

U.S. DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

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MEETING

+ + + + +

THURSDAY

NOVEMBER 3rd, 2016

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The National Organic Standards Board
convened via teleconference, Tracy Favre,
Chairperson, presiding.

BOARD MEMBERS PRESENT:

TRACY FAVRE, Chairperson
HAROLD AUSTIN
CARMELA BECK
HARRIET BEHAR
JESSIE BUIE
TOM CHAPMAN
LISA DE LIMA
EMILY OAKLEY
SCOTT RICE
JEAN RICHARDSON
DAN SEITZ
ZEA SONNABEND
ASHLEY SWAFFER
FRANCIS THICKE

STAFF PRESENT:

MICHELLE ARSENAULT, Advisory Committee
Specialist
PAUL LEWIS, Standards Division Director
JENNIFER TUCKER, Associate Deputy Administrator

ALSO PRESENT:

KRISTEN ADAMS, Midwest Organic Services
Association, MOSA
NUR AHYANI, WWF-Indonesia
KAREN ARCHIPLEY
COLIN ARCHIPLEY
KIRIN BASRA
DAN BENSONOFF, NOFA/Mass
PRESTON BRAWN
MARIE BURCHAM, The Cornucopia Institute
CURT CHITTOCK
JIM CHMURA, ABC/Harvest Hill Beverage Co.
PETER CIRIELLO
JEANNINE DELWICHE, FMC Corporation
KATHERINE DIMATTEO, Wolf, DiMatteo + Associates
ROCCO DIMODUGNO, Lamberti USA
STEVE ETKA, National Organic Coalition
BARRY FLAMM
MARTIN GRAMCKOW, Southland Sod Farms
JAYDEE HANSON, Center for Food Safety
STEVE HEARN, Independent Organic Inspector
FRED HOERR
PHAEDRA LARocca
PHIL LARocca
KEVIN LAWRENCE
BRIAN LEHMANN
JENNIFER LONERGAN, The Humane Society of the
United States
PATTY LOVERA, Food & Water Watch
CECILLE MADRIZ, Fennel Farms
GUILLERMO MARTINEZ, Kingdom Fresh Produce
DAVID MCCOY, Food Science Matters
MICHAEL MCFADDEN, Farm Forward
JEFF NICKERSON

ALSO PRESENT: (CONT.)

DENNIS NUXOLL, Producer Assoc.

JOSH PAYNE

EMILY POSNER, Recirculating Farms Coalition

STEPHANIE ROCHE

JAMES SBARRA

JOHN SCHOENECKER

ADAM SCHRETENTHALER, Formulation Solutions

MARGARET SCOLES, International Organic

Inspectors Association

DENNIS SEISUN

JESSICA SHADE, The Organic Center

BARBARA SHPIZNER

TOM VALDEZ

KURT WAGAMAN, Superior Fresh LLC

MYRA WEINER

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

2 (1:00 p.m.)

3 MS. TUCKER: Okay. We are right at 1
4 o'clock, so we're going to start easing into
5 this. We have a lot of folks who are providing
6 public comment today, so we don't want to delay
7 our start. A couple of introductory logistics
8 remarks. This is the National Organic Program in
9 Washington, D.C. Welcome to this National
10 Organic Standards Board public comment webinar.

11 For Board Members on the phone, we
12 will be taking roll call, calling out the names
13 of everyone who is online so everybody knows, for
14 the record, who is on with us. Michelle will be
15 reading those in a couple of minutes.

16 In the meantime, again, we please,
17 please ask you to mute yourself. We will have to
18 mute everybody if there continues to be
19 background noise, and then that makes it very,
20 very difficult to find the person who is next up
21 for public comment. If everybody could mute
22 themselves by either pushing star 6 on your phone

1 or the mute button on your phone it will go much,
2 much smoother with much less technical
3 disruption, okay?

4 If I have to mute everybody, then what
5 we'll need to do is, when it's your time to give
6 public comment, the speaker before you, you will
7 need to enter in your name and the first four
8 digits of your phone number so we can then find
9 you to unmute you. We do lose a lot of time when
10 we do that. Again, that's why we really
11 appreciate it if people would mute themselves.
12 It will make everything go much smoother, okay?

13 All right. Those are the logistics of
14 the event. I'm going to now turn it over to Paul
15 Lewis, Standards Director, for some opening
16 comments.

17 MR. LEWIS: Thank you, Jenny. And I'd
18 like to welcome NOSB members to today's webinar.
19 Thank you for your member participation in this
20 call and for all your work serving on the board.
21 I'm excited about this opportunity for the board
22 to conduct this meeting and public webinar as

1 part of the opportunity for greater public access
2 at NOSB meetings.

3 This meeting, like other meetings of
4 the NOSB, operates under the Federal Advisory
5 Committee Act. And looking forward to hearing
6 comments from the public to assist the NOSB
7 preparing their recommendations to the USDA.

8 Also thanks to my National Gas
9 Programs and several different colleagues for
10 their help in behind the scenes. Wouldn't have
11 today's call without them. Now I'd like to turn
12 the meeting over to our Chair to conduct the
13 meeting, and thank you for chairing this meeting,
14 and looking forward to a very productive webinar.

15 MS. FAVRE: Thank you, Paul. Again,
16 on behalf of the Board, I'd like to welcome
17 everybody to the public comment webinar prior to
18 our fall meeting. We've only recently begun
19 doing these webinars and I think it's been a
20 great opportunity to add access for those who
21 might not be able to travel.

22 I wanted to let you know, we are

1 getting some background noise there. Those of
2 you, please, I'll reiterate what Jenny said,
3 please, please mute yourself. It's very
4 distracting. It really takes away from the
5 opportunity to hear those that are speaking and I
6 can hear somebody moving around and crunching
7 around in the background, so if you think you're
8 muted, please just check to make sure, just so
9 it's not a distraction to those that have taken
10 the time to participate.

11 Jenny, I'm going to ask you if you
12 will read a list of the board members that are in
13 current attendance. And just as a heads-up to
14 everybody, we are going to run a little bit long
15 today because we wanted to try and accommodate as
16 many public presenters as possible, but in the
17 interest of full disclosure, some board members
18 may not be able to stay for the full amount of
19 time.

20 The best way to make sure everybody
21 gets heard is to keep our comments to the
22 allotted time period and I appreciate and thank

1 you in advance for your cooperation, so, Jenny?

2 MS. ARSENAULT: Hey, Tracy, it's
3 Michelle. I'm going to go ahead and read the
4 roll here.

5 MS. FAVRE: Okay.

6 MS. ARSENAULT: So on the line with us
7 we have Harold Austin, Carmela Beck, Harriet
8 Behar, Jesse Buie, Tom Chapman, Lisa de Lima,
9 Tracy Favre, Emily Oakley, Scott Rice, Jean
10 Richardson, Dan Seitz, Ashley Swaffer, and
11 Francis Thicke, I'm sorry, Francis, I haven't
12 seen you yet, so we'll watch for you, and there's
13 several staff on the line as well, Jenny Tucker,
14 myself, and Paul Lewis.

15 And I'm sure there are a couple more
16 I can't see on the list at the moment, so they
17 will be added to the transcript. So just so a
18 little admin, we are having this call
19 transcribed, just so know, and once you start
20 your comments, you're going to hear a timer
21 that's going to go off every three minutes, and
22 we ask that you please finish your sentence and

1 end your comment at that time so we can get
2 through everybody that's signed up.

3 I'm going to give you guys a little
4 demonstration of what the timer sounds like so
5 you know, so it'll be a couple seconds here.
6 Everybody hear that okay?

7 MS. TUCKER: It's actually pretty
8 faint, Michelle, I think we need it just a little
9 bit closer.

10 MS. ARSENAULT: Okay. All right.
11 I'll work on that. Thanks.

12 FEMALE PARTICIPANT: Are we supposed
13 to announce that we're on?

14 MS. ARSENAULT: No.

15 FEMALE PARTICIPANT: Okay.

16 MS. ARSENAULT: No, you're not. Thank
17 you. Thanks for asking that. I'm sure others
18 had that same question.

19 MS. FAVRE: Okay. In the interest of
20 our limited time here, I'd like to go ahead and
21 get started with the public comments. And the
22 way I intend to do this is, I will announce who

1 is up speaking and then I will also tell you who
2 is on deck, so which means who will be following
3 the current speaker so you can get yourself
4 prepared, okay?

5 So first up today is Marie Burcham and
6 on deck will be Steve Etko. Go ahead, Marie.

7 MS. BURCHAM: Hello. Can everyone
8 hear me?

9 MS. ARSENAULT: Yes.

10 MS. BURCHAM: All right. Hello and
11 good afternoon. My name is Marie Burcham and I
12 am a policy analyst at the Cornucopia Institute.
13 I am also an attorney with a background in
14 environmental and natural resource law. Members
15 of the Board and the public, thank you for the
16 opportunity to speak on this important issue of
17 the policy and procedures manual rewrite.

18 In general, the policy development
19 subcommittee has not followed the procedures in
20 the PPM for presenting proposals. In the current
21 draft, the PDS does not provide an explanation
22 with nutrition detail for these changes. In

1 particular, it should include a rationale for the
2 proposal, including reasons why the proposal
3 should be adopted, it's historical context, and
4 the regulatory framework pertinent to the issue.

5 The PDS also fails to discuss the
6 strengths, weaknesses, and opportunities
7 associated with these changes. We ask that now,
8 and in the future, any explanations are more
9 complete. Failure to commit to transparency and
10 public input threatens organic integrity and it
11 weakens the value of the organic label for us
12 all.

13 I also want to speak to the Board
14 about the importance of policy regarding the
15 conservation of bio-diversity within the organic
16 label. Currently, organic policy incentivizes
17 farmers to bring untouched native ecosystems into
18 organic production. Because they are considered
19 clean, farmers are allowed to skip the three-year
20 waiting period.

21 These pristine habitats are often weak
22 and cannot be replaced even if restoration is

1 performed. The NOP's three-year waiting period
2 for transition organic production is critical to
3 maintaining organic integrity. However,
4 incentivizing farmers to plow over pristine
5 habitat by allowing to easily go into organic
6 production flies in the face of bio-diversity
7 conservation. They should be de-incentivized
8 immediately.

9 Bio-diversity is great, it's great in
10 undisturbed environment, these areas serve as
11 biohabitats for plants and animals, in fact, some
12 of these lands may be vital to the survival of
13 some species. These native ecosystems also form
14 the foundation of a vast array of ecosystem
15 services that critically contribute to human
16 well-being. These services include benefits such
17 as flood and fire control, and pollutant
18 filtering.

19 Protecting and conserving bio-
20 diversity is one of the fundamental precepts of
21 organic agriculture, as defined in federal
22 regulations. Organic regulations should

1 explicitly protect native ecosystems from being
2 converted to organic production. This issue has
3 not been given enough attention by the NOSB to
4 date and I hope time will be dedicated to it in
5 the future.

6 In general, we would support the Wild
7 Farm Alliance's work in this area as well. Thank
8 you for your time and consideration of these
9 important issues and if you have any questions,
10 I'd be happy to answer them.

11 MS. FAVRE: Thank you, Marie. Any
12 questions for Marie? Okay. Hearing none, thank
13 you, Marie. Next up is Steve Etko and on deck is
14 Jessica Shade. Go ahead, Steve.

15 MR. ETKO: Can you hear me?

16 MS. FAVRE: Yes, we can.

17 MR. ETKO: I am Steve Etko. I'm
18 policy director for National Organic Coalition.
19 NOC has been very concerned about the recently
20 enacted GMO labeling law. Just a little bit
21 concerned as it relates to the definitions of
22 genetic engineering use of the law which

1 potential conflict with USDA organic regulations.

2 The plea to the AMS Administrator
3 Starmer issued a policy memo clarifying that the
4 new law and its regs were not, in fact, organic
5 regulations, but we have also asked the AMS to
6 clarify that the organic law will not impact the
7 NOSB's work to address new genetic technology
8 from excluded methods nor will it impact NOC's
9 ability to respond to those recommendations.

10 The AMS has given us those assurances,
11 and speaking of excluded methods, NOC strongly
12 supports full adoption of all three sections of
13 the proposal put forward by the material
14 subcommittee. It is critical that, additionally,
15 the NOSB, at this meeting, provide as much
16 guidance as possible for the new incoming
17 administration.

18 Because new technologies are being
19 adopted so quickly, organic regs have struggled
20 to keep pace and we need to move forward ahead
21 now when it is clear we have consensus.

22 In organic production, a precautionary

1 approach should first require proof of safety to
2 ensure that there are no unintended consequences,
3 including GMO contamination concerns or other
4 environmental health or safety impacts.

5 On the topic of incentives to convert
6 native habitats or organic production, NOC is
7 disappointed that NOSB was unable to bring
8 forward a discussion back to this matter. While
9 we support the continued expansion of the U.S.
10 organic acreage, we feel that it should not be at
11 the cost of converting native ecosystems that
12 have no cropping history.

13 We strongly encourage the CSC
14 subcommittee to prioritize this topic so that
15 this discussion document will be presented to the
16 public for comments for the spring 2017 meeting.

17 On the issue of research priorities, NOC
18 continues to thank the Board for addressing the
19 topic of research into organic community.

20 A couple comments, however, on organic
21 no till, we agree that the issue needs greater
22 research, but believe that the priority should be

1 expanded to address soil carbon restoration
2 techniques more broadly, because many organic
3 farmers are doing their own work on farm and
4 there needs to be more work and research into the
5 broader list of soil carbon restoration
6 techniques.

7 NOC would also like to express general
8 support for the NOSB's proposed livestock
9 research priorities. Substantial research has
10 been conducted investigating isolated strategies
11 for raising chickens, organically and humanely,
12 without synthetic amino acid supplementation.

13 However, we believe that studies
14 should be conducted to assess multiple strategies
15 in tandem that investigate the impacts of
16 national declining food sources, breed, and
17 strong animal welfare management strategies.

