
15 way back to the farm level for what I would
16 easily say is thousands and thousands of organic
17 farmers.

18 MR. BRADMAN: Emily.

19 MS. OAKLEY: That's true and we could
20 add many other materials to that, bone meal,
21 blood meal, et cetera.

22 But I don't think that precludes the

1 importance of discussing where these materials
2 come from. And I don't think that they may be
3 sourced. I think it's absolutely certain that
4 they are sourced from CAFOs.

5 I live in an area with a lot of CAFOs
6 and it's a real issue.

7 I would just say that I kind of echo
8 some of Dan's comments in terms of consumer
9 expectation. I think there's a slight difference
10 in a handling product from a crop product in that
11 we're talking about something in the actual food
12 ingredient that someone is eating.

13 That being said as a farmer seat even
14 though I don't produce livestock I also want to
15 see farmers have additional outlets for their
16 products. I find this to be a very conflicting
17 issue because you can't find like a very fine,
18 easy line to fall down on in terms of an ethical
19 choice.

20 I think that Lisa's comments were also
21 important in terms of growing the organic meat
22 industry and taking some of that market share

1 away from the CAFO industry.

2 But it is a very nuanced and
3 complicated issue. And the fact that we have
4 gelatin and other materials on the list that are
5 sourced from CAFOs doesn't take away the nuance
6 or complexity or difficulty in making a decision
7 on something like this.

8 MR. BRADMAN: Steve.

9 MR. ELA: I also -- I agree with all
10 that's been said. And we've talked about
11 gelatin. But I mean, our whole discussion on
12 casings which is the other holder -- what do you
13 call it, enrobement for sausage is the same deal.

14 So if sausages already are mostly
15 encompassed in a conventional animal byproduct.
16 Not that we like that. And I found that
17 discussion of supply chain of how you take a
18 somewhat perishable product, I mean collage
19 sounds less perishable but still perishable and
20 accumulate a critical mass in order to promote
21 the industry has come up with orange pulp and
22 various other things.

1 And that supply chain is very
2 compelling. It is difficult. I want to see it
3 change. I want to see it be different. But in
4 the interest of fairness across the board and
5 like I said because sausages are already --
6 people are eating sausages that way I don't see
7 this as a real change. So I'm going to be in
8 favor of it just for those reasons.

9 MR. BRADMAN: Is there any more
10 discussion? A little discussion about some of
11 the wording related to the petition and the
12 motion.

13 Harriet, in the meantime we're going
14 to go ahead with the classification.

15 DR. LEWIS: Just wait a moment. We'll
16 make sure it gets up on the screen. Thanks for
17 your patience.

18 CHAIR BEHAR: Okay, we can do the
19 classification.

20 MR. BRADMAN: Okay. Let's vote on the
21 classification motion.

22 DR. LEWIS: Can you read it into the

1 record?

2 MR. BRADMAN: Yes. The motion to
3 classify collagen gel as agricultural by myself
4 and seconded by Harriet.

5 DR. LEWIS: Thank you.

6 MR. BRADMAN: So I think at this point
7 we can vote. Is there any final discussion?

8 MR. RICE: Voting begins with A-Dae.

9 MS. ROMERO-BRIONES: Yes.

10 MR. RICE: This is classification
11 vote.

12 MS. DE LIMA: Yes.

13 MR. GREENWOOD: Yes.

14 MS. SWAFFAR: Yes.

15 MR. CHAPMAN: Yes.

16 MS. BAIRD: Yes.

17 DR. SEITZ: Yes.

18 MR. MORTENSEN: Yes.

19 MR. BRADMAN: Yes.

20 MR. RICE: Yes.

21 MR. ELA: Yes.

22 MS. OAKLEY: Yes.

1 MR. BUIE: Yes.

2 CHAIR BEHAR: Chair votes yes.

3 MR. RICE: That's 14 yes, zero no.

4 The motion passes.

5 MR. BRADMAN: So now we're going to
6 vote on the motion to add collagen gel. So
7 there's a slight wording change in the motion.
8 Do we need to vote on that change? Okay. I'm
9 starting to get this.

10 So we made a slight change to the
11 motion to address specifically enrobement of meat
12 products -- I don't think we want meat products
13 that are disrobed. So we have a National List --
14 I shouldn't have said that -- a National List
15 motion to add collagen gel for enrobement of meat
16 products.

17 DR. TUCKER: Just remember transcripts
18 are forever.

19 MR. CHAPMAN: Pullulan.

20 MR. BRADMAN: This is embarrassing.

21 MR. RICE: We can pause for a moment.

22 (Simultaneous speaking)

1 MR. BRADMAN: Like a casing. I'm
2 going to be remembered for this -- at 205.606.
3 And Harriet.

4 CHAIR BEHAR: Yes, so we just felt
5 that -- Steve and I were talking, that the
6 previous one instead of as petitioned, we want to
7 know -- tell the program.

8 And this is what we pulled from the
9 petition. So I just want to make sure that
10 you're happy like that. Like a casing was what
11 the petition asked for and what was in the
12 proposal.

13 MR. BRADMAN: Yes.

14 CHAIR BEHAR: So it actually did say
15 sausage, but I think it could be used for hot
16 dogs. And I didn't -- so I said of meat
17 products. So I want everyone to be happy with
18 that and we want to have a discussion. I'll make
19 the motion to update this and then we can get a
20 second and then we can discuss it.

21 MS. OAKLEY: I'll second.

22 MR. BRADMAN: Tom.

1 MR. CHAPMAN: I guess I'm just curious
2 why we need this annotation. What's the concern?

3 MR. BRADMAN: Harriet, do you want to
4 comment on that? I guess this was the language
5 that was in the petition.

6 CHAIR BEHAR: This is what the
7 petition asked for. I guess are we -- this is
8 what we've talked about. I don't know if
9 collagen gel would be added to other products or
10 not, but we're talking about it and it was
11 reviewed for this reason. So I guess without
12 this if it's just collagen gel then we would be
13 approving it as an ingredient in other foods I
14 would imagine if someone came up with that. But
15 this is all we've reviewed it for.

16 MR. BRADMAN: Emily.

17 MS. OAKLEY: So just a question. If
18 we write as petitioned isn't that sufficient?
19 Because isn't that -- I mean not to belabor the
20 point. Going forward in all proposals should we
21 be very clear and not say as petitioned but list
22 the specific reason that it was petitioned?

1 MR. BRADMAN: Harriet.

2 CHAIR BEHAR: Yes. And we just did
3 that with a previous item.

4 I think it's better for us to be clear
5 about what we are voting on rather than having
6 the program consider it later what were they
7 thinking of.

8 DR. LEWIS: I want to add to that. I
9 think it really helps in terms of the clarity
10 that you can provide in terms of the review and
11 also looking at what the petition is actually
12 asking for would help us to review your work and
13 to take appropriate rulemaking steps.

14 MR. BRADMAN: Clarissa, do you want to
15 add something?

16 DR. MATHEWS: Thank you. Just to
17 clarify, the petition does have a rather lengthy
18 description of intended activities and uses. And
19 perhaps that's why the subcommittee had listed it
20 that way as petitioned.

21 MR. BRADMAN: That is why. Tom.

22 MR. CHAPMAN: I mean, I guess I'm fine

1 voting for this. I will vote for this if this is
2 what needs to get support to put it on here.

3 But I find this very different and a
4 significant difference from what happened with
5 the pullulan petition.

6 The pullulan petition in the actual
7 item they were petitioning asked for it to be
8 restricted that way. In the petition which I
9 have in front of me item A1, Devro, Inc., is
10 petitioning the inclusion of collagen gel in
11 section 7 CFR 606 non-organically produced
12 agricultural products allowed as ingredients in
13 processed products and labeled as organic.

14 There's nothing in there restricting
15 it to this application. I know that's the
16 majority usage of this application and this is
17 what we've majority reviewed. And if we had a
18 reason why we wanted to specifically restrict it
19 to this application I think that's fine and
20 that's something we should have done, but we
21 should have also allowed the public an
22 opportunity to comment on that as opposed to just

1 doing this here at this meeting.

2 That was there in and throughout the
3 entire conversation of the pullulan one. I hope
4 I'm saying that right. That was not here with
5 this one. And so I see these as being very
6 distinct.

7 If that was necessary for us to list
8 this then I was fine with that -- fine with that.
9 I don't know of any collagen uses at 5 percent or
10 less of a product that are out there besides meat
11 products. I mean, I know it's used as a
12 supplement but that's like the supplement. So
13 it's 100 percent or 90 percent plus of that
14 product. So a listing on 606 isn't going to help
15 those people.

16 I generally wouldn't be opposed to
17 this, but I just don't like the process by which
18 we're adding this in here on this item.

19 MR. BRADMAN: Harriet.

20 CHAIR BEHAR: Well, when Asa
21 introduced it to us this is the way he introduced
22 it. So I was just trying to have the clarity.

1 And I put it up there and I said well,
2 we need to -- we're discussing it. If we want to
3 remove the rest of it.

4 I just didn't want it to say as
5 petitioned because I felt that that was not clear
6 to the program what we were getting at. And then
7 they would have to go searching through the
8 petition and see what did we actually vote for.

9 So I'm opening this up to -- if we
10 want to remove the enrobement part and vote on
11 that I'm okay with that. But I really don't like
12 the as petitioned because I don't think that's
13 clear enough for the program. And for us to say
14 this is what we're voting for.

15 MR. BRADMAN: Clarissa, you wanted to
16 add something?

17 DR. MATHEWS: Yes. In section B of
18 the petition number four, intended activities and
19 application rate the petition states collagen
20 casings and gels are GRAS for use in sausages and
21 meat products.

22 For Devro's purposes the collagen gel

1 will function as a coating casing in sausages,
2 hot dogs and other meat products manufactured
3 using coextrusion production systems. Casing
4 coatings are vital to holding the form of the
5 meat product.

6 MR. BRADMAN: Right. I mean, this
7 discussion that's going on, the reason why I used
8 the word as petitioned because I assume that by
9 reference brings in the specific language of the
10 petition.

11 And in terms of clarity to the program
12 I think that clarity depends on the content of
13 the petition.

14 I do understand the petition to focus
15 on this use. So I'm kind of weighing it. I
16 don't see the conflict quite as strongly perhaps
17 as Tom does, but is this something that we would
18 vote on as a group, this change, or -- Emily, you
19 want to comment?

20 MS. OAKLEY: This is a question for
21 Clarissa or the program as to what is most useful
22 for them. Whoever wants to answer that. If we

1 were to say as petitioned or the new language.

2 DR. MATHEWS: I think given that
3 section four intended activities and applications
4 is pretty clear either way would be fine. I
5 think program would be fine with the original
6 language in the motion that was shown originally.

7 MR. BRADMAN: Harriet.

8 CHAIR BEHAR: I'm not sure what the
9 program would do in the actual listing when it
10 goes on the National List. Would you write as
11 petitioned? Or would you come up with wording?

12 DR. TUCKER: Remember for anything
13 that's petitioned it would go through a proposed
14 rule process. The proposed rule would have the
15 specific language that would be proposed for
16 addition to the National List.

17 Then that would be opened for public
18 comment meaning that they could also comment on
19 that particular language.

20 So it depends a little bit in this
21 discussion on how specific you want to signal the
22 program to make the proposed rule or whether

1 you're kind of leaving it to us to pull out of
2 the petition for the proposed rule what you want
3 in it. I would personally vote for more
4 specificity myself.

5 MR. BRADMAN: Okay. Dan and then Tom.

6 DR. SEITZ: I like the greater
7 specificity here. I think the shorthand in the
8 wording reflects what the petition says.

9 As petitioned means you have to go
10 find the petition. People won't always
11 necessarily even easily find the thing that is
12 being referenced.

13 And also if we don't have anything
14 like as petitioned or our shorthand understanding
15 of that as expressed in this wording then we
16 potentially leave this open for uses that this
17 group had never even had a chance to really
18 discuss.

19 MR. BRADMAN: Tom.

20 MR. CHAPMAN: I think the answer to
21 the question that Harriet posed, they wouldn't
22 put as petitioned on the National List. They

1 would just put collagen gel. And so it is what
2 Dan says, it's that last point, that it would
3 just be on 606 as collagen gel like the other
4 thousands and thousands of materials that appear
5 on the National List without an annotation.

6 Dan's point is the accurate one that
7 without the annotation then it's potentially open
8 to all uses. This annotation limits it to meat.

9 I don't particularly have a problem
10 with that. I have a problem with us not opening
11 it up to the public.

12 MR. BRADMAN: Emily.

13 MS. OAKLEY: But do you think the
14 public understood from the petition and from the
15 proposal that that was the intended use?

16 MR. CHAPMAN: That was clearly the
17 majority of the reason why this -- that was the
18 reason why this item was petitioned by Devro and
19 that's how it's used I think in this application
20 that we reviewed.

21 It doesn't mean that's the only
22 application. There are dozens and dozens of

1 examples of items that get petitioned to the
2 National List by a single interested party that
3 once it's on that list can be used in other
4 applications.

5 So someone who petitions for citric
6 acid might be using it for acidification, and the
7 next person might use it for -- ascorbic acid,
8 might use it for acidification. The next person
9 might use it for fortification. And we may have
10 looked at primarily on the acidification route,
11 not fortification. But if it's okay for use,
12 it's okay for use unless we as a board thought
13 about it and wanted to restrict it to a certain
14 item.

15 But that thinking about it and wanting
16 to restrict it, that should be part of the public
17 process.

18 DR. LEWIS: Tom, based on your review
19 of the public comments that have come in was
20 there an understanding in terms of this
21 description here?

22 MR. CHAPMAN: The conversation was all

1 about meat. So yes, in that sense it's all about
2 meat.

3 But that also wasn't open to have a
4 conversation about other applicable uses. So you
5 know, it's like in the absence of bringing
6 something up was it discussed. I don't know. I
7 don't know if the public had an opportunity to
8 look at it in other contexts because they didn't
9 know we were going to propose restricting it to
10 just meat.

11 MR. BRADMAN: Emily, then Harriet.

12 MS. OAKLEY: I think that because the
13 motion was as petitioned they would then go back
14 to the petition and they would see the reasons
15 and the uses that Clarissa just read which
16 clearly states that limitation.

17 So I don't think that there was any
18 confusion in the public comments as to other
19 wider uses that this might be allowed for.

20 MR. CHAPMAN: But I disagree with
21 that. As petitioned, it was petitioned for a
22 straight usage. It was not petitioned for that.

1 That was an intended use for this petitioner.

2 That's not how they petitioned the item.

3 MR. BRADMAN: Harriet.

4 CHAIR BEHAR: Well, I'm not sure that
5 I necessarily agree with that. I think that's
6 what they wanted this to be used for. And this
7 is all we discussed it for.

8 So I guess I would feel better if we
9 were going to just add collagen gel, if that's
10 what we wanted to do, I feel like it should go
11 back to subcommittee and we should look at other
12 uses.

13 Because this is what we looked at.
14 This is all we discussed for it. We didn't look
15 at it for other uses. So I'm uncomfortable just
16 putting it on the National List for possible
17 other uses. This is what we discussed.

18 So if we want to send it back and have
19 it open to the public again for possible other
20 uses.

21 And I disagree. On other products we
22 do know what the various uses of it. So citric

1 acid, we know the many uses of it before we had
2 decided to put it on the National List.

3 MR. BRADMAN: Tom.

4 MR. CHAPMAN: I mean, if that's the
5 case why do we get public comment every sunset
6 round about how we added an item and didn't think
7 about other uses for it.

8 We talk about firming agents for tofu
9 that can be used in other applications and we get
10 asked why we didn't restrict it further. This is
11 numerous, numerous times this has come up again
12 and again.

13 MR. BRADMAN: So, I guess I want to
14 see a way forward here. Steve, why don't you --
15 you have your comment. Let's talk about a way
16 forward.

17 MR. ELA: So Tom, I agree with what
18 you're saying as a point of process in general.
19 I 100 percent agree. I feel like I'm comfortable
20 with this because this is as it was petitioned,
21 as it was described in the petition, but I think
22 in the future your point is I think we as

1 subcommittees need to be very clear as we put
2 things forward for discussion to avoid this kind
3 of error. We're bogged down.

4 My personal feeling is that we should
5 vote on it. People can vote their conscience
6 either way and that's how we move forward.

7 MR. BRADMAN: So I just want to say
8 too I think process is important and the issues
9 that Tom is raising is important.

10 If we vote on it as it's written here
11 which I think does reflect the petition use it
12 doesn't preclude someone in the future
13 petitioning for another use. And maybe we can
14 deal with that at that time.

15 Given our workload, our time today,
16 our time going forward I think -- I do see as a
17 way forward to perhaps deal with the narrowing
18 here. But I think your points are well taken and
19 going forward we should think about that. Tom.

20 MR. CHAPMAN: For the most part it's
21 a question of process for me. I mean, like I
22 said I could be perfectly fine with this. I just

1 don't think we gave people the opportunity for
2 it.

3 The one inconsistency I would want to
4 put out, the one that I would want input from the
5 public from is when we look at the casings
6 listing which was very similar product from
7 similar origins we don't have the similar
8 restriction on it. So why would we restrict it
9 on this material and not on the casings material.

10 MR. BRADMAN: Harriet, then Emily.

11 CHAIR BEHAR: So I think we need to be
12 clear. I really don't like the word as
13 petitioned. Because this could be what the NOP
14 had come up with as an annotation if they would
15 have looked at it. We don't know. So that's
16 what I'm -- I really want to remove the as
17 petitioned word for what we're passing so we're
18 really clear about what we -- and for me I feel
19 like this is all we really talked about.

20 MR. CHAPMAN: Can I ask a question
21 then? Would you support an amendment that just
22 strikes the words as petitioned?

1 CHAIR BEHAR: I'm a little bit
2 uncomfortable because we never talked about other
3 uses. But you're correct that that's all that's
4 been asked for at this time.

5 Maybe at sunset the next time we can
6 look at it again and see if there's been other
7 uses or not that we don't like.

8 MR. CHAPMAN: But you can't look at it
9 at sunset because you don't review annotations at
10 sunset. So once we list it that's how it is.
11 And there's not going to be other uses in organic
12 production because we're restricting it here.

13 MR. BRADMAN: Unless it was re-
14 petitioned.

15 MR. CHAPMAN: Unless it was re-
16 petitioned.

17 MR. BRADMAN: Emily.

18 DR. LEWIS: So, a couple of things
19 here. What we're doing -- I appreciate, Tom,
20 what you're bringing up in terms of did the
21 public have an opportunity to kind of be aware of
22 the scope.

1 I think also what is happening here,
2 and again we always like to have clarity to help
3 us, the program, with the work.

4 If we're now going to be looking at
5 the motions in the future instead of using the
6 word as petitioned if we're going to be providing
7 greater clarity that's a whole new precedent in
8 terms of how the board is going to be doing some
9 of its work.

10 So, I want you to be thinking about
11 it. We might want to also pause in terms of this
12 action if we can at least kind of caucus during a
13 break and talk about how best we want to pursue
14 that and then come back and discuss this further.

15 MR. BRADMAN: I think I'll defer to
16 the chair on that decision.

17 CHAIR BEHAR: I think maybe we could
18 put it to later on today and come back to it.

19 MR. CHAPMAN: I move to table this to
20 deferred items.

21 CHAIR BEHAR: I'll second.

22 MR. BRADMAN: Do we need to vote on

1 that?

2 MR. CHAPMAN: Or you could ask for
3 acclimation. You can ask for unanimous consent.
4 Does anyone object via unanimous consent?

5 MR. BRADMAN: Does anyone object to
6 deferring -- just to defer discussion on this?
7 No objections.

8 So I think that then moves us into the
9 sunset review discussions. Are those up on the
10 screen? Yes, okay.

11 So we're going to start with citric
12 acid. And I think Lisa, you're on tap for that.

13 MS. DE LIMA: So citric acid is
14 produced through a fermentation --

15 MR. BRADMAN: Am I missing something,
16 Harriet? No, okay. You're on.

17 CHAIR BEHAR: Should we take a break
18 before we start the sunsets? I'm seeing some
19 yeses. Okay. So it is 10:25. Let's do a 10-
20 minute. We're back at 10:35.

21 (Whereupon, the above-entitled matter
22 went off the record at 10:26 a.m. and resumed at

1 10:47 a.m.)

2 CHAIR BEHAR: Okay, I'm going to call
3 on Jenny Tucker.

4 DR. TUCKER: Welcome back, everybody.
5 A quick statement on the discussion which I
6 thought was fruitful right before the break.

7 I wanted to just on a broader scale
8 talk about just briefly substantive changes. And
9 so the public comment process to board proposals
10 and discussion comments is very important in
11 informing how the board votes at this meeting.

12 If the comments or if the board
13 discussion ends up yielding some kind of proposed
14 modification to a listing that would change how
15 the public would have commented on it that's
16 considered a substantive change.

17 So what we have to weigh is, okay,
18 here's what the public got to look at. Here's
19 what the board is now thinking based on what the
20 public looked at.

21 If that change is substantive meaning
22 it might have led to different comments or

1 constrains the public in some way that the public
2 didn't have an opportunity to comment on that
3 would be considered a substantive change and we
4 would send it generally back to subcommittee.

5 So while non-substantive changes can
6 happen in this setting substantive changes that
7 the public didn't have a chance to weigh in on
8 would be problematic.

9 We haven't had that kind of refresher
10 on what substantive change means in a little bit
11 so I thought it was worthwhile to open this
12 session with that.

13 CHAIR BEHAR: Okay, we're back to Asa
14 and the sunset materials.

15 MR. BRADMAN: Okay. So, and that puts
16 us then back with Lisa and citric acid.

17 MS. DE LIMA: So, citric acid is
18 produced through fermentation and is widely used
19 in food processing.

20 According to public comment we got
21 this first round it's used to control pH as an
22 acidulant, a buffer used in gel formation, it's

1 used to stabilize colors as an ingredient in
2 dietary supplements.

3 In the organic produce sector it's
4 widely used in the formulation of disinfectants
5 and sanitizers, allowed for use in direct contact
6 with organic food without the need to rinse which
7 is a practice that's essential for complying with
8 FSMA requirements.

9 It's also used for controlling pH in
10 wash water used for post-harvest handling of
11 fresh fruits and vegetables. And neutralizing
12 the pH of wash water further reduces the amount
13 of chlorine that needs to be added to the water
14 in order to achieve the desired levels of free
15 chlorine.

16 So two commenters believed that citric
17 acid should be classified as synthetic unless
18 it's possible to define non-synthetic citric acid
19 by annotation. And no new information was
20 brought forward in terms of harm to human health
21 or the environment.

22 The rest of public comment was

1 overwhelmingly supportive. Questions or
2 discussion?

3 MR. BRADMAN: No discussion? Okay.

4 I guess then we can move on to lactic acid which
5 is also in your court.

6 MS. DE LIMA: So, lactic acid
7 originally isolated from sour milk. Lactic acid
8 today is produced through carbohydrate
9 fermentation.

10 Uses from public comment included as
11 an acidulant, flavor enhancer, buffer,
12 coagulating agent, pH control agent, carcass wash
13 and as a processing aid in conjunction with
14 celery powder.

15 In the organic produce sector it's
16 widely used in the formulation similar to citric
17 acid, formulation of disinfectants and sanitizers
18 allowed for use in direct contact with organic
19 food without a need for rinse.

20 And same concern from two commenters
21 that believed that lactic acid should be
22 classified as synthetic. And no new information

1 was brought forward in terms of human health or
2 environmental concerns.

3 MR. BRADMAN: Any comments? Harriet.

4 CHAIR BEHAR: I guess just -- I've
5 seen this used as a wash on meat products to
6 mitigate E. coli. I think there's some
7 inconsistency and somebody brought this up in
8 public comment with sanitizers that if the use of
9 that product makes it not 100 percent organic any
10 longer.

11 And I think some are saying yes and
12 some are saying no. So I'm just putting it out
13 there that there's an issue with the 100 percent
14 label and the use.

15 It doesn't affect re-listing this
16 product, but I just wanted to have it on the
17 record.

18 MR. BRADMAN: Emily.

19 MS. OAKLEY: Isn't that a question for
20 the program then in terms of helping certifiers
21 get clarity on how to interpret that?

22 DR. LEWIS: I think it's fine the way

1 it's moving forward. It's fine the way it's
2 moving forward. No further comment on that.

3 CHAIR BEHAR: No comment from the
4 program.

5 DR. LEWIS: It's fine the way it's
6 moving forward.

7 MR. BRADMAN: Any other comments from
8 the board? No? Okay. I think then we can move
9 on to calcium chloride which, Tom, is in your
10 court.

11 MR. CHAPMAN: So calcium chloride is
12 used in a wide variety of food processing
13 applications. And the ones that we knew of going
14 into this was use as a firming agent in tofu, cut
15 fruit and canning applications, as a sodium
16 replacement to adjust mineral content in water
17 for brewing applications as well as a nutritional
18 electrolyte application.

19 In addition to that we received public
20 comment from trade associations, certifiers and
21 manufacturers who use this substance who also
22 noted its use as a buffering agent in fruit

1 preps, in cheese-making, in olive packing, in
2 dairy analogs, as a disinfectant when used in
3 conjunction with chloride to mitigate effects on
4 plant tissues from chlorine or chlorides, and
5 then also as a tool in mitigating acrylamide in
6 I'm assuming baked applications.

7 We did receive a comment questioning
8 the purity of calcium chloride given that the --
9 what the commenter said was 6 percent impurities
10 are allowed in food grade materials that they
11 researched.

12 I pulled up the USP FCC monograph for
13 this or what I could find of the monograph. It's
14 actually up to 7 percent impurities.

15 However, the commenter didn't provide
16 any context for why 6 percent was considered an
17 inappropriate level of impurities. And given
18 that the FCC has a monograph that sets it
19 actually at 7 percent it's a strange range of 93
20 to 100.5 percent. So I don't know how you get to
21 105 percent. I imagine that's a testing thing.

22 But that was the totality of the

1 public comment. I didn't really hear much in
2 terms of requests to remove this item, just
3 really investigating what was meant by those
4 impurities.

5 MR. BRADMAN: Any discussion on
6 calcium chloride? Harriet.

7 CHAIR BEHAR: It's used heavily in the
8 cheese industry.

9 MR. CHAPMAN: Yes, I mentioned cheese.
10 Yes.

11 MR. BRADMAN: Any other comments? I
12 think then we can move on to dairy cultures. And
13 Steve, I think you're onboard for that.

14 MR. ELA: I think Tom was going to do
15 it he said.

16 Dairy cultures, pretty universal, used
17 a lot. Most of the public comments supported re-
18 listing. It's pretty straightforward.

19 There was one comment that dairy
20 cultures especially as a liquid product might
21 contain preservatives such as sodium benzoate
22 that should be reviewed as ancillary substances.

1 That was something to pay attention to.

2 And also the Food Additives Council
3 submitted a number of ancillary substances that
4 should be added to the list that I showed in the
5 document and for the fall I will merge those in
6 so that that includes the public comments that
7 were given to us.

8 Otherwise pretty much universal
9 support.

10 One of the questions that keeps coming
11 up is whether dairy culture listing is redundant,
12 whether it should be combined with the
13 microorganism listing.

14 Again, all the comments at this point
15 said yes, they really are kind of one and the
16 same. The ancillary substances are the same.

17 I think Stonyfield noted that during
18 previous comment periods we've urged the NOSB to
19 retain dairy cultures as a separate listing.
20 This was in large part because at the time the
21 NOSB was just beginning to have a more thorough
22 review of ancillary substances and we had some

1 questions about whether this would affect the
2 listing for dairy cultures.

3 We can now see that the discussion
4 document for the two materials are the same and
5 the ancillary substances are the same and that
6 they would support -- now that there's more
7 clarity on that point they would not object to
8 combining the two listings.

9 So, and if you'll notice the writeups
10 are very similar. So with that I think that is a
11 very quick review of dairy cultures. Questions?

12 MR. BRADMAN: Lisa.

13 MS. DE LIMA: Just want to point out
14 that Organic Valley did -- wasn't in agreement,
15 but they didn't give a reason why. They said
16 retain them separately, but there was no reason
17 so we'd have to maybe just look into that as a
18 subcommittee.

19 MR. ELA: Thanks.

20 MR. BRADMAN: Harriet.

21 CHAIR BEHAR: This material has been
22 on the National List since the very beginning.

1 And so that's probably why there's a little bit
2 of concern between manufacturers of -- because
3 when it was put on it didn't go through the same
4 vetting that it does now.

5 MR. BRADMAN: Any other comments from
6 the board? I think we can move on to enzymes.

7 MR. ELA: Okay. Let me find my notes
8 here. All right. Similarly enzymes are widely
9 used. Most of the comments support re-listing.

10 However, there was one comment that
11 the review of enzymes as a class even with a few
12 specific representatives is insufficient to
13 address classification and all the OFPA criteria.

14 The classification of all commercial
15 enzymes as non-synthetic is questionable given
16 that the TR notes that chemical changes involving
17 reactions with synthetic chemicals are sometimes
18 involved in the manufacture, extraction, or
19 purification.

20 So the comment was enzymes should be
21 classified as synthetic unless annotated to
22 define those that have not undergone synthetic

1 changes.

2 Other comments, again, ancillary
3 substances. The Food Additives Council did
4 provide a few other ancillary substances to add
5 which just like in dairy cultures I will add in
6 for the fall review. Otherwise fairly
7 straightforward although I guess the question of
8 synthetic/non-synthetic is a big one but that
9 it's annotated as it is now and we would have to
10 add that as a separate work agenda item to
11 separate all those things out.

12 MR. BRADMAN: Harriet.

13 CHAIR BEHAR: As with dairy cultures
14 and microorganisms as well the certifiers do
15 review that they are not from the product of
16 genetic engineering. Just so people know.

17 MR. BRADMAN: Any other comments from
18 the board? Okay, I think then we can move onto
19 L-Malic acid with Scott.

20 MR. RICE: Thanks. L-Malic acid at
21 205.605. There are two forms of Malic acid, D-
22 Malic and L-Malic. D-Malic acid is not approved

1 on the National List because a non-synthetic
2 viable alternative is not available.

3 L-Malic is used as a flavor enhancer,
4 flavoring agent and adjuvant and is a pH control
5 agent in a variety of foods to inhibit bacterial
6 growth.

7 Its natural form occurs in fruit such
8 as apples and cherries produced by the
9 fermentation of fumaric acid. Fumaric acid can
10 be produced by fermentation from glucose.

11 We did get a significant comment on
12 this. I should first add we do have an updated
13 TR that's been received. That was received on
14 March 20th and we've not had an opportunity to
15 review that. We'll certainly be doing that as
16 part of the process before fall.

17 And a number of certifiers noted this
18 on OSPs, their certified operations, several
19 certifiers encouraged the NOSB to consider
20 reclassifying as synthetic and moving it to
21 605(b) noting that while there have been non-
22 synthetic versions available in the past it's

1 unlikely that there are commercially available
2 non-synthetic sources of this material now.

3 Most if not all of those commercially
4 available sources are produced with petroleum as
5 the starting material. And even when supporting
6 documentation for L-Malic has stated produced
7 naturally via enzymatic fermentation certifiers
8 have seen that that refers to only the second
9 half of the process.

10 Applying the materials guidance to the
11 full production would result in classifying it as
12 a synthetic.

13 In the short term certifiers noted
14 that they have been verifying for L-Malic acid
15 looking at the big three compliance, that it is
16 L-Malic acid and not DL or D and that it is the
17 form with the same CAS number as identified on
18 the National List.

19 A couple of organizations oppose re-
20 listing because the principal document initially
21 supporting is a TAP of DL-Malic, the synthetic
22 form. But again we've got an updated TR that

1 we'll be reviewing as part of the sunset review
2 of this.

3 Any questions?

4 MR. BRADMAN: Any comments from the
5 board? Harriet.

6 CHAIR BEHAR: Will the Handling
7 Subcommittee be looking to put this on their work
8 agenda to see about moving it to a different --
9 has there been any discussion?

10 MR. RICE: I don't think we've had to
11 my recollection discussion on that particularly
12 yet, but we will be reviewing the TR so I'm sure
13 that would be something that we'd consider.

14 MR. BRADMAN: I think we can move onto
15 magnesium sulfate also in Scott's court.

16 MR. RICE: Thank you. Magnesium
17 sulfate has a wide variety of uses in food
18 processing and personal care products, used as a
19 firming agent in the production of tofu,
20 sometimes combined with other coagulators in the
21 production of tofu.

22 It is manufactured from several

1 mineral forms recovered from the ground generally
2 found in nature in the hydrated form. Excuse me,
3 I have my notes in two places here.

4 This is another that we've got a new
5 TR that was received in April. We seem to have
6 all the new TRs landing on these. And that
7 review will be forthcoming.

8 There were a few certifiers reporting
9 and others reporting this material in their
10 system plans.

11 Two companies weighed in on the
12 importance of it to their operations. One
13 organization noted that the material should be
14 reclassified as synthetic as the last TR
15 indicated the purification and dehydration
16 processes deem it synthetic.

17 So again, to Harriet's question before
18 I think we would be certainly looking at topics
19 like that as we dive into the TR that we've just
20 received.

21 MR. BRADMAN: Any comments from the
22 board? I think we can then move onto

1 microorganisms and Steve, that's in your court.

2 MR. ELA: I get all the little bugs
3 this time. Incorrect use of bugs but anyhow.

4 So microorganisms, again similar to
5 dairy cultures. Broader class. One public
6 comment that we need a clear definition of the
7 term microorganism. The definition is critical
8 for microorganisms in use currently and can be
9 used to determine whether additional organisms
10 such as unicellular algae should be considered
11 microorganisms. So obviously microorganisms is a
12 very broad class.

13 There are also some lack of clarity
14 perhaps of whether other products that are made
15 from microorganisms or with the assistance of
16 microorganisms, and we certainly -- I guess
17 fermentation is mostly yeast, but it's not clear
18 whether the listing is intended to cover them.

19 These include nutritional uses,
20 spirulina, both cultural microorganisms that are
21 no longer living. So just trying to tighten up
22 that listing a little bit perhaps.

1 And then if the listing is intended to
2 cover the group of killed microbial products then
3 the evaluation should include algae as well as
4 other organisms addressed in the TR.

5 Otherwise pretty broad support. Again
6 the ancillary substances that I mentioned as part
7 of dairy cultures are the same for microorganisms
8 and I'll add that into the chart for
9 microorganisms.

10 Otherwise widely used, broad support,
11 but just with a few details in exactly what we
12 mean by them.

13 MR. BRADMAN: Any comments from the
14 board on microorganisms?

15 MR. ELA: Can I ask a question? This
16 is not my particular specialty and I guess I'd
17 look -- as we take this back to subcommittee are
18 those comments about the needing to define
19 microorganisms a little more, how far down that
20 path do we want to go? I guess I'd appreciate
21 feedback from the broader board besides just the
22 subcommittee. Anybody have any thoughts on that?

1 Fair enough.

2 MR. MORTENSEN: Steve, I just had a
3 thought that I was pondering when I was reading
4 this the other night. Certainly there are all
5 sorts of cultures where transformed organisms are
6 being used in a variety of many different ways,
7 not necessarily in organic. I'm not saying that.

8 I just wonder if there needs to be
9 greater specificity with respect to excluded
10 means by which a microbial community that's in a
11 culture has come about. Is that something that
12 was discussed or should be?

13 MR. ELA: It was not discussed in
14 public comments. I mean, the de facto is it's
15 organic. It's used in organic production systems
16 so no, it can't be. And I would hope -- I mean I
17 guess I would leave that to the certifiers'
18 response on that of probably checking for that.

19 When I hear from the board there's not
20 a lot of stomach for this in defining things more
21 carefully, I mean that's another work agenda item
22 as well. We'll probably kind of go forward as is

1 unless anybody sees any major problems with that.

2 MR. BRADMAN: Emily.

3 MS. OAKLEY: I really feel like not
4 being on the Handling Subcommittee it's hard for
5 me to comment because I'm not doing that work.
6 So I feel like it in large measure is something
7 that that subcommittee has to determine.

8 MR. BRADMAN: Rick.

9 MR. GREENWOOD: I think it probably is
10 worth taking a look because of the things that
11 are in that. I notice there's bacteriophage in
12 there and there's other kinds of microorganisms.

13 So it's probably worth some discussion
14 time just to see if we need to go forward and
15 clarify it.

16 MR. BRADMAN: Tom.

17 MR. CHAPMAN: I think it's important
18 to note that there's an annotation on this item
19 that requires food grade so just keep that in
20 mind.

21 And then in regards to Dave's question
22 I was wondering if the certifier on the board

1 could clarify how certifiers go about dealing
2 with that question.

3 MR. RICE: Yes, that would be with as
4 we noted earlier affidavits of clarifying that
5 it's non-GMO sourced.

6 MR. CHAPMAN: So there's a global
7 prohibition on that through the excluded methods
8 big three prohibition and that applies to the
9 microorganisms listing.

10 MR. RICE: Yes.

11 MR. BRADMAN: I have a question on
12 this. The role of ancillary materials and for
13 example, there's sodium benzoate and sodium
14 aspartate.

15 I'm not sure how to think about the
16 ancillary materials here and whether or not
17 they're present. That's something I know I would
18 like to -- at least I need to get more educated
19 about these issues.

20 MR. ELA: My understanding -- Tom, do
21 you want to answer that before I dive in and make
22 a fool of myself?

1 MR. CHAPMAN: I'd love to see what
2 your understanding is and if it aligns with mine.

3 The last -- where I left it, this came
4 up, this was under while I was chair of the board
5 and the program was under different management so
6 I don't know if anything has changed about that
7 time.

8 We have a proposal out there on how to
9 handle ancillary substances, but the NOP has not
10 acted yet on that.

11 We didn't particularly want to go
12 through and start making additional
13 recommendations about ancillary substances until
14 we got feedback from the program as to whether or
15 not the methodology we put forward was
16 appropriate.

17 At the same time we didn't want to not
18 move forward at all either.

19 So the compromise that was struck is
20 in the interim while we wait for a response from
21 the program we're going to document known
22 ancillary substances.

1 And there's a way in how we proposed
2 it is how we would potentially prohibit ancillary
3 substances that we did not like. Until we know
4 that the program is onboard with that we weren't
5 going to go through and take any of those actions
6 at this time.

7 So we're kind of in a wait -- a
8 document and a wait. And as soon as they take
9 action on it then we can go forward with any
10 removals we need to specify.

11 MR. ELA: That was better worded than
12 what I was going to say, but that was my
13 understanding as well, that it's really a
14 documentation process at this point. And then if
15 there is some movement forward then we have that
16 information and we can go back and pull things
17 out. But right now there's no action on them per
18 se except to note that they're there.

19 MR. BRADMAN: Harriet, and then Emily,
20 and then maybe the program could comment on that
21 too.

22 CHAIR BEHAR: So, part of this when it

1 came forward was at least now we have a listing
2 of the ancillaries so that it's a little clearer
3 to the certifiers that not only did we approve
4 kind of a generic, but we are aware of what's in
5 there. So when we are voting that we are voting
6 for all.

7 But there is a process for some
8 evaluation of the ancillaries. But that hasn't
9 moved forward.

10 But at least at this point -- because
11 some certifiers might say sodium benzoate, we're
12 not going to allow that microorganism and another
13 one would. So we were trying to have that --
14 bring some consistency.

15 MR. BRADMAN: I think Emily and then
16 Lisa, did you want to say something? Okay,
17 Emily.

18 MS. OAKLEY: You did read my mind
19 though because I don't know if I raised my hand
20 but you read my mind.

21 I just think that this points to the
22 problem of not having NOSB recommendations passed

1 in such a wide range of areas. And I would just
2 be remiss if I didn't state that because we spend
3 so much time doing the work.

4 And this board and this whole label
5 cannot be subject to changes in policies and
6 preferences. And we need to have a uniform
7 application of how these standards are vetted
8 through the government and then through
9 rulemaking and applied. So I just felt the need
10 to say that.

11 MR. BRADMAN: Would the program care
12 to respond to any of those comments?

13 DR. LEWIS: In terms of ancillary
14 substances, yes, we're aware in terms of the
15 recommendation that had come forward. We're
16 studying it right now.

17 I think what Tom kind of addressed in
18 terms of moving forward is continue that process
19 at this time.

20 I'm not sure if, Clarissa, you want to
21 add anything to this.

22 DR. MATHEWS: Sure. I think the

1 program continues to support the information
2 gathering and documentation that's being done,
3 but we would just remind the board that you're
4 obliged to review generic materials at this
5 point.

6 And we do rely on certifying agents
7 that would be responsible for reviewing ancillary
8 substances.

9 MR. BRADMAN: Any more discussion?

10 DR. LEWIS: Just a question again,
11 Asa. We kind of went back to the original point,
12 it's about the issue of other microorganisms.

13 So, just to make sure I'm hearing
14 correctly it's that there isn't any further
15 discussion on other organisms.

16 MR. ELA: I mean, I think we'll bring
17 it up in subcommittee. I just was wanting to see
18 if the broader board had any input before we
19 discussed it.

20 I mean, the listing is at is now.
21 That is the sunset review. Public comment asked
22 us to clarify that a little bit, but to me that

1 would be an additional work agenda item --

2 DR. LEWIS: That's correct.

3 MR. ELA: -- that's not part of the
4 sunset. But I guess in the committee we can
5 decide if we want to go down that path or not.
6 That's why I wanted to hear from the full board
7 if there was any burning desire to do that.

8 I think we're cautious with our work
9 agenda items. We have plenty to do. But we also
10 want to respect public comment and take things
11 into account. So we'll talk about it at the
12 Handling Committee.

13 MR. BRADMAN: Okay, I think we're done
14 with the discussion on microorganisms. The next
15 material we have is perlite. And let me check my
16 notes here. I think, Scott, that's in your
17 court.

18 MR. RICE: It is. Perlite for use
19 only as a filter aid in food processing. Perlite
20 is used as a filtrate in food processing such as
21 filtration of juices, beer, wine and vegetable
22 oils.

1 It's an amorphous volcanic glass
2 naturally occurring and sourced primarily in the
3 U.S., Greece, Turkey and China. The high water
4 content causes it to expand many times its
5 original volume when exposed to high
6 temperatures.

7 It is listed widely in international
8 regulations. It's been consistently supported by
9 NOSB and stakeholders. There's been some concern
10 with the potential human health hazard of
11 inhalation of fine silica dust when using this
12 material, but personal protective equipment such
13 as dust masks can minimize that.

14 And a number of certifiers noted the
15 use of this product by their operations and other
16 commenters from the community supporting the re-
17 listing of it. So broad support.

18 MR. BRADMAN: Harriet.

19 CHAIR BEHAR: I don't believe there
20 are, but are there any ancillary ingredients?

21 MR. RICE: I don't believe so and none
22 were noted.

1 MR. BRADMAN: Any other comments
2 related to this material? Okay, I think we can
3 move on then to potassium iodide in Tom's court.

4 MR. CHAPMAN: Potassium iodide is used
5 as a form of iodine in trace mineral supplements.
6 FDA allows its use as a food additive in three
7 different ways, as a nutrient in table salt for
8 iodine, as a dietary supplement for human
9 consumption and as a sanitizing agent in food
10 processing equipment.

11 We received public comment on this
12 mostly around its use in infant formula or as a
13 dietary supplement in it looked like gummy
14 candies.

15 And we asked a question given its use
16 as a nutrient if it was being used to sanitize.
17 I did not see comments speaking to its use as a
18 sanitizer in particular.

19 We also asked if its listing was
20 redundant with the broader listing of nutrient
21 vitamins and minerals and we did receive a
22 comment back from that directly from a certifier

1 saying yes, they did see it as redundant.

2 Although in general related to our
3 nutrient vitamins and minerals listing we
4 received several comments asking for individual
5 listings, not for a global listing, so you can
6 take that as I guess people opposing removing
7 this in the form of just lumping it under
8 nutrient vitamins and minerals.

9 We also received a comment that it
10 should be annotated to state as a source of
11 iodine when required by law.

12 MR. BRADMAN: Any comments on this
13 material? No? Okay. We can then move onto
14 yeast. And that is in Steve's court.

15 MR. ELA: Yeast, one of my favorite --
16 well, yeast makes lots of great things. Again,
17 widely supported, widely used.

18 One of the questions was whether there
19 is sufficient supply of organic yeast so that we
20 don't need to continue this listing. And it was
21 noted that organic yeasts are available but not
22 always in the quantity needed and the quality can

1 vary, and that in certain -- in a number of uses
2 organic yeasts have not yet met the functional
3 qualities for specific flavors needed. So there
4 are certainly organic yeasts available, but the
5 question of quality, quantity and specific uses
6 is still somewhat open. So there was argument
7 for the continued listing of this at this point
8 even though that marketplace may be slowly
9 changing.

10 Again, ancillary substances. Yeast is
11 produced by fermentation. It's separated by
12 physical methods from the culture. It meets the
13 OFPA requirements but there are many ancillary
14 substances that have not been reviewed some of
15 which may be problematic.

16 And I may have missed but I don't see
17 any actual substances listed in the public
18 comments. I need to go back and double-check
19 that I didn't overlook something on that. But if
20 there were I'll get those added in to what we
21 already have. But otherwise again very critical
22 to the handling community.

1 MR. BRADMAN: Any comments on yeast?

2 Dave.

3 MR. MORTENSEN: Steve, this is a case
4 where I was wondering about microorganisms and
5 then we have a class, one genus in its own
6 category.

7 And so -- and I guess this is actually
8 a genus that I know whether or not it's used in
9 organic, but I actually have heard rumors so I'll
10 just say it's a rumor. I haven't studied it to
11 substantiate it that there are many transformed
12 cell culture lines of yeast that are used in
13 cheese-making and other uses.

14 So I mainly just raise the question
15 what's the logic from a structural organizational
16 approach to having microorganisms writ large and
17 yeast as its own category as opposed to a
18 category that is microorganisms that are broken
19 into subgroups or something which would make more
20 sense to me.

21 MR. ELA: That's a great question. I
22 personally can't speak to knowledge of that since

1 this is a listing I've taken over. I'm assuming
2 -- if there's other people that know. I'm going
3 to guess that this was how they were petitioned
4 or added to the list, probably added to the list
5 originally and that's how they were broken up and
6 so we have those remnant classifications.

7 I think there was more -- I mean there
8 certainly was more comment and questions on the
9 organic availability around yeast than some of
10 the other microorganisms. So maybe by breaking
11 them up it could in the future mean we could
12 remove a class from allowed substances that
13 aren't organic to it's available, we need to use
14 the organic forms.

15 Whereas if we lump them all together
16 that becomes a little bit more problematic. But
17 I'm open to the program or anybody else giving
18 insight on that because that's --

19 MR. MORTENSEN: Just to respond to
20 Steve's -- it seems to me just organizationally
21 and I don't know, as far as tracking things,
22 which are the organisms that we're looking at for

1 different uses in different food cultures and
2 such that it would make sense to me that it might
3 be time to rethink how we're doing that and put
4 them into a broad category with subsections or
5 have two or three classes that we follow.

6 I actually think that the issue of
7 purity of some of these will become increasingly
8 challenging to track with all the advent of
9 fermentation and other changes to organisms.
10 That's in the works. So it might be a time to
11 revisit how we follow this.

12 DR. LEWIS: I think in this case it's
13 similar to the conversation before about other
14 microorganisms and is this something that
15 requires further discussion. Thinking about the
16 subcommittee, I think it's appropriate for a work
17 agenda item.

18 I mean, again we kind of spoke about
19 it in terms of the long list of activities that
20 you have to work on and is it something that you
21 want to be thinking about. So kind of move
22 forward in that way.

1 MR. ELA: Do you have something,
2 Harriet?

3 CHAIR BEHAR: Just for the members of
4 the NOSB that have not attended many meetings
5 yeast was the central focus of many meetings as
6 reflected in this very long annotation, the deep
7 conversations we've had over yeast over the
8 years.

9 But not as deep on microorganisms or
10 others.

11 MR. BRADMAN: Emily.

12 MS. OAKLEY: Yes, I was just going to
13 say that this might be a good topic for Dave to
14 take on, the work agenda item request that was
15 made by one of the public stakeholders about
16 products of fermentation. And since you're in
17 the Materials Subcommittee it would just be a
18 natural fit.

19 So we can discuss that on our next
20 call too.

21 MR. ELA: Okay. And I guess Scott, do
22 you have any -- from a certifier's standpoint any

1 perspective on -- I mean Dave keeps raising -- I
2 mean, we know the GMO issue but as we --
3 certainly I mean we've talked about vaccines and
4 there are more and more.

5 This is becoming a regularly used
6 tool, manipulation for a lot of these
7 microorganisms. I mean I know you had asked
8 about that, but is there anything we as a board
9 need to do to help narrow that -- not put all the
10 burden on you guys?

11 MR. RICE: Well, I think as you look
12 with excluded methods definitions and things
13 evolve I think we've been keeping that document
14 current.

15 But beyond verification I can't think
16 of an active role.

17 MR. BRADMAN: Any other comments? I
18 think we can then move on then. The next
19 material is alginic acid and Lisa, that's in your
20 court.

21 MS. DE LIMA: Yes. Alginic acid is
22 derived from brown cold water seaweeds. It's

1 manufactured through a chemical separation
2 process.

3 FDA allowed uses include as an
4 emulsifier, formulation aid, stabilizer and
5 thickener. And its use is limited to soups and
6 soup mixes.

7 We received no public comment from
8 manufacturers using alginic acid and there were
9 no reports from certifiers of it being included
10 on any OSPs in the written comment.

11 One interest group asked that the
12 listing be reviewed within the broader context of
13 marine materials and to consider adding an
14 annotation related to harvest, and also risk-
15 based testing for toxic materials.

16 I'll say in response to that public
17 comment the TR reported no residues of heavy
18 metals in excess of FDA tolerances.

19 Another commenter thought alginic acid
20 should be de-listed due to lack of essentiality
21 and environmental impacts from the seaweed
22 cultivation.

1 In regards to the seaweed harvesting
2 the TR reported that the majority of brown
3 seaweed species harvested for production of
4 alginic acid are wild harvested.

5 But then it did go on to say that in
6 countries like China and Japan large-scale
7 production could affect coastal waterways.

8 So I just want to take this chance to
9 encourage the community to get the word out and
10 if there's folks out there that are using alginic
11 acid that they submit comment to us before the
12 fall meeting. That would be very helpful.

13 The TR did point out possible
14 alternatives like agar agar, carrageenan, gellan
15 gum and xanthan gum. So again it would be
16 helpful to hear if and why alginic acid is a
17 preferred material.

18 MR. BRADMAN: Emily.

19 MS. OAKLEY: In the absence of public
20 comments if you don't get any this fall do you
21 have a sense of where you may be going with a
22 recommendation for this material?

1 MS. DE LIMA: No. We haven't really
2 talked about it and I just got this material like
3 a week ago. This was one of Eric's so I'm still
4 learning.

5 MR. BRADMAN: I think we can move on.
6 But I look forward to discussing this in terms of
7 marine materials and ecosystem impacts. I think
8 that's going to be an important piece of this.

9 I suspect the volume of material used
10 is less, say, than for fertilizer or other
11 inputs.

12 So that moves us to activated
13 charcoal. And Scott's on that. Thank you.

14 MR. RICE: Yes. Activated charcoal
15 only from vegetative sources and for use only as
16 a filtering aid.

17 This is used in processing as
18 mechanical filtration involving the separation of
19 suspended solids from a liquid as it passes
20 through a carbon porous media in a column or bed.
21 Used to remove odor and used for purification in
22 water and food.

1 And has a very large surface area and
2 pore volume that gives it that unique absorption
3 capacity.

4 Of vegetative origin. It could be
5 made from a large variety of resources,
6 hardwoods, grain holes, corn cobs, nut shells.

7 It goes through pyrolysis at a very
8 high heat. They may be chemically activated
9 using a variety of acids and bases including
10 acetic acid, potassium hydroxide, sodium
11 hydroxide as possible bases.

12 May also be activated through exposure
13 to oxygenated gas or steam.

14 It is allowed across a number of
15 international regulations.

16 A number of certifiers noted this
17 appearing on numerous organic system plans.
18 Trade organizations and individual companies
19 commented in support of re-listing this material.

20 One organization wrote wishing to see
21 its use limited to filtration of water and
22 requiring that activation to steam activation.

1 Another in view of large -- the
2 handful of number of chemicals used to activate
3 or reactivate it, one of the TAP reviews
4 suggested the annotation must meet food chemicals
5 Codex purity requirements and manufactured from
6 ag products by steam activation.

7 And another comment supporting its use
8 solely as a water filtering aid.

9 But in wide use at this time and
10 supported across the community with the exception
11 of those comments I noted.

12 MR. BRADMAN: Any comments on
13 activated charcoal? No? Okay, I think we can
14 move on then to ascorbic acid which I believe is
15 also in your court.

16 MR. RICE: Me again. One moment.
17 Ascorbic acid, used as a dietary supplement and
18 nutrient, flavor ingredient, used in meat and
19 meat containing products, curating and pickling
20 in flour to improve baking quality, as an
21 antioxidant in fats and oils and a wide variety
22 of other food processing uses.

1 One of the most common sources of
2 vitamin C.

3 The majority of industrial production
4 of ascorbic acid is synthesized. Modern
5 production processes use fermentation with
6 additional biooxidation steps adding a
7 biocatalyst which eliminates the need for the
8 chemical steps.

9 Synthetic ascorbic acid is identical
10 in molecular structure and function to the
11 natural.

12 This is a vital nutrient necessary for
13 humans and other primates. Humans cannot
14 synthesize vitamin C and must rely on dietary
15 intake. It is added to many foods to restore
16 vitamin C lost during processing. Some FDA
17 regulations require vitamin C fortification often
18 achieved with the use of ascorbic acid.

19 This was also one I picked up so my
20 organization of it was a little bit different.

21 A number of certifiers noted the
22 presence of this material on OSPs. Manufacturers

1 noted its necessity in the organic product
2 developer's toolbox of available food acids.

3 One organization commented against its
4 re-listing noting its used to fortify products to
5 original pre-processing vitamin C levels noting
6 it is a synthetic antioxidant preservative and
7 should be removed, but in wide use now and an
8 essential nutrient for human health.

9 MR. BRADMAN: Any comments on that
10 material? Steve?

11 MR. ELA: Scott, with your additional
12 information requested about biooxidation as an
13 excluded method. It doesn't sound like you got
14 any comments about that.

15 But I think -- I mean I keep seeing
16 and we've talked about fermentation in general.
17 And to Dave's recent comments on yeast and the
18 vaccine issue that we've so discussed it seems
19 highly likely that we're going to run into more
20 and more of these fermentation processes that are
21 very likely to use excluded methods.

22 I don't know how we can -- I don't

1 want to get backed in the corner like we are with
2 vaccines where suddenly we have to allow this
3 because there is no other choice, but yet given
4 the small size of the organic industry I don't
5 know how we help protect that system that doesn't
6 use excluded methods.

7 I don't expect you have any particular
8 thoughts, but I just -- it's concerning because I
9 can just see we're going to end up being
10 railroaded into some of these things that we
11 don't really want to be in. And I don't know if
12 there's anything we can do to head them off at
13 the pass.

14 MR. RICE: Yes, I neglected to note
15 that this also has a TR pending that we received
16 on April 4th. So in addressing that particular
17 question we may get some answers from that.

18 In terms of your general question I
19 think we'd like to be proactive and I think that
20 our excluded methods work has helped in
21 identifying those things. And I would say if
22 that TR that's yet to be reviewed indicates

1 something that needs to be on our radar then that
2 doesn't perhaps put us in a proactive position,
3 but at least puts it on our radar as something to
4 address. So no magic answer there.

5 MR. BRADMAN: Steve.

6 MR. ELA: Well, and I guess I hope
7 that from the business community, and I think
8 this comes back to I mean if we're talking about
9 collagen and opportunities for businesses it
10 would be as some of these things move to excluded
11 methods.

12 I mean obviously we can do it without
13 them. It may not be as efficient. But I would
14 hope that there are small businesses out there,
15 whatever, that pick that up and say no, the big
16 manufacturers might not be able to do it but
17 we're going to provide a niche market. They know
18 the processes are big and scalable and expensive,
19 but I hope people pay attention to those
20 opportunities in the organic community.

21 MR. BRADMAN: Sue.

22 MS. BAIRD: Yes, I think this is akin

1 as we did the livestock vitamins they noted in
2 the TR that vitamin C was one of those vitamins
3 that was commonly produced using genetic modified
4 -- genetic engineering. So I think we may see
5 the same thing in the human vitamins. They're
6 all vitamins.

7 MR. BRADMAN: Paul.

8 DR. LEWIS: So this kind of brings up
9 the issue, talking about yeast, ascorbic acid,
10 vitamins and others. So it may be something to
11 think about for the NOSB is that some of these
12 materials that are important for organic
13 production and the production of those materials
14 that are using excluded methods and how best you
15 want to kind of balance that and commercial
16 availability of non.

17 So it's something we can be talking
18 about with you in terms of how you want to be
19 thinking about that in the future.

20 MR. BRADMAN: Any more comments on
21 this material?

22 MR. MORTENSEN: I know we're running

1 long here. It seems to me that this would be an
2 interesting case at some point to get some
3 feedback from folks in terms of how retooled
4 would you have to get in a synthesis chain to
5 have two fermentation vessels.

6 So it seems to me that the cultures of
7 the organisms that we're using and then the whole
8 production line is going to have to -- if it was
9 going to be something that we were going to try
10 to segment it would be interesting just to
11 understand how -- what that looks like if we
12 wanted to encourage that. So it's just a
13 thought.

14 I like what Steve is saying. I think
15 it's something we need to unpack a little bit
16 more and understand better as a group. I think
17 it would be helpful.

18 MR. BRADMAN: Sue.

19 MS. BAIRD: In my past life as a
20 coordinator of a feed and seed program for
21 Missouri Department of Agriculture it was -- and
22 that's been a lot of years ago. Maybe things

1 have changed. But most of these vitamins are
2 manufactured overseas in China and those kinds of
3 places and very few sources of them being
4 manufactured.

5 I think that if we go there we're
6 going to have some real issues being able to
7 source vitamins either for livestock or for
8 humans. And that's been several years ago, but
9 that was back then.

10 MR. BRADMAN: Harriet.

11 CHAIR BEHAR: This is just a time
12 check. We are fairly far behind and we do have
13 two speakers that are scheduled to start at 11:45
14 on biodegradable mulch.