18 Thanks for the opportunity to comment.

19 MS. FAVRE: Good job, Steve. Right on
20 the buzzer. Any questions for Steve? Okay.

21 Didn't see any. Thank you, Steve, very much.

22 Next up is Jessica Shade and on deck is Tom

1 Valdez. Jessica, go ahead.

2 DR. SHADE: Great. So hi, everyone.

3 Thanks so much for the opportunity to provide
4 comment. My name is Dr. Jessica Shade and I'm
5 the Director of Science Programs for the Organic
6 Center. We're a non-profit organization that
7 covers up-to-date studies on sustainable
8 agriculture and health, and we also collaborate
9 with academic and government institutions to fill
10 gaps in the knowledge.

11 So first of all, I want to say thank
12 you to the material subcommittee for its research
13 priority. We really appreciate the creation of
14 the research priority trademark and the efforts
15 made by each subcommittee to bring forth its
16 research priority for 2016.

17 We really rely on these angles NOSB
18 research priority to guide the development of our
19 own research projects, so the thoughtful
20 development of the list is really critical for
21 getting research that's important to organics
22 done. And I'm just going to really quickly

1 highlight a couple of our current projects that
2 were informed by NOSB priorities, and then I'll
3 go into a few suggestions for additions to this
4 huge list.

5 So we were really happy to see the
6 inclusion of research priorities, to find
7 alternatives to antibiotics for fire blight.
8 When the NOSB first put out the call about the
9 importance of that research back in 2012, we
10 responded by collaborating with researchers from
11 the University of Washington to provider really
12 critically needed information on how to prevent
13 fire blight from decimating apple and pear
14 orchards without the use of antibiotics.

15 We also have a project examining
16 organic solutions to control citrus greening,
17 which is a response to the NOSB priority for
18 plant disease management, and our project looks
19 at the efficacy of organic pesticides for
20 controlling the Asian citrus psyllid, we also
21 attach combinations of the antimicrobial
22 treatments, and tax non-GMO resistant varieties

1 of citrus for use in organic systems.

2 Our research project defined organic
3 solutions to control citrus greening is an
4 ongoing project and we just completed the first
5 phase of the project and we're working on our
6 second phase that looks at those antimicrobials
7 that I mentioned.

8 In the last year, we also started a
9 research project in collaboration with half a
10 dozen academics at governmental institutions to
11 develop an integrative test management strategy
12 for organic rice production, which is funded by
13 the Organic Research and Extension Initiative,
14 OREI.

15 And so, basically, the cover crop-
16 based rice production just kind of causes
17 increased pressure from unique diseases, weeds,
18 insects, pests that aren't found in dryland
19 cropping systems, so our project focuses on
20 developing cover crop-based production systems in
21 combination with choices and seed treatments to
22 enhance disease, weed, insects, and new plant

1 management.

2 So one of the topics that I had
3 mentioned that we were really excited to see
4 included last year was development of
5 alternatives for materials in the national list.
6 So to address that, we've been collaborating with
7 the Organic Trade Association's National List
8 Innovation Working Group at the University of
9 Wisconsin to look into developing alternatives to
10 conventional celery powder for curing organic
11 meat products, and we were --

12 MS. FAVRE: I'm sorry to have to
13 interrupt you. Yes, your timer had gone off.

14 DR. SHADE: Okay. No problem.

15 MS. FAVRE: Can you just wrap-up that
16 last sentence?

17 DR. SHADE: Yes. The only thing I
18 want to add is that we'd like to see more
19 research on manure safety included into the
20 research priorities.

21 MS. FAVRE: So great. Thank you. I'm
22 going to have to be really strict on the time

1 this time. We're just so pressed on the
2 schedule, but I appreciate it. And I know time
3 goes very fast when you're speaking, so thank you
4 very much. Thanks, Jessica. Any questions for
5 Jessica?

6 MS. OAKLEY: Yes, Tracy, this is
7 Emily. I didn't hear the last point. More
8 research on what? Could she just state that one
9 more time?

10 DR. SHADE: Sure. It was manure
11 safety. So that's in response to the FSMA
12 proposed rules that included changes to the
13 required interval that untreated manure could be
14 applied to crops harvested to jumping that nine-
15 months minimal interval requirement, which
16 directly conflicts the NOC regulation, so we
17 think that it's important for organic to be
18 involved in that research as the FDA develops
19 more information to guide their next stage in
20 proposing a rule.

21 MS. FAVRE: Okay. Thank you very
22 much. All right. Next up is Tom Valdez and

1 we've got Doreen Regan, or Regan, on deck. Go
2 ahead, Tom.

3 MR. VALDEZ: Hi. Am I open?

4 MS. FAVRE: Yes, we can hear you.

5 MR. VALDEZ: Okay. Hello to everyone
6 and thank you for the opportunity to speak to you
7 today. And thank you, especially, for all the
8 work that you do in protecting the integrity of
9 organic foods. My name is Tom Valdez and I'm
10 here today to strongly urge you to disallow the
11 use of carrageenan in foods, especially organic
12 foods.

13 My background is that I have a degree
14 in physics and spent decades in various segments
15 of the computer industry as a systems engineer,
16 hardware designer, software developer, project
17 manager, and systems architect. I'm now retired.
18 I've worked on designed systems for UCLA, USC
19 Medical Center, Warner Bros., various major
20 entertainment companies, most of the major oil
21 companies, and many others.

22 The reason I bring this is that a

1 major principle in systems design and maintenance
2 is that when something goes wrong that was
3 working previously, you then look for what
4 changed in that system. Simply, something
5 changed and the system broke.

6 Now, I'm neither a doctor or a health
7 scientist, but my body is a system and I've
8 observed negative empirical data relating to
9 carrageenan. Several years ago I began getting
10 frequent headaches, very painful, like a tight,
11 pounding band around my head. This is generally
12 accompanied by a sort spacy, drowsy, disconnected
13 feeling.

14 Usually when you tried to handle the
15 headaches, the spacy disconnected feeling would
16 persist, making it hard to concentrate and work.
17 Wondering what had changed, I began thinking
18 about my diet and realized that I'd been eating
19 ice cream on a more regular basis, so I looked at
20 the ingredients and found something I did not
21 notice before; carrageenan.

22 I then switched to a brand of ice

1 cream that had no carrageenan, and then after a
2 while, no more headaches. I knew at that point
3 that I had to stay clear of carrageenan. I'm
4 waiting for that sound to die away. I've had
5 subsequent experiences where I've inadvertently
6 consumed carrageenan and then I experienced the
7 symptoms again.

8 It's to the point where any time we go
9 to a friend or relative's house for dinner, my
10 wife has to call in advance for ingredients of
11 the food that could be used. From what I've read
12 since, I'm far from the only person that
13 experiences adverse effects from carrageenan.

14 Over the years, I've been surprised
15 and angry to witness the increasingly widespread
16 use of carrageenan in everything from almond
17 milk, to cream, to cottage cheese, and almost all
18 of the supposedly healthy brands of toothpaste.
19 It is very important to me to have access to
20 healthy foods. The foods that are marketed as
21 being healthy, especially organic foods,
22 certainly do not need to have strange additives

1 mixed in.

2 Carrageenan, in my opinion, shouldn't
3 be allowed in any foods, and definitely not in
4 organic foods. When I buy a carrot, the contents
5 should be just that, a carrot, and the same goes
6 for almond milk and other products. Thank you
7 very much.

8 MS. FAVRE: Thank you, Tom. Anybody
9 have questions for Tom? Okay. Thanks very much,
10 Tom. We appreciate your comments.

11 MR. VALDEZ: You're welcome.

12 MS. FAVRE: Next up is Doreen Regan
13 and on deck is Jeremy Domby. Go ahead, Doreen.
14 Doreen, we're going to give you a few more
15 seconds in the interest of time. Doreen, if
16 you're speaking, we can't hear you.

17 MS. ARSENAULT: We don't see her name
18 on the phone list. We don't have a phone number
19 for her to confirm that she is on with us.

20 MS. FAVRE: Okay. All right. So
21 we're going to skip over Doreen. Sorry, Doreen.
22 And next up is Jeremy Domby, followed by Andrea

1 Bacle. Apologize if I'm mangling your name
2 pronunciation. Go ahead, Jeremy.

3 MR. DOMBY: Thank you to the Board and
4 everyone in attendance. My name is Jeremy Domby.
5 I'm a private citizen and a consumer, and I'm
6 also here to talk about carrageenan. My
7 experience, unknowingly, started around 25 years
8 ago. I noticed I started getting really sick
9 with GI and IBS symptoms. I also had those
10 severe headaches and that brain fog that Tom
11 previously mentioned after I drank a chocolate
12 instant breakfast shake.

13 And I started to notice this when I
14 ate certain other dairy foods, especially ice
15 cream. I thought it was lactose, but I didn't
16 have any symptoms with just milk. I suffered
17 with this issue for around 20 years, never
18 knowing, and always afraid to eat certain foods,
19 especially out at someone's house or at a
20 restaurant.

21 Then, only five years ago, by process
22 of elimination, I started looking at labels, at

1 everything that made me sick or after, I was
2 sick. And I realized that it was this ingredient
3 carrageenan. That was the only common
4 denominator. And since then, I've had to be
5 really diligent, checking every label on every
6 product, just hoping that it's listed, and not
7 just in their cream or other base ingredient that
8 it's mixed in with.

9 I've heard some people say that only
10 a small percentage of the population are
11 intolerant, like I am, but I ask you this, how
12 many tens of thousands never find out what is
13 making them sick? It took me 20 years. Or how
14 many are misdiagnosed with IBS or Crohn's Disease
15 because it caused very similar issues?

16 Well, I'm here to tell you that this
17 ingredient isn't just making a few people sick,
18 it has the potential to make many people very
19 sick, and worse yet, they're never going to find
20 out. And many large corporations that used to
21 lobby to keep carrageenan in their products have
22 no already been removing them, and that should

1 speak volumes to the Board.

2 We need to get this out of organic
3 foods. It never belonged there in the first
4 place. Even though Organic Foods Protection Act
5 of 1990 says that if there is a non-organic
6 ingredient, it's only allowed if it's not harmful
7 to human health. Well, I am a human and it
8 definitely harmed my health.

9 So there really shouldn't be any valid
10 arguments from businesses. This seems really
11 kind of unethical. When a product isn't wanted
12 or is determined to be harmful, if you're in that
13 business, you either change products or you go
14 out of business, just like they took asbestos out
15 of construction, they took lead out of paint, we
16 need to get carrageenan out of our food.

17 So please take the right action and
18 take it out of the organic food.

19 MS. FAVRE: Great. Thank you very
20 much, Jeremy. Anybody have questions for Jeremy?

21 FEMALE PARTICIPANT: Thank you for
22 bringing your concerns to us, Jeremy.

1 MS. FAVRE: Up next is Andrea Bacle
2 and on deck is Jennifer Lonergan. Go ahead,
3 Andrea.

4 MS. TUCKER: We haven't been able to
5 find the number. She did give us a number, but
6 it's not on -- we don't see the number on the
7 list, so she said she's calling in from a
8 different number. We don't know what it is.
9 Andrea, last call.

10 MS. FAVRE: Okay. Sorry, Andrea.
11 We're having to move on. Jennifer Lonergan,
12 you're up next and then, Katherine DiMatteo,
13 you're on deck. Go ahead, Jennifer.

14 MS. LONERGAN: Hi. This is Jennifer
15 Lonergan. I'm a regulatory specialist with the
16 Humane Society of the United States. Thank you
17 so much for the opportunity to provide comment
18 today. I want to start by thanking the NOSB's
19 Livestock Committee for its very long commitment
20 on hard work incorporating animal welfare into
21 the organic standards.

22 The recent progress out of NOSB, based

1 on the Livestock Committee's recommendations is
2 poised to make significant improvements in animal
3 care and husbandry, and the rule will also
4 recognize the many farms that are already engaged
5 in management practices that really reflect an
6 ethic of care and attention beyond conventional
7 production.

8 The changes being proposed are a
9 commendable step forward and we're really
10 grateful for this body's work. I'd also like to
11 bring our attention to another very important
12 animal welfare concern that's growing in
13 prominence and we hope will get your attention.
14 We previously had brought this up before the NOSB
15 in the April 2016 meeting in D.C., but we want to
16 continue highlighting the issues because there's
17 a large number of animals affected and it the
18 potential suffering is severe.

19 So the problem is with welfare broiler
20 chicken, conventional fast-growing chickens
21 raised for meat grow at a rate that's 300 percent
22 faster than it was 15 years ago. So birth nine

1 pounds in 56 days, instead of two pounds in the
2 same length of time has been celebrated as seeds
3 of efficiency, but there are a number of
4 unintended detrimental side effects of
5 selectively breeding poultry with a singular
6 focus on production trees.

7 Studies consistently show that 30
8 percent of broiler chickens suffer from gait
9 abnormalities that are significant enough to
10 cause pain with any locomotion and the worst
11 cases, birds can become crippled from slipped
12 tendons or twisted legs. They can also die from
13 disorders related to the increased metabolic
14 demand of rapidly growing tissues.

15 So while organic farmers generally
16 provide a suitable environment and are definitely
17 trying their best to take excellent care of their
18 animals, the genetics of the birds really limits
19 the welfare status that any farmer can obtain,
20 and we've heard from farmers in our Agriculture
21 Advisory Council that they're concerned about
22 this and they want something better.

1 So we hope that the organic program
2 will require the use of more robust broiler
3 chicken strains that are healthier, more disease
4 resistant, and have better life strength. And
5 these alternatives for growing strains are
6 becoming more widely available in the United
7 States. There's definitely a demand, various
8 companies are stepping up to that, and numerous
9 smaller breeders, and those hatching poultry are
10 as well.

11 These are birds with lower mortality,
12 they're much active, they have less lameness,
13 they suffer less, and some major conventional
14 producers are already testing these strains, so
15 we hope that the organic community will become
16 the leader in this and begin to require these
17 birds now.

18 Thank you for considering my comments
19 and please reach out if the HSUS can assist with
20 furnishing research papers or other information.
21 Thanks.

22 MS. FAVRE: Great. Thank you,

1 Jennifer and thank you for your timely
2 completion. Questions for Jennifer? Okay. I
3 don't see any. Thanks again, Jennifer. Next up
4 is Katherine DiMatteo and on deck is Brian
5 Lehmann. Go ahead, Katherine.