15 So I think we can maybe do a few more,
16 but we should be aware that we do have two
17 speakers here to present to us.

18 MR. BRADMAN: Yes. I agree. Emily.

19 MS. OAKLEY: Why don't we do one more
20 and just in respect of their time schedules move
21 into them.

22 MR. BRADMAN: That sounds perfect. So

1 the next material is calcium citrate and Lisa is
2 on deck for that.

3 MS. DE LIMA: So, calcium citrate is
4 the calcium salt of citric acid. It's prepared
5 by neutralizing citric acid with calcium
6 hydroxide or calcium carbonate and subsequent
7 crystallization.

8 Public comment was supportive and
9 mentioned uses including fortifying nutritional
10 supplements with calcium. It's also used in
11 fruit fillings to thicken and stabilize gel
12 structures and as a buffer in fruit and flavor
13 preps.

14 No new information was brought forward
15 in terms of human health or environmental
16 concerns.

17 MR. BRADMAN: Any comments on that
18 material? I think we can then pause.

19 CHAIR BEHAR: Well, we can still do
20 another one. We're not quite at time.

21 MR. BRADMAN: The next one will be
22 easy. Ferrous sulfate is in Tom's court.

1 MR. CHAPMAN: This one's going to take
2 about 30 minutes.

3 Ferrous sulfate has an annotation on
4 it for iron enrichment or fortification of foods
5 as required by regulation or recommended in
6 parentheses independent organization.

7 Ferrous sulfate is commonly added to
8 flours and cereal products to make an optional
9 enriched claim and is often found in baked
10 products or infant snacks. As a father to young
11 children I often found it in those kind of first
12 meal oat, or I guess it's generally oat kind of
13 cereals were fortified with iron.

14 Its use is pretty much solely as a
15 nutritional additive to address population-based
16 iron deficiency.

17 We asked the question if it was
18 necessary to continue the listing of this
19 material given the broader nutrient vitamins and
20 minerals listing.

21 Same comments I said before apply
22 here, that some comments were received supporting

1 its removal because nutrient vitamins and
2 minerals listing incorporates this as well as
3 other iron-based supplements.

4 And we also received opposition to the
5 holistic listing of nutrient vitamins and
6 minerals.

7 Specifically we received comment from
8 industry about its use in infant formulas. And
9 then we also got a comment from an interest group
10 about ferrous sulfate itself and that it's
11 potentially not the best form for iron
12 supplementation and that it should be phased out
13 and we should look for potentially an
14 alternative, or that less processed foods and a
15 whole food diet itself was sufficient to meet the
16 iron deficiencies that are seen in populations.

17 MR. BRADMAN: I don't know if there's
18 any other questions. Was there any explanation
19 of why this material -- I mean it's true that
20 non-heme sources of iron are not absorbed as
21 well, but any supplement in this form would be a
22 non-heme source.

1 MR. CHAPMAN: Like why other sources
2 were better? It's not saying why other sources
3 are better, but it's saying ferrous sulfate
4 oxidizes fats and oils in vitamin E in the
5 product which it occurs is to be avoided by using
6 natural whole foods. When absolutely necessary a
7 less destructive chemical should be used. But it
8 doesn't really offer alternatives.

9 MR. BRADMAN: Okay, thanks. In
10 general I think diet should be the source of
11 people's nutrients, but I think iron
12 supplementation has been valuable from a public
13 health point of view. And the iron deficiency
14 has for example some of the same effects as lead
15 exposure. It affects development in ways that I
16 think we benefit from the supplementation here.

17 CHAIR BEHAR: Okay.

18 MR. BRADMAN: Any other comments?
19 It's 11:46. Do we have the speakers here?

20 CHAIR BEHAR: Yes.

21 MR. BRADMAN: And are the
22 presentations ready to set up?

1 CHAIR BEHAR: Yes. So I invite the
2 two speakers up and Steve can start discussing
3 their bios. Steve as the chair of the Crops
4 Subcommittee.

5 MR. ELA: Just as a little bit of
6 background before I introduce the two speakers we
7 know over the past number of years we've had
8 pretty extensive -- well, I shouldn't say
9 extensive, but considerable public comment on the
10 use of biodegradable mulches.

11 We had a TR that we reviewed. We've
12 also then in subcommittee in the sunset review
13 process have discussed biodegradable mulches and
14 it keeps coming back to the question of the way
15 they are concurrently listed on the National List
16 of having to essentially be 100 percent
17 biodegradable.

18 And that question if you look in the
19 biodegradable mulch TR was left open as to what
20 the fate of some of these biodegradable mulches
21 are in the environment.

22 We've specifically noted there were

1 several studies going on and that it was
2 important for us to wait until we saw the results
3 of those studies to be able to really assess how
4 the board should proceed with the biodegradable
5 mulch issue.

6 Since we are meeting in Seattle and
7 much of the research has been done by people out
8 in this area it seemed like a very good
9 opportunity to hear an update on some of this
10 research to help inform the board.

11 So with that I'd like to welcome our
12 two speakers. Markus Flury is an associate full
13 professor of soil physics and vadose zone
14 hydrology at Washington State University. He's
15 in the Department of Crop and Soil Sciences.

16 He in his past has been a visiting
17 professor at the Chinese Academy of Science and a
18 post doc at the University of California
19 Riverside.

20 He received his Ph.D. from the Swiss
21 Federal Institute of Technology in Zurich. It's
22 not often as getting to introduce somebody as a

1 soil physicist since that's what my own
2 background is in and that he's editor of the
3 Vadose Zone Journal. I'm sure that's something
4 you all read, but yet that is the zone that
5 affects us all.

6 And so it's a pleasure to have you
7 here, Dr. Flury.

8 Dr. Ramani Narayan is a university
9 distinguished professor at Michigan State
10 University and that's the highest honor that MSU
11 bestows on a faculty member.

12 He's an elected fellow of the U.S.
13 National Academy of Inventors and he's earned the
14 Michigan Green Chemistry Governor's Award for
15 developing biodegradable packaging and insulation
16 foams.

17 He is the scientific chair of the
18 Biodegradable Products Institute and works on
19 ISO, International Standards Organizations
20 committees. And he's a technical advisor to many
21 organizational groups in bioplastics.

22 He is invited here as well and

1 hopefully will be able to provide some insight in
2 addition to the current research that's going on.

3 So I don't know who we'll start off
4 with. I'm assuming Dr. Flury maybe if you're
5 willing we'll start with you. Thank you for
6 taking the time to come and really give us kind
7 of an on the go update of something that we're
8 very curious about.

9 DR. FLURY: All right, thank you very
10 much for having me here to talk and thank you for
11 the introduction.

12 And I want to talk to you a little bit
13 about biodegradable plastic mulches because we
14 know that plastic is used in agriculture to a
15 great extent.

16 Most of the plastic that is used is
17 polyethylene plastic which is not degradable in
18 nature and it causes enormous pollution problems.

19 So the idea is to replace polyethylene
20 plastic with biodegradable plastic. There are a
21 lot of questions then whether the biodegradable
22 plastic is really useful and suitable for the

1 replacement of polyethylene.

2 And so we had a -- SCRI is a USDA
3 grant for four years now that we are looking at
4 the sustainability of biodegradable plastic as a
5 substitute for polyethylene.

6 And what you see here, and I assume
7 you can see that slide here on that screen here?
8 Okay.

9 So what you see here is the project
10 team that we have. So it's a large team that
11 comprises of many different scientists. I can
12 advance the slide.

13 So that research team comprises of
14 soil scientists, plant scientists, material
15 scientists, economists and sociologists. It's a
16 large team where we look at the suitability of
17 biodegradable plastics in agriculture.

18 And what I want to talk to you about
19 today and this is what you asked me to talk about
20 is about the soil. So I'll talk about the soil
21 ecology, more specifically how does biodegradable
22 plastic affect soil, short-term and long-term.

1 So what we did in this experiment is
2 we set up two field experiments. One is in Mount
3 Vernon in Washington. For those of you that are
4 not from the state of Washington Mount Vernon is
5 about two hours north of Seattle.

6 And the other side is in Knoxville,
7 Tennessee. And the idea behind this is that
8 biodegradable degradation of course depends on
9 the locality where you study biodegradation. So
10 it depends whether the climate is warm, whether
11 the climate is cold, depends on the soils.

12 So we chose two sites. So one is a
13 more cool Mediterranean site in Washington and
14 then more a subtropical warm site in Knoxville in
15 Tennessee. So the idea is to have two different
16 climates to see how degradation really works in
17 these two different locations.

18 And what I want to show you here is
19 the field site that we have. We have a pair of
20 field sites. So one is in Washington, Mount
21 Vernon. This is the one here in Mount Vernon.

22 The same one we have in Tennessee as

1 well.

2 What you see here is a replicated
3 field trial where we look at different types of
4 biodegradable plastics and then compare this with
5 no plastic, with polyethylene plastic. And here
6 is kind of the aerial view how that looks like.

7 So it's a replicated site with
8 different types of treatments that we set up.

9 And we have one treatment that we use
10 is paper because paper is a treatment that we
11 know is degrading very well. Paper is oftentimes
12 used as a standard in tests of biodegradation.

13 So we see here is the paper is here on
14 the left side and then you see this BDM. So BDM
15 stands for biodegradable mulch, plastic mulch.

16 So we have four different BDMs. We
17 have a no-mulch treat of five different BDMs, a
18 no-mulch treatment, and then polyethylene which
19 is the current standard that we use.

20 And so the idea then is to see how do
21 those biodegradable plastics affect plant
22 production, crop yield and horticultural aspect.

1 And then also particularly how does it affect
2 soil.

3 And in terms of the soil, and that's
4 what I want to focus here in this presentation,
5 we do very comprehensive assessments of soil
6 health. So we measure soil physical, soil
7 biological, soil chemical properties over time
8 and compare this then to the paper, to the no-
9 mulch and the polyethylene. So this is the idea.

10 And then we also measure the impact of
11 those biodegradable plastics on soil organisms.

12 So some of the questions that we are
13 asking is does biodegradable plastic affect soil
14 health. So that's an important question and we
15 don't -- until recently didn't have good answer
16 to that.

17 Then the second one, does
18 biodegradable plastic degrade completely in soil.
19 So does it completely degrade. And Dr. Ramani
20 will talk a little bit about the degree of
21 degradation in his talk then as well.

22 And then the third one, are residues

1 released when biodegradable plastic degrades,
2 when the polymers degrade. So these are some of
3 the questions that we try to answer in our
4 research project.

5 And I want to talk more about the
6 first one of those. And this is the soil health
7 aspect.

8 And as I mentioned we measured very
9 comprehensive soil health assessments. And what
10 I want to show you here is just an example. I
11 want to show you two examples. One is the
12 physical parameters, aggregate stability, and the
13 other one is the microbial community structures
14 that are potentially affected by biodegradable
15 mulches.

16 And what you see here is a graph, and
17 I'll see if I can use the pointer. Yes, I can
18 use the pointer here. You probably can't see the
19 pointer on your slide there.

20 But you see Knoxville on the left side
21 and Mount Vernon on the right side. And the
22 different colors that you see on that figure are

1 different types of biodegradable mulches compared
2 with no-mulch and polyethylene which the
3 polyethylene is on the right side on the black
4 bar.

5 But what you can see here is a change
6 of aggregate stability over time. And you will
7 notice, and I think this is important for that
8 meeting that these data have been assessed from
9 2015 to 2017. So this is two years of
10 information that we have.

11 We are 2019 now so we are assessing
12 now the fourth year of those measurements. And
13 we are trying to do that for a longer term. And
14 this is an important question, what are the long-
15 term implications.

16 But what you can see here for two
17 years, there is very little change of
18 biodegradable plastic compared with polyethylene
19 and those are then compared to the no-mulch. So
20 we see very little effect short-term within two
21 years in terms of aggregate stability. This is
22 the same for other physical parameters as well.

1 Now, the next slide I want to show you
2 is the microbial communities. And I can show you
3 here two data sets. One is from Tennessee. The
4 other one from Washington. Again, two years of
5 data.

6 And what you see in those graphs. So
7 these are a little bit complicated to understand,
8 but these are microbial community structure
9 figures. So very typical what microbiologists
10 usually do to classify microbial community
11 structures in soils.

12 And the different colors, what you see
13 in the different colors are the different
14 seasons. So we have spring 2015 and then all the
15 way to fall 2017.

16 And the different dots that you see,
17 so these clouds of dots are the different
18 treatments. So different biodegradable plastics,
19 different no-mulches and the polyethylene.

20 And basically what you can see with a
21 figure like this is that we see very little
22 change of microbial community structures affected

1 by the treatment of plastics. So whether you
2 have polyethylene, no-mulch, or you have
3 biodegradable plastics. So there is very little
4 change in the community structure.

5 But you see a lot of change in
6 seasons. So the microbial communities in soils,
7 they change between fall and spring, and they
8 also change over the year. So we see those type
9 of effects, but very little in terms of the
10 biodegradable plastics.

11 And so the last slide that I have here
12 is kind of summarizing some of those results that
13 we have from our current project.

14 So first of all we see very similar
15 agronomic benefits. So in terms of crop
16 production the biodegradable mulches behave very
17 similarly to polyethylene. So it's a suitable
18 substitute.

19 And we see no short-term effects of
20 the mulches on soil health. And I highlight here
21 short-term in red as you can see because the
22 important question is what are the long-term

1 effects. But short-term, so two years and very
2 likely -- we are analyzing the data now for four
3 years, there will be very little or no effects
4 compared with our polyethylene or to the no-mulch
5 treatments.

6 Seasonal changes are much more
7 pronounced in effects that we see based on
8 treatments to plastic.

9 And then the last thing, the fourth
10 point is of course the long-term effects. So we
11 have to be cautious of course because soil health
12 and soil processes are slowly changing with time.
13 So it is possible that things will show up when
14 we do these experiments over longer periods of
15 time.

16 And then I want to also mention that
17 actually our experiment is one of the only ones
18 that we have now four-year long-term systematic
19 evaluation of those biodegradable mulches and we
20 hope we can continue this for a longer term
21 study. That I think is really needed to look at
22 the long-term effects.

1 So this is kind of a short summary of
2 our project and I'm happy to answer more specific
3 questions should you have them later on.

4 MR. ELA: I think like we did with our
5 other panels we'll go ahead and Dr. Narayan can
6 speak and then we'll open it up to discussion so
7 that we can get both their inputs.

8 DR. NARAYAN: Good afternoon. Let me
9 get the slide up. Okay. So let me start with I
10 think, Harriet, you posed six questions which I
11 thought was perfect because for a professor to
12 say tell us what you do, that would take the
13 entire day and afternoon for you.

14 And so I decided that I'll use your
15 questions as the framing way in which I will
16 address this presentation.

17 So the first three questions which you
18 had and which some was addressed was what is the
19 overall effect of soil health, what is the
20 cumulative effect of breakdown, what happens to
21 these breakdown products. Those are the three
22 important questions which you had.

1 And to answer those I thought I will
2 take the liberty of going back to fundamentals
3 and take you back to school sort of.

4 So, as the question what does
5 biodegradable really mean. What does everybody
6 really think what biodegradability means.

7 And in reality you're asking the
8 question can microorganisms present in your
9 disposal system, in this case it is soil, utilize
10 this mulch film, this molecule as food for their
11 life processes. And will they do it completely
12 with no issues which is what was addressed
13 earlier. So that's the fundamental question
14 which we need to answer and evaluate and find
15 out.

16 Okay. So, here is a schematic. I
17 have polymer molecules. These are carbon chain
18 polymer molecules. I can make this breakdown.
19 If you submit it to the environment, heat, light,
20 they break down.

21 You can enzymatically break it down.
22 You can oxidate. There are a number of ways in

1 which I can break it down.

2 When you break it down you get these
3 fragments, these oligomer polymer fragments. And
4 this is degradation. This is depolymerization,
5 whatever you may call it.

6 And this is where some of the
7 confusion starts. And this is your question was
8 okay, it breaks down. Is this and that a
9 problem? How do you know this is safe and all
10 that?

11 But the standard and what you have now
12 in that NOP 1 does not allow you to stop at this
13 stage. So biodegradability will be defined if
14 and only if these fragments are completely
15 utilized by the microorganisms present in soil in
16 this particular case and in a defined time frame.

17 And this is again the second part of
18 the confusion. And I would like to say that this
19 word biodegradable unfortunately has been the
20 most misused abused term in our whole
21 discussions.

22 Everything is biodegradable. You are

1 biodegradable. And so we need to be more careful
2 how we define this and how we use this.

3 But in your system as you have defined
4 it you are saying that it breaks down but that's
5 not sufficient. Can you document and validate
6 that the microorganisms will completely use these
7 broken down fragments in a time frame and in a
8 way in which I can measure it and quantify it.
9 So that is where the standard which you have put
10 in play in your document.

11 So let's take this further. What's
12 the fundamental basis. Dig deeper into this.

13 First part is microorganisms utilize
14 carbon as food. That's what you need to very
15 clearly understand. They don't do it to clean up
16 the environment for us. They don't do it to give
17 us food. They are very selfish. They are going
18 to have their food and thrive and grow. If they
19 can't, they go dormant or they die.

20 So microorganisms utilize carbon as
21 food. They do so -- remember the large chains.
22 That has to be small molecules and that has to be

1 transported into the cell.

2 If that food fragments don't go inside
3 the cell it cannot utilize it. So one condition
4 would be will they transport in.

5 And once it goes in, what happens.
6 Then the microbial process takes over. It is
7 biologically oxidized to CO₂. And the process of
8 that oxidation results in energy being released,
9 686 kilocal and forgive me if a professor sort
10 of wanders into this deep science.

11 But 686 kilocal of energy is released
12 that is harnessed by the microorganisms for its
13 life process. Just like you eat food and you
14 break it down and utilize that energy for your
15 life process. A very similar mechanism is
16 operating.

17 And that complex picture you see is
18 that the energy released is harnessed by the
19 microbial process in this ADP-ATP cycle. This is
20 very similar to what happens in humans too.

21 So, what is it that I'm communicating?
22 I'm saying that if we have to document and

1 validate that microorganisms are truly utilizing
2 this then we need to show that we feed these
3 microorganisms these mulch films which have got
4 the carbon molecules in there, measure the CO2
5 coming out because that's what drives the
6 biological process.

7 And if I can document all of that
8 carbon has evolved as CO2 then I can say that the
9 microorganisms are utilizing. That is the
10 fundamental basis for all these test
11 methodologies.

12 So this is a simple schematic. This
13 is the actual basic standard that is followed
14 across the world literally.

15 You have soil. Don't give the soil
16 microorganisms any other carbon food except your
17 test specimen. If the microorganisms are capable
18 of utilizing it you should see CO2 because that
19 is the process by which microorganisms utilize
20 carbon.

21 Then you know how much CO2 is being
22 evolved, how much carbon you have fed as food.

1 Don't give it any other food. Give it all the
2 nutrients and all the other ingredients it needs
3 and measure the CO2 evolved as a function of
4 time.

5 So now I have got a value for time.
6 I've got a value for how much of the carbon is
7 being utilized. And that is the basis for the
8 standard ASTM 5988, ISO 756 soil biodegradability
9 test method which is what you have referenced.

10 Now, these are test methods. It
11 doesn't have a specification. Doesn't put time
12 period. But you have been good enough to put
13 that time frame in which is two years.

14 So this 100 percent complete removal
15 has to happen within the two-year time frame.

16 Now, there is an EN standard 17963
17 which also is identical to what we are talking
18 about except that it has that specification of
19 two years built into it. It's more easier I
20 think in Europe. They say you will do this and
21 that's the end of it. Here we go through more
22 discussion.

1 So this is a test method and you have
2 defined the standard.

3 So, I think you have the right
4 methodology in play to ensure that materials
5 which are claimed to be biodegradable mulch films
6 can be validated and the data provided to prove
7 that this is workable.

8 And then I just want to caution. So
9 if this is so simple and hopefully you understood
10 what I'm saying why is there so much confusion in
11 the marketplace? Why are you inundated with is
12 this truly biodegradable? You have oxo, you have
13 this and not.

14 And the reason is people simply use
15 the word biodegradable. So the caution is just
16 because you see the word biodegradable or
17 somebody comes and sells you a product
18 biodegradable that's not acceptable. You need to
19 prove it. And you need to prove it based on the
20 standard and validate and certified by some third
21 party. And then you will have it.

22 And this is happening across the board

1 in all the other places as well.

2 The last point I want to talk to you
3 about is here is an example of green washing.
4 You see this biodegradability on the y axis and
5 then time.

6 You see that curve, lower curve, it
7 just flattens out. If I stop in the four days
8 there is a straight line. And then I just simply
9 extrapolate it and say don't worry, in five years
10 everything will biodegrade.

11 But the graph shows you that it will
12 not. So these are the kinds of misleading
13 documentation which comes.

14 It happens even in scientific
15 communications. This is a Chem Communication
16 paper. They attach sugar to the backbone of a
17 polyethylene molecule. They did the
18 biodegradability, showed some biodegradation.
19 And then the press says sugar turns plastics
20 biodegradable. Bacteria make a meal of sweetened
21 polyethylene and polypropylene.

22 So these are sort of I would call

1 noises and distractions which exist in this
2 space, but there is validity and you should look
3 at it.

4 I will show you data now to validate
5 this. This is a molecule -- I won't go into the
6 details of this -- which is used in this
7 biodegradable mulch film. One of your six
8 questions was are there such products even
9 available on the marketplace.

10 So this is a product molecule which is
11 available and provided by a number of providers.
12 And you can see the names there.

13 Now, this molecule, we want to prove
14 it will be completely utilized by the
15 microorganisms. So we label that aromatic carbon
16 which is the most recalcitrant carbon by carbon
17 14, radioactive carbon, and then measure where
18 does that C14 end up in after we do the
19 biodegradability.

20 And what we show is that 90 percent
21 plus of that carbon, radioactive carbon, ended up
22 in CO2. Remember that CO2 comes only if the

1 microorganisms utilize it. Some of it goes into
2 the cell biomass and some of it is unaccounted
3 for which is a very small percentage.

4 What I am submitting to this group is
5 there is data and validity that these will truly
6 completely biodegrade. But beware of the other
7 stuff. But this is what is true.

8 The last slide here was a recent study
9 which was published in Science Advances. Again,
10 the same molecule but this time it is labeled
11 with carbon 13 which is a stable isotope
12 molecule.

13 And they showed that carbon from each
14 monomer of that large molecule. So they have
15 taken -- in this PBAT molecule there are three
16 different monomers which form that long chain.

17 Every one of the carbons from that
18 chain went into CO2 and also was included into
19 the cell biomass, into the lipids fraction.

20 So, again I'm providing very solid
21 data using isotope labeling that you can degrade
22 or biodegrade. And you can see the data there.

1 So this is very important for you to
2 understand that biodegradable mulch films if
3 designed appropriately, if validated
4 appropriately in a test method and certified that
5 they would be, and you follow on studies will
6 certainly be a neat, correct approach to this
7 whole area.

8 The last part I should bring about is
9 this biobased. You have in your document
10 biobased as well as this end of life
11 biodegradable.

12 So biobased has nothing to do with end
13 of life. It is simply asking the question where
14 did that carbon in that molecule originate from.
15 Did it come from plant biomass, or did it come
16 from petroleum fossil resources.

17 And of course the USDA Biopreferred
18 Program is promoting the use of agricultural
19 based feed stocks to make these biobased plastic.
20 But it has nothing to do with end of life.

21 And there is a move towards this. But
22 you will be difficult to say I want a molecule

1 like what I showed you, perfectly designed so all
2 the microorganisms will utilize it completely.
3 And oh by the way, I want it all 100 percent from
4 biobased feed stocks.

5 That would happen, but to expect that
6 would be difficult. So that's for you to
7 consider, that the 100 percent biobased is a
8 constraint which essentially will never allow
9 this program to move forward.

10 And absolutely there is value in that
11 so I don't want to take away from the value. The
12 benefits are that it will reduce carbon
13 footprint, it is food security, creating value
14 for agrarian, rural agrarian economy. It creates
15 wealth for rural agriculture.

16 But if you don't have these products
17 in the marketplace providing the pool then all
18 these values which agriculture and agrarian
19 economies can benefit will not be realized. So I
20 just want that to be in your thought process as
21 we move along.

22 I think I exceeded a lot more of my

1 time than I should have.

2 MR. ELA: Well, I want to -- it would
3 be good to have a little bit of discussion. We
4 don't have lots of time, but I also want to honor
5 that both these folks came. And it's a question
6 that we have certainly struggled with.

7 So Harriet, then Emily, Dan.

8 CHAIR BEHAR: Hi. This is mostly for
9 Markus, but maybe both of you could speak to
10 this.

11 In one of the documents that you sent
12 us, you gave us a research paper on the making of
13 the poly-based biodegradable mulches. And you
14 did mention that there's some use of genetic
15 engineering in order to fractionate or form that
16 polymer and that you weren't sure if it was a
17 bacteria or a yeast. Can you speak to that?
18 That was mentioned in the research paper.

19 DR. FLURY: Yes. I think some of the
20 biodegradable plastics are made with genetically
21 modified organisms.

22 And I think Ramani, Dr. Narayan can

1 probably talk a little bit more about it.

2 DR. NARAYAN: You can still call me
3 Ramani, it's okay.

4 I could address that. So, the final
5 -- so yes. So as you know GMOs are used to do
6 all sorts of processes. And so you can make
7 these molecules using GMO, genetically modified.
8 And you don't have to.

9 Now, in the U.S. this is sort of --
10 it's an issue which all U.S. corn today is GMO if
11 you want it at the price you want it.

12 If you say no, I don't want GMO then
13 you can create identity preserved corn and then
14 therefore provide this high-value product. But
15 then you are priced out of the marketplace.

16 But the process of manufacturing which
17 uses fermentation. For example, PLA is one such
18 molecule. And that is made by standard
19 fermentation process, but it uses the sugar from
20 corn. And that corn is probably coming from a
21 genetically modified species because all U.S.
22 corn is that way.

1 So unfortunately I'm not sure how to
2 answer this, but to me that is problematic
3 because then for making this we will have to buy
4 sugar from potatoes from Europe, or sugar cane
5 from Brazil, or somewhere else. And that's the
6 dilemma which U.S. agriculture actually faces,
7 where do you call the line.

8 But if you take the final product
9 there is no GMOs in them. There is no modified
10 organism. It's a molecule which is free of
11 anything.

12 CHAIR BEHAR: Just a quick follow-up.
13 I thought that it said that the -- not the
14 substrate, but the actual organism that was kind
15 of -- that's what it said I thought in the paper.

16 DR. FLURY: Yes, I think there are
17 some microorganisms that are used to create some
18 of the polymers that are also GMOs. Yes.

19 MR. ELA: We'll move onto Emily.

20 MS. OAKLEY: I have two questions.
21 One for Dr. Flury. You had two test or
22 experiment locations, but both seem to be in

1 maybe cooler and wetter environments, or wetter
2 and hotter environments. How about a hot and dry
3 environment? Because I think that's where we
4 would see the greatest or the least likelihood of
5 degradation. So that's my question for you.

6 And then my question for Dr. Narayan
7 is in the spirit of taking us back to school
8 what's present in the biobased mulch film that
9 allows for or facilitates the biodegradation.

10 DR. FLURY: All right, so I will
11 answer the first question regarding the soil
12 environment and climatic conditions where
13 degradation occurs.

14 And you are right, yes, we have two
15 sites in the U.S. In a very hot and dry
16 environment we probably would expect that there
17 is less degradation.

18 And we do see the effects of
19 environment on degradation. So for instance, we
20 see more degradation in Knoxville than in Mount
21 Vernon and mainly because in Knoxville it's
22 warmer and the chemical reactions are faster if

1 it's warmer if you have adequate moisture in the
2 soils so the microorganisms can grow.

3 So we see definitely differences,
4 climatic differences. And you are right, in a
5 hot and dry climate you would expect less
6 degradation.

7 So that's why we think it's very
8 important to make those tests in many different
9 regions in the world where you would expect the
10 plastics to be used and long-term, to study that
11 long-term.

12 So one region for instance where
13 actually plastic is -- that may not be of
14 interest to you specifically here in the U.S.,
15 but where plastic is really used the most is
16 China.

17 And the plastic is actually used in
18 hot and dry climates because plastic will prevent
19 evaporation and allow you to produce in semi-arid
20 regions.

21 So we are trying to set up experiments
22 in those regions as well to exactly study that

1 question. But we expect that degradation will be
2 potentially happening, but much slower.

3 DR. NARAYAN: You're talking whether
4 biobased helps in the end of biodegradation. The
5 answer is no. Oh, that was not the question.
6 Sorry.

7 MS. OAKLEY: Sorry. Like what are the
8 ingredients within or the materials within the
9 product that help facilitate the biodegradation?

10 DR. NARAYAN: What is in there, I
11 won't put up slides, otherwise you'll get late.

12 It has got to do with the structure.
13 So for example, polyethylene. Polyethylene is a
14 carbon carbon carbon polymer chain. This is the
15 strongest bond synthetic people have developed
16 and built. So that's not going to break down.

17 Now, if I use the ester linkage, that
18 is carbon oxygen in that chain, then this is
19 susceptible to moisture, it's susceptible to
20 microorganisms getting in and esterases, I'm sure
21 you've heard of microbial esterases that can
22 break that down.