6 MS. TUCKER: We see Katherine on the
7 headset. Katherine, you with us?

8 MS. FAVRE: Yes, if you're speaking,
9 we can't hear you.

10 MS. DIMATTEO: Hi, can you hear me
11 now?

12 MS. FAVRE: Yes, we can.

13 MS. DIMATTEO: Okay. Sorry. I still
14 had myself on mute. Here we go. Katherine
15 DiMatteo here, a partner in a consulting firm,
16 Wolf, DiMatteo + Associates, servicing the
17 organic sector for over 25 years. Thank you for
18 the opportunity to comment, for setting up these
19 webinars, and for your dedicated work as
20 volunteers.

21 Our firm has submitted comments that
22 you can read in detail if you wish. I will

1 present a summary now. Bioponics, don't combine
2 hydroponics, aeroponics, and aquaponics under
3 this umbrella. Consider each separately, as they
4 are very different systems and should be treated
5 and voted individually.

6 This proposal has come quickly and
7 would benefit from further development and
8 stakeholder input. Use of organic seeds. Yes,
9 indeed, let's strengthen the requirements to use
10 organic seed. Our revision to the March 2013
11 seed guidance document is in order, given the
12 changes and growth in the organic seed industry.

13 Improvements should include contacting
14 five, not three seed suppliers, checking that the
15 search for organic seed was done early enough for
16 a seed supplier to fulfill their requests, make
17 increases in organic seed usage a requirement of
18 an organic system plain goal, and hold handlers
19 that source seed for contractual growing purposes
20 to the same requirements as farmers.

21 Excluded methods terminology. We are
22 supportive of the work being done on this topic,

1 however, there is a need to proceed with caution
2 and to recommend an approach that will not be
3 hampered by the inability to implement or by any
4 other regulatory issues. This is quite a burden
5 for a volunteer advisory board and the expert
6 group formally convened by NOP could help avoid
7 unintended consequences.

8 Now a general comment. There is an
9 ever-increasing amount of discussion documents
10 and proposals, in addition to the national list
11 of petitions and sunset reviews that are the
12 NOSB's primary and legally authorized
13 responsibility. We can't keep up, how can you?

14 We urge to apply some discipline to
15 the type and number of topics that you put on
16 your plate or that you accept from outside
17 sources. The organic community will muddle
18 through with the regulations and guidance as they
19 are and as we have done for many years.

20 For instance, input suppliers are
21 still working with the outdated EPA list, four,
22 farmers still do not have access to biodegradable

1 mulch film because the required form does not
2 exist, and input suppliers, farmers, certifiers,
3 material review organizations work with the draft
4 guidance on the classification of materials, if
5 they can even find it on the NOP Web site.

6 Lastly, I must include our position
7 that has been stated at every NOSB meeting for
8 the past ten years, the national list is part of
9 a toolbox for organic production and handling,
10 limiting the list or making it shorter is not
11 automatically a goal or likely to be helpful to
12 the organic community in the long run.

13 Please don't limit the toolbox
14 unnecessarily. We need to do everything we can
15 to encourage more organic acreage and food
16 production in the United States.

17 MS. TUCKER: Good timing, Katherine.

18 MS. DIMATTEO: I was timing myself.

19 MS. TAYLOR: Oh, I thought I heard a
20 second timer go off. That's pretty good. Okay.
21 Good job. All right. Any questions for
22 Katherine? Okay. Katherine, thank you very

1 much. Next up is Brian Lehmann, and, Brian,
2 before you get started, I just want to make a
3 general announcement reminder, please, please,
4 everybody, mute yourself if you're not speaking,
5 even if you think we can't hear you, we will be
6 able to hear you. I promise, so please go ahead
7 and mute yourself. Thank you.

8 Okay. Brian, go ahead.

9 MR. LEHMANN: Are you able to hear me?

10 MS. FAVRE: Yes, we are, but hold on.

11 I just wanted to say, Dennis Seisun is on deck.

12 Go ahead, Brian.

13 MR. LEHMANN: Okay. I'm Brian
14 Lehmann, commenting as an individual citizen
15 regarding excluded methods. The third discussion
16 document suggests possible difficulties in
17 detection and enforcement for newer gene editing
18 and splicing techniques. It would seem to me,
19 given the new GMO labeling law, that USDA does
20 now have to look at detection.

21 I was looking at the language the
22 other day, which includes in its definition of

1 bioengineering, the phrase, "The modification
2 could not otherwise be obtained through
3 conventional breeding or found in nature." So
4 the modification could not otherwise be found in
5 nature. That would seem to encompass even the
6 newer technologies.

7 So we should be able to rely on USDA
8 for detection methodology, since they're going to
9 have to look at it for food anyway. That said, I
10 would just reiterate, USDA was entrusted with
11 organic standards for a reason, but not so they
12 could turn around and say, introduction of an
13 excluded method is somehow inevitable.

14 So that's about it. I thank the Board
15 for all your ongoing efforts.

16 MS. FAVRE: Thank you, Brian. Any
17 questions for Brian? Thank you very much. Next
18 up is Dennis Seisun and on deck is Barbara
19 Shpizner. Probably totally mangled that. Go
20 ahead, Dennis.

21 MS. SEISUN: Hello, everyone. Can you
22 hear me?

1 MS. FAVRE: Yes, we can.

2 MS. SEISUN: Great. My name is Dennis
3 Seisun, talking as a private citizen. A little
4 background, I'm a consultant in the area of all
5 food hydrocolloids, which includes carrageenan
6 amongst about 18 other different categories, such
7 as starch, gelatin, pectin. I want to talk a
8 little bit about the history of carrageenan.
9 It's one of the oldest texturizing agents used in
10 the food industry, not only decades, but probably
11 centuries, if one goes back to the use of Irish
12 moss by the Irish population to give texture to
13 some of their foods.

14 So I review, I'm not a scientist, the
15 markets for all these texturizing agents, and
16 over the last 30 years have never really found
17 any credible evidence of a general danger that
18 carrageenan poses to the population. I also, as
19 a non-scientist, keep an eye on some of the
20 scientific research, and every time that
21 carrageenan has been called into question, it's
22 never been solid enough to change the mind of the

1 USDA, the FDA, the European Food Safety
2 Authority, JECFA, all of these have consistently
3 reviewed the use of carrageenan over the years
4 and never found any reason to disallow it, or not
5 only that, but actually have given it a prized
6 designation of no ADI set; no authorized daily
7 intake set.

8 And carrageenan is actually even
9 approved for the use in baby food, so I think if
10 there really was any kind of general danger in
11 carrageenan that one of these organizations would
12 have found cause to change its status.

13 As far as a few consumers, and I do
14 realize, and I've heard some of the consumers
15 talk about the reactions to carrageenan, really,
16 the instances we've just heard about, and all the
17 ones I've heard about in my surveying the market,
18 have all been anecdotal and non-scientific. And
19 if one takes anecdotal evidence for making
20 decisions such as the one the NOSB is going to be
21 considering on carrageenan, that really would be
22 a sad day for science.

1 As an example, my son, actually, is
2 allergic to fish, we've got people allergic to a
3 number of things, so certain people will react
4 differently to certain ingredients, and if we
5 were to ban all ingredients to whom some people
6 have a reaction, we'd probably all starve to
7 death.

8 And then lastly, the social aspect of
9 the use of carrageenan, most people probably
10 aren't aware that this market actually guaranteed
11 the employment of tens of thousands of seaweed
12 farmers in impoverished conditions in countries
13 like Indonesia, the Philippines, Vietnam,
14 Malaysia, and their livelihood would actually be
15 endangered by what I would find, the unreasonable
16 banning or elimination of the use of carrageenan.

17 So I urge you to consider some of the
18 scientific research and give credence to the
19 individuals that have a reaction, but suggest
20 that maybe they are the ones that, as they are
21 doing now, read the label and avoid it. Thank
22 you.

1 MS. FAVRE: Thank you very much,
2 Dennis. Anybody have questions for Dennis?

3 MR. LEHMANN: Many, many questions.
4 I would like to submit it myself for trial,
5 scientific trial, and not be so anecdotal, but
6 that's all I'll say.

7 MS. FAVRE: Okay. I'm sorry, when I
8 ask for questions, unfortunately, we can't take
9 questions from the audience. This is actually
10 for Board Members. I apologize. Is it you,
11 Brian, it is you speaking back up again?

12 MR. SEISUN: If I can just, three
13 seconds worth, for anybody in the audience, not
14 on the Board, that wants to contact me, the Web
15 site is hydrocolloid.com, H-Y-D-R-O-C-O-L-L-O-I-
16 D, .com, and by all means, please do contact me.

17 MS. TUCKER: Good. Thank you.

18 MR. SEISUN: Any other questions from
19 the Board? No. In which case, I will sign off
20 and mute my microphone. Thank you.

21 MS. TAYLOR: Thank you, Dennis. Okay.
22 Next up is Barbara Shpizner and on deck is Kurt

1 Wagaman. Go ahead, Barbara. Barbara, if you're
2 speaking, we can't hear you, and it looks like we
3 don't have -- well, no, we do have the phone
4 number for her.

5 MS. TUCKER: The phone number that we
6 have for her has not dialed in, so we don't have
7 anyone from her area code on the line with us,
8 and I don't see her as being present on a
9 headset, so I think we'll have to do a final
10 call.

11 MS. FAVRE: Okay. Barbara.

12 MS. TUCKER: So this will be a final
13 call for Barbara Shpizner.

14 MS. FAVRE: Okay. Next up is Kurt
15 Wagaman. Kurt, go ahead, and Barry Flamm is on
16 deck.

17 MR. WAGAMAN: Can you hear me okay?

18 MS. FAVRE: Yes, we can.

19 MR. WAGAMAN: Excellent. My name is
20 Kurt Wagaman and I'm the Business Development
21 Manager for Superior Fresh. Our company not only
22 represents a future model of sustainable food

1 production, but it also demonstrates an
2 ecological and environmental awareness that
3 establishes a production standard for the ag
4 industry.

5 Our family, the leadership is
6 committed to pairing a philanthropic endeavor
7 with a successful aquaponics business model, and
8 this is a family that's pleading their
9 motivations and desire for sustainable organic
10 and responsible food production for the future.

11 With the population of Earth predicted
12 to reach nearly 9 billion by 2050, meeting the
13 needs of the human diet will become increasingly
14 more difficult. Based on current projections, a
15 dire challenge will be presented to meet this
16 demand with current farming and consumption
17 trends. Superior Fresh is proud to be
18 establishing and propagating a legacy while both
19 promoting our owner's dream by facilitating a
20 family atmosphere with our team, but also
21 addressing an upcoming global challenge with
22 sustainable food production.

1 Superior Fresh is not going to engage
2 in philosophical debate of soil versus
3 aquaponics. The debate with bioponics is
4 seemingly rooted in economic motivations,
5 personal agendas, or political subjectivity,
6 rather, we want to denote the true scientific
7 observance of organically grown crops with the
8 absence of chemically formulated fertilizers,
9 growth stimulants, antibiotics, and pesticides.

10 Furthermore, the implementation of
11 growing practices of cycling of resources,
12 promotion of ecological balance, and the
13 conservation of bio-diversity. This is what our
14 aquaponics facility does.

15 After years of research and
16 development, and millions of dollars of capital,
17 full case production is going to yield 2 million
18 pounds of organic leafy greens, primarily 160,000
19 pounds of protein-laden Atlantic salmon and
20 rainbow trout annually, all this with zero
21 discharge water displaced on the surface of the
22 State of Wisconsin.

1 The complexity of the soil medium is
2 undeniable. Our integrated and state-of-the-art
3 system invites beneficial bacteria to thrive.
4 Microbial roleplay is obviously paramount in any
5 plant growth, both in soil and any of the
6 botanically measured systems.

7 We feel that we're demonstrating a
8 true organic practice by minimizing all outfarmed
9 inputs and producing our inputs on the farm. Our
10 own nutrient-rich water in this recirculating
11 aquaponic system. Our tremendous outputs are what
12 we feel set us apart.

13 We feel that all aquaponic facility
14 organic principles -- albeit a defined scientific
15 process built upon a growing active use for
16 thousands and thousands of years. I'm not here
17 to segregate or question a given group's amity of
18 business or personal platform, rather, I want to
19 collaborate with this concept that was constantly
20 grown new methods.

21 MS. TAYLOR: Kurt, excuse me. Excuse
22 me, Kurt, I want to interrupt. Folks, we're

1 hearing talking in the background, it's very
2 distracting, and, Kurt, I want to apologize for
3 the distraction during your presentation, but
4 your buzzer has gone off.

5 MR. WAGAMAN: Thank you.

6 MS. TUCKER: Please, please, if you
7 are on the phone, please go on mute. Push mute
8 on your phone or star 6. This is running
9 spectacularly smoothly with everybody self-
10 muting. If we have to mute everybody, it'll get
11 a lot harder.

12 MS. FAVRE: Yes. And it's also very
13 distracting, both to the person speaking and to
14 those of us listening, so please, as a courtesy
15 to the presenters, and those of us listening,
16 make sure you mute yourself. Do we have any
17 questions for Kurt Wagaman?

18 MR. WAGAMAN: I'm sorry?

19 MS. FAVRE: I just asked if there were
20 any questions for you, Kurt.

21 MR. WAGAMAN: Oh, okay. Yes.

22 MS. FAVRE: Any questions for Kurt?

1 Okay. I don't see any. Thank you very much for
2 your comments, Kurt.

3 MR. WAGAMAN: Thank you.

4 MS. FAVRE: Next up is Barry Flamm and
5 on deck is Rocco DiModugno. I just totally
6 mangled that. Sorry, Rocco. Go ahead, Barry.

7 MR. FLAMM: Can you hear me, Madam
8 Chair?

9 MS. FAVRE: Yes, we can. Thank you.

10 MR. FLAMM: Okay. Congratulations to
11 you, Tracy. Today, I wish to talk to you with
12 the importance of considering bio-diversity in
13 organic agriculture systems, and in particular,
14 the need to eliminate the incentive to convert
15 high-value conservation lands into organic
16 productions.

17 I'm very pleased to see this topic's
18 listed on the upcoming agenda for the Board
19 meeting. Some of you know that I served on the
20 NOSB in the environmental position and as chair
21 in my last year on Conversation Board.

22 The value of bio-diversity for healthy

1 agriculture for society at large is recognized in
2 the organic rule in several places. Then the
3 principles of organic farming was adopted by the
4 Board on October 12, 2001. This expresses the
5 value and goals that link organic farming with
6 the protection of bio-diversity.

7 The Board further issued guidance
8 statements in '04, '05, and '09, and a review of
9 progress in 2012. The conversion issue was
10 identified in the Board's 2009 guidance document,
11 but no specific action or recommendations were
12 made. Many, if not most, organic farmers value
13 the conserving bio-diversity to its farm's long-
14 term sustainability and understand agriculture
15 system's function would then interact with the
16 larger ecosystem.

17 And there's been a number of
18 individuals and organizations that have worked to
19 advance conserving bio-diversity in organic
20 agriculture systems, including the Cornucopia
21 Institute, which I am currently a board member
22 of.

1 This work by individuals and by the
2 Board sounds great, and is great, but many are
3 shocked to hear organic policy and practice may
4 also lead to and encourage the destruction of
5 high-conservation value land. How can that be?
6 The otherwise offensible rule requiring a three-
7 year transition waiting period for farmlands that
8 had synthetic chemicals applied before becoming
9 eligible to becoming certified.

10 It's a very sensible rule, but it
11 provides an unintentional consequence of
12 providing a strong time and financial incentive
13 to take clean high-value conservation lands
14 instead. This is a problem that NOSB must
15 address. The IFOM, International Federation of
16 Organic Movement's, policy is that organic
17 management does not undertake any action that
18 negatively impacts high-conservation value areas.

19 I support the purpose of this policy
20 and to a standpoint that high-conservation value
21 lands have been destroyed or damaged and will not
22 be allowed re-certification for at least five

1 years after its destruction. Thank you.

2 MS. FAVRE: Great. Right on the
3 money. Good job, Barry. Any questions for
4 Barry? Okay. I don't see any. Thank you very
5 much, Barry. Appreciate your comments.

6 MR. FLAMM: Thank you.

7 MS. FAVRE: Next up is Rocco DiModugno
8 and Yonathan Tilahun is on deck. Go ahead,
9 Rocco.

10 MR. DIMODUGNO: Can you hear me?

11 MS. FAVRE: Yes, we can.

12 MR. DIMODUGNO: Okay. Good morning,
13 everybody. I'm Rocco DiModugno. I'm in charge
14 of the R&D for Lamberti. And thanks to the Board
15 for giving me the opportunity to make comments on
16 Lamberti petition for inclusion of potassium
17 cellulose glycolate as a synthetic product aid.

18 The problem is, I want to go back to
19 the crop subcommittee proposal, to better explain
20 some information. Potassium cellulose glycolate
21 is a product made by derivatization of a natural
22 starter, it's a liquid, it's soluble in the drip

1 water, and it's nothing to move drip water,
2 irrigation water, where is needed, into the
3 roots, and is not changing composition.

4 After that, let's go to if potassium
5 cellulose has a criteria defined by the OSBA.
6 Criteria A1, yes. Criteria A2, yes, a natural
7 substitute is not available, unfortunately. A3,
8 yes, potassium is consistent with organic and
9 farming.

10 Let's move to the Criteria B, B2, yes,
11 potassium, it contains ingredient not classified
12 as toxicological concern. After that, I want to
13 move, even, to some additional criteria, and
14 those are out of the CFR 25 600, to apply to any
15 synthetic substance used as a processing aid or
16 agent.

17 Let's go to criteria. I would think
18 the Criteria Number 1, yes, it is naturally
19 derived. Criteria Number 2, yes, use and
20 disposal do not add adverse impact. Criteria
21 Number 3, nutritional quality of crops treated
22 with this the same or even better.

1 Criteria Number 4, yes, it is listed
2 as a grass, generally recognized as hay. And the
3 last question is this, is it something that's
4 sanctioned for handling of an organic produced or
5 agricultural product, the answer is, is not a
6 sanction. And whether it's strictly recommended
7 to say that important natural resources, like
8 water, especially in those areas where drought is
9 taking place.

10 Thank you very much for the
11 opportunity.

12 MS. FAVRE: Thank you, Rocco. Any
13 questions for Rocco? Okay. I don't see any.
14 Thank you very much.

15 MR. DIMODUGNO: Thank you very much,
16 everybody. I'll mute my call.

17 MS. FAVRE: Great. Thanks. Next up
18 is Yonathan Tilahun and Helga Tan Fellows is on
19 deck. Yonathan, are you with us? Yonathan, if
20 you're speaking, we can't hear you. Last call,
21 last call for Yonathan.

22 MS. TUCKER: We did not see his name

1 or number on the list we got.

2 MS. FAVRE: Okay. All right. Next up
3 is --

4 MS. SHPIZNER: This is Barbara
5 Shpizner. We're sorry we're late, but we're
6 here.

7 MS. FAVRE: Okay. I'm sorry, Barbara,
8 due to the time constraints, we're not going to
9 be able to probably go back and pick you up. I
10 apologize for that. That was explained in the
11 instructions that went out ahead of time and I
12 really do apologize. I know that this is a
13 complicated logistics, but it's really important
14 for us to be able to get through everybody.

15 And feel free, of course, as always,
16 to make sure we have your written comment.

17 MS. SHPIZNER: Okay. Thank you.

18 MS. FAVRE: Thank you. Yonathan, last
19 call for Yonathan. Okay. No Yonathan. Next up
20 is Helga Tan Fellows, and we have Preston Brawn
21 on deck. Go ahead, Helga.

22 MS. TUCKER: We don't --

1 MS. FAVRE: Helga, are you -- no
2 Helga?

3 MS. TUCKER: No.

4 MS. FAVRE: Okay. Helga, calling
5 Helga. Come on down.

6 MS. TUCKER: We don't see her number
7 on the list.

8 MS. FAVRE: Okay. No Helga. Last
9 call for Helga. Okay. Preston Brawn, are you
10 with us, Preston?

11 MR. BRAWN: Yes, can you hear me?

12 MS. FAVRE: Yes, I can. Hold on just
13 a moment, please. Next up is Tsungbow Gou is on
14 deck. Preston, go ahead, please.

15 MR. BRAWN: Thank you for this
16 opportunity to weigh-in today on what I believe
17 to be a critically important topic, that of the
18 continued availability of carrageenan as an
19 essential tool in the personal care industry
20 formulators organic toolkit. My name is Preston
21 Brawn and my written commentary details my
22 technical and practical reasons in supporting

1 carrageenan in organic products.

2 But now I wish to speak from the heart
3 rather than from the head. As a small town Maine
4 native who has always loved the outdoors, I have
5 adopted my philosophy, that our environment must
6 always be treated well to maintain its vital role
7 in our lives. We likened it to an invest fund.

8 We must always preserve the principle
9 in order to receive the dividends. For these
10 reasons, among many others, I am a believer in
11 and promoter of natural and organic consumer
12 products sourced from renewable resources. As a
13 natural personal care products formulator, I try
14 to develop organic and natural products that are
15 as good or better than conventional products.

16 Our industry faces many unique sensory
17 demands, from dispensing the product in its
18 container through application and the leave-on
19 time, how a product feels and looks to the
20 consumer is equally critical to the end
21 performance. I have heard far too many times
22 that consumers must compromise their expectations

1 of quality and performance of cosmetics in order
2 to fulfill their desire to use natural and
3 organic sourced products.

4 I do not believe that and I work very
5 hard in my formulation efforts to meet consumer
6 desires, while at the same time using natural and
7 organic raw materials. One of the key
8 ingredients I use for consistent stabilization
9 and tactile control is carrageenan. It is a safe
10 and foundational ingredient sourced primarily
11 from tar and seaweed, properties that are
12 uniquely suited to the cosmetics industry.

13 It's ease of use, tactile, and
14 suspension properties, and other desirable
15 characteristics make this an essential and
16 valuable ingredient in our industry. I have the
17 latitude to formulate with a wide range of
18 stabilizers, carrageenans, alginates, xanthan
19 gum, and many others.

20 In several cases, the gum of choice is
21 carrageenan. For example, in lotions and creams,
22 the slip and rub-up characteristics of

1 carrageenan are far superior to any other natural
2 gum. In shampoos, the effectiveness of natural
3 surfactants is improved and the rinse off and
4 wet comb-out characteristics approach those of
5 synthetic ingredients.

6 In toothpaste, the use of carrageenan
7 provides a stable high-performing end product,
8 unmatched by any other stabilizer, either natural
9 or synthetic. I strongly believe that
10 carrageenan must remain available to those of us
11 who formulate organic consumer products so the
12 consumer expectations may be met and concurrently
13 promoting the growth of our beloved organic
14 industry.

15 In closing, I thank you for your time
16 and attention and reiterate my desire to continue
17 the use of carrageenan as a vitally important
18 ingredient in my personal care formulation
19 efforts. I'll be happy to answer any questions
20 you might have and thank you for your time.

21 MS. FAVRE: Good job. Perfect.

22 Preston Brawn, any questions for Preston Brawn?

1 I don't see any, Preston. Thank you very much
2 for your comments.

3 MR. BRAUN: Thank you again. I
4 appreciate the time.

5 MS. FAVRE: You bet. Next up is
6 Tsungbow Gou. Tsungbow, if you're on the line,
7 it looks like we're not finding you. Are you
8 with us today? Last call for Tsungbow Gou.
9 Okay. Next up is Jim Chmura.

10 DR. CHMURA: Yes, Jim Chmura. Right.

11 MS. FAVRE: Thank you. And next on
12 deck is Michael McFadden. Go ahead, Jim.

13 DR. CHMURA: Okay. Thank you for the
14 chance to talk here. My name is Dr. Jim Chmura
15 and I'm a food scientist and I've worked as a
16 product developer in the beverage and nutritional
17 business for over 30 years. I have extensive
18 experience formulating both high and low acid
19 rated drink beverages, and it's for the low-acid
20 beverages that I want to make the case that
21 carrageenan is essential for those of us who work
22 in the product development world.

1 Carrageenan has a number of properties
2 that enhance the quality of rate of drink or
3 concentrated liquid products in which it's
4 applied, and it's rather unique in that regard.
5 Additionally, I would like to emphasize the fact
6 that there really aren't a lot of other options
7 available that result in many of the
8 characteristics we see.

9 For example, I have a number of years'
10 experience in the RTD infant formula and the
11 adult enteral nutrition and sports nutrition
12 areas where the thixotropic nature of
13 carrageenan, which is the ability to stand under
14 shearing properties, it's really essential in the
15 development of a functional and shelf-stable
16 liquid product.

17 Basically the produce has to act thick
18 enough to suspend nutrients and hold the product
19 together while at the same time it has to act
20 thin when pumped through a feeding tube, or
21 sucked out of a baby bottle, or even consumer via
22 a straw. Many thickeners, such as starches, do

1 only one thing, and that is to thicken, which
2 makes the liquid product harder to consume in
3 some situations.

4 Other stabilizers, such as gum arabic
5 and locust bean certainly have their utility, but
6 also present their own challenges. Arabic and
7 others, for example, are soluble fermentable
8 fibers when used at high enough levels to impact
9 viscosity, they induce certain digestive effects
10 such that it won't be acceptable to use in
11 certain product types.

12 One of carrageenan's big advantages is
13 the fact that it's foundational at very low
14 levels of use with no adverse clinical effects,
15 and for example, in my career, I've use,
16 probably, 100 to 900 parts per million in various
17 products I'd worked with, which is very low.

18 Carrageenan is a seaweed-derived
19 stabilizer and offers us in the product
20 development world, the ability to develop a
21 product that is supportive of its various
22 consumption methods. Additionally, because

1 carrageenan is an ingredient that can be modified
2 in its property by managing the ratios of the
3 kappa, iota, and lambda fractions, we can create
4 products with many different functional
5 properties.

6 Key to this in products I work with is
7 building it to suspend calcium and other
8 insoluble nutrients or minerals, and suspend
9 flavoring material, like cocoa, prevents fat
10 migration and creaming defects and prevents phase
11 separation in liquid products, where we would try
12 to design a shelf life of 12 months or more.

13 Gellan and xanthan gum are often
14 mentioned as possible carrageenan substitutes in
15 liquid products, however, there are downsides.
16 Xanthan, for example, really doesn't function
17 well at neutral pH's, such as milk and infant or
18 adult formulas, though it does work well in high
19 acid formulations.

20 Both gellan and xanthan are derived
21 from microbial fermentation processes while
22 carrageenan is harvested from the ocean is

1 clearly from a very renewable and sustainable
2 resource. Seaweed obviously grows naturally
3 without the use of pesticides and fertilizers,
4 and it's non-GMO.

5 The fact that carrageenan comes from
6 an abundant plant resource that is renewable,
7 sustainable, not grown with pesticides,
8 fertilizers, or other additives, and is non-GMO,
9 makes it far more consistent, I think, with the
10 overall goals of an organic food supply compared
11 with other gum or stabilizer options that are
12 microbially sourced or from areas of the world
13 that aren't necessarily having quality control
14 that is high up on their list of things to do.

15 Additionally, carrageenan's been
16 clinically studied as part of many products and
17 in my experience, has never been shown to be a
18 safety concern or result of an adverse outcome.
19 Overall, based on carrageenan's functionality,
20 sourcing that is consistent with the organic
21 roles in overall safety, I would highly recommend
22 that the NOSB vote to re-list carrageenan as an

1 approved ingredient for use in organic foods.

2 And on behalf of food product
3 developers everywhere, I thank you for your time
4 and consideration.

5 MS. FAVRE: Thank you, Jim. Questions
6 for Jim? We're getting kind of an echo feedback,
7 so again, if you're not speaking, put it on mute.
8 The echo sometimes happens if you're hearing it
9 on your computer while you're also listening to
10 it on your phone, so please make sure you're
11 muted. And we are hearing people speaking in the
12 background, so if you just were speaking, you're
13 who I'm talking to.