1 So, putting the right linkages into
2 the backbone of a long polymer chain allows you
3 to achieve that complete biodegradability.

4 The challenge is that you need to do
5 that while still giving you the mulch film to
6 last for six months, one year, whatever it is.
7 So this play between how strong I make it to how
8 soon I can get rid of it, so now we are saying
9 two years, so the strength of this is going to be
10 much lower.

11 And then that's something which people
12 need to get used to, right. Because I'm so used
13 to polyethylene, I can do whatever I want with
14 it, it will last forever. That's where the
15 challenge is. Did I answer the question now?

16 MS. OAKLEY: Not really, no. I mean,
17 I understand sort of the science that you're
18 describing, but what is the actual ingredient or
19 material within that plastic, the biobased
20 biodegradable mulch film that is creating the
21 conditions under which it's biodegrading.

22 Because you have some biobased content

1 and you have some plastic-based content. But
2 what is facilitating that degradation.

3 I think there are other ingredients
4 that are helping facilitate that.

5 DR. NARAYAN: I see what you're
6 getting at. So let's separate the two. The
7 fundamental molecule that is biodegrading is --
8 we saw that molecule called PBAT. It's got a
9 linkage. We know how it breaks down and that's
10 what we've shown. Oh, thank you.

11 If you go back to that structure which
12 you see there. Okay. You see that structure.
13 That is what is breaking down. I can give you
14 the actual mechanism which is simple. It breaks
15 down into smaller molecules and then they go
16 inside the cell. They are oxidized and this is
17 well documented.

18 I think your question is in order to
19 make that film there are other additives and
20 ingredients which are added into that, colors,
21 pigments, things which is in small quantities but
22 could affect soil health and productivity.

1 And that is correct. But if you look
2 at the certification schemes for this those
3 additives will have to be GRAS or approved.

4 So for example, they use talc or
5 calcium magnesium silicate. And I was sitting
6 through your previous discussions and I thought
7 is calcium magnesium silicate approved as an
8 organic and would you allow that or not. I'm not
9 sure. I need to go back and check that.

10 But I think those considerations which
11 you have must be an integral part of it. But I
12 don't think that is a showstopper, right, because
13 that is the key, the structure which you see to
14 show that.

15 So, additives are needed just for
16 essentially to make it usable. And they need to
17 be approved as safe. If it is organic like this
18 should be completely biodegradable. So even if I
19 add 2 percent of it I need to demonstrate that
20 that 2 percent of what I added is also 100
21 percent biodegradable in that time frame.

22 MR. ELA: Thank you. I want to

1 continue. So Dan.

2 DR. NARAYAN: I'm willing to wait with
3 you afterwards. I'm always looking for
4 audiences.

5 DR. SEITZ: So I'd actually like to
6 bring us back to grade school with my question.
7 It sounds as if you can make both biodegradable
8 and non-biodegradable plastic mulch out of oil.

9 It also sounds like you can make it
10 out of biomass --

11 DR. NARAYAN: Yes.

12 DR. SEITZ: -- except that if you make
13 it out of oil it sounds like you're further ahead
14 in terms of getting the properties you want. Is
15 that a fair statement?

16 DR. NARAYAN: Today you can make both.
17 It's a question of cost and availability. So if
18 you look at that molecule again on the table
19 today almost all of that components which go to
20 form that molecule, the adipic acid, the diol can
21 come from plant biomass. In fact fermentation
22 gives you that. Adipic acid can be done. There

1 are plants which do that.

2 But it's not in volume. Even
3 terephthalic acid if you remember Coca-Cola
4 announced 100 percent plant bottle. That's the
5 molecule they needed. And they make it from
6 sugar cane. So they are possible but it's not
7 going to happen overnight and the volumes are not
8 there to do it.

9 So that molecule can be made from
10 petroleum fossil resources, can be made from
11 plant biomass resources.

12 But you need that kind of a molecular
13 structure for it to be utilized by microorganisms
14 and be a fuel to them. Does that answer your
15 question?

16 DR. SEITZ: Yes, thank you.

17 DR. FLURY: Maybe I could just add one
18 more comment to that question. Because the
19 question here whether you make a biodegradable
20 plastic out of a biobased material like of corn
21 for instance or whether you use oil to me is
22 really not that relevant.

1 And the reason is that if you use corn
2 or any other bio product that bio product has to
3 be made with fuel as well because you need
4 fertilizer.

5 So the resource to make a bio product
6 is oil in the first place.

7 MR. BRADMAN: I have a couple of
8 questions. How or if was the plastics
9 incorporated into the soil? In the pictures you
10 showed it looked like these were like surface
11 mulches. It wasn't clear to me whether they were
12 disked in or allowed to degrade on the surface.

13 And then you also mentioned the need
14 for long-term studies. And that's something that
15 we've grappled with as a board is what term do we
16 need.

17 I would turn that around with it and
18 say why do we need that. For example, if you
19 look at the mass of carbon. I looked at the
20 density of the degradable mulches and if you look
21 at that the mass of carbon relative to the soil,
22 it's tiny.

1 So what impacts would you expect on
2 soil health that would be different from not
3 using it, or perhaps using another organic mulch
4 like paper, or a green manure, or something like
5 that.

6 DR. FLURY: Excellent question. So
7 the first question relates to the incorporation
8 of the mulch in soil.

9 And the photos I showed you is the
10 mulch applied to the soil surface. I mean,
11 that's what it's supposed to work on in the first
12 place.

13 But then the idea of the biodegradable
14 plastic is that after the growing season these
15 plastics are not going to be removed. They are
16 tilled in. Mainly we do rototilling now. So we
17 rototill the plastic into the ground and then the
18 idea is that the plastic will degrade in the
19 soil. So that is what we are doing. So we are
20 not taking the plastic away.

21 Now the question then is what happens
22 after you till the plastic into the ground. And

1 as Dr. Ramani said the microorganisms will come
2 into play and start to chew up these polymers.
3 But it takes a while to do that.

4 And what will happen initially is that
5 the plastic will get fragmented. So you'll get
6 smaller and smaller pieces.

7 And then the second part of your
8 question then is what happens with those pieces
9 until they are completely degraded.

10 So Dr. Ramani said these standard
11 tests, and the European Union has now the first
12 test in soil that says that you have to have
13 degradation within two years.

14 From our data we know that in soil it
15 will not happen in two years. Very likely it
16 will happen much longer.

17 And if you go to dry and arid climates
18 it may take I guess maybe 10 years for that
19 plastic actually to degrade.

20 Now, what happens with these plastic
21 pieces is not certain because organisms, let's
22 say for instance earthworms, they can eat them.

1 They can start to eat those up. Other soil
2 organisms can chew them up.

3 And we don't really know at this point
4 what is the effect on these soil organisms. So
5 there is a lot of research that has to be done to
6 see whether there is any harmful effect.

7 Although we know theoretically in the lab that
8 they will degrade, but until they degrade they
9 could still pose some problem.

10 DR. NARAYAN: It's just a little
11 added. This was your fifth or sixth question in
12 terms of effect.

13 This is the real world environment.
14 And what I have talked about and shown and
15 absolutely validate that this is going to happen
16 in soil.

17 The soil which is in the test methods
18 are from the best of conditions. The temperature
19 is maintained at 25 degrees and then you see the
20 two-year complete removal.

21 But if the environment -- what to me
22 was shocking was the two sites which they picked,

1 the rate at which this was degrading was not as
2 safe. So there is going to be a time lag.

3 And then in that time frame is there
4 any impacts, or will there be anything. And so
5 it is good that you learn what is happening, what
6 is not happening and not after the fact find out
7 that there is a problem.

8 MR. BRADMAN: And would the impacts be
9 -- are we concerned about a toxic effect of the
10 chemical versus perhaps the physical effect of
11 ingesting the plastic for larger organisms, say.

12 And then it sounds like -- there might
13 be a portion that takes longer to break down that
14 that could also get into the air if there was
15 dust, that sort of thing. It could move out of
16 the area.

17 DR. FLURY: So one concern of course
18 is that you have soil erosion for instance and
19 you have leaching that could actually potentially
20 leach some of those plastic fragments into the
21 ocean before they have completely degraded in
22 soil.

1 DR. NARAYAN: I would -- it depends on
2 the little additives that you add which could go
3 as volatile. But these molecules and the
4 mechanism with which it breaks down is that it
5 goes inside the cell. It's not going to get out.
6 It's going to completely be utilized.

7 And the rate at which it breaks down
8 and gets in, that's a pretty tight time frame.

9 The issue which is that sometimes the
10 soil is dry, arid. For biology to happen water
11 is essential. If you take that out of the
12 picture or you reduce it then the rates are going
13 to go down.

14 So real world to validate the lab,
15 I'll put it a different way. If your material
16 does not even pass the lab test and cannot
17 document it then we should not even be sitting
18 here discussing what should be the next steps.

19 So I -- not because he's sitting next
20 to me, but his work is critical to validating
21 that the lab-scale study because there's a time
22 frame between completeness and what is there,

1 that there is no effect.

2 And they will be not immediate. Like
3 it's not going to be toxic, it's not going to
4 kill anything, but it could be some biological
5 effects like microbial population changes, or
6 diversity and the things which soil scientists
7 look very carefully at.

8 MR. ELA: That's one of the things
9 we're concerned about. Dave, we're really out of
10 time -- very short?

11 MR. MORTENSEN: Yes, very briefly.
12 The lefthand side of that sketch is the building
13 block for 95 percent of the synthetic herbicides
14 used in conventional ag. Aromatic ring
15 structures.

16 And I guess the question that I have
17 is when you think about the fate of the primary
18 metabolites and the secondary metabolites of that
19 long chain with an aromatic ring in it could
20 impurities in the plastic synthesis or co-
21 ingredients result in functional groups being
22 attached to that aromatic ring that result in

1 compounds in the soil that shift microbial
2 communities and the behavior of the soil life.

3 DR. NARAYAN: To answer the first part
4 in terms of -- this is why if you noticed all the
5 studies which was done, the labeling was done on
6 the recalcitrant aromatic carbon for the same
7 reason that what if it is a primary metabolite.
8 It just breaks down and releases these complex
9 aromatic residues.

10 That's why this study was critical.
11 The radio labeling was done on the aromatic
12 carbon and that all of that radio labeling came
13 out as CO₂. So it was completely utilized.

14 So that should give us cause that
15 that's what's happening.

16 This was validated also by this recent
17 study where they labeled each of the molecules
18 including the aromatics. If you look at the
19 third structure down. That was labeled -- all
20 the aromatic ring carbons were labeled carbon 13.

21 And they did show -- that red line
22 shows you that that also evolved CO₂ and it also

1 went into the lipids.

2 So I think these studies give us proof
3 that what the mechanisms are happening. It's the
4 --

5 MR. MORTENSEN: I mean --

6 DR. NARAYAN: -- effect which you
7 bring out again to see whether that will go fast
8 enough. But that's where the studies will
9 document that.

10 MR. ELA: I wish we had the whole
11 afternoon because --

12 DR. NARAYAN: I wish that too.

13 MR. ELA: -- there is so much
14 experience between you two that I think we have
15 wrestled with, and to be able to pick your brains
16 would be wonderful. Unfortunately we don't.

17 Thank you very much for your time.
18 We'll look forward to the new results. I think
19 you did answer some of our questions in the sense
20 of there are still questions which is not
21 surprising.

22 But thank you for your time and I'll

1 turn it back over to you, Harriet.

2 (Applause)

3 DR. FLURY: Thank you for having us.

4 DR. NARAYAN: Thank you and thank you
5 for these chickens. My two grandkids, they'll
6 like it.

7 CHAIR BEHAR: Oh good, I'm so happy
8 you took them.

9 Okay, we are at 12:36 so let's do an
10 hour. Get back at 1:36. If you can get back a
11 little sooner that would be good because we still
12 have quite a bit. We still have to finish
13 Handling and move to Crops.

14 (Whereupon, the above-entitled matter
15 went off the record at 12:37 p.m. and resumed at
16 1:36 p.m.)

17 CHAIR BEHAR: Okay, we're going to
18 start on time here and not wait for anyone else
19 to show up. I know that some of the board
20 members were here so here they come. And we're
21 back to Asa with the Handling Committee sunset
22 materials.

1 MR. BRADMAN: So the next material on
2 our list is hydrogen peroxide. And I was the
3 lead on that so I will comment.

4 But before I do I just want to remind
5 everyone that to expedite our time and use it
6 efficiently we don't need to summarize everything
7 that's in the sunset document. The goal here is
8 just to bring up public comment and any
9 discussion related to that. So we're behind
10 schedule and we need to try to catch up here.

11 Hydrogen peroxide. I will say it's
12 a common sanitizer. Just very quickly I think we
13 can get through this one fast. Hydrogen peroxide
14 is a very commonly used sanitizer and
15 disinfectant in higher levels.

16 In terms of public comment everyone
17 loves hydrogen peroxide basically. It's
18 effective. It doesn't leave residues. It's
19 relatively low on the toxicity frame at least at
20 lower concentrations. It does have to be handled
21 carefully at higher concentrations especially
22 food grade levels up around 35 percent.

1 But it's really I think an
2 environmentally friendly material.

3 And just counting up the comments
4 there's probably -- there was a couple of dozen
5 comments. But then within the lists of
6 certifiers that have members using them were in
7 the hundreds.

8 And this is really a material that's
9 used both among processors and growers and at
10 different stages of handling and production.

11 So I don't think there's more to be
12 said. Any comments? Harriet.

13 CHAIR BEHAR: This is a material used
14 across all the scopes, crops, livestock and
15 handling.

16 MR. BRADMAN: So, with no more comment
17 on that one our next item is nutrient vitamins
18 and minerals with Tom on deck.

19 MR. CHAPMAN: Nutrient vitamins and
20 minerals. We didn't hear much so I think we're
21 good. I'm joking. Just out of a sense of
22 urgency.

1 Nutrient vitamins and minerals.
2 They're used to recreate or add nutritional
3 contents to food. It's a categorical listing so
4 there's a lot of items listed there.

5 There's a long history which I'm not
6 going to summarize here, but leads to some of the
7 questions we asked around synthetic and non-
8 synthetic versions and how to move forward in
9 light of 2012 proposed rule and later
10 rulemakings.

11 The public comment was kind of divided
12 amongst industry and trade associations that
13 spoke to its need and demand in food, and a lot
14 of comments from certifiers around its wide usage
15 by several types of operations.

16 And then other comments that objected
17 to both the categorical listing of vitamins and
18 minerals as well as their usage where not
19 required by law.

20 And there is various options proposed
21 by people on how to move forward on this topic.
22 The subcommittee will take those all into

1 detailed consideration as we review the sunset
2 material and see if we need to take any further
3 additional actions.

4 I'm not going to go into like deep
5 detail on this because we could literally spend
6 the rest of our evening on it. So unless there's
7 specific questions I think I'll hold it there.

8 But we did get detailed specific
9 comment from the public and it's really
10 appreciated, especially responses to our four
11 questions. So thank you.

12 MR. BRADMAN: Harriet.

13 CHAIR BEHAR: Will you be able to
14 summarize that for the subcommittee, or at least
15 direct us in the bundled comments to page numbers
16 that we could go to to find the ones that you
17 specifically thought were very useful?

18 MR. CHAPMAN: Yes, definitely.
19 Definitely.

20 MR. BRADMAN: Okay, the next material
21 that we're up for is peracetic acid. I'm the
22 lead on that.

1 In ways similar to hydrogen peroxide
2 I think this is a well appreciated material
3 that's used across different categories within
4 the National Organic Program.

5 It degrades rapidly, leaves little
6 residues. Relatively harmless breakdown
7 products. Acetic acid, vinegar type product,
8 oxygen water.

9 I should mention though acetic acid is
10 a respiratory irritant at high levels. So any
11 sanitizer, these things do need to be handled
12 appropriately and carefully.

13 One kind of interesting comment.
14 There is some review historically and also in
15 more updated information about stabilizers used
16 in the peracetic acid. There's both HEDP and
17 dipicolinic acid.

18 And in our view we're considering that
19 really as an inert material. Beyond Pesticides
20 points out that it's a former list 3 inert and
21 that it may not be allowed in formulations for
22 organic use.

1 And this is something I want to look
2 more into and also perhaps something that OMRI
3 could provide some input on.

4 Related to this I also want to just
5 give a shout out to Beyond Pesticides for a very
6 impressive report that they submitted in public
7 comments on inerts. I don't know if you're in
8 the room, but I think all of us should look at
9 that report and think carefully about it.

10 And it helps guide perhaps some of the
11 future work and also evaluation of some of these
12 materials.

13 So again though I think peracetic acid
14 is really non-controversial and essential across
15 many sectors. Any comments from the board?

16 Our next material is potassium -- I
17 say citrate. I don't know if it's citrate. And
18 going back to my notes is Lisa. You're on deck
19 for potassium citrate.

20 MS. DE LIMA: Potassium citrate.
21 Public comment was supportive and mentioned uses
22 including as a buffer in pH control agent,

1 acidity regulator in the wine-making process.

2 The TR also states that it's used to
3 wash processing equipment to remove off flavors.
4 No real information was brought forward in terms
5 of harm to human health or the environment.

6 Questions or discussion?

7 MR. BRADMAN: No more comments from
8 the board? Okay.

9 DR. LEWIS: Mike.

10 MR. BRADMAN: Our next material is
11 potassium phosphate and that's in Tom's court.

12 MR. CHAPMAN: So, potassium phosphate
13 is annotated for use only in agricultural
14 products labeled as made with organic
15 ingredients, prohibited in agricultural products
16 labeled as organic.

17 Potassium phosphate can be used for pH
18 control and buffering, and as a nutritional
19 additive for potassium either for yeast or for
20 also just food products.

21 It's unclear to me whether potassium
22 phosphate is restricted in its use as a nutrient

1 product because it would also fall under that
2 global listing of nutrient vitamins and minerals.
3 And so as it's used as a nutrient vitamins and
4 minerals I'm curious to know if potassium would
5 be allowed in that form or not.

6 We received very little comment on
7 potassium phosphate. We did have a certifier
8 note that they had two folks using potassium
9 phosphate as they add nutrient vitamin and
10 mineral products.

11 And then we received an extensive
12 comment from a trade association that spoke to
13 various uses, potassium phosphate items as well
14 as addressing the long-term concern product about
15 human health, accumulated human health risks of
16 phosphate products in general.

17 It was unclear from the comment from
18 the trade association whether their comments were
19 about usage of phosphates in food products, or
20 usage of phosphates in organic food products.

21 It looked like a lot of their uses may
22 be for products that aren't typically to the made

1 with organic level so it seemed to me like they
2 were talking mostly about food products and not
3 about particular organic food products currently
4 on the market. But I could be mistaken in that
5 and we'll seek further clarification.

6 MR. BRADMAN: Any comments from the
7 board on this material? Questions? Emily, thank
8 you.

9 MS. OAKLEY: Did you get any clarity
10 on your question about if it's redundant and
11 should the listing be removed?

12 MR. CHAPMAN: The only one that I saw
13 that commented was that single certifier who
14 agreed that the nutrient -- their application of
15 it was under that nutrient vitamin and mineral
16 listing. So it was -- out of all those questions
17 this one was probably the one that we got the
18 weakest response on.

19 And then just to throw it out there,
20 the contrary opinion that the categorical listing
21 of nutrient vitamins and minerals several people
22 objected to. So.

1 MR. BRADMAN: Any more comments,
2 questions? Let's move onto our next material,
3 sodium acid pyrophosphate with Scott.

4 MR. RICE: Sodium acid pyrophosphate.
5 It's use limited to as a leavening agent.

6 In terms of comments we had a number
7 of certifiers noting the presence of this
8 material on OSP's organic system plans.

9 A number of companies weighed in
10 noting it as the only chemical leaver available
11 allowing for specific types of bread and baked
12 goods.

13 One organization opposed the re-
14 listing noting that the initial TAP review only
15 covered its use in soy milk. Further commenting
16 that a subsequent TR focused on proposed expanded
17 use of sodium acid pyrophosphate and didn't
18 address the current listed use.

19 But the -- still in use and as I said
20 relied on as the only chemical leavener on the
21 list.

22 MR. BRADMAN: Any comments or

1 questions? Harriet.

2 CHAIR BEHAR: I just want to say when
3 this was first put on the list there was concern
4 that there would be like this multitude of
5 phosphates added because there's so many
6 phosphates that are used in very specific
7 situations.

8 But we really haven't seen that
9 happen. This is going back like 20 years. So it
10 seems like the phosphates that we have have
11 really been working for the manufacturers.

12 I know that there was a lot of
13 controversy about putting it on to begin with.
14 And the petitioner tried to sweeten it by saying
15 well, you can't have any cake doughnuts without
16 this. And the people who were at the meeting are
17 shaking their heads yes. So we now have organic
18 cake doughnuts as well as other things.

19 MR. BRADMAN: Any more comments?

20 MS. DE LIMA: Sodium citrate?

21 MR. BRADMAN: Yes, sodium citrate with
22 Lisa on deck.

1 MS. DE LIMA: Sodium citrate. Public
2 comment was generally supportive and mentioned
3 uses including as an antioxidant, a stabilizing
4 salt, buffer, and also when it's combined with
5 citric acid the pair provides a tartness without
6 a significant drop in pH which is important for
7 confectionary products.

8 Also used for achieving a consistent
9 pH for the gelling of pectin. It was also found,
10 some certifiers mentioned it was found in OSPs
11 used for meat processing as well as in the
12 manufacturing of dietary supplements and personal
13 care products.

14 No new information was brought forward
15 in terms of human health or the environment.

16 MR. BRADMAN: Any questions or
17 comments from the board? Okay. I keep turning
18 it off instead of on. Excuse me.

19 Our next material is tocopherols. I'm
20 the lead on that.

21 Tocopherols are used as an antioxidant
22 and material to prevent rancidity. Right now

1 it's listed on 205.605(b).

2 There's been some question about
3 whether there are non-synthetic sources that are
4 as functional and whether it should be listed on
5 205.605(a) or (a) and (b).

6 We discussed some of this at the 2017
7 meeting and at that point -- thank you, Tom, for
8 reminding me -- that we basically decided to
9 leave the listing as is.

10 Overall there is support for keeping
11 tocopherol -- in the public comments as being
12 necessary for many processed food products.

13 There's been some experimentation with
14 non-synthetic sources. And there's definitely a
15 feeling at least from the people who commented
16 that there's not enough non-synthetic sources
17 available and that in some cases they're not as
18 functional as the current material.

19 So, there's also kind of a long list
20 of potential ancillary substances. And this
21 table that's in the writeup is extracted from the
22 technical report.

1 You'll notice in a lot of categories
2 there's just unknown listed there. So this kind
3 of ties into the larger issue, another material
4 that ties into the larger issue of ancillary and
5 how to consider those.

6 Any comments from the board? Dave.

7 MR. MORTENSEN: Just a quick question.
8 When there is a substance unknown how is that
9 handled from a labeling point of view? Like when
10 you look at the contents of a packaged thing.

11 MR. BRADMAN: Tom.

12 MR. CHAPMAN: Ancillary substances are
13 a whole class of like processing aids and other
14 precursor products that don't appear on a labeled
15 product.

16 So for example, yeast is the easier
17 one for me to speak to will be grown on a
18 substrate. And when you add that to your product
19 some of that substrate may or may not be there.

20 So I'm brewing beer and I buy
21 commercial yeast. That yeast was fermented on
22 something, probably other malt extracts or

1 something. Some of that malt extract may remain
2 and may go into my product.

3 I'm adding yeast. So yeast is what
4 would appear on that label if beer was labeled,
5 not the malt extract unless it was another
6 ingredient in there. Does that make sense?

7 So it doesn't show up on the label.

8 MR. MORTENSEN: Okay, yes. I just
9 asked because my wife has a number of pretty
10 serious food allergies that relate to
11 hydrogenated things. I'm just curious how often
12 you might encounter something for someone that's
13 sensitive where you don't even know that it's in
14 the product.

15 MR. CHAPMAN: Yes. I mean, there's a
16 law under the FDA's authority for food allergen
17 labeling. Food Allergen and Consumer Protection
18 something. FALCPA. I'm butchering it, but.

19 Which specifies those eight major
20 allergens in the U.S. We had a public commenter
21 speaking about sesame and sesame is not a major
22 allergen in the U.S. so it may not be labeled.

1 Some food companies go above and
2 beyond and get that question from a lot of their
3 people and provide that information. In a case
4 of a product like this you would still seek to
5 know what was in there and ask for those
6 disclosures from those companies.

7 But once you're outside of those big
8 eight at least in the U.S. it's tough. It's
9 tough to know.

10 MR. MORTENSEN: Okay, thank you.

11 MR. BRADMAN: Any other questions or
12 comments? No? Okay, then our next material is
13 celery powder. I think given the extensive
14 discussions we had today and comments. We really
15 have a lot of new information on that.

16 Just to briefly summarize public
17 comments I would say there was -- some of our
18 speakers were actually -- their organizations
19 were submitting comments.

20 There's definitely a feeling that this
21 is an important material, an essential material
22 and that there's a wish to get past it.

1 Overall there was support for it.
2 There was some -- I think Beyond Pesticides is
3 one of our main commenters among others that
4 really feel this should be taken off the market
5 because it's not compatible with an organic
6 system.

7 And it is true that in contrast for
8 example to the collagen gel we're actually
9 growing a non-organic crop as an input to produce
10 organic products.

11 And I think that there is kind of a
12 special burden on the system to try to get away
13 from that.

14 And just when we were looking at some
15 of the graphs, looking at some of the slides we
16 saw the other day. And the organic material was
17 struggling to get up to 5 or over 1,200 parts per
18 million in those plants.

19 The conventional celery plants were
20 fairly easily getting up to 2,000, even higher
21 when they were younger. So there's kind of
22 almost a factor of two difference between the

1 conventionally grown, or two or three between the
2 conventionally grown and the organically grown.

3 And I think as a community we do need
4 to think carefully about this material and really
5 support the work that's going forward.

6 I know there's some talk about funding
7 and grants, and I think it's critical that this
8 be a research item on our agenda and that as an
9 institution that USDA should support work on this
10 to move it ahead. Because it would be nice to
11 get this off of 606.

12 Any comments from the board? Emily,
13 then Harriet.

14 MS. OAKLEY: Yes, it seems that from
15 that research data there is a lot to explore in
16 terms of maturation of the harvested celery and
17 the timing for when it's processed.

18 I would think that sort of midrange
19 and a smaller sized head would probably yield
20 from what we've seen and just in terms of how we
21 treat cover crops, for example. I think there's
22 a similar logic there. Might be some

1 opportunities.

2 MR. BRADMAN: Harriet.

3 CHAIR BEHAR: Well, I just wish that
4 we had a better handle on the conventional side
5 of growing. I found that a little disturbing
6 that it was difficult to find out what they're
7 doing on the conventional side to bring up the
8 level of nitrates in the celery.

9 MR. BRADMAN: Yes. We had an explicit
10 question about that and basically it's
11 unanswered.

12 MR. MORTENSEN: And I would just say
13 that I think that's an excellent suggestion.
14 That's where I would start.

15 It seems to me that this is something
16 I think could be resolved pretty quickly by
17 talking with some folks that grow conventional
18 celery.

19 MR. BRADMAN: Harriet.

20 CHAIR BEHAR: Erin Silva is a
21 colleague of mine and she's tried. The problem
22 is there's kind of a proprietary wall out there

1 and it hasn't been very forthcoming from the
2 conventional side.

3 But now that she's working with other
4 universities who then work with those
5 conventional celery producers hopefully we'll be
6 able to knock down that wall and get some
7 information.

8 MR. BRADMAN: Paul.

9 DR. LEWIS: So, as the board prepares
10 its research priorities for the fall meeting one
11 thing to think about is how you're characterizing
12 research in this area.

13 It was interesting in terms of the
14 work that Erin shared the year to year difference
15 was interesting.

16 I know that other research she's
17 published is that she looks at a very -- it's
18 regionally. So what she sees in Wisconsin may
19 not be applicable other celery production areas
20 such as Florida.

21 So one thing to think about when
22 you're developing your research priorities --

1 what kind of questions do you want to be thinking
2 about.

3 MR. BRADMAN: Thank you. Any other
4 comments related to celery powder? I think we
5 spent enough time on that this week.

6 So the next material is fish oil and
7 Tom, you're on deck.

8 MR. CHAPMAN: So fish oil is produced
9 clearly from fish. It's primarily used as a
10 source of omega-3 fatty acids, particularly EPA
11 and DHA.

12 And from what I can tell at least from
13 the comments that we received it's primarily used
14 in dairy products.

15 We received support for this item from
16 organic dairies that speak to the consumer demand
17 for omega-3 enriched products and having an
18 opportunity to compete with conventional products
19 that market themselves similarly.

20 On the other side opposition to this
21 material really kind of fell into three buckets,
22 first being environmental concerns around

1 harvesting of fish akin to the concerns we've
2 been grappling with on marine materials and other
3 items from wild harvesting.

4 Another area of concern was human
5 health, particularly accumulation of heavy
6 metals.

7 And then the last area of concern was
8 essentiality and whether or not this is a product
9 that should be added to foods in the first place.

10 We also received extensive comment
11 from a manufacturer of the product and a trade
12 association that represents manufacturers of the
13 product.