14 Okay. I don't see any questions for
15 you, Jim. Thank you very much.

16 DR. CHMURA: All right. Thank you.

17 MS. FAVRE: Next up is Michael
18 McFadden, followed by Nur Ahyani.

19 MR. MCFADDEN: Hi, can you hear me?

20 MS. FAVRE: Yes, we can.

21 MR. MCFADDEN: Can you hear me?

22 Wonderful.

1 MS. ARSENAULT: Hey, Tracy. This is
2 Michelle.

3 MS. FAVRE: Michelle, I'm sorry, hold
4 on for just a second. All right, people,
5 somebody is not muted. Go ahead, Michael.

6 MR. MCFADDEN: Thank you and good
7 afternoon. My name is Michael McFadden and I'm
8 the general counsel for Farm Forward, an advocacy
9 organization working to improve --

10 MS. FAVRE: Michael, I'm sorry.
11 Jenny, can you go ahead and mute everybody?

12 MS. TUCKER: Yes. Okay. So hopefully
13 people can still hear me. I'm going to go ahead,
14 we have to reset because we had to mute
15 everybody, so I'm going to go ahead and find
16 Tracy and unmute you, because you need to be able
17 to speak at any time. What's Tracy's number? I
18 got to find Tracy's number. Tracy, can you
19 please text in your number, chat in your number,
20 to us so I can unmute you? Okay. We're finding
21 you on the phone.

22 Sorry, folks, this is very

1 unfortunate. Tracy are you on the phone or on
2 the computer? Text in your response. On a
3 cellphone. We don't have a 719 listed on our
4 audio. We have a couple of numbers that aren't
5 labeled, so we're going to try and unmute you and
6 see if it's you. Okay. Tracy, could you try and
7 say something? Oh, okay, wait. Tracy, we're
8 going to try again here, 209. Looks like we got
9 you now. Just a second. Tracy, please try and
10 say something.

11 MS. FAVRE: Yes, actually, I just
12 heard the tone. I'm unmuted. Sorry about that.
13 I'm calling from an alternate phone.

14 MS. TUCKER: Before we start off, now
15 we have to read set logistics for everybody.
16 This is going to get more complicated because we
17 had to mute everybody, so what we really need to
18 do is, when Tracy says that you are on deck, I
19 need you to text in your name and whether you're
20 on headset or phone. If you're on phone, I need
21 the first four digits of your phone number.

22 So when Tracy says you're on deck,

1 just type in your name and either the word
2 headset or the first four digits of your phone
3 number, that way we can find you and manually
4 unmute you so that you can join the conversation.

5 MS. FAVRE: Okay, Jenny. Hopefully
6 you saw the text from Michael McFadden. He's
7 ready. He's on a headset.

8 MS. TUCKER: Okay. Michael, let me
9 try and unmute you. Hold on, Michael. Yes, it's
10 going to add a little bit of time now to allow
11 folks to be patient. Okay. It looks like you
12 are unmuted. Go ahead, Michael.

13 MR. MCFADDEN: Hi. Can you hear me
14 now?

15 MS. FAVRE: Yes, we can.

16 MR. MCFADDEN: Wonderful. Well,
17 thanks, guys, for your patience here. Good
18 afternoon. My name is Michael McFadden. I'm the
19 general counsel for Farm Forward, an animal
20 advocacy organization working to improve the
21 welfare of farmed animals by educating consumers
22 about better food sources and by providing

1 strategic consulting services to non-profits,
2 universities, and business interested in adopting
3 better farmed animal welfare policies.

4 I want to start by thanking the NOSB
5 Livestock Committee for working so hard in the
6 past to address farmed animal welfare issues.
7 Farm Forward's comment, concerns, a critical
8 animal welfare that is not currently addressed by
9 the NOP, namely, the health and welfare impacts
10 on chickens and turkeys who have been bred for
11 rapid growth.

12 As I'm sure you know, modern poultry
13 strains have been genetically selected for fast
14 growth. The negative welfare impacts associated
15 with this over-selection are tremendous and well-
16 documented. Billions of chickens and turkeys
17 every year have difficulty breeding, standing,
18 and walking.

19 There is growing momentum to address
20 poultry genetics within the animal welfare
21 movement and growing public awareness of this
22 issue as well. Farm Forward expects that in

1 2017, large restaurant chains and food service
2 companies will commit to transition to purchasing
3 poultry products that originate from slow-growing
4 birds.

5 We also expect that major poultry
6 producers, some of whom raise certified organic
7 chickens and turkeys, will voluntarily elect to
8 raise slower growing strains. Unfortunately,
9 unless the NOP adopts maximum growth rate
10 requirements, consumers will have no way of
11 knowing whether they've chosen an organic product
12 that comes from a healthier, slower growing bird.

13 As many of you also know, existing
14 third-party animal welfare certifications, like
15 animal welfare approved, already have strict
16 requirements for growth rates and genetic
17 welfare. And in March 2016, Global Animal
18 Partnership, or GAP, committed to requiring
19 slower growing chickens at all levels of its
20 five-step program.

21 GAP is the standard used by Whole
22 Foods Market and currently covers over 260

1 million chickens. In addition to requirements of
2 growth, it's creating a ripple effect on this
3 issue. In fact, just this morning, the food
4 service management company, Compass Group,
5 announced that it would voluntarily begin
6 following GAP's standard, including its growth
7 rate requirements.

8 This will mean another 60 million
9 chickens per year required to grow at a more
10 balanced rate. Consumers expect that the organic
11 label guaranteed the highest standards for
12 environmental protection and animal welfare. As
13 more consumers understand the plight of fast-
14 growing chickens and turkeys, they will look to
15 certified organic farms to find products that are
16 aligned with their expectations for humane
17 treatment.

18 We strongly encourage the NOSB to
19 recommend that the NOP develop standards to
20 address genetic welfare by limiting the growth
21 rates of chickens and turkeys. Farm Forward will
22 be happy to provide guidance in this matter and

1 we welcome an opportunity to work with the NOSB
2 to develop standards to address the animal
3 welfare impacts associated with fast growth.
4 Thank you for your time.

5 MS. FAVRE: Thank you, Michael.
6 Anybody have questions for Michael? I actually
7 have one. Michael, have you submitted written
8 comments in regard to the animal welfare
9 standards or what's calling the organic livestock
10 and poultry practice, OLPP?

11 MR. MCFADDEN: You know, I'm not sure.
12 My colleague, Andrew, may have submitted those
13 comments. I know he submitted comments to the
14 effect of what I just spoke to the committee
15 specifically, but I'm not sure. It's something I
16 can look into. Can you give me that name again?

17 MS. FAVRE: It's the organic livestock
18 and poultry practice standards, which went
19 through public comment recently.

20 MR. MCFADDEN: I believe we may have,
21 but I'll have to double-check.

22 MS. FAVRE: Okay. That's actually the

1 best vehicle to convey that, but thank you for
2 bringing those to us, and certainly, we on the
3 livestock subcommittee are interested in those
4 comments, so thanks very much.

5 MR. MCFADDEN: Absolutely. Well,
6 thank you so much for listening and I appreciate
7 it.

8 MS. FAVRE: You bet. Any further
9 questions for Michael? Okay. Thank you,
10 Michael. Next up is Nur Ahyani and on deck is
11 Kevin Lawrence.

12 MS. AHYANI: Hello?

13 MS. FAVRE: Yes, Nur, are you with us?

14 MS. AHYANI: Yes.

15 MS. FAVRE: We're getting a really bad
16 echo. If on a speaker, you might want to pick up
17 the phone.

18 MS. AHYANI: Hello? Hi? Hello.

19 MS. TUCKER: Go ahead and speak, Nur.

20 MS. AHYANI: Hello? This okay?

21 MS. FAVRE: Yes, we can hear you. Go
22 ahead.

1 MS. AHYANI: Okay. Thank you very
2 much for the opportunity. My name is Nur Ahyani
3 and I'm an agriculture officer in Indonesia, and
4 I just want to make you aware about farming in
5 Indonesia. Indonesia is the first producer and
6 effects more than 500,000 small-scale farmers and
7 socially responsible farming.

8 MS. FAVRE: Yes. Thank you, Nur.
9 It's a little bit difficult to understand, I
10 think, because of your headset, but we do have
11 your presentation and thank you very much.

12 MS. AHYANI: Okay. Thank you.

13 MS. FAVRE: All right. Next up is Mr.
14 Kevin Lawrence, on deck is Josh Payne. Kevin,
15 are you with us?

16 MR. LAWRENCE: I am. Can you hear me
17 okay?

18 MS. FAVRE: Yes, we can. Please go
19 ahead.

20 MR. LAWRENCE: Sure. Terrific. So
21 hello to everybody. My name is Kevin Lawrence.
22 I'm the CEO and founder of BioNutritional

1 Research Group and I wanted to thank the Board
2 for the opportunity to expand upon my written
3 comments regarding the essentiality of
4 carrageenan, especially in certain toxic
5 products.

6 First off, I'd like to echo the
7 comments of Jim Chmura. Jim, thank you for that
8 technical delivery that you posted earlier. I
9 can only say, I found pretty much everything Jim
10 was talking about to be true in the case of my
11 work with, primarily, low-acid beverages.

12 So specifically, as I outlined in my
13 letter, carrageenans are an essential ingredient
14 in a product that we make called Power Crunch
15 Blast. It's a ready-to-drink beverage and as
16 with all the products in that line, it delivers a
17 highly superior protein nutrition in the form of
18 something called high-DH hydrolyzed whey protein.

19 Now, these hydrolysates have very
20 specific attributes that create significantly
21 higher levels of protein absorption,
22 distribution, as well as metabolic function

1 compared to whole proteins, and as such, are a
2 very important raw material for formulating what
3 I believe is the next generation of protein
4 supplements.

5 The problem here is that hydrolysates
6 also behave quite differently from other proteins
7 and one of those challenges is that they do not
8 add viscosity to a beverage system, and this is a
9 critical formulation challenge.

10 I know the subcommittee suggests that
11 the removal of carrageenan from some product
12 categories is a reason, possibly, to believe that
13 alternatives might be used in all or a
14 significant amount of additional products, but
15 there are many instances where this is not true.

16 For this blast formula, we tried
17 multiple other hydrocolloids, xanthan guar,
18 gellan gum, and others, to provide the required
19 mouth feel and critical suspension. However,
20 they just do not work with this type of protein;
21 categorically, do not work.

22 The unique protein reactivity of

1 carrageenan with hydrolyzed protein cannot be
2 replaced with these other alternatives. And in
3 fact, I had to rely on a combination of different
4 carrageenans to achieve what we needed in the
5 product.

6 Also, as Jim talked about, we really
7 appreciate the extremely low levels that these
8 carrageenans need to be used or employed in order
9 to deliver the results that we need. Just to
10 give you an idea of how essential it is and
11 without it, how this type of product would never
12 make it to market.

13 When we used these other
14 hydrocolloids, we had critical problems with the
15 formation of hard-packed sediment, and in fact,
16 ice crystals actually formed as the vitamin
17 mineral content dropped out of suspension.

18 This sediment and ice crystals cannot
19 be shaken out. So when we talk about, and I
20 believe it's actually a wise consumer instruction
21 that the subcommittee makes to shake well before
22 consumption, and it's something we at the --

1 MS. FAVRE: Kevin? Kevin, I'm sorry,
2 yes, your timer is going off. I'm sorry. It's
3 hard to hear, I know, especially if you're
4 speaking.

5 MR. LAWRENCE: Okay. Well, I just, I
6 guess, in the end, want to urge you that this is
7 a primary and an essential ingredient to bring
8 this type of protein to market in a beverage.
9 Thanks for your time.

10 MS. FAVRE: Thank you, Kevin. Any
11 questions for Kevin?

12 MS. TUCKER: Harold has a question.

13 MS. FAVRE: Okay. Go ahead, Harold.

14 MS. TUCKER: Oh, shoot, I have to
15 unmute Harold for him to be able to talk. Just a
16 second, let me unmute Harold.

17 MS. FAVRE: Yes, and it also looks
18 like, Tom Chapman has a question as well, so if
19 you'll go ahead and unmute him too, please.

20 MS. TUCKER: All right. Let me find
21 -- just a second. I'm sorry. Who am I doing?
22 Harold. What is Harold's number? Okay. Just a

1 second, Harold, I'm trying to find you. There
2 you are. Okay. Harold, go ahead and ask your
3 question.

4 MR. AUSTIN: All right. Thank you.
5 Kevin, thanks for your presentation and for
6 helping to provide us, because one of the
7 criteria that we look at is essentiality. One
8 question, the formulation of material that you
9 guys are putting into the market, is carrageenan
10 listed on the ingredients label of your product
11 so that if a person did have a problem with it,
12 they would be able to take and avoid drinking
13 that material?

14 MR. LAWRENCE: It is. Yes.

15 MR. AUSTIN: Okay. Thank you. That's
16 all I had, Madam Chair.

17 MS. FAVRE: Thank you, Harold. Tom,
18 are you unmuted? Can you speak?

19 MR. CHAPMAN: Yes, I unmuted myself.
20 Is the power crunch, is that a certified organic
21 product?

22 MR. LAWRENCE: It is not at this time.

1 It's something that we're on path to achieve. As
2 you probably know, there are proteins that are
3 difficult to bring to market in that venue,
4 basically, due to the feed of the animals that
5 supplied the milk originally, but we're making
6 great strides and we will get there, and I'm
7 hoping within the next year, because that's a
8 label that we want to put on the product and it's
9 a burgeoning area for RTDs in the natural organic
10 markets.

11 MR. CHAPMAN: Thank you.

12 MS. FAVRE: Okay. Any further
13 questions for Kevin? Thank you, Kevin.

14 MR. LAWRENCE: You bet. Thank you,
15 all.

16 MS. FAVRE: Next up is Josh Payne, and
17 we've got Jaydee Hanson on deck. Go ahead, Josh.

18 DR. PAYNE: Can you hear me?

19 MS. FAVRE: Yes, we can.

20 DR. PAYNE: Hey, I'm Dr. Josh Payne.
21 I'm the state poultry specialist with Oklahoma
22 State University and I've worked in the area of

1 poultry manure management, including pathogen
2 control for the past 17 years. We see consumer
3 groups, restaurant chains, and food retailers
4 challenging poultry growers, nutritionists, and
5 veterinarians to raise birds using fewer or no
6 antibiotics.

7 The challenge for poultry producers is
8 to maintain good animal health, performance, and
9 welfare without raising food safety concerns.
10 Pathogens, such as salmonella, campylobacter, and
11 listeria are not naturally found in the
12 gastrointestinal tract of poultry.

13 Poultry litter consists of bedding,
14 manure, and feathers, which is known to harbor
15 pathogens. It's unrealistic to expect that
16 poultry carcasses will not contain any potential
17 harmful bacteria, whether it's organic,
18 antibiotic-free production, or conventional.

19 Consumption of contaminated poultry
20 products is often associated with food-borne
21 illness. Infection is usually attributed to
22 cross-contamination in the kitchen, inadequate

1 cooking, and improper storage temperatures. To
2 successfully meet the federal and processing
3 plant pathogen control standards, interest is
4 centered on the implementation of on-farm
5 pathogen reduction programs to reduce
6 contamination loads in and on birds entering the
7 processing plant.

8 The survival of salmonella in the
9 poultry housing environment is dependent on both
10 physical and chemical factors, such as
11 temperature, moisture content, and pH of the
12 litter. Poultry litter usually contains a
13 slightly basic pH, between 7.5 to 5.5, which is
14 actually optimal for pathogen growth.

15 Acidifying litter amendments are
16 commonly used in poultry houses to reduce harmful
17 ammonia levels by lowering litter pH. This
18 process occurs by releasing hydrogen ions into
19 the litter, creating an acidic environment, which
20 neutralizes ammonia.

21 The secondary benefit of reducing
22 litter pH to an acidic level is pathogen control.

1 Most pathogens will be reduced or destroyed in
2 such an environment. Sodium bisulfate, sulfuric
3 acid, and aluminum sulfate are all common litter
4 amendments that can accomplish this task.

5 In addition, sodium bisulfate can also
6 act as an antimicrobial by releasing sodium into
7 the environment. Litter amendments are often
8 applied to the litter prior to placement, and
9 have even been used to shock treat the pad in
10 poultry houses that have a history of disease
11 challenges.

12 As the industry continues to shift
13 toward antibiotic-free production, new challenges
14 may arise to control pathogens from both a bird
15 health and human food safety perspective. Proper
16 litter management is going to be a key component
17 for effective pathogen control. Litter
18 amendments can be used as an effective pathogen
19 control strategy for this. Thank you.

20 MS. FAVRE: Well, good job. Questions
21 for Dr. Payne? Okay. Thank you very much, Josh,
22 we appreciate your comments.

1 DR. PAYNE: Thanks.

2 MS. FAVRE: Next up is Jaydee Hanson
3 and we've got David McCoy on deck. Jaydee, are
4 you with us?

5 MR. HANSON: Yes, can you hear me?

6 MS. FAVRE: Yes, we can. Please go
7 ahead.

8 MR. HANSON: Yes. I'm Jaydee Hanson.
9 Senior Policy Analyst at the Center for Food
10 Safety. We strongly support the committee
11 proposal on excluded methods terminology and
12 represent the -- and recommend the adoption of
13 all three sections by the NOSB. We support the
14 definitions of genetic engineering, genetically-
15 modified organisms, modern biotechnology,
16 synthetic biology, non-GMO, and classical,
17 traditional breeding.

18 The overarching terms, modern
19 biotechnology, as developed by the CODEX
20 Alimentarius Commission, sets the standard for
21 the rest of the world's definitions as documents
22 and standards developed by the CODEX Alimentarius

1 are used by the World Trade Organization in trade
2 disputes involving food, and as such, constitute
3 a globally-recognized standard.

4 The other definitions associated with
5 the modern biotechnology definition, i.e., GE,
6 GMO, non-GMO, synthetic biology, are appropriate
7 as subsections under the definition of modern
8 biotechnology. But the NOP still needs the
9 definitions given here as terms like GMO and non-
10 GMO are terms most recognized by the public and
11 used on labels.

12 The related definition of classical
13 traditional breeding is important to have spelled
14 out, since it hasn't been explicitly defined
15 before. We support the principles criteria
16 section on excluded methods and see that it is
17 processed based and thus parallels the processed-
18 based system used for organic standards.

19 The section explains how techniques
20 are to be evaluated to determine whether they
21 should be allowed in organic agriculture.
22 Finally, we support the terminology chart which

1 shows which techniques or terminologies are
2 excluded or allowed in organic production.

3 However, we believe that four
4 additional terms in the document's terminology
5 chart transposons, systemics, intergenesis, and
6 agroinfiltration should also be considered
7 excluded methods.

8 One additional term, transduction,
9 when it involves intentional in vitro
10 manipulation, should also be added to the list.
11 We urge the NOSB to add these terms to the
12 proposal's terminology chart before approving the
13 proposal.

14 And animal embryo transfer needs more
15 discussion. Generally, we think it could be
16 permitted. Artificial insemination is already
17 permitted, but eggs for embryo transfer are often
18 produced by injecting animals with large amounts
19 of hormone that cause them to release a large
20 number of eggs at one time.

21 If the NOSB approves embryo transfer,
22 limits on hormones used could be considered,

1 also, given that the largest embryo transfer
2 company, Intrexon, Trans Ova, now owns ViaGen,
3 the last animal cloning company, steps need to be
4 taken to ensure that no transferred embryo is a
5 clone and that no embryos have been genetically
6 engineered.

7 MS. FAVRE: Okay. Jaydee, I don't
8 know if you could hear, but your timer has gone
9 off, so I'll ask you to stop there.

10 MR. HANSON: Okay. Thank you.

11 MS. FAVRE: Any questions for Jaydee
12 Hanson? Thank you. And thank you for taking on
13 this topic. It's a complicated one, so we
14 appreciate the feedback.

15 MR. HANSON: Okay. Thank you very
16 much.

17 MS. FAVRE: Next up is David McCoy and
18 then we've got Tim Mann on deck. David, are you
19 with us?

20 MR. MCCOY: Yes, I'm here. Can you
21 hear me?

22 MS. FAVRE: Yes, we can. Please go

1 ahead.

2 MR. MCCOY: Thank you. I'm David
3 McCoy. Thank you for the opportunity to address
4 this group. As background, earned my PhD at the
5 University of Illinois in Food Science and have
6 worked in the dairy industry for almost 40 years.
7 Next slide, please. I would like to note -- next
8 slide, please.

9 First, I would like to note that
10 carrageenan has been determined safe by numerous
11 regulatory industries around the world, including
12 the NOSB in previous reviews. Some of the
13 agencies and countries that have reviewed this,
14 have reviewed carrageenan and found it safe are
15 listed on this slide. Next slide, please.

16 Of what I would consider special
17 interest to this review is that in 2015, the FAO,
18 Joint Expert Committee on Food Additives
19 concluded that the use of carrageenan in infant
20 formula was not of concern at concentrations of
21 up to 1 gram per liter. This was a conclusion by
22 independent international expert committee in

1 what is probably the most stringent food
2 category, and they were using levels that other
3 commenters have already mentioned were higher
4 than they used.

5 I'm sure that you are aware of the
6 work by Baer and the one by McKim reviewing the
7 safety of carrageenan had difficulty with
8 confirming other studies. Next slide, please. A
9 recent double-blind survey was conducted by Clear
10 Seas Research. Clear Seas is an independent
11 market research company that surveyed subscribers
12 of Dairy Foods Magazine and others in the dairy
13 industry.

14 Double-blind studies have always been
15 considered the gold standard for nutrition and
16 research, but have rarely been used in marketing.
17 The survey drew responses from 69 professional
18 that participated in a detailed lengthy
19 discussion of carrageenan and its relationship to
20 other additives. The respondents in the survey
21 represented a variety of job functions in the
22 dairy industry, with 94 percent having at least

1 shared responsibility with food additive
2 decisions.

3 These are people that carefully
4 evaluate food additives and the basic facts about
5 carrageenan. Next slide, please. The
6 implications of the survey were very clear,
7 additives are not interchangeable. We've heard
8 that from several formulators in this allotted
9 hour.

10 Removal of carrageenan comes at a
11 price, at least half of the people said they
12 could not replace carrageenan. And a replacement
13 additive is not easily identified. Next slide,
14 please. With credible evidence of safety and an
15 industry preference for use, I urge you to re-
16 list carrageenan and let the consumer decide by
17 reading their ingredient statement, which is the
18 proper course for the organic industry. They
19 will decide if this is something they want in
20 their food.

21 Thank you for allowing me to present
22 this comment in support of the continued risk of

1 carrageenan and I thank you for your time.

2 MS. FAVRE: Thank you, David. Any
3 questions for David? Thank you very much, David.
4 Next up is Tim Mann and we've Peter Ciriello on
5 deck. Tim, are you with us?

6 MS. TUCKER: We have not seen Tim's
7 number on the list and I haven't seen a chat from
8 him with a number in. Tim, if you're on, please
9 chat to us quickly with a number.

10 MS. FAVRE: Tim? Last call for Tim.
11 Okay. Moving on is Peter Ciriello, if I said
12 that correctly, and we've got Martin Murphy on
13 deck. Peter, are you with us?

14 MS. TUCKER: Tim is here, but let me
15 unmute him.

16 MS. FAVRE: Okay.

17 MS. TUCKER: Tim, you should be
18 unmuted now. Can you hear us? Can you speak?

19 MS. FAVRE: Tim, if you're speaking,
20 we can't hear you. Tim is unmuted? We do have
21 Tim?

22 MS. TUCKER: We don't have Tim, but we

1 have unmuted the number that we believe he's
2 calling in from.

3 MS. FAVRE: Okay.

4 MS. TUCKER: If you are there, please
5 chat in a number that you're calling from, and
6 again, as a reminder, for folks who are coming in
7 on deck, please type in, if you're on the line,
8 what number you're calling from so that we can
9 unmute you when it's your time to speak.

10 MS. FAVRE: Okay. Tim, I'm sorry.
11 We're going to have to move on. Next up is Peter
12 Ciriello. Peter, are you here?"

13 MS. TUCKER: Okay. Give us a second.
14 We got to find him.

15 MR. CIRIELLO: Hello, can you hear me?

16 MS. FAVRE: Yes. Who's speaking,
17 please?

18 MR. CIRIELLO: Hi. This is Peter
19 Ciriello.

20 MS. FAVRE: Hi, Peter. Okay. It
21 appears as though you're unmuted. Thank you.

22 MR. CIRIELLO: Okay. Great.

1 MS. FAVRE: Please go ahead.

2 MR. CIRIELLO: Okay. Good afternoon.

3 My name is Peter Ciriello. I'm a partner in
4 Clearwater Organic Farms in Rochester, New York.
5 I'd like to thank the NOSB for the opportunity to
6 provide my comments today regarding our business
7 model. Our business focuses on growing leafy
8 vegetables and herbs in a controlled bioponics
9 greenhouse environment.

10 We are in support of securing
11 continued organic certification of bioponics
12 facilities that follow well-established organic
13 rules. Our goal is to ensure that consumers
14 receive high-quality, fresh, pesticide-free
15 foods. Our products are grown in a controlled
16 environment with limited personnel access and
17 with controls and monitored environmental
18 conditions.

19 We monitor and control process
20 conditions, including lighting, temperature,
21 humidity, nutrients, feeding, and water
22 conditions. We do not use any pesticides and we

1 are using certified organic fertilizers. We
2 ensure that there is an ongoing biological
3 activity and we do not use non-organic substances
4 to control water conditions processing, such as
5 for pH control.

6 We are a fully-integrated growing,
7 processing, and storage facility so that we can
8 ensure that our food is safe, clean, and free
9 from any contaminants. In addition to growing
10 safe, fresh, sustainable, and local vegetables,
11 we also have a significant positive energy impact
12 carbon footprint reduction advantage and water
13 reduction benefits as compared to field-grown
14 vegetables and other non-bioponic greenhouses.

15 We believe that bioponics and other
16 controlled environmental and efficient growing
17 systems will be essential to meet the growing
18 worldwide food demand and we urge the NOSB to
19 finalize organic certification rules for
20 bioponics that adhere to strict organic
21 principles and pesticide-free food production.
22 Thank you.

1 MS. FAVRE: Any questions for Peter?
2 I actually have one if no one else does. Peter,
3 you mentioned that you ensure biological activity
4 in the containers. Can you expand on that a
5 little bit, please?

6 MR. CIRIELLO: Yes. We're using
7 organic fertilizers, so we don't use any
8 filtration system that would, so-called, sanitize
9 the water, so we're controlling and measuring
10 that activity, but we're not using any treatment
11 of that water that would kill bacteria itself.
12 We monitor that through the organic fertilizer
13 that we choose and these organic fertilizers
14 would be certified by our certifier as being
15 organic.

16 MS. FAVRE: Okay. Thank you. Any
17 other questions for Peter? Okay. Thank you,
18 Peter.

19 MR. CIRIELLO: You're welcome.

20 MS. FAVRE: Next up is Martin Murphy
21 and on deck Fred Hoerr. Martin, are you with us?
22 Martin, if you're speaking, we can't hear you.

1 MS. TUCKER: We have one person who's
2 called in from 626, but it doesn't match the
3 number that he gave us. We have unmuted the line
4 for whoever's in area code 626, so, Martin, try
5 again, or try to speak, or type in a better
6 number to find you on our list at.

7 MS. FAVRE: Martin? Okay, Martin,
8 we're not hearing you. Last call for Martin
9 Murphy. Okay. Next up is Fred Hoerr, and we got
10 Jeannine Delwiche on deck.

11 MR. HOERR: This is Fred Hoerr, can
12 you hear me?

13 MS. FAVRE: Yes, Fred, we can hear
14 you. Go ahead.

15 MR. HOERR: My name is Frederick
16 Hoerr. I am a veterinarian with specialties in
17 poultry medicine and veterinary pathology. I
18 have four decades of experience in diagnostic and
19 veterinary services for chickens, turkeys, quail,
20 and other avian species. Today I speak for the
21 approval of sodium bisulfate as a control agent
22 for bacterial diseases caused by clostridium

1 inorganic flocks.