14 We had posed four questions to the
15 public being questions about dealing with the
16 heavy metal accumulation and purity, questions
17 about how the industry deals with those.
18 Questions about standards related to those and
19 then also noting that we have these environmental
20 and conservation concerns. How can we address
21 them.

22 And there were several options posed

1 to us both in written comments and then during
2 the webinar and in public. So we'll take those
3 under consideration as we review this material
4 and if renewed if we'd want to propose additional
5 annotations to this we'll discuss that at the
6 subcommittee level.

7 MR. BRADMAN: Emily.

8 MS. OAKLEY: I would highly encourage
9 an annotation based on public comments because it
10 seems highly feasible. And I don't know what the
11 work agenda timeline is, but it doesn't seem like
12 a heavy lift in terms of its workload. So if it
13 could be quickly adopted as a work agenda item
14 over the summer and passed as a proposal for the
15 fall meeting it seems timely and feasible. But
16 I'll let you guys figure that out.

17 MR. CHAPMAN: Yes. I guess just back
18 at that one. It seemed like there was a decent
19 amount of support across the board for that. And
20 there was some proposed items. And given the
21 amount of time you've spent in this general area
22 I'm curious to know if there was -- if you found

1 any of those wordings sufficient.

2 MS. OAKLEY: I mean, I think as the
3 Crops Subcommittee is looking to get its TR on
4 fish harvested exclusively -- whole fish -- wild
5 native whole fish from native ecosystems for use
6 as fertilizer I think that those suggestions that
7 came up as possible annotation wordings -- and I
8 know some of those were going to come to you
9 later through Michelle -- sounded absolutely
10 feasible.

11 And if I were someone adding fish oil
12 to my products and that fish oil was MSD
13 certified I would absolutely put that on the
14 product.

15 MR. BRADMAN: Dave.

16 MR. MORTENSEN: Tom, I just was
17 curious under the uses section of this draft if
18 you have it there.

19 The sentence that reads in addition to
20 aquiculture estimated to use about 81 percent of
21 fish oil produced. Is that a typo or is that
22 accurate?

1 MR. CHAPMAN: Can you cite me to?

2 MR. MORTENSEN: The first sentence of
3 the second paragraph under uses.

4 MR. CHAPMAN: That may or may not be
5 a typo. What I think was being stated here was -
6 - well, I'd need to look at it in more detail,
7 but I also just read this in the public comment
8 from Beyond Pesticides I believe that the
9 majority of fish oil production goes into feed
10 applications, particularly in aquaculture
11 settings.

12 MR. MORTENSEN: Okay.

13 MR. CHAPMAN: So that was what was
14 meant to be said I believe by that sentence. I
15 don't know if that is what was said by that
16 sentence.

17 MR. MORTENSEN: That's what it's
18 saying I think. I didn't realize that. I
19 thought the majority was human consumption.
20 That's not the case.

21 MR. BRADMAN: Any more comments or
22 questions related to fish oils? Okay, our next

1 material is gelatin and A-Dae, I think you're up
2 for that.

3 MS. ROMERO-BRIONES: So, a lot of the
4 discussion about gelatin is -- should be taken in
5 relationship with our discussion about collagen
6 gel because gelatin is derived from collagen and
7 our TR was a combined TR with collagen gel and
8 casings.

9 So I won't go into detail about --
10 well, yes, let me do that then.

11 Gelatin is used in a wide range of
12 products as a clarification or refining agent in
13 teas, juice and wine and as a stabilizer,
14 texturalizer, thickener and in capsules.

15 It's used in a wide variety of
16 products from gummy bears to Jell-O to sour cream
17 to ice cream to cosmetics. And fish gelatin is
18 widely preferred for uses in kosher foods.

19 It comes from a variety of different
20 sources, from cattle bones, hides, pig skins and
21 fish are the principal commercial sources.

22 We had several commenters. There are

1 several users of gelatin as it's listed. NOC
2 suggested that we need more information about
3 what is preventing the production of organic
4 gelatin.

5 We had one commenter offer
6 alternatives to gelatin which was organic pea
7 starch and other alternatives, namely pectin.

8 Beyond Pesticides suggested that we
9 needed to separate the listing for fish gelatin
10 versus gelatin derived from other animal sources,
11 and that we should consider of course as the same
12 discussion was in collagen the conventional
13 production of the sources of gelatin.

14 We did try to address the animal
15 sources whether from fish or from conventional
16 animal sources in the TR. But the TR stated that
17 marine sources are mainly in the research stage
18 and so there wasn't too much information provided
19 about the fish sources of gelatin.

20 MR. BRADMAN: Tom, you look like you
21 want to say something.

22 MR. CHAPMAN: I just want to note that

1 the pea starch may have some functional
2 replacements for gelatin, but I highly doubt it
3 would function in all applications.

4 MR. BRADMAN: Any other comments
5 related to gelatin? No? Okay, let's move onto
6 our next material, orange pulp, dried. And
7 that's also A-Dae.

8 MS. ROMERO-BRIONES: So dried orange
9 pulp is currently used as a moisture retention
10 agent and fat substitute in baked goods, pastas,
11 salad dressings, cheese spreads, frozen doughs,
12 frozen meats.

13 We had several commenters. It's also
14 -- other names for dried orange pulp is citrus
15 fiber and citrus flour.

16 We had several commenters report that
17 nobody reported using it. Some commenters
18 reported using orange peel and orange pulp, but
19 not in the dried form.

20 We had several -- we had one commenter
21 suggest de-listing because of the conventional
22 sources of the dried orange pulp which may

1 include the use of pesticides to create the dried
2 orange pulp. So we really didn't have too many -
3 - we didn't have any certifiers suggest the use
4 of dried orange pulp in any of their listings.

5 MR. BRADMAN: Emily, then Steve.

6 MS. OAKLEY: So when we don't hear
7 that a material is being used again where does
8 that leave the subcommittee? I mean, I see it
9 wasn't added all that long ago necessarily. So
10 what's happened in the intervening years?

11 MS. ROMERO-BRIONES: So, based on what
12 -- from just researching it very quickly it seems
13 like this material is primarily -- was primarily
14 used by the petitioner for a specific trade
15 product and they call it Citri-Fi 100. And
16 that's really the only use that I found. So I
17 would love more commenters to tell us if that is
18 not the case.

19 MR. BRADMAN: Steve, and then Lisa.

20 MR. ELA: I think echoing Emily's
21 comment these are the kind of things that there
22 may be users out there, but we need to hear from

1 them because I have a hard time leaving it on the
2 list if -- why have something there if it's just
3 a placeholder. So I guess a note to the
4 petitioner.

5 MR. BRADMAN: Okay. Lisa, and then --

6 MS. DE LIMA: I agree with Steve that
7 we want to hear from folks, but also on the other
8 side we know this is not a perfect process.

9 So to answer Emily's question I think
10 we still have to weigh -- I mean, there have been
11 situations in the past with tragacanth gum where
12 no one came forward and then someone came forward
13 afterwards.

14 So it's one of those not clear spaces.
15 But we do have to consider that everybody is not
16 aware of this process by a long shot.

17 MR. BRADMAN: Harriet, then Tom.

18 CHAIR BEHAR: So I was in the room
19 when this was petitioned and placed on the
20 National List.

21 It was somewhat controversial because
22 there were questions of the petitioner whether or

1 not -- why couldn't they get -- there was organic
2 oranges. This is before citrus greening occurred
3 and it was harder to grow organic oranges,
4 especially in Florida.

5 And they said well, you know, we own
6 all of these orchards that surround our plant and
7 none of them are organic.

8 And then we said well, why don't you
9 transition them to organic then if you need them.
10 And they said well, you know, we need more
11 organic oranges, we know that. There's a big
12 market. But we don't really want to do that.

13 And so it was put on there. But I
14 just wonder if we couldn't reach out to the
15 original petitioner and see if they have any
16 clients that are even buying this. That's where
17 it would come from.

18 Because I think it is just one
19 manufacturer who's making this product. And so
20 if we could find out if they have any customers
21 then we would know if anyone was using it.

22 MR. BRADMAN: Tom, then Ashley.

1 MR. CHAPMAN: As far as I'm aware the
2 Citri-Fi product is the only orange fiber product
3 out there. And I think they may even have a
4 patent on the process so they may be the only one
5 that can manufacture it.

6 They did come when we reviewed this in
7 2017 and presented a fairly detailed similar to
8 what we saw with the celery powder presentation
9 about the supply chain challenges to produce it.

10 It's a byproduct of the juicing side
11 of the industry and has a very short shelf life
12 and a very low yield.

13 At one point I purchased this product
14 for a product that we no longer sell. It was in
15 the made with category so this listing was not
16 particularly important to us.

17 It is an alternative fiber that has
18 some functional benefits especially in like fruit
19 prep areas or extruded fruit prep areas.

20 But I also have not -- I don't see it
21 out there in usage in the organic side so I would
22 love to hear from people if they're using it.

1 On the flip side this is a 606 item.
2 They have to search for it organically. I don't
3 see it as propping up conventional business or
4 preventing an organic business or preventing more
5 oranges from going into organic.

6 It's used at very minor levels and
7 people would -- like it's probably a small
8 business unit. Overall just in the fiber world
9 this is not a major fiber that people are using
10 in their foods.

11 So, I just, I don't see it going
12 organic anytime in the near future. I struggle
13 with having items on there that aren't used. On
14 the flip side I don't see the harm on a 606 item
15 if it's not being used. But I get the argument.

16 MR. BRADMAN: Ashley.

17 MS. SWAFFAR: So, looking back through
18 previous public comments when we reviewed this
19 last time we did get a public comment that said
20 dried orange pulp is produced under patent
21 protected only by Fiberstar at their single
22 facility in Florida. And therefore no other

1 processing operations worldwide can produce the
2 dried orange pulp as a functional food
3 ingredient. So I think that's an important
4 thing.

5 And I do remember them commenting that
6 they said there's not enough organic raw
7 material, fresh wet organic orange pulp on any
8 given day within the proximity of their single
9 Florida production facility to produce a minimum
10 batch of dried orange pulp. So two issues there.

11 But like Tom said, 606 item. But I
12 think the patent pending kind of gets it on the -
13 -

14 MR. BRADMAN: Steve.

15 MR. ELA: So what I hear in that is we
16 just listed a specific product.

17 MR. CHAPMAN: Yes, I mean that's not
18 always uncommon, but yes.

19 MR. ELA: It can't be replicated.
20 Kind of weird. I mean, we didn't just list it,
21 but it was listed.

22 MR. BRADMAN: Emily.

1 MS. OAKLEY: I mean, when I hear that
2 that's really not a compelling reason to keep it
3 because they have no interest to change it to
4 organic because they will have no competition in
5 the industry to ever produce this in an organic
6 method. So that's for me not a compelling reason
7 to keep it, especially if we don't have many
8 people using it and at this point since we
9 haven't heard from people it would be great to
10 get comments.

11 And I think that suggestion from
12 Harriet to contact the manufacturer would be
13 excellent.

14 MR. BRADMAN: Just to interject one
15 thing. It's not that relevant, just coming from
16 California there's lots of organic oranges in
17 California.

18 MR. CHAPMAN: Not for juice though I
19 don't believe. I think it's mostly a fresh --

20 MR. BRADMAN: That's true.

21 DR. LEWIS: California is a special
22 market. Florida is a juice market.

1 MR. CHAPMAN: This is a byproduct of
2 the juicing market.

3 MR. BRADMAN: Tom.

4 MR. CHAPMAN: Just so people know it's
5 listed as orange pulp, dried I think because of
6 the point you raised, Steve, which is a very
7 weird listing.

8 I actually think I voted to remove
9 this last time because I don't think it's in use.
10 But it's commonly called citrus fiber. So if you
11 are looking for it out there citrus fiber is how
12 it would be labeled. It wouldn't be labeled as
13 orange pulp, dried. So.

14 MR. BRADMAN: Any more comments,
15 discussion? Let's move on. Our next material is
16 seaweed, Pacific kombu.

17 MS. ROMERO-BRIONES: So, Pacific kombu
18 seaweed is used as an ingredient to make stock
19 for Instant Miso Soup and Yuzu Ponzu. It's
20 primarily used in Japanese traditional foods as
21 stock.

22 It is a seaweed and it is one of four

1 marine plants listed under 205.206.

2 There was one comment against re-
3 listing basically because of the process in which
4 seaweed absorbs heavy metals and radioactivity,
5 and also for consideration of over-harvesting and
6 protecting the environment.

7 In our TR it was a TR based on marine
8 and algae so there was no specific absorption
9 rates based on the type of seaweed. And so this
10 lends itself to the discussion we have on marine
11 and algae.

12 No one listed as using it. And the
13 petitioner is from Japan.

14 MR. BRADMAN: Comments or question?
15 I have one question. I'm not sure who to direct
16 this to, but this issue of it potentially being a
17 material that's prone to accumulating
18 contaminants from the environment.

19 It seems to me that's a very kind of
20 vague statement in the sense that every plant or
21 food accumulates stuff from the environment. We
22 have DDT in our bodies. Probably everything we

1 eat does too from decades ago.

2 So I don't know how to judge those
3 kinds of statements. It seems to me if there's
4 standards then does it measure up against a
5 standard.

6 I would think any manufacturer would
7 have to have some testing requirements if they're
8 concerned about contamination and can deal with
9 that. But I don't see how that could be used as
10 a criteria to evaluate whether something should
11 be listed or not.

12 MS. ROMERO-BRIONES: And I would just
13 say that that's my summary of the comments really
14 quickly. The commenter Beyond Pesticides did go
15 into detail particularly because this type of
16 seaweed is collected around the Japan Fukushima
17 radioactivity that is occurring. So there's a
18 higher percentage probably of absorption of these
19 types of heavy metals and toxics in that area.
20 So again, that was just my general --

21 MR. BRADMAN: No, I understand that.
22 But I don't see the -- I understand there's an

1 issue with potential contamination and that
2 should be addressed, but I don't see that as a
3 listing issue. I don't know if we need to
4 discuss that now. Emily.

5 MS. OAKLEY: In the absence of
6 requiring testing of an individual ingredient
7 which we don't have it's hard to get any data
8 like that or to require it.

9 MR. BRADMAN: So any more comments?
10 If not we'll move onto the next material, also
11 seaweed and also in A-Dae's court.

12 MS. ROMERO-BRIONES: So --

13 MR. BRADMAN: I'm sorry, Tom, you had
14 a comment?

15 MR. CHAPMAN: I'm not quick enough
16 with my OFPA. I always like to point out when
17 people use the criteria correctly or incorrectly.

18 I do believe an assessment of heavy
19 metals content or something along that lines is
20 part of the OFPA criteria that we're supposed to
21 use.

22 MR. BRADMAN: But everything can

1 accumulate it. And it's going to be site-
2 specific.

3 MR. CHAPMAN: If OFPA criteria was
4 crystal clear there would be no need for the 15
5 of us.

6 MR. BRADMAN: Point taken.

7 MR. RICE: Correction, 14.

8 MR. BRADMAN: So let's shift over.
9 Emily.

10 MS. OAKLEY: I just want to make it
11 clear that I'm not saying that I don't think we
12 should be looking at heavy metal accumulation. I
13 just don't see -- it would be very hard to obtain
14 that data as this board.

15 And if that data is out there I would
16 highly encourage people to submit it for us in as
17 much detail as possible.

18 MR. CHAPMAN: Yes. My comment wasn't
19 at all directed to you. It was directed to Asa's
20 statement.

21 MS. OAKLEY: I just wanted to make
22 sure it didn't sound like I was saying we

1 shouldn't care about accumulation of heavy
2 metals.

3 MR. BRADMAN: So, the next material
4 then to A-Dae again is Wakame seaweed.

5 MS. ROMERO-BRIONES: So Wakame seaweed
6 is a traditional component in miso soup in
7 Japanese cuisine.

8 Again, this is listed as one of the
9 four marine plants listed under 205.206. With
10 this commenters there was one commenter, one
11 handler that commented that they do use it in
12 their organic system plan, but the same
13 discussions around Pacific kombu relate to
14 Wakame. Very similar.

15 MR. BRADMAN: Any comments related to
16 this material from the board? Harriet.

17 CHAIR BEHAR: I'm just wondering if
18 there's anything within the FDA or the USDA that
19 might have some information that we could
20 reference.

21 MR. BRADMAN: Don't know. Okay. So
22 I think then we're done with the sunset

1 substances review. And I think we decided to
2 work on the collagen gel later on this afternoon.

3 So according to our schedule it would
4 be time to have lunch again. But just a related
5 message that we're that far behind. So turning
6 it over back to Harriet.

7 CHAIR BEHAR: Okay. So, I am going to
8 turn it over to Steve Ela, the Crops Subcommittee
9 chair.

10 MR. ELA: Sounds good. We'll start
11 right off with the allyl isothiocyanate petition.
12 Jesse, that is yours.

13 MR. BUIE: Okay. We received two
14 petitions for allyl isothiocyanate which I'll
15 just from this point AITC that have been
16 submitted to the NOP. And both these petitions
17 propose to add AITC as an allowed synthetic
18 substance in organic production at 205.601 as a
19 pre-plant fumigant.

20 The original petition dated December
21 2013 was received by the NOP January 24, 2014.

22 After review and discussion by the

1 Crops Committee the request to add AITC to
2 205.601 was not recommended.

3 The petitioner re-submitted a petition
4 in 2016, asserted that AITC offers organic
5 growers the only effective management tool for
6 soil-borne diseases and pathogenic nematodes at
7 levels that are commercially relevant and
8 supports the phytosanitary certification process
9 for organic fruit and vegetable nursery stock
10 production.

11 AITC, commonly referred to as oil of
12 mustard was first registered by the U.S. EPA in
13 1962 for use in pesticides and rodent control
14 products.

15 However, oil of mustard is a common
16 food ingredient and has been listed on the U.S.
17 Food and Drug Administration generally regarded
18 as safe listing since 1975.

19 Now, to facilitate the review of the
20 re-petition dated 2016 the Crops Subcommittee
21 requested a limited scope TR to address some
22 outstanding issues. And I'm going to just

1 briefly summarize these outstanding issues that
2 were dealt with in the February 2018 TR.

3 The first one was provide a review of
4 AITC as it pertains to the newly listed
5 additional uses.

6 The second, review proposed
7 phytosanitary use of nursery stock and plants
8 with deals with nursery stock certification.

9 And the third one was provide a
10 comprehensive look at both the short and long-
11 term impacts of soil beneficial life forms
12 compared to existing practices and the materials
13 being used.

14 So, on line 100 through 107 of the TR
15 it states that AITC and AITC containing materials
16 possess good potential to serve as an alternative
17 nematocide that are safe and more environmentally
18 benign than traditional synthetic fumigants.

19 However, the effectiveness of AITC can
20 be selective. In 2005 the study -- in a 2005
21 study the nematocidal activity of AITC was
22 evaluated using seven different species of

1 nematodes including six of the most important
2 parasitic nematode species in agriculture
3 worldwide.

4 The study found that the
5 susceptibility or tolerance of nematode species
6 was highly variable. While AITC was found to be
7 toxic and possess anti-hatching activity against
8 all species of the study the required
9 concentration of AITC for effective nematocidal
10 activities was different across the species that
11 was studied.

12 Additionally, the TR notes that one of
13 the degradation products of AITC is carbon
14 disulfide, CDS.

15 There are concerns regarding the
16 exposure of CDS because it is listed by the state
17 of California on the Proposition 65 list as a
18 developmental toxicant and is known to induce
19 neuropathological changes and other toxic effects
20 in rodents exposed through inhalation over the
21 intermediate during less than a year. And this
22 is referenced, the TR 491.

1 And because CDS is a major degradant
2 of AITC the human and environmental toxicity of
3 CDS should be considered as part of the
4 evaluation of AITC for use in organic production.

5 Also, according to TR lines 210 and
6 211 several international organizations and
7 regulatory bodies do not permit the use of AITC
8 in organic crop production.

9 Additionally, the lines 993 to 994
10 indicate that in addition to traditional crop
11 rotation the available information suggests that
12 the variety of available management techniques
13 preclude the application of synthetic
14 biofumigants such as AITC in organic production.

15 For example, the TR indicates that
16 some organic farmers including organic strawberry
17 producers are adapting mustard seed meal as a
18 natural option for soil pest control.

19 Synthetic AITC as a broad spectrum --
20 synthetic AITC acts as a broad spectrum fumigant.
21 This broad spectrum effect on both beneficial and
22 pest species is not compatible with organic

1 production.

2 Are there any questions?

3 MR. ELA: Harriet.

4 CHAIR BEHAR: So we did have some
5 public commenters who did like this material but
6 with fairly narrow suggested -- kind of a narrow
7 annotation.

8 But it seemed like it was kind of hard
9 to really narrow down exactly what we wanted to
10 say in the annotation.

11 And I originally was kind of open to
12 like for the nursery stock. But then when I've
13 seen really quite a growth on organic nursery
14 stock available.

15 I know there might be some certain
16 phytosanitary issues for shipping over state
17 lines and that sort of thing.

18 It's not an approved material now and
19 it doesn't seem to me that -- we're seeing growth
20 now in the nursery stock without its use. And so
21 there are some questionable aspects to it that
22 make us want to narrow it.

1 So I'm not so sure that we really need
2 it now. The last time we talked we were kind of
3 open to the nursery stock side, but now I'm
4 really wondering about that.

5 MR. ELA: Tom, then we'll go Emily,
6 Asa.

7 MR. CHAPMAN: Can you speak to the
8 scale of that nursery stock? Like how much out
9 there comparative to the growth in organic
10 industry, where is it being sold, what regions,
11 what markets.

12 CHAIR BEHAR: Well, I know there's
13 quite a bit of strawberries that are available
14 conventionally. I saw that note on the CCOF
15 newsletter and I went to the website.

16 MS. OAKLEY: You mean organic.

17 MR. CHAPMAN: You mean organic.

18 CHAIR BEHAR: Organic strawberry
19 transplants for commercial use.

20 MR. CHAPMAN: You said conventional
21 but I get what you're saying.

22 CHAIR BEHAR: I'm sorry. Organic --

1 MR. CHAPMAN: Like a lot doesn't give
2 me a sense. Do you have a percentage?

3 CHAIR BEHAR: No, I just saw it
4 available when last year at this time I didn't
5 see any available. So to me that seems like
6 there's growth if I'm seeing it available. No, I
7 didn't do research into it.

8 But we know that there has not really
9 been a significant amount of apple trees
10 available organically. And then I see Stark
11 Brothers sending out catalogs across the country.
12 And I'm aware of a few other nurseries that are
13 getting into organic production.

14 And we haven't heard from them that
15 they need this material.

16 MR. CHAPMAN: I guess, I mean zero to
17 half a percent is a thousand plus million
18 infinite growth there. But it doesn't mean it's
19 anywhere near what's needed to support the size
20 of the organic market and the growth rates that
21 we're seeing.

22 So I guess I'm just curious to hear

1 numbers associated with those statements.

2 MR. ELA: I can -- do you mind if I
3 address that first? I think your point's well
4 taken. There is -- as a perennial grower there
5 is essentially for a back yard gardener there is
6 some availability on certain varieties and
7 certain root stocks in very limited numbers.

8 I mean, we plant three or four
9 thousand trees a year. The Washington guys here
10 plant 200, half a million trees a year. We're
11 not even close.

12 And I'll say some more things about my
13 thoughts, but just in direct response to that.
14 I'll go after the other people. Emily.

15 MS. OAKLEY: There's so much to say
16 here. In terms of the strawberry producer in
17 California they've been around for a while and
18 they've been increasing their production.

19 I think the potential in the next five
20 years is pretty great for them to expand. Some
21 of the limitations right now are when those root
22 stocks and grounds are available. And depending

1 upon where you are in the country when you need
2 to plant.

3 But I think some of that's going to
4 change very quickly. Because it's already
5 changed pretty dramatically.

6 In terms of planting stock for trees
7 although I'm a small farm we do have trees. And
8 I think the issue of root stock is really key.
9 And where you are in the country has a huge
10 impact on where you're going to buy your trees.

11 And the chance that you're going to
12 find someone with the root stock and the variety
13 that you need that is going to actually go to the
14 trouble to offer that organically is pretty slim.

15 And I think the reason that we sent
16 this back was a hope to see if there might be an
17 encouragement in the organic nursery industry
18 with this material. But we didn't hear from
19 anyone with regards to that.

20 And that's because it's going to take
21 way more than AITC to probably boost the organic
22 nursery stock industry.

1 To that point my final comment would
2 just be I don't think we want to adopt a broad
3 spectrum fumigant in the hopes that maybe some
4 year down the road this might be helpful.

5 And the precedent that that sets I
6 think is a very slippery slope even with an
7 annotation which we of course didn't come forward
8 with at this time.

9 So I still remain convinced that the
10 committee's decision was the right one.

11 MR. ELA: Asa.

12 MR. BRADMAN: I just kind of want to
13 reiterate some of the comments that have come by.
14 But also kind of understanding that -- I'm
15 looking at the recommendations from the Organic
16 Produce Wholesalers and this came up last fall.

17 To me it wasn't a question about AITC,
18 but it raises this larger issue. What are the
19 phytosanitary needs to support nursery stock.
20 This may or may not be the material for that.

21 I don't think we should approve it for
22 that purpose. It hasn't even been validated or

1 tested for specific diseases where we're talking
2 about -- that may be of concern for interstate
3 transportation.

4 Their other point, add a topic to our
5 research agenda to identify methods and materials
6 to support production systems for organic
7 planting stock. I think that's important.

8 Just in discussions recently I've
9 talked to prominent organic orchard growers and
10 they're buying non-organic stock on a regular
11 basis.

12 In a way that's a little bit similar
13 to the issue of converting a cow from non-organic
14 to organic.

15 I see some similarities. But we're
16 using a conventional system to produce literally
17 the root stocks of organic agriculture. It would
18 be great if the roots could also be organic.

19 MS. OAKLEY: Can I just quickly add
20 that yes, I have that as a research priority for
21 this year. I think that has clearly come up.

22 MR. ELA: Tom.

1 MR. CHAPMAN: Just as long as you
2 plant that tree before the first third of
3 gestation.

4 Good points. I hear you. I also
5 think this would be a good area for us to
6 potentially have a panel on like we've had on the
7 barriers to organic seed.

8 We've always focused on seed. We
9 haven't really spent the same amount of time at
10 least in my duration here on planting stocks.

11 MR. MORTENSEN: And if we go to that
12 to me this is clearly a case -- I think the point
13 that has been made by two speakers already that
14 this has got to be a systems approach.

15 I really do think we should hold the
16 line on having efficacy. So I totally agree with
17 Asa's point.

18 This is a very active compound and
19 just having it be a one-off as a part of a
20 nursery stock management plan, it's totally
21 incomplete and the data they gave us is not
22 sufficient to support this request in my view.

1 MR. ELA: Harriet, I apologize. I
2 jumped over you.

3 CHAIR BEHAR: That's all right. I
4 just want to say that the fact that I'm starting
5 to see more nursery stock gives me hope that
6 there has been -- they've figured something out
7 and that others will figure it out too and that
8 we'll see a growth without a reliance on a
9 somewhat questionable material.

10 MR. ELA: I'll throw in -- there is a
11 need for organic nursery stock. It's a very
12 complex system just like it is in seeds, of
13 varieties. If you have 60 varieties of lettuce,
14 you have hundreds of varieties of apples as well.

15 And each state has its own
16 phytosanitary restrictions. So it's not a
17 national phytosanitary list although there is
18 that too.

19 So it's a complex topic. I did a
20 search as part of my organic certification to
21 look for organic trees. I barely could find the
22 variety let alone size, root stock, et cetera, et

1 cetera. So it's very rudimentary.

2 I think the other thing is at least in
3 perennials, and I can't speak for strawberries,
4 but a nursery is a very intensive place. I mean
5 just like it is for humans, or maybe even cows if
6 you want to make that comparison.

7 But you're trying to graft this root
8 stock and grow a saleable tree in a year and
9 there's not a lot of tolerance for mistakes and
10 there's a huge amount of risk. And I think that
11 probably really cuts to the chase of how do you
12 grow a viable nursery tree that can get planted
13 out in an orchard like mine or other people's in
14 a year. It's an intensive process.

15 I think that's going to be the tougher
16 nut to crack. Either that or we're going to have
17 to accept much lower quality nursery stock, or
18 grow it for two years, or some other process.

19 I'm not against that, but the cost is
20 going to go way up. And cost isn't an issue, but
21 from a nursery standpoint they have to be able to
22 justify their production. So, Emily.

1 MS. OAKLEY: Just in conclusion I feel
2 that as a matter of process especially for
3 someone who loves process I think that when we
4 create exceptions it is a very murky territory.
5 And it just creates the argument for increasing
6 exceptions over time.

7 And I think we kind of see that in
8 some of the issues that we're facing as an
9 organic community. And I feel that to Dave's
10 comment about holding the line I feel like this
11 is a broad spectrum soil fumigant and it is a
12 synthetic. I don't think that is something that
13 we want in organic agriculture and I don't think
14 it's a place that we want to go.

15 MR. ELA: Rick.

16 MR. GREENWOOD: Yes, just one comment.
17 If you look at the TR the impact on soil health
18 is noted. And I think one of the big issues for
19 us is soil health.

20 So again, it just seems incompatible.
21 That's sort of the fundamental of what we do. So
22 I don't know if we need another broad spectrum.