2 Clostridium causes gangrenous
3 dermatitis and necrotic enteritis in chickens and
4 turkeys, ulcerative enteritis in quail, and is a
5 contaminate of wounds. In poultry farming,
6 sodium bisulfate is an EPA-approved poultry
7 litter amendment used to decrease ammonia, and as
8 a prevention agent for gangrenous dermatitis, a
9 disease caused by clostridium.

10 The outcome of an infectious disease
11 depends on three main factors, the level of
12 exposure of the disease agent, the virulence of
13 the agent, and the resistance of the host. We
14 cannot control the variants of clostridium, which
15 is a normal part of the flora of the soil, as
16 well as the normal flora in low levels in the
17 poultry intestine.

18 We do not have effective poultry
19 vaccines to improve resistance to clostridium,
20 therefore, prevention is focused on reducing the
21 numbers of clostridium in the environment and in
22 the intestinal tract. This is done by reducing

1 the environmental exposure to clostridium and by
2 keeping the birds healthy to prevent an increase
3 in the number of pathogenic clostridium in the
4 intestine.

5 Sodium bisulfate decreases viable
6 clostridium in poultry litter by 90 to 95
7 percent. This has been documented in the
8 laboratory and on the farm. It is effective in
9 reducing the incidents of gangrenous dermatitis
10 in broilers.

11 Sodium bisulfate is not a treatment
12 for poultry that are sick with the clostridial
13 disease, rather, it is a mitigation, a safe
14 mitigation, to prevent new infections within the
15 flock and thereby reduce flock mortality and a
16 disease outbreak. It can be used for disease
17 prevention on farms with a history of clostridium
18 disease.

19 Within this context, sodium bisulfate
20 can be a safe mitigation in organic flocks
21 afflicted with gangrenous dermatitis or necrotic
22 enteritis. I recommend for your consideration

1 and approval, the use of sodium bisulfate litter
2 treatment for the control of diseases caused by
3 clostridium in organic flocks. Thank you very
4 much.

5 MS. FAVRE: Okay. Thank you. Any
6 questions for Dr. Hoerr? I know I'm pronouncing
7 that wrong. I'm sorry. I actually have a
8 question. There was actually three litter
9 amendments that were petitioned at the same time.
10 Are you familiar with -- I mean, the sodium
11 bisulfate one specifically works on these
12 diseases, but what about the other two?

13 MR. HOERR: Can you tell me what the
14 other two that were petitioned?

15 MS. FAVRE: I knew you were going to
16 ask me that. I'm sorry.

17 MR. HOERR: The sodium bisulfate works
18 through acidification. And acidifies litter so
19 that it keeps ammonia-splitting bacteria from
20 proliferating, and it also substantially reduces
21 clostridium, salmonella, and E. coli in the
22 litter.

1 MS. FAVRE: Okay. And I see I have a
2 message that Ashley Swaffer had a question, so,
3 Jenny, can you unmute Ashley?

4 MS. TUCKER: Yes, let me find her.
5 I'm sorry, I didn't see that. Okay. Ashley, you
6 should be unmuted now. Try talking.

7 MS. SWAFFER: Can you hear me?

8 MS. FAVRE: Yes, we can.

9 MS. SWAFFER: Okay. So I got a
10 question for you, there are several approved
11 litter amendments from organizations, one brand
12 name is Poultry Barn Fresh. Do you know, does
13 that help with the clostridium in the litter and
14 in the soil? And then my other question to you
15 is, we have a lot of feedback from industry
16 consultants and vets, and like Dr. Payne, why am
17 I not hearing from the actual industry
18 themselves?

19 There was no public comment from a
20 single broiler company.

21 MR. HOERR: Well, the veterinarians,
22 the feedback I saw, these are consultants that

1 work with the broiler companies.

2 MS. SWAFFER: Okay. So they're --

3 MR. HOERR: That's the answer to one
4 of your questions, and so they are out there on
5 the front line working in consultation with these
6 companies. The other question you had about the
7 other litter amendment, I am not familiar with
8 that amendment. I am familiar with sodium
9 bisulfate.

10 MS. SWAFFER: Okay. So let me phrase
11 this a different way. Is there anything else
12 besides sodium bisulfate that could be used to
13 reduce clostridium in the environment?

14 MR. HOERR: It's the best one that I
15 know of and as far as others, if there are others
16 out there, they are not in popular use.

17 MS. FAVRE: Okay. If I might, Dr.
18 Hoerr, it looks like the two other amendments are
19 acid-activated bentonite and aluminum sulfate.

20 MR. HOERR: Okay.

21 MS. FAVRE: Are you familiar with
22 those two?

1 MR. HOERR: Those are both acidifiers.
2 Acidifiers are also added to the drinking water
3 to lower the pH of the gut, to reduce the
4 clostridium in the gut, so the basic process is
5 one of acidification, and the acidification
6 process, if you can drop that pH down in the 2 to
7 3 range, you get this bacterial -- you get this
8 induced non-viability of these pathogenic
9 bacteria. That's the principle.

10 And sodium bisulfate is effective in
11 this use and it's not approved for organic flocks
12 so that the health of these flocks can be managed
13 in that regard.

14 MS. FAVRE: Great. All right. Thank
15 you very much for that clarification.

16 MR. HOERR: Okay. Thank you.

17 MS. FAVRE: Next up is Jeannine
18 Delwiche and on deck is Steven Hearn. Jeannine,
19 are you with us?

20 MS. DELWICHE: I am.

21 MS. FAVRE: Okay. We can hear you, go
22 ahead.

1 MS. DELWICHE: Can you hear me?

2 MS. FAVRE: Yes, we can.

3 MS. DELWICHE: Great. I'm Jeannine
4 Delwiche. I am speaking on behalf of FMC, where
5 I work in the role of sensory manager. My area
6 of expertise is sensory science. I've been doing
7 research in it for over 20 years and I have over
8 40 peer reviewed publications in this area. If
9 you'll go ahead and go to the next slide. You
10 might wonder why sensory matters.

11 Sensory properties drive consumer
12 acceptance, and that consumer acceptance, in
13 turn, drives whether or not people will eat your
14 food. High palatability increases consumption
15 and also compliance to dietary restriction. The
16 more restricted a diet is, the less palatable the
17 food is, the less people will stick with it.

18 So carrageenan imparts unique and
19 superior properties to many food formulations.
20 Now separation is something that occurs over
21 time. Carrageenan helps eliminate that
22 separation. The most important thing there is

1 that when a product separates, a lot of time this
2 is perceived as a spoiled food, which results in
3 the consumer doing a lot of unnecessary disposal
4 of perfectly good food.

5 Another thing that happens with
6 consumers is they don't always shake as
7 vigorously as they should and miss key nutrients.
8 So for the average consumer, maybe not important,
9 but very important for people on restricted
10 diets. Now, the flavors that you get when you
11 use carrageenan in a formulation are a bit
12 brighter, a bit more balanced, and carrageenan
13 has unique properties.

14 It can be thick without being heavy or
15 sticky, it's also very clean tasting. Go to the
16 next slide. I can show you an example with gummy
17 candies. What we did here is we matched our
18 candies as closely as we could for flavor, taste,
19 and color, and you can see, as we change the base
20 from carrageenan, we see reduction in how much
21 people liked the product.

22 Does it mean no one liked it? No, but

1 you're seeing a loss in consumer acceptability as
2 you change the base. If you go to the next
3 slide, what that translates to is with that
4 reduction in palatability, you are putting
5 consumers in the position and making a choice,
6 and do they want organic that doesn't taste as
7 good, or do they want something tastier that
8 isn't organic?

9 When you combine that with organics
10 products having a higher price point, that double
11 whammy is going to decrease consumer use over the
12 long term. If you go to the next slide. Bottom-
13 line, by retaining carrageenan, you increase the
14 repeat purchase of organic products, that results
15 in higher consumption of the more nutritious
16 organic products, increases compliance with
17 doctor recommendation, and then overall increase
18 in nutritional value to consumers. You eliminate
19 that conflict between palatability versus
20 organic.

21 Finally, since carrageenan is
22 sustainably harvested in the wild without use of

1 pesticides, fertilizers, or other chemicals with
2 the growing of it, to my mind, it makes it a
3 pretty good fit to the organic mission. Those
4 are my comments. Thank you.

5 MS. FAVRE: Thank you. Good timing
6 too. Do we have any questions for Jeannine?
7 Okay. I don't see any. Thank you, Jeannine.
8 Next up is Steve Hearn and then we have Kirin
9 Basra on deck. Steve, are you with us?

10 MR. HEARN: Can you hear me?

11 MS. FAVRE: Yes, we can. Please go
12 ahead.

13 MR. HEARN: Good afternoon. Thank you
14 for letting me speak at this webinar. I'm the
15 owner of Hearn Poultry Services. I'm an
16 certified independent organic inspector for crops
17 and livestock. I'm an independent animal welfare
18 auditor, and ISO certified.

19 I'm speaking on the petition the NOP
20 received to add sodium bisulfate to the national
21 list of synthetic substances allowed for use in
22 organic livestock production. I urge the Board

1 to allow the use of sodium bisulfate as a
2 synthetic substance to be used in organic
3 livestock production.

4 Based on my observations of the
5 poultry production, conversations with poultry
6 production managers, there is a need in organic
7 poultry production for the use of sodium
8 bisulfate as a litter treatment to reduce
9 salmonella occurrences in organic production.

10 Also, there is a need to reduce
11 ammonia levels in poultry houses, especially
12 during the core months of the year. I'm not
13 aware of any natural inputs that will reduce
14 salmonella and ammonia levels currently. Thank
15 you all for your time. Any questions?

16 MS. FAVRE: Okay. Any questions?
17 Okay. I have one. You mentioned that the
18 ammonia is an issue too. Are there other
19 management techniques that can offset the ammonia
20 issue besides the litter amendment?

21 MR. HEARN: Of course, you know,
22 adjusting ventilation, but, you know, then you

1 get into cost, more and more propane, you know,
2 because a lot of -- and this is meat poultry
3 production. This isn't, you know, this isn't
4 players, breeders, this would be broilers or meat
5 turkeys. But the use of build-up litter is
6 pretty common in the poultry industry in the meat
7 for production.

8 MS. FAVRE: Okay. Thank you. Any
9 other questions for Steve? Okay. Thank you very
10 much, Steve.

11 MS. FAVRE: Yes, I'm sorry. Francis,
12 don't go away, Steve, Francis, thank you, I
13 didn't see it. It just popped on my screen.
14 Yes, Francis, go ahead. Francis, if you're
15 speaking, we can't hear you. Is Francis unmuted?

16 MS. TUCKER: I'm checking. Just a
17 sec.

18 MS. FAVRE: Yes, looks like he's not.

19 MS. TUCKER: Francis, I've unmuted
20 you, go ahead.

21 MR. THICKE: Can you hear me?

22 MS. FAVRE: Yes, we can.

1 MR. THICKE: Yes, yes. Okay. The
2 veterinarian, Dr. Fred Hoerr, said that what's
3 needed with the sodium bisulfate is something
4 that acidifies the litter, and this product
5 called Barn Fresh that was mentioned, about the
6 same as the sodium bisulfate, I'm wondering if
7 you're familiar with that product?

8 MR. HEARN: Yes. Now, you're saying
9 that it does it the same way or the same amount
10 as sodium bisulfate?

11 MR. THICKE: What I have seen when I
12 had looked at the data is that the pH was taken
13 down to about the same level as the sodium
14 bisulfate.

15 MR. HEARN: Okay. What I've seen out
16 in the field now, I'm speaking from, you know, my
17 observations doing inspections, the Barn Fresh
18 wasn't as effective. Now, this is in non-organic
19 production. The Barn Fresh is not as effective
20 as the sodium bisulfate in reducing the ammonia.

21 MR. THICKE: At the same rates of
22 application or was it applied at a rate that was

1 recommended?

2 MR. HEARN: Both rates were at the
3 recommended rates.

4 MR. THICKE: Okay. Thank you.

5 MR. HEARN: Yes.

6 MS. FAVRE: Great. Thank you. We
7 appreciate the field perspective on these
8 materials, so thanks very much.

9 MR. HEARN: You're welcome.

10 MS. FAVRE: Next up is Kirin Basra and
11 we've got Myra Weiner on deck. Kirin, are you
12 with us?

13 MS. BASRA: Yes, I am. Thank you for
14 allowing me to speak today. I am speaking today
15 in support of keeping carrageenan on the national
16 list. A little bit about my background. I'm a
17 food scientist and have worked as a product
18 developer for the last 12 years. I have
19 developed and researched products all over the
20 food sector, ranging from low acid, high acid
21 products, high protein beverages and bars,
22 fermented foods, and I've explored new

1 technologies for improving preservation methods
2 in produce.

3 Today, I am speaking on behalf of my
4 organization, Premier Nutritions. We are a
5 subsidiary of Post Holdings. We manufacture and
6 distribute nutritional food products under the
7 brands of Premier Nutrition, PowerBar Supreme,
8 and Joint Juice. Our products are in the form of
9 ready-to-drink beverages, bars, and powders.

10 Carrageenan is a vital ingredient to
11 the stability of our organic shake products due
12 to its interaction with the dairy proteins within
13 this application. Carrageenan plays a
14 multifunctional role. It provides protein
15 stabilization and multiplication, mouth feel,
16 viscosity, and suspension.

17 Its unique properties provide a degree
18 of reactivity with no proteins. It helps
19 minimize protein aggregation. Protein
20 aggregation can lead to significant clumping
21 which ultimately yields to product failures. So
22 having carrageenan within the system really helps

1 us minimize the degree of that failure.

2 It plays a crucial component to the
3 stability of this product. Based on our testing,
4 we have not found an acceptable alternative to
5 replacing carrageenan. Premier Nutritions
6 strongly supports the continued listing of
7 carrageenan on the national list. In our
8 opinion, it is safe for use in food and necessary
9 for the production of organic beverages
10 containing dairy proteins.