1 MR. ELA: It seems like we've kind of
2 honed in on most of the comments. Are we okay to
3 go to a vote? I'm hearing more agreement than
4 disagreement. So why don't we go ahead and move
5 forward.

6 We have a classification motion to
7 classify allyl isothiocyanate, AITC, as
8 synthetic. It was a motion by Jesse. It was
9 seconded by Harriet. Looks like we're starting
10 with Lisa I think.

11 MS. DE LIMA: Yes.

12 MR. GREENWOOD: Yes.

13 MS. SWAFFAR: Yes.

14 MR. CHAPMAN: Yes.

15 MS. BAIRD: Yes.

16 DR. SEITZ: Yes.

17 MR. MORTENSEN: Yes.

18 MR. BRADMAN: Yes.

19 MR. RICE: Yes.

20 MR. ELA: Yes.

21 MS. OAKLEY: Yes.

22 MR. BUIE: Yes.

1 MS. ROMERO-BRIONES: Yes.

2 CHAIR BEHAR: Chair votes yes.

3 MR. ELA: All right.

4 MR. RICE: It's 14 yes, zero no.

5 Motion passes.

6 MR. ELA: All right. We'll move on to
7 the National List motion. The motion is to add
8 allyl isothiocyanate, AITC, at 205.601. The
9 motion is made by Jesse, seconded by Asa. The
10 vote would start with Rick, I believe.

11 MR. GREENWOOD: No.

12 MS. SWAFFAR: No.

13 MR. CHAPMAN: No.

14 MS. BAIRD: No.

15 DR. SEITZ: No.

16 MR. MORTENSEN: No.

17 MR. BRADMAN: No.

18 MR. RICE: No.

19 MR. ELA: No.

20 MS. OAKLEY: No.

21 MR. BUIE: No.

22 MS. ROMERO-BRIONES: No.

1 MS. DE LIMA: No.

2 CHAIR BEHAR: Chair votes no.

3 MR. RICE: That's zero yes, 14 no.

4 Motion fails.

5 MR. ELA: Okay. We'll move on to the
6 next petition material. Dave's going to present
7 both ammonium citrate and ammonium glycinate.
8 Dave, I imagine you can kind of present them
9 together but we'll have to vote on them as two
10 separate materials. So feel free to distinguish
11 or lump as you will but we'll go to the vote
12 separately.

13 MR. MORTENSEN: Will do, Steve.
14 Thanks. So, a company by the name of Alpha
15 Chelates has submitted for two compounds,
16 ammonium citrate and ammonium glycinate.

17 The intent of both of these compounds
18 would be that they would serve as chelating
19 agents that would -- their purpose would be to
20 apply them to the soil and deliver micronutrients
21 that would be complexed with the chelating agent
22 ammonium citrate or ammonium glycinate.

1 We have been working on this
2 application and three addenda to this
3 application. We've spent a lot of time looking
4 at this.

5 We kind of got going around. In 2016
6 the board determined that this was not something
7 that we would approve, the subcommittee did,
8 based on the fact that chelating agents exist,
9 alternatives exist and certainly cultural
10 management practices exist that basically provide
11 the service of delivering micronutrients to plant
12 rhizospheres to the soil and the roots of plants
13 in the field.

14 The applicant Alpha Chelates
15 challenged the board with respect to its
16 understanding of the chemistry of chelating
17 agents and the language. And we had a new
18 technical review performed that we received
19 sometime in 2018 that we went through very
20 carefully together and discussed on many phone
21 calls.

22 And basically concluded that we --

1 basically these are chelating agents, ammonium
2 citrate and ammonium glycinate, that the company
3 is interested in seeing if we would register as a
4 petitioned material.

5 These are synthetic compounds.
6 They're a synthetic reaction vessel where citric
7 acid is combined with ammonium hydroxide to form
8 these chelating agents.

9 We asked for additional -- well, we
10 had this out and we got feedback. I would say we
11 got mixed feedback in the public comment.

12 There was some comments from the
13 Organic Produce Wholesalers Coalition about
14 adding another chelating agent would add to the
15 toolbox of things that could be used while others
16 felt that we have sufficient numbers of things
17 and management practices to perform the purpose
18 of the chelating agents.

19 Another point that I've been harping
20 on during the course of the last day or so is the
21 issue of supporting data. And I will say that
22 the supporting data is very weak in this

1 application.

2 The company is in Australia and we
3 have one data set from dryland wheat production
4 that shows some marginal improvements. And they
5 draw quite a few conclusions about the influence
6 of soil chemistry, pH, et cetera that's quite a
7 reach, some of the claims that are made in those
8 statements.

9 So, the subcommittee looked at this
10 and the subcommittee was not supportive of us
11 going forward with this petition.

12 And based on the mixed feedback and
13 nothing compelling in the way of new data I think
14 we're ready to vote on the proposal. I am not
15 supportive of this going forward for all the
16 reasons that I've stated already.

17 We have alternatives. Cultural
18 practices. And I'm not meaning in tiny little
19 farms and fields. This is -- the cultural
20 practices are scalable. I just think this is not
21 needed at this time.

22 MR. ELA: Discussion. Emily.

1 MS. OAKLEY: I just want to add that
2 the original reason that the petitioner gave for
3 petitioning this material was that the Australian
4 authorities defer to the U.S. authorities when
5 examining chelates, chelating agents.

6 And so they were sort of pressing us
7 to help them set a precedent for their own
8 national standards.

9 They also were having concerns about
10 nomenclature uses both within the NOSB and NOP
11 applications.

12 So I would just hope if I could put
13 Clarissa on the spot which I didn't tell you
14 earlier I would do. Are you comfortable
15 addressing some of what was covered in the
16 technical report regarding that point?

17 DR. MATHEWS: Yes. So the recent
18 technical report did address several of the
19 concerns that have been raised about nomenclature
20 and also listing within our system on the
21 National List in terms of chelating agents.

22 And the recent technical report had

1 very detailed coverage, over a page of additional
2 material addressing these points.

3 MR. ELA: Other -- Harriet?

4 CHAIR BEHAR: I'll just say that to
5 put it on the public record that we did have many
6 robust discussions. This was not done lightly.
7 Dave's discussion and I think the feeling of the
8 subcommittee.

9 We did give it an open-minded review
10 and we did not come to a positive decision in the
11 subcommittee.

12 MR. ELA: Emily.

13 MS. OAKLEY: Yes, sorry. Clarissa
14 just reminded me that we actually rejected the
15 initial technical report and asked for additional
16 clarification on the nomenclature issue and
17 subsequently got that back.

18 So this has not been a slow process.
19 It has taken a great deal of deliberation. I
20 think that therefore addresses this re-petition
21 that came before us. So I think we consider this
22 issue very much addressed.

1 MR. ELA: I'll jump in with my own
2 comments. First of all I want to thank Clarissa
3 and Dave. This shows why we have a diverse board
4 and having a scientist that can work through the
5 chemistry and having a technical advisor that
6 also works through that gave me much more
7 comfort.

8 I could have spent a lot of days and
9 figured it out, but I didn't want to. And so
10 knowing that you guys could look at it. And the
11 TR too in conjunction. But it gives me much more
12 confidence in the outcome on this so thank you on
13 that because these are the ones where we are
14 above our pay grade. But we have people that
15 have experience so thank you.

16 I just want to reiterate in our own
17 world there are other chelates out there that are
18 usable in organics. This is not the only choice
19 and they're not all lignin-based and the other
20 things. I really struggle with essentiality on
21 it as well besides some of the other technical
22 issues. That's my own two cents.

1 Any other comments or should we move
2 to a vote? Okay.

3 The motion is to classify ammonium
4 citrate as synthetic. It was motioned by Dave
5 Mortensen, seconded by Harriet. And who are we
6 starting with?

7 MS. SWAFFAR: Start with me. Yes.

8 MR. CHAPMAN: Yes.

9 MS. BAIRD: Yes.

10 DR. SEITZ: Yes.

11 MR. MORTENSEN: Yes.

12 MR. BRADMAN: Yes.

13 MR. RICE: Yes.

14 MR. ELA: Yes.

15 MS. OAKLEY: Yes.

16 MR. BUIE: Yes.

17 MS. ROMERO-BRIONES: Yes.

18 MS. DE LIMA: Yes.

19 MR. GREENWOOD: Yes.

20 CHAIR BEHAR: Chair votes yes.

21 MR. RICE: That's 14 yes, zero no.

22 The motion passes.

1 MR. ELA: Okay. The listing motion is
2 a motion to add ammonium citrate as petitioned at
3 205.601. This is a motion by Dave, seconded by
4 Emily. Looks like we start with Tom.

5 MR. CHAPMAN: No.

6 MS. BAIRD: No.

7 DR. SEITZ: No.

8 MR. MORTENSEN: No.

9 MR. BRADMAN: No.

10 MR. RICE: No.

11 MR. ELA: No.

12 MS. OAKLEY: No.

13 MR. BUIE: No.

14 MS. ROMERO-BRIONES: No.

15 MS. DE LIMA: No.

16 MR. GREENWOOD: No.

17 MS. SWAFFAR: No.

18 CHAIR BEHAR: Chair votes no.

19 MR. RICE: That is zero yes, 14 no.

20 The motion fails.

21 MR. ELA: Okay. If we could have the
22 next slide. Dave, are you ready to proceed to

1 the vote on the second one?

2 MR. MORTENSEN: Yes.

3 MR. ELA: Do you have anything else to
4 add?

5 MR. MORTENSEN: Not really. I mean,
6 just to say that they're two very, very similar
7 salts. The processes, the reaction process is
8 the same. It's a synthetic compound. The
9 technical review from 2018 addressed both of them
10 together and as Clarissa said and others have
11 pointed out and I may have glossed over it was a
12 deep dive on the chemistry of these things and
13 basically affirmed our interpretation of the
14 chemistry and the appropriateness by which we
15 were evaluating the fit of these compounds. So I
16 don't think there's anything else to add, Steve.

17 MR. ELA: Anybody else have anything
18 else to add? Move to the vote.

19 So the motion is to classify ammonium
20 glycinate as synthetic. Motion by Dave, seconded
21 by Harriet. Starting with Sue.

22 MS. BAIRD: Yes.

1 DR. SEITZ: Yes.

2 MR. MORTENSEN: So this is synthetic,
3 right?

4 MR. ELA: Yes.

5 MR. MORTENSEN: Sorry. Yes.

6 MR. BRADMAN: Yes.

7 MR. RICE: Yes.

8 MR. ELA: Yes.

9 MS. OAKLEY: Yes.

10 MR. BUIE: Yes.

11 MS. ROMERO-BRIONES: Yes.

12 MS. DE LIMA: Yes.

13 MR. GREENWOOD: Yes.

14 MS. SWAFFAR: Yes.

15 MR. CHAPMAN: Yes.

16 CHAIR BEHAR: Chair votes yes.

17 MR. RICE: That's 14 yes, zero no.

18 The motion passes.

19 MR. ELA: Okay. The listing motion,
20 motion to add ammonium glycinate as petitioned at
21 205.601. It was motioned by Dave, seconded by
22 Dan. We will start with Dan.

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DR. SEITZ: No.

MR. MORTENSEN: No.

MR. BRADMAN: No.

MR. RICE: No.

MR. ELA: No.

MS. OAKLEY: No.

MR. BUIE: No.

MS. ROMERO-BRIONES: No.

MS. DE LIMA: No.

MR. GREENWOOD: No.

MS. SWAFFAR: No.

MR. CHAPMAN: No.

MS. BAIRD: No.

CHAIR BEHAR: Chair votes no.

MR. RICE: That's zero yes, 14 no.

The motion fails.

MR. ELA: All right. The next material is mine for calcium acetate. One second here.

So calcium acetate is a calcium material that is treated to provide additional available calcium to the crop. It's basically

1 limestone that's acidified and that makes more
2 available calcium.

3 It was petitioned for two uses. One
4 as a calcium product to add calcium to plants in
5 either soil or foliar and then it was secondly
6 petitioned as a sunscald protectant either to use
7 directly on the plant and fruit or over plastic
8 to help reduce temperature loading of those
9 crops.

10 As far as public comments went fairly
11 limited number of public comments. We had one
12 group in favor, other groups against. There were
13 no comments from growers in the record. We did
14 have a couple of comments from the petitioner.

15 We certainly know some of the comments
16 were that calcium foliar sprays are necessary in
17 growing seasons because there are calcium
18 deficiencies even in high-calcium soils. And so
19 that was a claim for it.

20 However, then the claim is there are
21 other calcium products on the market. Some may
22 be available in a slower fashion, but there are

1 also some chelated calcium products as well that
2 are already on the market.

3 One group noted as far as the sunscald
4 protection goes especially in terms of reducing
5 temperature loading when plastic is used,
6 especially black plastic, that we do not believe
7 that the application of a synthetic material in
8 order to overcome the problems inherent in the
9 use of another synthetic material, in other words
10 using calcium acetate to overcome overheating
11 caused by plastic mulch is compatible with
12 organic production.

13 I have to say in general this is a
14 very benign product. It's a calcium material.
15 It is synthetic, or we determined to be
16 synthetic, we'll vote on that, but it's not an
17 extensive process.

18 However, it is adding a synthetic to
19 the list. So I at least had issues with
20 essentiality and the need for it.

21 And then also do we really -- where
22 there are actually natural materials available do

1 we want to add another synthetic to the list.

2 With that I will open it up for
3 questions. Emily.

4 MS. OAKLEY: Not that I want to be the
5 first person so if somebody else wants to go they
6 can. All right.

7 I was just going to say that I think
8 there are ample calcium products and methods to
9 address calcium deficiency. Many vegetable and
10 fruit farmers address this issue in a number of
11 ways.

12 There are both products that can be
13 used and there are cultural methods that can also
14 help with this.

15 In terms of sunscald additionally
16 there are many cultural methods that can be used
17 in terms of plant spacing, trellising, many other
18 options that can help address this. In tree
19 fruit that's a bit different.

20 But I don't think that that is an
21 issue that warrants the use of a synthetic. I
22 think that there are many opportunities for

1 addressing this with tools that are already
2 available.

3 MR. ELA: Tom.

4 MR. CHAPMAN: I know the petitioner
5 had asked for more time to get public comment to
6 support this. I will say that it seems like this
7 petition wasn't written somewhat on the same
8 format. It doesn't speak to the petitioner and
9 it leaves out that we did have this as a
10 discussion document item in 2018.

11 So there has been two meetings with
12 the opportunity for public comment that have
13 failed to materialize at this point outside of
14 the comment from the produce trade association,
15 the produce wholesalers trade association. So
16 that's difficult.

17 But I think that's important to note
18 is that they had two opportunities both of which
19 -- and the first opportunity we asked those
20 questions about need from the industry or need
21 from farmers.

22 MR. ELA: Yes. Thank you, Tom.

1 Ashley.

2 MS. SWAFFAR: I just noticed there was
3 an abstention in the subcommittee. Was there any
4 detail about that in the vote? It said there was
5 an abstention.

6 MS. OAKLEY: I think I remember that.
7 I think that was you, Steve.

8 MR. ELA: Was it?

9 MS. OAKLEY: I could be wrong.

10 MR. ELA: It may have been a meeting
11 I wasn't at. I can't remember.

12 MS. OAKLEY: I thought you were
13 waiting to sort of get more information. I could
14 be wrong.

15 MR. ELA: It's possible. I don't
16 know. I can't give you a solid answer on that.
17 It could have been me.

18 MS. SWAFFAR: Just making sure there
19 wasn't something underlying.

20 MR. ELA: Oh actually, I know what it
21 was. I better not say. I was thinking -- I was
22 thinking it might have been a new member.

1 MS. OAKLEY: You're right. Actually,
2 I think you might be right. It might have been a
3 new member who did not have enough time.

4 MR. ELA: I think it's when Eric came
5 on.

6 MS. OAKLEY: You're right. Thank you.

7 MR. ELA: So there was some -- didn't
8 feel like they had adequate background to vote on
9 it.

10 MS. OAKLEY: That's right. Thank you.

11 MR. ELA: Sorry not to be more clear
12 on that.

13 CHAIR BEHAR: Right. And he's no
14 longer here to speak to it.

15 MR. ELA: So, other discussion on
16 this? Rick.

17 MR. GREENWOOD: Yes. Emily mentioned
18 trees. So when we stump our avocado trees
19 they're susceptible to sunscald.

20 And there's plenty of products. We
21 use a clay product to spray on the trunk. So
22 nobody is crying for that in our industry

1 certainly. We stump thousands of trees.

2 MR. ELA: Yes. I know the use of clay
3 like on tree fruits, it can be difficult to wash
4 off sometimes. People use coverings.

5 You can make the claim of while you're
6 using a lot of plastic for a covering you could
7 use a fairly benign product. But I think it
8 comes back we just didn't have testimony to
9 justify it.

10 Anything else? All right, we'll move
11 to the vote. Motion to classify calcium acetate
12 as a synthetic. Motion was made by myself,
13 Steve, seconded by Harriet. We are starting with
14 Dave.

15 MR. MORTENSEN: Yes.

16 MR. BRADMAN: Yes.

17 MR. RICE: Yes.

18 MR. ELA: Yes.

19 MS. OAKLEY: Yes.

20 MR. BUIE: Yes.

21 MS. ROMERO-BRIONES: Yes.

22 MS. DE LIMA: Yes.

1 MR. GREENWOOD: Yes.

2 MS. SWAFFAR: Yes.

3 MR. CHAPMAN: Yes.

4 MS. BAIRD: Yes.

5 DR. SEITZ: Yes.

6 CHAIR BEHAR: Chair votes yes.

7 MR. RICE: That's 14 yes, zero no.

8 The motion passes.

9 MR. ELA: Okay. We have the listing
10 motion, motion to add calcium acetate at 205.601.
11 Motion was made by myself, Steve, seconded by
12 Emily. We will start with Asa.

13 MR. BRADMAN: No.

14 MR. RICE: No.

15 MR. ELA: No.

16 MS. OAKLEY: No.

17 MR. BUIE: No.

18 MS. ROMERO-BRIONES: No.

19 MS. DE LIMA: No.

20 MR. GREENWOOD: No.

21 MS. SWAFFAR: No.

22 MR. CHAPMAN: No.

1 MS. BAIRD: No.

2 DR. SEITZ: No.

3 MR. MORTENSEN: No.

4 CHAIR BEHAR: Chair votes no.

5 MR. RICE: That's zero yes, 14 no.

6 The motion fails.

7 MR. ELA: Moving onwards we have the
8 proposal strengthening the organic seed guidance
9 April 2019. Harriet.

10 CHAIR BEHAR: Okay. So, we did get
11 quite a few comments. Okay. So we did have some
12 really excellent comments. And I want to say
13 that this one has taken quite awhile to get to
14 the finish line. I really appreciate all the
15 previous public comments in helping lead us to
16 this path. And it was very gratifying I think
17 for the public and for me to provide it for them
18 to see some of their language in this finished
19 proposal. So it truly is a collaboration between
20 the organic community and the NOSB and hopefully
21 the National Organic Program.

22 So, I would say there were a few

1 little tweaks here and there, but basically
2 people said well, that's really all right except
3 for one area.

4 And that was -- Michelle, do you have
5 that? And this is on 4.1.6 where we talk about
6 the -- whether or not there's plant -- I'm just
7 trying to get that open so I'm looking at it.
8 Sorry. It all went so fast I didn't catch up.

9 So, I had a discussion. There was
10 discussion that the rule allows for the sale of a
11 crop from a non-organic planting stock. And the
12 guidance had that if the same plant is the mother
13 plant to a planting stock that it had to wait a
14 year before it could be sold as organic, be
15 managed organically for a year before it could be
16 on the organic market.

17 But if it was a crop, and I used the
18 example of a rosemary plant, they could cut that
19 rosemary plant immediately and sell that as
20 organic.

21 And so we looked at the rule and yes,
22 the rule says that crop could be sold as organic.

1 So we have removed that from the item.

2 However, it is in the proposal as
3 another issue. I didn't want it to get lost and
4 at some point someone else will maybe deal with
5 this in the future for a rule change. But we
6 felt that there was just -- it didn't necessarily
7 make sense to be selling a crop just the minute
8 that it came onto the farm from a conventional
9 source as organic when you are making a planting
10 stock wait a year.

11 And so I think Steve's trying to help
12 Michelle. You've got it, right. Sorry,
13 Michelle, that I didn't warn you that it was
14 coming. Okay.

15 So I tried to make it really easy.
16 The areas that I removed are in red. The areas
17 that are in the new issue section are in blue.
18 And as soon as she can get it up everyone can see
19 it.

20 And that would be the only change to
21 the item that's up as a proposal.

22 MS. OAKLEY: Harriet, in the meantime

1 do you mind reading it?

2 CHAIR BEHAR: Well, it's fairly long
3 because I took everything from the proposal and
4 moved it. So it's about three paragraphs. So I
5 don't know how helpful that would be if I read
6 three paragraphs. Okay.

7 So in the blue there in the cross-out
8 is what was in the proposal to change from the
9 original guidance 5029. So that all is removed
10 including the public comment and subcommittee
11 response which then moves down.

12 So then you can keep scrolling so you
13 can see all of that for that whole section
14 referring to that got removed. Okay, you can
15 keep scrolling.

16 So I believe that's on page 6 and then
17 page 11 is where the new -- where basically all
18 that got moved to is page 11. There it is.
19 What's in blue. So that's what you were asking
20 me to read.

21 So all of that came from the earlier.
22 I just cut and pasted. I'm sorry. So all of

1 this came from the earlier section except just a
2 little bit of wordsmithing.

3 So as 4.1.6 and 2.5.2.4(a)(4) are
4 currently written certifiers can allow sale of an
5 organic crop for consumption from non-organic
6 planting stock immediately after planting it and
7 would not allow any cuttings from that planting
8 stock to be sold as organic planting stock for at
9 least one year. Which is what I just said.

10 As an example an organic grower can
11 purchase a non-organic rosemary plant, plant it
12 in their organic field or leave it in its
13 original container, cut it immediately and sell
14 it as an organic crop.

15 However, as written if they make a
16 cutting, put it in water and root it they cannot
17 sell that plant for a year as an organic planting
18 stock.

19 The allowance for a crop to be sold
20 from non-organic planting stock that has not been
21 under organic management for at least one year
22 was to provide for the sale of fruit from non-

1 organic strawberry plants and other fruits within
2 the first year of planting on organic land.

3 Typically other perennial plants do
4 not produce fruits, nuts, or other non-vegetative
5 crops within the first year.

6 However, vegetative growth that would
7 be sold from the non-organic planting stock would
8 have been managed non-organically. It does not
9 make sense to sell this vegetative crop as
10 organic, but the allowance for fruit does fit
11 better with the regulation's intent since fruit
12 would not be present at the time of planting.

13 Therefore the sale of this fruit as
14 organic had been considered to be more in line
15 with current regulations.

16 So if you're selling fruit within a
17 year of receiving planting stock that seemed to
18 make more sense because you're not going to buy a
19 strawberry plant full of strawberries, plant it
20 and sell those strawberries off that plant
21 immediately. Like you would something that was
22 vegetative.

1 So 4.1.6 states -- again this was all
2 just moved from up above. And then I have if you
3 keep scrolling a little bit I have an improvement
4 to the guidance and possibly the regulation could
5 be. And there is based upon public comment any
6 vegetative harvest from that planting stock may
7 be sold, labeled, or represented as organic only
8 after 12 months of organic management.

9 Scroll back up.

10 MR. CHAPMAN: So what specifically was
11 added or changed that wasn't in the?

12 CHAIR BEHAR: The 4.1.6 change was
13 completely removed.

14 DR. LEWIS: So Harriet, just a point
15 of order. So in other words the document that
16 the board has seen and the public has seen,
17 there's been a change.

18 CHAIR BEHAR: By removal of one item
19 that nobody liked.

20 DR. LEWIS: And the example you had
21 about rosemary, that's new.

22 CHAIR BEHAR: No, that was always in

1 there.

2 MR. ELA: Harriet, Scott would like to

3 --

4 CHAIR BEHAR: Yes, go ahead, Scott.

5 MR. RICE: Yes. As noted in the
6 comments there was a lot of confusion around the
7 language and as Harriet just mentioned around
8 vegetative crop, or vegetative stock, or
9 vegetative growth. And there was a number of
10 alternatives offered.

11 At the end of the day I think the
12 intent of improving the guidance was to close
13 something that seemed somewhat nonsensical in the
14 regulation. However, that is what the regulation
15 reads and that's how certification has
16 interpreted it.

17 So instead of trying to make a
18 guidance dictate what a regulation does or says
19 Harriet took the move to just take this portion
20 of the suggested changes out, but highlight the
21 need or the desire to perhaps revisit the
22 regulation so that it is a little more consistent

1 in crop as it is with planting stock if that
2 helps any.

3 CHAIR BEHAR: Yes. So, I don't know
4 that it's that much of a substantive change
5 because we're still pointing out that this is an
6 issue that needs addressing. But we're not
7 asking you to take it as guidance at this time
8 except to help us look at this in this
9 inconsistency.

10 Because if the rule already says that
11 that crop can be sold within 12 months we can't
12 have the guidance go against that rule. That
13 would have to be a rule change. Go ahead,
14 Ashley.

15 MS. SWAFFAR: Yes, I think this is a
16 substantial change. Honestly, I do. Because
17 you're taking out -- basically from what I can
18 follow from this, this is very difficult to
19 follow what you're changing here, but I think it
20 says you're removing or an organic vegetable
21 crop. Is that right basically is what you're
22 removing? You're removing that language.

1 CHAIR BEHAR: Vegetative crop.

2 MS. SWAFFAR: Vegetative, sorry.

3 Vegetative crop. That's what you're removing?

4 What you're changing, in the whole document

5 you're basically removing those words.

6 CHAIR BEHAR: So we're removing any

7 change to 4.1.6.

8 MS. SWAFFAR: You're removing 4.1.6

9 altogether?

10 CHAIR BEHAR: No, removing any change

11 to the current 4.1.6 in the current guidance.

12 MR. CHAPMAN: Can I?

13 CHAIR BEHAR: Go ahead.

14 MR. CHAPMAN: I don't know if this is

15 a substantive change, I just don't know if I

16 understand the change. That's what I'm trying to

17 struggle with.

18 So let me try to say what I think

19 you're saying to me and see if I understand it.

20 The bold sections in here were what you were

21 suggesting change to 4.1.6 and you're removing

22 this altogether. So you're no longer suggesting

1 a change to 4.1.6.

2 In the other text that you added what
3 has changed in that text?

4 CHAIR BEHAR: It came both from the
5 description above where there's discussion of the
6 public comment and then the actual in the
7 proposal was removed.

8 MR. CHAPMAN: So word for word it's
9 the same.

10 CHAIR BEHAR: There was a little bit
11 of wordsmithing just to make it flow well.

12 MR. CHAPMAN: So just like changing a
13 therefore and an and or something like that?

14 CHAIR BEHAR: Yes. It was a cut and
15 paste. And I had Scott and Steve look it over.

16 MR. CHAPMAN: Okay.

17 MR. RICE: Instead of changing
18 anything because this was confusing and caused
19 alarm it was removed.

20 MR. CHAPMAN: We've made changes like
21 these on these in the past. I don't think -- it
22 doesn't sound like it's substantive, it's just it

1 was hard for me to follow what actually was
2 changed.

3 MR. RICE: Understood.

4 CHAIR BEHAR: If you scroll up on page
5 6. Keep going to page 6.

6 MR. ELA: So it's keeping -- instead
7 of proposing to change to that section it's
8 keeping it as it is, as it currently reads in
9 guidance.

10 CHAIR BEHAR: Right there. So it says
11 no changes to 4.1.3, 4.1.4 and then I added
12 4.1.6.

13 MR. ELA: And then it moves it to the
14 bottom to tell the NOP as a suggestion here's an
15 inconsistency in the rule. We can't change the
16 rule right now. This isn't about the rule, but
17 this is something we should pay attention to so
18 it will be preserved in the record rather than
19 having it come back to transcripts.

20 So it's just taking that section
21 saying we know it's in the wrong spot.

22 CHAIR BEHAR: Yes. So since this is

1 a recommendation on updating a guidance and the
2 guidance really cannot inform a rule change
3 that's why it was moved.

4 MR. CHAPMAN: Thank you. Thank you
5 for helping me understand the change.

6 CHAIR BEHAR: There's a lot of pages
7 to it. And then we could then still keep the
8 wording as a suggestion for future discussion or
9 whatever.

10 There were no other changes except
11 trying to make it clear that we've removed 4.1.6.
12 The changes to, not entirely.

13 MR. ELA: Okay, discussion?

14 CHAIR BEHAR: Ashley.

15 MS. SWAFFAR: Can you send this to us
16 so we can look at it? I feel like you've added
17 and taken away in a few places and I would like
18 to see this before we vote on this.

19 CHAIR BEHAR: Michelle, can you send
20 it to everyone?

21 MR. ELA: Scott can. Michelle's got
22 her hands full.

1 So, in the interest of time can we --
2 could I have a motion to table this? We'll put
3 it up with collagen so we can come back to it.
4 We can proceed to sunsets while you guys look at
5 that.

6 MR. CHAPMAN: I move to table this to
7 deferred items.

8 MR. ELA: Okay, is there a second?
9 Okay, so Tom and then Dave seconded. I believe
10 we could use a unanimous consent. We are
11 trainable, Tom. Anybody object to the unanimous
12 consent? Okay, we'll table this and we'll come
13 back to it. That will give us the break time to
14 have a little time for everybody to catch up on
15 that.

16 With that we will move into discussion
17 document on paper pots, well paper I'll just say.
18 I should not say pots, just paper. Which is a
19 petitioned material that is -- so this is just a
20 discussion document. It will not be a vote so
21 it's just an update.

22 CHAIR BEHAR: Sorry, I'm just trying

1 to find. Oh, here we go.

2 MR. ELA: So as we know at the last
3 meeting this came up. It was a pretty hot topic.
4 The committee decided not to ask for a TR. And
5 then as we got into it we realized that the pots
6 had more materials in them than we knew about so
7 we did decide that we did need to ask for a TR.
8 So that's been submitted. We're waiting for it.
9 And we decided to proceed with a discussion
10 document for this meeting to make sure the board
11 knew where the subcommittee was at and what some
12 of the issues might be. So Harriet.

13 CHAIR BEHAR: Okay, I got it. Okay,
14 so we found that there were numerous synthetic
15 fibers being used in both the paper chain pots
16 and in Ellepots and we haven't even dug deeply
17 into some of the other papers used as production
18 aids.

19 But we did have numerous growers
20 continue from the fall meeting to stress their
21 need for the use of paper pots and specifically
22 the products sold by the petitioner, the paper

1 chain pots.

2 And as the petitioner stated yesterday
3 the manufacturer of the paper chain pots is
4 working towards removing the synthetic fibers
5 from their current product, replacing it with
6 hemp fibers with -- and unfortunately last year's
7 experiments were not successful, but an updated
8 sample will be received from that Japanese
9 manufacturer of the paper chain pots this summer
10 to test the paper with the hemp fibers to see if
11 they're working.

12 Ellepots, another manufacturer of non-
13 chain paper pots provided the inclusion of
14 numerous other synthetic fibers. Vinylon is the
15 one in the paper chain pots. Ellepots discussed
16 the use of polyester, rayon and tencel. Two of
17 them being cellulosic fibers and polyester coming
18 from fossil fuels.

19 They prefer the synthetic fibers for
20 the pots for plants that grow that are in those
21 pots for longer time because they need to get to
22 a bigger maturity. So if you're growing lettuce

1 versus growing a tomato plant they're in a pot a
2 little bit longer.

3 They do have a pot that is 100 percent
4 paper and the same type of paper and adhesives
5 that are found in newspaper, but this does not
6 have a very long shelf life and they would like
7 to be able to use their rayon and tencel, et
8 cetera, and have those reviewed and possibly
9 approved. They had really excellent public
10 comment.

11 We have asked the program for a
12 technical review for the synthetic fibers for
13 paper as a crop production aid.

14 And then there was one question that
15 pointed out that they felt that the review of hot
16 caps should not be part of the crop as a -- paper
17 as a production aid because they don't degrade
18 into the soil.

19 But we felt that this does come into
20 contact with the soil and at times they could
21 remain in the field as part of its disposal. You
22 get heavy rain or whatever you're not going to be

1 hauling all your paper hot caps out of the field.

2 So we're going to leave that in there
3 as far as part of the review. And that's my
4 summary.

5 MR. ELA: Tom.

6 MR. CHAPMAN: I have two questions.
7 What's a hot cap?

8 CHAIR BEHAR: You put that out in the
9 fields. It's like a little hat, like a party
10 hat, and it keeps the plant warmer, or after
11 transplanting it will shade it. So then it
12 doesn't go --

13 MR. CHAPMAN: Like little beanies,
14 little beanies for the plants?

15 CHAIR BEHAR: Well, it looks more like
16 party hat, actually. Or like a tepee or
17 something.

18 MR. ELA: It would be equivalent to
19 sort of like your wall of water. Different
20 material obviously. You're trying to protect the
21 plant.

22 MR. CHAPMAN: Yes. Okay. If I'm

1 reading -- I wonder if I'm reading this right
2 that discovery of synthetic fibers is also
3 applicable to newspaper. Is that correct? It's
4 likely, do we think it is, is it?

5 CHAIR BEHAR: You mean are there
6 synthetic fibers like these in the newspapers?

7 MR. CHAPMAN: Yes.

8 CHAIR BEHAR: We didn't get as deep a
9 review of that in the newspaper TR and that's why
10 we thought -- and especially since the paper pot
11 manufacturers were really asking us to very
12 specifically allow these specific synthetic
13 fibers that we should dig a little deeper there.

14 MR. CHAPMAN: Okay. Is there
15 potential overlap between these synthetic fibers
16 potentially already in use in soil applications
17 either in the paper pots out there right now in
18 use or if it is in newspaper and newspaper is
19 based on -- I know we had at least a public
20 comment about glues and other things in
21 newspapers to cheapen them.

22 But if they're being -- is there a

1 similar in thinking about this as we're thinking
2 about biodegradable biobased mulch that there's,
3 you know, synthetic petroleum-based products
4 being put into the soil to break down and be
5 consumed by soil microbes? Am I connecting
6 things wrong or am I connecting things right?

7 CHAIR BEHAR: We were trying to use
8 the newspaper TR as best we could in looking at
9 paper as a crop production aid. But really there
10 just was not enough.

11 And really tencel and rayon are not
12 petroleum products so there isn't the same issue
13 there. The polyester is a fossil fuel-based
14 polymer of some sort. Don't ask me the
15 chemistry.

16 MR. CHAPMAN: So it's breakdown would
17 be akin to some of the stuff we --

18 CHAIR BEHAR: Perhaps.

19 MR. CHAPMAN: Perhaps.

20 CHAIR BEHAR: Perhaps. We don't know
21 the answer to that because it's a different
22 polymer.

1 MR. ELA: If I could jump in. We
2 thought we had this made. Natural fibers,
3 adhesives already used in paper, we're cool.

4 And then it came back that their
5 attempts to use hemp had not gone well and that
6 they needed to add synthetic fibers to especially
7 the paper pots to keep the chain because if the
8 chain breaks the system doesn't work.

9 We've had a lot of contact with the
10 Ellepots people as well as with this petitioner.
11 Both of them are working very hard to get the
12 synthetics out but they're not there yet. So we
13 don't want to end up with the biodegradable mulch
14 issue where we say yes, let's use something we
15 can't do.

16 But I've been educated on this. My
17 organic chemistry was a long time ago and it
18 wasn't my best class.

19 So rayon, for example, synthetic.
20 It's cellulose-based. Is similar to adding
21 cellulose to the soil. So even though it's
22 synthetic we're not too far apart there.

1 So relatively small percentages of
2 rayon. And this is one of the reasons we asked
3 the question whether it's less than 20 percent.
4 I mean, one manufacturer told me 15 percent was
5 quite doable. They're even saying maybe lower
6 now. Paper pot people are saying maybe lower.

7 So we're trying to really nick that
8 down is how low can we go. We'll do the limbo
9 with the paper pots.

10 And then the TR is should we even go
11 down that route. It went from kind of a slam
12 dunk to like oh, we have to really think about
13 this. Emily.

14 MS. OAKLEY: Okay, I highly encourage
15 the entire board to look at the supplemental
16 newspaper TR because there are adhesives and
17 there are synthetic fibers in paper products
18 already in use.

19 The newspaper TR does a pretty good
20 job of covering a vast array of areas, but it
21 also and I think Joe used this term of meeting
22 back. There's like the et cetera, et cetera, et

1 cetera. There's just a whole swath of unknown
2 that is already allowed in the current paper
3 listing.

4 I probably feel a little differently
5 from my other board members on this topic. I
6 mean, while I'm concerned absolutely I don't want
7 to have a product that's like 90 percent
8 synthetic fiber and 10 percent paper.

9 I certainly do not want us to create
10 some sort of a listing that is more strict than
11 what's already allowed because theoretically
12 someone could go out and put cardboard all over
13 their field. There's a tremendous amount of
14 adhesives in cardboard and synthetic fibers and
15 that would be perfectly allowed.

16 And it would be a much greater
17 quantity than these applications.

18 So, I don't want us to split too many
19 hairs over this while at the same time I want us
20 to get the needed information.

21 MR. ELA: Harriet.

22 CHAIR BEHAR: So, we did not ask for

1 a TR on adhesives because we felt that that
2 newspaper TR really did cover it okay.

3 But when we went looking for the
4 synthetic fibers it was kind of like yes, there
5 are many. And that didn't tell us very much.
6 Like which ones.

7 And so we felt like we didn't have
8 enough technical background to then just carte
9 blanche allow them.

10 And as Steve said too the annotation
11 may include a limit. It may say synthetic fibers
12 allowed, rayon, tencel, at no more than 20
13 percent. I mean, but that's just off the top of
14 my head. That's kind of what we're looking at.

15 Because again we have learned from the
16 biodegradable mulch which did not give a
17 percentage of the biobased and then the NOP took
18 it as 100 percent. So we wanted to make sure
19 both that we were doing our due diligence in the
20 review and that we would have something practical
21 to offer to the community.

22 MR. ELA: And I'll echo what Emily

1 said. I'm in her camp. We don't want to make
2 something different than newspaper, what's
3 already allowed.

4 But we also don't want to just go
5 whatever and have it explode in our face. So
6 we're trying to --

7 MR. CHAPMAN: Don't interpret my
8 questions as meaning I'm thinking in that realm.
9 I'm trying to understand what was written there
10 and to be honest what is already out in the field
11 via newspaper. It's more about that than what we
12 were looking at and reviewing.

13 A new substance that would be akin to
14 or better than what's already out in the field is
15 more on the newspaper side that are my questions.

16 MR. ELA: Sue.

17 MS. BAIRD: I just wanted to say I
18 appreciate your diligence because I was in the
19 beginning of this discussion when I was on the
20 Crops. And so I really appreciate the fact that
21 you delved a little deeper into it. I was
22 concerned at the beginning if you remember about

1 the fact that.

2 The people who tried the hemp, it's
3 interesting that it's not holding up because I
4 know they're using hemp even in hydroponics
5 strictly in water and they're using straight hemp
6 fibers for hydroponic in water.

7 Was there any discussion on how the
8 hemp was being incorporated?

9 CHAIR BEHAR: I've only had one on one
10 talks with the importer and he's expressed to me
11 that it's a little bit difficult because there's
12 a language barrier. The manufacturer is
13 Japanese.

14 And the manufacturer doesn't really
15 understand our process, how we're looking at it
16 and trying to figure all this out.

17 So I don't even know if he knows
18 exactly how much hemp was put in that paper or
19 whatever.

20 Truthfully hemp is kind of becoming
21 more available. So it's kind of a newer product
22 for the manufacturer to try to incorporate into

1 that paper.

2 MR. ELA: One of -- in the discussions
3 I've had with people is this is a first try. It
4 didn't work like they thought. They're trying to
5 do it in one shot. Research rarely works that
6 way.

7 I've had discussions with another
8 manufacturer and they think in 15 years it will
9 absolutely be all hemp, not an issue. But we're
10 talking about some retooling.

11 What's interesting I think even having
12 this discussion we're seeing the manufacturers
13 look at this and go oh, maybe we could go back
14 and reformulate a little bit. So I think we've
15 already changed the playing field just by the
16 discussion which is really, I mean that's really
17 cool. These manufacturers I think are really
18 trying to work with us.

19 But it's not necessarily simple. So
20 Dave.

21 MR. MORTENSEN: And I'm also thinking
22 that, you know, the whole notion of continuous

1 improvement.

2 I thought two of the presentations
3 made to us these last couple of days were really
4 compelling. And that was that when we transplant
5 with paper pots, or transplant period we're
6 really helping with all sorts of other pest
7 management that actually relies much more heavily
8 on plastic, for example.

9 So when we look at this in a systems
10 context we have the potential to really minimize
11 the impact of some of the system-level practices
12 we're using where we could be precluding such
13 heavy reliance on plastic just as an example.
14 That is a really encouraging thought.

15 MR. ELA: Other -- Emily.

16 MS. OAKLEY: Sorry again. I just want
17 to say that again please go look at that
18 newspaper TR. It won't take you very long. It
19 will take you five minutes at max.

20 And it does list synthetic fibers
21 commonly found in paper, but it's just commonly
22 found. I mean just broad.

1 So if we come up with some sort of
2 percentage that's going to start getting a little
3 tricky because is it going to force us to go back
4 and start creating percentages in that current
5 listing. So just a cautionary note.

6 MR. ELA: All right. I think we'll
7 probably end it there. There's your background.
8 So when it comes up again you'll all be educated.

9 Harriet, should we just proceed with
10 sunsets? Do you want to take a break or
11 anything?

12 CHAIR BEHAR: Ready for a break?

13 MR. CHAPMAN: Maybe we do sunsets and
14 then break?

15 MR. ELA: Okay. Fair enough. Okay,
16 we'll move into sunsets. The first one is
17 hydrogen peroxide. Jesse, this is your material.

18 MR. BUIE: Okay. We have two hydrogen
19 peroxides at 205.601.

20 DR. LEWIS: I think the first one is
21 ferric phosphate.

22 MR. ELA: Not on my list.

1 MR. CHAPMAN: My list says ferric
2 phosphate.

3 MR. ELA: We must have two different
4 -- I'm in Crops.

5 MR. CHAPMAN: The short printout has
6 hydrogen peroxide first. The big packet has
7 ferric phosphate first.

8 MR. ELA: Sorry. Yes. I guess we
9 have hydrogen peroxide up on the screen so we'll
10 go with that. I'll use executive power. So go
11 ahead, Jesse.

12 And just as a reminder to all the
13 sunset people just really summarize comments,
14 public comments, high points that might be points
15 of discussion.

16 MR. BUIE: Okay. Hydrogen peroxide,
17 205.601. Reference 205.601 as algicide,
18 disinfectant, sanitizer including irrigation
19 system cleaning systems and at reference
20 205.601(i) as plant disease control.

21 Hydrogen peroxide is widely used as a
22 disinfectant and bleaching agent. As we

1 mentioned earlier it has a very simple molecular
2 structure which is H2O2.

3 Contamination is not expected when
4 purified forms of hydrogen peroxide are released
5 to the environment following normal use.

6 At typical pesticide concentration
7 hydrogen peroxide is expected to rapidly degrade
8 to oxygen gas and water.

9 While there are some alternatives on
10 the National List for sanitizers and
11 disinfectants as well as some essential oils and
12 antiseptic properties the National List items are
13 not necessarily any better or safer than hydrogen
14 peroxide and the essential oils have not been
15 studied to compare with hydrogen peroxide side by
16 side to see if they are equally as effective and
17 equally benign.

18 We received few comments, but the
19 comments from 2015 were overwhelmingly in support
20 of hydrogen peroxide. It's widely used to clean
21 equipment, in mushroom production as one speaker
22 mentioned during this meeting and as an alternate

1 to other materials for resistance management.

2 The NOSB found the material to meet
3 OFPA criteria and there were no objections to
4 continued listing.

5 No significant new issues were raised
6 by the public. Are there questions?

7 MR. ELA: Any questions on hydrogen
8 peroxide? Okay, seeing none we will move onto
9 soaps, ammonium. Rick.

10 MR. GREENWOOD: Okay. Ammonium soaps,
11 205.601, synthetic substances. It's used as an
12 animal repellent, for large animal repellent
13 only. No contact with soil or edible portion of
14 a crop.

15 It's saponified fats and it is used
16 again for large animal barriers.

17 There are other things that can be
18 used. Fencing is one that can be used. A couple
19 of other things include coyote urine which I have
20 used to keep rabbits away and is worthless but
21 that's a personal opinion. I think it attracts
22 them.

1 I talked to CCOF who's my certifier
2 and they have people have it on their system
3 plan.

4 And we had one comment in the webinar
5 saying that they'd like to keep it onboard. But
6 otherwise low toxicity. There's no long-term
7 studies because it degrades in the environment
8 almost immediately.

9 MR. ELA: Any questions on soaps?
10 I'll just interject one. I think there is the
11 question of effectiveness that kind of comes up.

12 I mean, people keep saying it's there.
13 Some people -- I thought it was interesting.
14 Public comments, some people seemed to believe it
15 was effective even though there's some anecdotal
16 stuff and maybe for different species. But I
17 just want to put that in that that still is a
18 question on this material.

19 MR. GREENWOOD: Exactly.

20 MR. ELA: Okay. Moving on. This is
21 my own. So oils, horticultural (narrow range
22 oils). It actually has two listings and I'm

1 going to lump them both together. One is for --
2 as an insecticide and I don't have the other one
3 right in front of me.

4 Basically public comment on oils,
5 heavily used, widely used, multiple crops.
6 Everybody is in favor of them. A very critical
7 organic input.

8 One of the questions, we received a
9 new TR on this. And it was interesting because
10 the TR did list a lot of alternative oils other
11 than petroleum, plant-based oils.

12 And so we asked the question if those
13 plant-based oils were actually viable
14 alternatives. I'd say almost all the comments
15 were no, they aren't which has been sort of what
16 I've heard as well as a grower.

17 I think Harold Austin in particular,
18 he said you ask if there are other types of oils
19 available. The answer is yes. Will they work in
20 place of horticultural spray oils, the answer is
21 no.

22 Some of the alternative types of oils

1 such as fish oils, vegetable oils can be
2 extremely hard on the plant and/or the crop.
3 Most of the alternative oils can be phytotoxic to
4 the foliage and the fruit itself.

5 They also tend to have compatibility
6 issues with other materials used in organic
7 production which then in turn can cause
8 additional crop or plant injury.

9 Another group noted that the listing
10 for horticultural oils should be annotated in a
11 way that protects workers from inhalation hazards
12 and non-target arthropods from harm. If this is
13 not possible they should be de-listed.

14 They suggest that the annotation read
15 steps to meet worker protection standards must be
16 documented in the organic system plan and they
17 must not be used when predators, parasitoids, or
18 pollinators are present.

19 And I would just respond to those
20 comments. The petroleum oils have become much
21 more refined in recent years. There are several
22 available to organic growers that become much

1 narrower spectrum and we're able to use them kind
2 of throughout the season without injury. So I
3 think they've become much more specialized.

4 I think that's one of the problems
5 with some of vegetable oils is we don't have that
6 same type of refinement yet.

7 In terms of worker protection
8 standards I don't believe in that annotation just
9 because we all have to comply with worker
10 protection standards. It's kind of like saying
11 excluded methods for organic. We can't use GMOs.
12 We can't use oils without meeting the worker
13 protection standards legally so I don't see any
14 reason to annotate that. That's sort of a given.

15 And then as far as the may not be used
16 when predators, parasitoids, or pollinators are
17 present that would essentially say you would
18 never be able to use them to be able to guarantee
19 that.

20 I think a lot of the point of using
21 oils is that they are fairly soft. They don't
22 tend to disrupt those populations and there's

1 hundreds of years of experience that.

2 Take those comments seriously. They
3 need to be used thoughtfully and carefully, but
4 they are used often specifically because they are
5 gentle on predators.

6 Any discussion on oils?

7 CHAIR BEHAR: It's always helpful to
8 have someone who really knows the subject.

9 MR. ELA: I was just putting them on
10 earlier this week. Okay. Moving on, pheromones
11 which is also my own.

12 Used for insect management. Again,
13 pheromones, widely accepted, widely used. Most
14 organic growers in some way may use them whether
15 it's for insect monitoring and traps or for
16 mating disruption. Definitely it's something the
17 organic growers helped kind of research and it
18 moved quickly into the conventional industry.

19 So basically the one question that I
20 kind of had and it's generally been resolved by
21 OMRI is that we just list them as pheromones.
22 There have been attempts to make sprayable

1 pheromones on the market. To my knowledge none
2 are being used at this point would have food
3 contact. There might be some used in cotton but
4 that's not a food. So the de facto use has been
5 in non-food contact.

6 We don't have that annotation. It
7 makes me a little uncomfortable. I wish we
8 actually had that tied up a little bit. But at
9 this point I don't think it's a work agenda item
10 just because it's not an issue. It is something
11 I could see possibly coming down the line
12 someday, but we're not there yet.

13 And the questions we had are there any
14 health or environmental effects noted.
15 Essentially no major comments on that.

16 Any formulations that might cause
17 concern. That comes down to the sprayable
18 formulations that would concern me.

19 And then are there any pheromones
20 synthesized with excluded methods and we didn't
21 get any comments on that. To my knowledge most
22 of the pheromones that are used, for example,

1 codling moth pheromone is essentially a six or
2 seven component material that's very selective
3 and they found that we can use three and that
4 does well enough. The extra three are very
5 expensive to synthesize and to include. So we
6 can keep the cost down by using three and it's
7 still a very selective material.

8 That pretty well covers pheromones.
9 Does anybody have any questions on them? Moving
10 on.

11 MR. RICE: Just a comment. There's
12 one -- I think we have one material that's
13 sprayable that is on the market. Pheromones.

14 MR. ELA: For -- do you know what use?

15 MR. RICE: I'm trying to remember what
16 the use was. I can get it back.

17 MR. ELA: The one that somebody told
18 me yesterday was for cotton.

19 MR. RICE: No, we have it used in
20 other applications too.

21 MR. ELA: I'd be curious. I've tried
22 asking around. I know if there were some, maybe

1 it's 10 years ago that they were really looking
2 at and just couldn't -- didn't perfect them. At
3 that point they weren't going to be used in
4 organic anyhow.

5 All right. Moving on, ferric
6 phosphate. Dave.

7 MR. MORTENSEN: Yes. So ferric
8 phosphate is a compound that's used as a
9 molluscicide for slugs and snails with an
10 increased adoption of reduced tillage practices
11 in vegetables and increased reliance on cover
12 cropping.

13 The organic matter on the surface is
14 ideal habitat for slugs in particular, but also
15 snails.

16 We looked at this carefully and
17 composed these four questions and we got some
18 really helpful feedback about them from the
19 Organic Produce Wholesaler's CCOF and the Vermont
20 organic farmers about the formulations folks are
21 using and about the fact that they rely on ferric
22 phosphate for slug protection quite a bit

1 actually. So that feedback was very helpful.

2 The one that had to do with quite an
3 active series of discussions that we had about
4 formulations and the potential for inhalation
5 exposure to field workers and other things, and
6 most all of the feedback has been that it's being
7 used in a pelleted form which is helpful and
8 comforting from a field worker exposure
9 perspective.

10 The one thing that we were concerned
11 about and several people spoke to this sometimes
12 -- well, spoke to it during some of the public
13 comment was the fact that alone, ferric phosphate
14 used alone is rather marginally effective at slug
15 suppression.

16 When used in combination with a
17 chelating agent, EDT or EDDS, these are two
18 compounds that behave quite similarly to the
19 chelating agents I reviewed earlier the activity
20 of the compound increases by orders of magnitude
21 on slugs.

22 And we have compelling efficacy data

1 to support that in the form of a number of
2 studies.

3 One unfortunate outcome of the
4 increased efficacy on slugs is that when you add
5 these chelating agents it increases their
6 activity on earthworms and other organisms in the
7 soil that are beneficial.

8 So we took a very careful look at that
9 data as well and that was one of the reasons that
10 gave rise to the question about any additional
11 information about the compound being used alone,
12 ferric phosphate, or formulated with the
13 chelating agent.

14 The products that we're aware of are
15 formulated with the chelating agent. That's not
16 to say that we don't think ferric phosphate
17 should be allowed to be used. It is to say that
18 it's leading us to look at it more closely and
19 more critically.

20 That's about where it is. We've
21 gotten really helpful feedback and we'll continue
22 to monitor that feedback as it comes in. But

1 people have been really good about speaking to
2 the questions that we asked folks to respond to
3 and we thank them for that.

4 MR. ELA: Questions, responses?
5 Ferric phosphate.

6 I will add in what Dave referred to.
7 We actually had a number of discussions with the
8 program.

9 It comes back that the registered
10 material ferric phosphate and even though there's
11 fairly obvious effect of the ancillary -- we
12 might not call it ancillary in crops, but the
13 inert material that it's mixed with, we only
14 reviewed ferric phosphate. So this is kind of a
15 weird one that basically our review is on ferric
16 phosphate and not on the extra materials added to
17 it. So, Emily.

18 MS. OAKLEY: I just want to complement
19 that to let the stakeholders know that we spent a
20 significant amount of time on this material in
21 the Crops Subcommittee and take seriously these
22 issues that Dave has laid out.

1 MR. ELA: Good point. Yes, it was not
2 -- Asa, sorry.

3 MR. BRADMAN: I just want to reiterate
4 this point too about reviewing ferric phosphate
5 versus the actual formulation.

6 I would say for me just like to vote
7 on ferric phosphate for this use in this material
8 it would be wrong in the absolute sense of right
9 and wrong.

10 If the material is used as a
11 formulated product and it's only effective as a
12 formulated product it seems to me that should be
13 what we're reviewing.

14 I know that raises a lot of cans of
15 worms so to speak, but it just seems like the
16 right thing to do.

17 MR. ELA: That's what we went back and
18 forth with the program on. The problem is we
19 don't review products. So that's the issue.

20 Your comment is well taken. It was an
21 issue as you know for the committee in general.
22 Anything else? Emily.

1 MS. OAKLEY: Yes, but I mean I think
2 Asa's point is well made because if we were just
3 reviewing this without the inert then it's not
4 effective. So, I have to talk about the chicken
5 and the egg.

6 MR. ELA: The worm and the slug.

7 MR. MORTENSEN: I guess I would say
8 that I don't know. I can't separate them. So
9 when I vote on something like this if everyone is
10 using the formulated product I can't separate
11 those two things in my mind.

12 I think in action it's being used that
13 way and certainly we need to be cognizant I would
14 say. I got the sense the subcommittee generally
15 feels this way. We have to be cognizant of how
16 it's being used.

17 The environmental data are pretty
18 strong to suggest a close look at it. And the
19 efficacy is orders of magnitude higher. So, I
20 don't know. But we have all that data in front
21 of us and that's a great thing. So that helps
22 inform our thinking about what we think of ferric

1 phosphate.

2 MR. ELA: Anything else? And you get
3 the joy of writing it up and then everybody will
4 have a chance to vote next fall on their thoughts
5 on that.

6 Moving on we have potassium
7 bicarbonate. Emily.

8 MS. OAKLEY: Potassium bicarbonate is
9 used as plant disease control. It's used on a
10 variety of crops and a variety of diseases.

11 We asked a couple of questions about
12 are growers using any of the alternative
13 materials that might be able to replace this on
14 their farm and if they did could they tell us
15 about the desired results. But we didn't really
16 hear that.

17 But what we did hear was pretty
18 significant response to our second question, if
19 this material was still needed.

20 We got some specific diseases in
21 crops, primarily powdery mildew, cucurbit,
22 strawberries, tomatoes and high tunnels in

1 greenhouses. And then also tree fruits.

2 It was kind of explained as something
3 that might be used later in the season when
4 alternatives could damage the crop.

5 And it's being used to control fire
6 blight in orchards so it's playing an impact role
7 with the limited tools that might be available
8 for that.

9 There was a comment that it does not
10 fit any OFPA categories of allowed synthetics.
11 But by and large we did actually receive some
12 nicely robust comments on this and I really
13 appreciate it when we hear from so many people on
14 a material. Any questions?

15 MR. ELA: All right. We will move on
16 to magnesium sulfate. Emily.

17 MS. OAKLEY: Yes. So magnesium
18 sulfate allowed with a documented soil
19 deficiency.

20 So definitely people who commented and
21 wrote in were in support of maintaining that
22 annotation saying that it's not used that often,

1 usually as a rescue treatment.

2 We did ask about non-synthetic
3 magnesium available in sufficient form and
4 quantity because the 2011 TR did point to non-
5 synthetic dolomite as an alternative material.

6 But the previous reviews of this
7 material have shown that that might not be widely
8 available or useful.

9 So we did get some comments on that
10 and I also really appreciate that. We heard that
11 the non-synthetic dolomite is expensive and not
12 widely available, that mined magnesium sulfate
13 does not work quickly enough and must be added in
14 higher quantities.

15 We also heard that dolomite creates
16 problems in plugs drip irrigation. We also heard
17 that dolomite cannot substitute in all cases
18 because as a rock powder it's slow to become
19 available, not good for high pH soils and can't
20 be used in foliar applications.

21 We did also hear that it should not
22 take the place of soil-building practices. And

1 pretty widespread comments on this as well, a
2 highly used product.

3 We were told that it's used by 100
4 percent of fruit tree growers in the Pacific
5 Northwest and especially the state that we're in.

6 And again as I said it's really used
7 I think as a rescue treatment and hopefully not
8 widely used obviously without the documented
9 deficiency. That it's useful in high pH soils
10 with ample calcium where sulphur is needed but
11 they don't want to increase the pH.

12 Any comments or questions?

13 MR. ELA: All right. We will move on
14 to hydrogen chloride. And Asa, I believe this is
15 yours.

16 MR. BRADMAN: Thank you. So this is
17 a really interesting compound. Hydrogen chloride
18 is used to generate an acid environment to delint
19 cotton seeds for planting.

20 Basically it's vaporized and sprayed
21 into cotton seeds with some moisture and that can
22 then generate a strong acid to remove the lint

1 and also helps with breaking dormancy. So it
2 serves a couple of roles there for pre-treating
3 cotton seed to grow it.

4 In terms of public comment there's
5 really no groups that are opposed to it. Both
6 trade groups would like to see it re-listed and
7 community -- National Organic Coalition, Beyond
8 Pesticides even are in support of re-listing it.

9 But there is concerns about using such
10 a strong acid and material for accomplishing this
11 in terms of both potential environmental and
12 occupational exposures.

13 And there's kind of a consensus that
14 it would be great to move away from this, but
15 also at least from the trade organization that
16 there's really not a commercialized alternative
17 to this material at this point.

18 From 2014, five years ago there was a
19 reference to work being done at a USDA station to
20 generate a mechanical system. And according to
21 the group that we heard from yesterday in their
22 written comments there's been kind of a move from

1 a tabletop version to a drum scale version. And
2 it's kind of at a threshold for a commercial
3 company really now to take it on to see if it's
4 commercially viable. Not within the scale of an
5 academic lab.

6 But one of the issues here is the
7 scale of organic cotton in the U.S. is too small
8 to support that industry which I think is also
9 important and relevant.

10 I think re-listing this is important
11 to help support this domestic U.S. cotton
12 production system.

13 I know back in 1996 when Patagonia did
14 their review of materials and really identified
15 cotton as one of their major products and fibers
16 that impacts on the environment. And they've
17 really moved most of their -- as far as I
18 understand most of their cotton production is in
19 India.

20 I think it would be great to continue
21 to support domestic cotton production. And then
22 also perhaps we can provide tools down the road

1 to help that expand.

2 MR. ELA: Questions for Asa? Harriet.

3 CHAIR BEHAR: Do we know what they're
4 using in India? Do they use this material as
5 well?

6 MR. BRADMAN: I don't know. Good
7 question. I'll follow up on that for the fall.

8 MR. ELA: Any other discussion? All
9 right. Next is ash from manure burning and this
10 is switching to prohibited substances just as a
11 note.

12 CHAIR BEHAR: Okay. No one noted that
13 this material was in use which is good because
14 it's prohibited.

15 No one asked for it to be moved to the
16 allowed list and many agreed that it should stay
17 on the prohibited list.

18 I just want to read something that
19 just gives a little background that the Organic
20 Produce Wholesalers Coalition gave us, some
21 language from the preamble in December 2000 --
22 1997 that it was placed on the prohibited list

1 because burning these materials is not an
2 appropriate method to use in order to recycle
3 organic waste and would not be considered a
4 proper method in a manuring program because
5 burning removes the carbon from these wastes and
6 therefore destroys the value of the materials for
7 restoring soil organic content.

8 Burning as a disposal method of these
9 materials would therefore not be consistent with
10 organic production. That's it.

11 MR. ELA: All right. Any discussion
12 on this? Okay, nobody wants to remove that one.
13 Okay, last on the sunset review, and we'll have
14 one other topic after we finish this so don't get
15 too excited here. Sodium fluoaluminate.

16 DR. SEITZ: That's my substance.

17 MR. ELA: Dan, thank you. I'm sorry.

18 DR. SEITZ: Okay, so that also is a
19 prohibited substance, non-synthetic substance
20 under 205.602(g).

21 DR. LEWIS: Speak into the mike,
22 please.

1 DR. SEITZ: Okay, sure.

2 DR. LEWIS: Thank you.

3 DR. SEITZ: It's been prohibited since
4 1996 due to environmental toxicity. It is used
5 as an insecticide.

6 There were only a few comments and
7 they all recommended continued listing as a
8 prohibited substance. No one was in favor of
9 removing it from the list. Any questions?

10 MR. ELA: No questions. Okay. That
11 is the Crops sunset review. Thank you to the
12 committee for your hard work on these and lots
13 more writeups to come for the fall.

14 The last thing I just wanted to bring
15 up because we did have public comment on it and
16 just to recognize those commenters both publicly
17 on the webinars and in the written comments are
18 the fatty alcohols for use of desuckering in
19 tobacco.

20 Jesse, did you want to say anything
21 about those comments?

22 MR. BUIE: Thank you. Yes, we

1 received approximately 30 written comments on
2 fatty alcohol.

3 And the common theme that I noticed
4 was that these were certified organic farmers who
5 grow tobacco in rotation with other certified
6 organic crops and vegetables.

7 According to one of the public
8 commenters controlling -- one of their concerns
9 was controlling sucker growth improved tobacco
10 quality and produces a significant increase in
11 tobacco yield.

12 And this statement that was made
13 several times is documented in TR on line 121 and
14 130.

15 According to another public commenter
16 this increase in crop yield has allowed certified
17 organic farmers to expand their certified acreage
18 which also has facilitated an increase in other
19 certified organic crops in their crop rotation.

20 And the crops that were mentioned by
21 several of the farmers was organic sweet
22 potatoes, soybeans and corn.

1 Another common theme was also that
2 controlling sucker growth allows for a reduction
3 -- it produced a reduction in pests as well as
4 more efficient use of fertilizers.

5 And according to one of the commenters
6 that this was a desirable outcome for their
7 organic service plan, their OAS.

8 Also mentioned by a number of farmers
9 was the fact that fatty alcohols reduce the
10 exposure -- their risk for the green tobacco
11 sickness which as you know is a nicotine -- is a
12 form of nicotine poisoning which it puts them at
13 greater risk of heat illness.

14 The other common theme was a concern
15 for the USDA's temporary allowance for fatty
16 alcohols and would a decision come through before
17 they run out of the supplies that they had
18 already.

19 And finally, another one was -- their
20 concern was fatty alcohol being added to the
21 National List.

22 MR. ELA: Thank you, Jesse. I just

1 wanted to make sure we recognize those public
2 comments came in.

3 I will say the Crops Subcommittee
4 attempted to get a discussion document out but we
5 -- it was -- with the shutdown and such there
6 were some -- we just ran out of time. There was
7 some procedural things. So you did not see that.

8 Jenny, do you have any comments on
9 this petition? Emily, I'll come to you.

10 DR. TUCKER: There has been some
11 question as to sort of the scheduling and the
12 steps for considering this particular item.

13 It is listed for the fall meeting as
14 a discussion document. If the board wanted to
15 proceed to a proposal in the fall we would be
16 supportive of that.

17 MR. ELA: First of all Emily and then
18 Harriet. Thank you, Jenny.

19 MS. OAKLEY: I just wanted to say that
20 it was very helpful to hear from the farmers on
21 the webinar and in the written comments.

22 But I also just want to note the

1 absence of other comments is probably just due to
2 the fact that there was not a document for them
3 to respond to.

4 So I think while it's good to hear and
5 note their concerns we should also anticipate
6 that there will be many other comments as well
7 and more nuanced and complicated ones as we come
8 into the fall.

9 MR. ELA: Good point. Harriet.

10 CHAIR BEHAR: So we are a little
11 constrained in what we do on the board. And
12 really what we do is we look at a material. We
13 don't necessarily look at what crop it might be
14 facilitating and whether we like that crop or
15 not.

16 And tobacco is a legally grown crop in
17 the United States. And fatty alcohols are being
18 petitioned to facilitate the growing of that
19 legally grown crop. Whether we like tobacco or
20 not.

21 MR. ELA: I think there were some
22 concerns -- yes. There were concerns about the

1 type of crop, but we've pretty well resolved that
2 that is not our bailiwick because otherwise we go
3 down a deep hole of deciding what crops should be
4 grown in the United States. And we don't want to
5 do that.

6 Anything else on fatty alcohols? I
7 just wanted to touch base. Asa?

8 MR. BRADMAN: I just appreciate those
9 comments. I have to consider them about crop
10 versus material.

11 I just want to say though out loud
12 that tobacco is really a damaging crop to our
13 country, to our youth, to our unborn children.
14 It's really a serious addictive drug.

15 We're at a time when we have an
16 explosion of addiction illnesses and disease
17 emerging in the United States. We have a
18 situation where it's really becoming -- it's a
19 national emergency. And certainly tobacco is not
20 associated with the opioids that are related to
21 that, but it's still an addictive material.

22 I think we should all acknowledge that

1 out loud. I have to as being involved in public
2 health.

3 MR. ELA: So yes. Thank you, Asa.
4 Tom?

5 MR. BRADMAN: I acknowledge that out
6 loud. But that can also be said for the
7 carbohydrates that we produce that then get
8 fermented into alcoholic beverages.

9 And before I came here my son
10 advocated for me to remove all items that support
11 the growth of broccoli because he doesn't want to
12 eat that.

13 There are ethical things. I say that
14 to make light of this a little bit. But I hear
15 what you're saying. But we also, we have a set
16 of criteria and that criteria has to be what we
17 use to evaluate substances.

18 If we stray from that there's a
19 million different reasons why we could move away
20 from stuff. And while this one might be very
21 valid for a lot of personal reasons and what's
22 gone on with the history of tobacco, it still --

1 it gets to a very slippery slope when we move
2 away from criteria.

3 MR. BRADMAN: Just to say I understand
4 that and agree with that.

5 MR. ELA: Sue.

6 MS. BAIRD: I think Emily was before
7 me.

8 MS. OAKLEY: I just want to say I
9 understand all of these points, the health issue,
10 the fact that we can't judge a crop.

11 But I just want to add that there is
12 an additional nuance to this which is tobacco
13 dust is a prohibited natural on our list. So it
14 does add another layer of complication as we
15 discuss it.

16 But I understand that we're evaluating
17 the material itself, not the crop.

18 MR. ELA: Okay, Sue.

19 MS. BAIRD: I think that's very valid,
20 Emily, but I've got to echo that we have to
21 evaluate by the criteria.

22 And there's no one that hates tobacco

1 smoking more than I do, or the disasters. I've
2 got children who smoke and I can't figure that
3 how that ever happened, but they do.

4 And I guess maybe this doesn't have
5 pertinence, but to me in my heart it does. These
6 are fourth, fifth, sixth generation farmers that
7 have always grown tobacco. We're talking about
8 poor people in North Carolina, Virginia, that
9 this is their livelihoods.

10 And they've made a point of saying
11 that if we don't have the monies from this we
12 can't continue doing all the other crops that we
13 do organically. And I think that's got to be
14 weighed as well.

15 Perhaps it's not -- it's not by the
16 criteria either so I'm contradicting myself.

17 MR. ELA: Rick.

18 MR. GREENWOOD: Obviously I'm against
19 tobacco. I'm in a school of public health.

20 But the issue about selecting crops.
21 I come from California and we've had real battles
22 about what we can grow based on water. And

1 there's been tremendous, you know, you shouldn't
2 grow almonds in California because they use a lot
3 of water.

4 I think it's a dangerous precedent.
5 And so if you're a farmer and you have land and
6 you have water I think you should be able to grow
7 what you can if it's a legal crop. And so I'd
8 just like to mention that.

9 MR. ELA: I'll just make one final
10 comment. It's probably going to be grown. I
11 would rather see that land be in organic
12 production and taken care of with healthy soil
13 and all those things than anything else and I
14 think that's important to me too.

15 I'd rather see those growers as part
16 of our community than part of some other
17 community.

18 With that I'm going to close down this
19 discussion. I think we might have a short -- or
20 I'll turn it back to Harriet is what I'll do and
21 then she can make the big decisions.

22 CHAIR BEHAR: I just want everyone to

1 know that we actually are on time. 4:15 was
2 deferred proposals. But I do think we all need a
3 break. So let's try and be back by 4:25 and
4 we'll continue.

5 (Whereupon, the above-entitled matter
6 went off the record at 4:14 p.m. and resumed at
7 4:30 p.m.)

8 CHAIR BEHAR: Okay, so we are on
9 deferred proposals. And so I will talk about the
10 organic seed guidance document will be returned
11 to subcommittee.

12 There was significant concern by at
13 least one member that the change was too
14 significant for us to move forward. And so stay
15 tuned. You're going to have another document to
16 look at in the spring we think. We'll see about
17 the -- I'm sorry, in the fall. We'll see if --
18 how much we're willing to be working on it.

19 But we hope we'll be able to pull
20 something together for the fall for you to look
21 at and maybe we'll be at a vote then.

22 MR. ELA: Point of order. Do we need

1 a vote to return to the subcommittee?

2 CHAIR BEHAR: Yes, probably.

3 MR. ELA: So I'll as Crops chair -- or
4 do you want to handle the vote? I don't care.

5 I would entertain a motion to send the
6 seed proposal and just to be specific,
7 Strengthening Organic Seed Guidance, April 2019
8 back to committee. Is there a motion?

9 MS. SWAFFAR: I'll make that motion.

10 MR. ELA: Okay. Is there a second?
11 Dave. So Ashley made the motion, Dave seconded
12 it. Start with Asa. Is there any further
13 discussion first? Emily, sorry.

14 MS. OAKLEY: Just curious. Do you
15 think that stakeholders would rather see us pass
16 it as it is without any changes than send it
17 back? Because I would entertain that. Not
18 making any changes and just accepting it as it
19 is.

20 MR. ELA: Other discussion.

21 MS. DE LIMA: I wouldn't vote for
22 that. But I was comfortable with the language

1 change and voting on it the way you guys rewrote
2 it.

3 MS. OAKLEY: I feel like the vast
4 majority of public comments said don't delay.
5 Like yes, we'd like some tweaks but we'd rather
6 see you pass it and perhaps we could address some
7 of these concerns in a cover letter.

8 MS. DE LIMA: I don't know. My
9 interpretation of the comments was they'd like to
10 see it go forward if we addressed that section
11 4.1.6. But I was okay with the way that Harriet
12 and Scott and Steve had --

13 MR. MORTENSEN: I was also okay with
14 it.

15 MR. ELA: Let's go one at a time.

16 MR. MORTENSEN: As it was revised.

17 MR. ELA: Let me recognize people as
18 we go around. So Tom.

19 MR. CHAPMAN: I'm fine either way.

20 MR. ELA: Anybody else? I mean, I
21 guess -- I'm trying to think through my Robert's
22 Rules here.

1 MR. CHAPMAN: Is there a motion?

2 MR. ELA: Time out. Time out. So I
3 think we can vote -- if we don't send it back to
4 committee then it will mean we vote on it and
5 move it forward if I'm correct. Is that right?

6 DR. SEITZ: Point of clarification.
7 Do we vote on it with the changed language? In
8 other words it might be that most of the board
9 does not consider this to be a substantive change
10 requiring it to be returned to the committee.

11 (Simultaneous speaking)

12 DR. SEITZ: Okay, gotcha.

13 MR. ELA: So, the program thinks it's
14 -- go ahead, Jenny.

15 DR. TUCKER: Do you want me to read
16 the definition of substantive change? Based on
17 the definition that we've been training on for
18 the last five years we believe this is a
19 substantive change. And so I think the process
20 is you are correct, you can either vote to send
21 it back to committee, a subcommittee to make that
22 change, or you can vote to advance it as it is.

1 But the change made wouldn't be voted on because
2 it's a substantive change.

3 MR. ELA: Fair enough. Okay, Harriet.

4 CHAIR BEHAR: So if we vote it forward
5 now in the cover letter I can make the note that
6 this 4.1.6 is requesting a change to guidance
7 that really informs the regulation and that
8 that's not quite right, but we still are giving
9 them what we feel that there is an inconsistency
10 there.

11 So they can do with it what they wish.
12 Which is basically what the change did. It still
13 kept the wording in there and said this is
14 another issue.

15 So we could give it to them as it sits
16 with a cover letter saying we realize that you
17 can't do anything with 4.1.6. But it still
18 expresses our opinion that something needs to be
19 done there.

20 MR. ELA: Scott.

21 MR. RICE: I would just reiterate I
22 would be fine moving this forward versus back. I

1 think we've heard pretty clearly from the
2 community that that would be the preference.

3 And then as Harriet noted she could
4 address the issue in a cover.

5 MR. ELA: Ashley.

6 MS. SWAFFAR: Yes. So I'm the one
7 that raised concerns over the additional
8 language, but I would be fine voting on this as
9 originally written.

10 MR. ELA: I think that that becomes
11 clear. Okay, we do have a motion on the floor.
12 Is there any further discussion on that motion?

13 MR. CHAPMAN: Does the motion maker
14 want to remove the motion or are we going forward
15 with the motion?

16 DR. LEWIS: Point of order. Can you
17 just reread the motion? So we know exactly for
18 the record.

19 MR. ELA: Sure. The motion is to send
20 the Strengthening Organic Seed Guidance April
21 2019 back to committee.

22 MS. OAKLEY: I didn't hear what Tom

1 said, I'm sorry. Could you just repeat that?

2 MR. CHAPMAN: Yes. I mean I guess my
3 question is do we want to vote on this motion
4 given the conversation that was just had. We
5 could also have the motion withdrawn and proceed
6 with the primary motion.

7 MR. ELA: That is up to the motion
8 maker.

9 MR. CHAPMAN: I know. And the
10 seconder.

11 MS. OAKLEY: So who made the motion?

12 MR. ELA: Ashley did.

13 MS. SWAFFAR: I would like to move to
14 withdraw my motion to send this back.

15 MR. ELA: Is that okay with the
16 second?

17 MR. MORTENSEN: Yes, I support that.

18 MR. ELA: So the record will show that
19 the motion maker withdrew their motion and it was
20 concurred with by the second.

21 So, we now have on the floor the
22 document, the Strengthening Organic Seed Guidance

1 as distributed and written in the packet. Is
2 there any further discussion on that? Okay, if
3 so we will move -- Emily.

4 MS. OAKLEY: Just a final comment.
5 Thank you for all the work that's been done on
6 this over the many years and I'm excited to see
7 us vote on it. Thank you.

8 MR. ELA: Any other discussion? Okay.
9 We said we are starting with Scott I believe.
10 Tell me when you're ready. But you get to
11 control it by being the first vote.

12 MR. RICE: Multitasking. Yes.

13 MR. ELA: Yes.

14 MS. OAKLEY: Yes.

15 MR. BUIE: Yes.

16 MS. ROMERO-BRIONES: Yes.

17 MS. DE LIMA: Yes.

18 MR. GREENWOOD: Yes.

19 MS. SWAFFAR: Yes.

20 MR. CHAPMAN: Yes.

21 MS. BAIRD: Yes.

22 DR. SEITZ: Yes.

1 MR. MORTENSEN: Yes.

2 MR. BRADMAN: Yes.

3 CHAIR BEHAR: Chair votes
4 enthusiastically yes.

5 MR. RICE: That is 14 yes, zero no.

6 The motion passes.

7 MR. ELA: With that the Crop Committee
8 thankfully yields the floor to the chair.

9 CHAIR BEHAR: Okay. So we have one
10 more deferred proposal, collagen gel. Asa, do
11 you want to take that?

12 MR. BRADMAN: Yes.

13 CHAIR BEHAR: As the Handling
14 Subcommittee chair and the lead on that material.
15 I think it belongs in your lap.

16 MR. BRADMAN: Yes. Okay. I thought
17 I was going to turn it over to you.

18 Given your involvement in the original
19 proposal and all the discussions we had I think
20 maybe you can summarize the discussions we had
21 about how to address some of the confusion about
22 how to move ahead on the language.

1 CHAIR BEHAR: Okay. So, we did
2 discuss about leaving the words as petitioned and
3 then in a cover letter take directly from the
4 petition that it's being only really petitioned
5 for casings or the exact wording and also make
6 note that that was the only use that we discussed
7 in subcommittee based upon that petition.

8 So we can vote on it as is with the
9 words as petitioned but in the cover letter we'll
10 make it clear that that was what we reviewed.
11 And that's what the petition said.

12 MR. ELA: Since I was the one that
13 brought up the original issue, I'm sorry, but I
14 think that's perfectly fine.

15 I just want to make sure that we
16 inform the program as to the intent of the board
17 and the committee. And I don't want to see it
18 listed as just collagen. I would like to see it
19 listed for what the petition actually stated.
20 But I am comfortable with that.

21 Can I ask a point of order?

22 CHAIR BEHAR: Sure.

1 MR. ELA: I think we had -- and this
2 is where my Robert's Rules is a bit oxidized, but
3 we had a motion to change the wording that was --
4 may have been seconded.

5 MR. CHAPMAN: No, we never had the
6 motion. We just started talking about it.

7 (Simultaneous speaking)

8 MS. SWAFFAR: I have it written down
9 a motion by Harriet and a second by myself to
10 amend it.

11 MR. ELA: Correct. Yes. That's what
12 I had too.

13 CHAIR BEHAR: So I will withdraw that
14 motion.

15 MS. SWAFFAR: And as the seconder I
16 would support that.

17 MR. ELA: Okay. I just wanted to make
18 sure we cleared that.

19 CHAIR BEHAR: Thank you. Okay, so --

20 MR. BRADMAN: So I think that clears
21 the way then for me to go through the -- did we
22 do the classification motion? We did. Okay,

1 thank you.

2 So, then I want to put to vote the
3 motion to add collagen gel as petitioned at
4 205.606. The motion was by myself and seconded
5 by Tom. So at this point any final discussion
6 before we vote? Okay.

7 MR. ELA: I vote yes.

8 MS. OAKLEY: Abstain.

9 MR. BUIE: Yes.

10 MS. ROMERO-BRIONES: Abstain.

11 MS. DE LIMA: Yes.

12 MR. GREENWOOD: Yes.

13 MS. SWAFFAR: Yes.

14 MR. CHAPMAN: Yes.

15 MS. BAIRD: Yes.

16 DR. SEITZ: Abstain.

17 MR. MORTENSEN: Yes.

18 MR. BRADMAN: Yes.

19 MR. RICE: Yes.

20 CHAIR BEHAR: Chair votes yes.

21 MR. RICE: I was tracking here.

22 CHAIR BEHAR: Scott?

1 MR. RICE: Yes, my vote was yes.

2 CHAIR BEHAR: And chair votes yes.

3 MR. RICE: Okay. Thanks for your
4 patience. Eleven yes, three abstentions. The
5 motion -- no nos. And the motion passes.

6 CHAIR BEHAR: Okay. With that we move
7 to the work agenda. And any new materials or
8 whatever we might be looking at in the fall. So,
9 this is the next part of the soap opera. We'll
10 be moving to a fall meeting in Pittsburgh and
11 this is what we'll be working on.

12 DR. LEWIS: Just a moment to post it.

13 CHAIR BEHAR: Okay. Am I presenting
14 this part? I guess so.

15 So, we are looking at possibly another
16 discussion document for helping the NOP with more
17 oversight improvements to deter fraud. Tom kind
18 of gave us a little list there that I wrote down
19 so I'll bring that to the Certification
20 Subcommittee and we can discuss which items we
21 are prepared and able to work on. Thank you,
22 Tom.

1 Paper pots. We will go to a vote.
2 Then we -- I could just say vote, vote, vote,
3 vote.

4 The potassium hypochlorite material
5 for crops. We will go to a vote. Fatty
6 alcohols, material for crops will go to a vote.
7 Liquid fish products, annotation. We will go to
8 a vote in the fall.

9 Biodegradable biobased mulch
10 annotation change. I don't think we've done a
11 vote -- we're not --

12 MR. ELA: I'm going to say I think
13 that's to be decided because it depends on
14 several factors.

15 CHAIR BEHAR: That's to be determined.

16 MR. ELA: And can I just go back.
17 Emily, do you think -- are liquid fish, are we?

18 MS. OAKLEY: We don't even have the
19 TR.

20 MR. ELA: I think that's TBD, yes,
21 because it depends on the timing of the TR.

22 CHAIR BEHAR: Okay. Then we're going

1 to sunset items for crops. Hydrogen peroxide,
2 soaps, ammonium, oils, horticultural, oils that's
3 narrow range. I guess it's in two places.

4 Pheromones, again crops sunset vote.

5 Ferric phosphate, vote. Hydrogen
6 peroxide, vote. Potassium bicarbonate, vote.
7 Magnesium sulfate, vote. Hydrogen chloride,
8 vote. Ash from manure burning, vote. Sodium
9 fluoaluminate, vote. So everybody get their
10 voting voices on.

11 Celery powder is a sunset material for
12 handling and that's vote. Fish oil, vote.
13 Goodbye, Dave. Gelatin, vote. Orange pulp,
14 dried, vote. Seaweed Pacific kombu and seaweed -
15 - I say Wakame both votes.

16 Alginic acid, vote. Calcium chloride,
17 vote. Citric acid, vote. We have a lot to do in
18 Handling.

19 Lactic acid, go to vote. Dairy
20 cultures, enzymes, L-Malic acid, magnesium
21 sulfate, microorganisms, perlite, potassium
22 iodide all will be voted on as sunset.

1 Okay, yeast, activated charcoal,
2 ascorbic acid, calcium citrate, ferrous sulfate,
3 hydrogen peroxide, nutrient vitamins and
4 minerals, peracetic acid, potassium citrate,
5 potassium phosphate, sodium acid pyrophosphate,
6 sodium citrate, tocopherols, all in Handling, all
7 going to a vote, all sunset materials.

8 And on to Livestock for sunset
9 materials. As parasiticide fenbendazole and
10 moxidectin all up for a sunset vote. Atropine,
11 hydrogen peroxide, magnesium sulfate, peracetic
12 acid, xylazine, iodine in two uses, methionine,
13 trace minerals, vitamins, all sunset materials
14 that will be voted on in the fall in the
15 Livestock Subcommittee.

16 Use of excluded methods, vaccines in
17 organic livestock production. I hope we go to a
18 vote. We really haven't talked about it in
19 subcommittee, if we felt that we had a good
20 suggestion.

21 Part of it has to do with a little
22 research on the commercial availability and what

1 we can offer certifiers and producers to make
2 that go easier because that seemed to be where
3 most people felt it made sense.

4 DR. LEWIS: Do you want to have that
5 as vote or do you want to have it as a TBD?

6 CHAIR BEHAR: Let's do a TBD.

7 DR. LEWIS: Okay.

8 CHAIR BEHAR: Just to make sure that
9 I can get the information. I hope to.

10 DR. LEWIS: This is the first time
11 presented to the public and discussion group.

12 CHAIR BEHAR: Right. So it's more
13 just making sure that we could do the support for
14 the community.

15 Marine materials will remain in
16 discussion. We are hoping to perhaps do a panel.
17 We're going to talk with the program about that.

18 Genetic integrity transparency of seed
19 grown on organic land. Let's say a TBD there. I
20 am hoping to have a finished item, but let's do
21 TBD depending on again the information the
22 community gives us.

1 Induced mutagenesis and embryo
2 transfer in livestock. I think we'll be able to
3 do the embryo transfer in livestock. I'm not
4 sure about the induced mutagenesis part. So do a
5 TBD on that. I think one part of it is yes and
6 one part of it needs a little more research.

7 Sanitizers. That will be just a
8 discussion. Research priorities, each of the
9 subcommittees will be coming forward to the
10 Materials Subcommittee and we'll be collating
11 those for a vote by the full board.

12 And then there will be, Rick, a policy
13 and procedure manual update that we will probably
14 vote on.

15 And that's the end of our list. Good
16 thing I didn't hold my breath during that list or
17 I'd be blue. Okay.

18 As far as other business and closing
19 remarks I would just like to say that I really
20 appreciate the work of my fellow board members
21 and the very engaged discussion that we have.

22 I think we all learn a lot. And I

1 think it's so valuable to have so many
2 viewpoints. Sometimes we don't always agree but
3 that's part of the situation we are -- neither
4 does the public.

5 But I think we do come to very good
6 decisions in the end. So I greatly appreciate
7 that. And I don't know if anyone else on the
8 board has something to say to the public before I
9 use the gavel that's been sitting here.

10 Oh, you want to say something too.
11 Can I have the board first and then you can have
12 the last word. Anyone from the board have
13 something to say? Dan?

14 DR. SEITZ: Just want to thank you,
15 Harriet, for a nicely done meeting and also all
16 of the subcommittee chairs because I know you put
17 in a tremendous amount of work so thank you.

18 CHAIR BEHAR: Asa.

19 MR. BRADMAN: I'm just going to echo
20 what Dan said.

21 CHAIR BEHAR: Emily.

22 MS. OAKLEY: Yes. And as the program

1 looks to be recruiting new members for the board
2 we have one particular strong workhorse that
3 you've seen at this meeting today and with a lot
4 of historical knowledge. So if we can be sure to
5 get someone on the board that has that historical
6 knowledge and is a workhorse that would be great.
7 Also livestock producers would be great.

8 CHAIR BEHAR: Steve.

9 MR. ELA: Yes, I would like to echo
10 that. Looking forward I think livestock is -- I
11 mean, we need everybody, but livestock probably
12 would be a very nice addition. I know you only
13 have the choices you have, but that would be the
14 high priority in my book.

15 CHAIR BEHAR: I know a few people have
16 mentioned that I kind of followed in Zea's
17 footsteps so I just want to mention that, that I
18 had a good lead on how to be a workhorse.

19 Okay. Thank you, Jenny.

20 DR. TUCKER: Okay. And so from a
21 program perspective we also want to thank you
22 very, very much, Harriet, for running this

1 meeting as board chair.

2 Thank you to the entire board and to
3 NOP staff. The meeting process and outcome
4 reflect an enormous investment of both time,
5 energy and investment and care.

6 As we all leave for home I also thank
7 all of you in the public and all of the public
8 commenters who came here this week. Your passion
9 and dedication is truly inspiring. And so thank
10 you very, very much for being here.

11 We all look forward to seeing you in
12 Pittsburgh this fall. Let's give everybody a
13 hand.

14 (Applause)

15 CHAIR BEHAR: With that I want to
16 announce that it's 4:51 so we're nine minutes
17 early. And I am going to -- I know this thing's
18 been sitting next to me. Adjourned.

19 (Whereupon, the above-entitled matter
20 went off the record at 4:51 p.m.)
21
22

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