11 Thank you. That's all I had for
12 today, but please advise if you have any
13 questions.

14 MS. FAVRE: Okay. Do we have any
15 questions for Kirin? Okay. I'm not seeing any.
16 Thank you very much, Kirin. Appreciate it.

17 MS. BASRA: Thank you for your time.

18 MS. FAVRE: You're welcome. Myra
19 Weiner is up next with Robert Osburn on deck.
20 Myra, are you with us? Myra, if you're speaking,
21 we can't hear you.

22 MS. TUCKER: WE texted her asking her

1 to send in her number. The number on the list is
2 not listed on the people who have actually called
3 in, but I have not heard back from her. She's on
4 the computer, but we don't have a phone
5 connection and I don't see her as attending or on
6 a headset. Oh, here we go. Just a second.

7 MS. FAVRE: Okay.

8 MS. TUCKER: Myra, if you can hear us,
9 we don't see a 908 on our audio listing. We
10 don't see that area code as a number that has
11 called in. I don't know how to find you without
12 having a different number. I have one person who
13 isn't associated with a phone number, but that
14 person's already unmuted.

15 MS. FAVRE: Yes, I don't see her
16 either.

17 MS. TUCKER: Myra, we don't hear you.
18 Right. You can hear us, but we can't hear you,
19 Myra, and 908 is not listed on our phone numbers,
20 so when somebody calls in, we can see the listing
21 of phone numbers and we do not see anyone from a
22 908 area code. That's the challenge right now.

1 MS. FAVRE: Myra, is that you
2 speaking?

3 DR. WEINER: Yes, this is Myra.

4 MS. TUCKER: Okay. Go ahead, Myra.
5 Your turn.

6 MS. FAVRE: Yes, go ahead.

7 DR. WEINER: Thank you. I sent in
8 slides.

9 MS. FAVRE: Okay. It looks like we've
10 got slides for you now.

11 DR. WEINER: Great. Hello and thank
12 you for the opportunity to address the NOSB. I'm
13 speaking as a toxicologist who has worked on
14 carrageenan for over 20 years and has published
15 six peer-reviewed papers and reviews on
16 carrageenan. I am in favor of maintaining
17 carrageenan on the NOSB list. Next slide,
18 please.

19 Carrageenan is a high molecular weight
20 food additive which functions as a stabilizer,
21 thickener, and gelling agent in food. It has
22 food additive status, it is used as a

1 pharmaceutical excipient, and in personal care
2 products.

3 In 1983, found it to be
4 noncarcinogenic in independent rat and hamster
5 cancer studies with no tumors. It is not harmful
6 to the gastrointestinal tract and it's approved
7 for use by Jack Frost and the European Food
8 Safety Authority and CODEX Alimentarius.

9 It is often confused with another
10 material of much lower molecular weight termed
11 poligeenan, which is not approved for food use
12 and which has been considered to cause duodenal
13 tumors in laboratory animals by the International
14 Agency for Research on Cancer. These are two
15 completely separate materials. Next slide,
16 please.

17 The safety profile of carrageenan is
18 based on a number of animal dietary studies over
19 the last several decades. It has one of the
20 largest databases out there for food additive.
21 It does not cause cancer or act as a tumor
22 promoter, does not cause birth defects or

1 reproductive toxicity, it is not genotoxic or
2 mutagenic, it does not cause gastrointestinal
3 inflammation or ulceration when given in the
4 diet.

5 It does not cause immune system
6 effects by ingestion in the diet. It has been
7 proven safe for infants and adults. And based on
8 its large trimolecular weight up to 800,000
9 daltons, there is no absorption from the
10 gastrointestinal tract, no enzymes to degrade
11 carrageenan in mammals, therefore, carrageenan
12 ingested in diet is excreted unchanged in feces.
13 Next slide, please.

14 This table is summarized in my 2014
15 review article and shows numerous studies in
16 which the effects of carrageenan on the
17 gastrointestinal tract were evaluated.

18 MS. FAVRE: Myra, I'm sorry. I'm
19 going to have to interrupt you here. Your time
20 has gone off.

21 DR. WEINER: Okay. Thank you.

22 MS. FAVRE: Yes, we're going to have

1 to cut you off. Apologies.

2 DR. WEINER: Okay. Just to summarize,
3 due to the high-safety profile of carrageenan, I
4 believe that it should be continued on the
5 national organic list and based on good science,
6 and many studies, it is an excellent candidate
7 for inclusion on the list. Thank you very much.

8 MS. FAVRE: Thank you very much. Any
9 questions for Dr. Weiner? Okay. I don't see
10 any. Thank you very much, Dr. Weiner.

11 DR. WEINER: You're welcome.

12 MS. FAVRE: Next up is Dr. Robert
13 Osburn and then we've got Stephanie Roche on
14 deck. Robert, are you with us?

15 MS. TUCKER: Rob, I've been
16 communicating with you. I think you're using a
17 headset. Look for an unmute button on your
18 screen. Ideally, you're able to unmute yourself.
19 Please try and unmute yourself and try and talk.

20 MS. FAVRE: Okay. Rob, if you're
21 speaking, we can't hear you yet.

22 MS. TUCKER: I don't see your name as

1 a headset user on the computer here. We see some
2 with headsets with names next to them and I don't
3 see, Rob, your name or -- okay. I don't see your
4 name on the headset list.

5 MS. FAVRE: Actually, I do. I do see
6 him. Hold on just a minute.

7 MS. TUCKER: Can you unmute him? I
8 don't see him.

9 MS. FAVRE: He is on the list shown as
10 a headset down in the R's on the listing and it
11 actually shows he's not muted, so, Rob, it might
12 be on your end that you're muted, but he just
13 actually disappeared there.

14 MS. OAKLEY: This is Tracy. I'm sorry
15 to interrupt, I did unmute Rob just from my
16 screen.

17 MS. FAVRE: Okay.

18 MS. TUCKER: Rob, try and talk.

19 MS. FAVRE: Rob, are you speaking?

20 MS. TUCKER: So I see Rob as a Web
21 participant, but I don't see him as an audio
22 participant, and that's the difference, so he can

1 see us online, but we're not seeing his -- if you
2 look on the list under audio, so Board Members or
3 presenters, look under the list called audio, do
4 you see him there? I don't see him on that list.

5 MS. FAVRE: I did, and then he
6 disappeared. Oh, no, there he is. Rob, I see
7 you now popping up under audio and you are not
8 shown as being muted, so can you try to speak
9 now, please? I'm sorry. It looks like we're not
10 going to be able to accommodate you. I sincerely
11 apologize. In the interest of time, I'm sorry,
12 we're going to have to go ahead and move on.

13 Obviously, folks, it's not perfect.
14 We're doing our best to accommodate everybody,
15 but sometimes technology just fails us, so I
16 apologize, Rob. Next up is Stephanie Roche and
17 we've got James Sbarra on deck. Stephanie, are
18 you with us?

19 MS. ROCHE: Hi, can you hear me?

20 MS. FAVRE: Yes, we can. Please go
21 ahead.

22 MS. ROCHE: Great. Thanks very much.

1 Thanks for giving me this opportunity to speak to
2 the board. This is about removing carrageenan
3 from the organic list. In 2016, I personally
4 experienced intestinal distress on a daily basis
5 after consuming carrageenan contained in an
6 organic milk. It began when I started consuming
7 the organic almond milk with carrageenan every
8 morning with breakfast, about 8 ounces.

9 After about a week, I developed a
10 constant ill feeling throughout my entire
11 digestive tract that often included aching and
12 cramping. I always felt the worst just after
13 breakfast and then symptoms would lessen, but
14 continue throughout the day. The symptoms
15 returned full force after breakfast again the
16 following morning. I always had the symptoms,
17 but the severity increased right after breakfast.

18 It was a constant digestive sickness
19 feeling all the time. After about two months of
20 trying to figure out what was causing this
21 digestive distress, I happened to read that
22 carrageenan is used to create gastrointestinal

1 distress in lab animals so researchers can study
2 the resulting information.

3 I immediately stopped drinking the
4 product containing carrageenan and the intestinal
5 distress stopped after a few days and has never
6 returned. I was shocked that this chemical is
7 allowed in organics. I wrote to company to
8 request that they remove carrageenan from all
9 their products and they have never sent a reply.

10 The organic products I used to
11 purchase did not have carrageenan in them and now
12 they do. I found the products perfectly
13 satisfactory before the addition of carrageenan.
14 Normally I focus on a whole foods organic diet.
15 Please take this chemical out of all organic food
16 products. Thank you. And nobody paid me to give
17 these comments. That's all. Any questions?

18 MS. FAVRE: Okay. Do we have any
19 questions for Stephanie? Okay. I don't see any
20 questions for Stephanie. Thank you very much
21 Stephanie.

22 MS. ROCHE: Okay. Thank you.

1 MS. FAVRE: Next up is James Sbarra
2 and then we've got Jeff Nickerson on deck.
3 James, are you with us? I see on your chat that
4 you say you're on a headset.

5 DR. SHADE: Yes, can you hear me?

6 MS. TUCKER: Okay. I muted Jim's
7 headset, so hopefully we'll hear from him. I
8 don't know what number he is calling in from. So
9 hopefully he'll appear on our 703 list. Once he
10 joins us, I'll scroll down to that area code on
11 the list, and hopefully a 703 number will appear.
12 Yes, as long as we're waiting for the call-in,
13 Board Members, if you have a question, please
14 write the question mark as we had discussed, but
15 send it to all co-presenters.

16 If you send it to the Chairman, it's
17 for the Chairman of the call, not the Board.
18 It's the technology chair, which is NOP, and I
19 don't always see those questions come in as we're
20 trying to find the next person on the list, so I
21 apologize if we've missed calling on some folks,
22 but you always want to send those question marks

1 to all co-presenters or Tracy directly so that we
2 know you have a question, because we can't find
3 people, advance slides, and keep track of those
4 questions all at the same time. It's Just too
5 much.

6 MS. FAVRE: Okay. Thank you, Jenny.
7 I appreciate that clarification. I do see a 703
8 number and I think that might be Jim. It looks
9 like he just got unmuted. Jim, are you here?

10 MR. SBARRA: Hey, can you hear me?

11 MS. FAVRE: Yes. Thank you. Please
12 go ahead.

13 MR. SBARRA: Thanks for your patience.
14 Hi. I'm a certified organic aquaponic grower and
15 I am talking to persuade those in charge to keep
16 aquaponic growing included in the allowed
17 practices of organic farming.

18 Quick summary of my point of view, it
19 appears that those against aquaponics feel that
20 aquaponics does not improve the soil and does
21 have the similar ecology to that found in soil.
22 These statements are absolutely not true. As a

1 quick note, my responses are only really
2 addressed at aquaponics and not hydroponics.

3 So in that PDF that was sent out to
4 say that hydroponics and aquaponics can't be
5 included in organic farming because of their
6 exclusion of the soil plant ecology, and there is
7 a similar ecology in bodies of water that cannot
8 be ignored and has been proven in recent years to
9 grow organic produce.

10 The whole engine that makes aquaponics
11 work is that biology and ecology in the water.
12 Without it, the fish would die from ammonia and
13 nitrate buildup. Why would the ecology of soil
14 be considered organic and not the ecology in
15 water? The water and soil act as an agent for
16 the ecology to live, as both provide an organic
17 environment for plants to thrive.

18 What is more important in farming,
19 water or soil? Well, we cannot grow without
20 water, as we have proven with aquaponics, and we
21 can grow without soil. So my point of view, the
22 ecology of the water holds way more importance

1 for the organic farmer. And adding to that, the
2 fish waste we get from our filters can be added
3 to the soil as a compost to improve the soil as
4 well, not just for our land, but other farmers'
5 land as well.

6 And then there's another concern
7 people brought up about building bioptic
8 operations that pave over the soil and that
9 that's a reason why bioptics should not be
10 considered as organic, which I find a little
11 ridiculous because that means any building built
12 on a farm is then damaging the soil and shouldn't
13 be allowed on an organic farm, and you all know
14 we need buildings on farms.

15 And then finally, just a quick
16 thought, the main difference between aquaponics
17 and tradition hydroponics is that we have the
18 fish waste that can be added to the soil to
19 improve the soil as well, and thanks for your
20 time. Appreciate it.

21 MS. FAVRE: Great. Thank you very
22 much, Jim. Do we have any questions for Jim?

1 Okay. I'm not seeing any. Thank you very much,
2 Jim. Appreciate your comments.

3 MR. SBARRA: Thank you.

4 MS. FAVRE: Next up is Jeff Nickerson
5 and we've got Karen Archipley on deck. Jeff, are
6 you with us? Jeff, it looks like you've been
7 unmuted, can you go ahead and speak up if you're
8 with us?

9 MS. TUCKER: Jeff, you are unmuted.
10 Check your computer to make sure your computer
11 volume is on, that you haven't muted your
12 computer.

13 MS. FAVRE: Jeff, it looks like you've
14 got a number you've suggested for unmuting and
15 they've unmuted you, but we're still not able to
16 hear you, so please check your muting.

17 MS. TUCKER: Yes, Jeff, I don't see a
18 call-in from an area code 905.

19 MS. FAVRE: Okay.

20 MS. TUCKER: Jeff, are you with us?

21 MR. NICKERSON: Hello?

22 MS. FAVRE: Yes, Jeff, we can hear

1 you, but you're very distorted, but please go
2 ahead. Jeff, are you with us?

3 MR. NICKERSON: Yes. Hi. I would
4 like to give you some of my background. I'm
5 general manager of a family-run business
6 producing organic vegetables and herbs and sold
7 to garden centers, fresh fruit in Canada and USA.

8 Our plant, they are grown only from
9 organic seeds in media composed of organic
10 certified peat moss, and organic certified
11 compost. The majority of the nutrients are from
12 media and are released by biological utility in
13 the compost.

14 The growing period is ten weeks,
15 depending on plant species. It is taken care of
16 through a carefully planned ITM program based on
17 prevention.

18 What I would like to focus on is the
19 principle of organic agriculture. Manual P
20 states that organic production system is managed,
21 and includes all of these principles. These are
22 composed of peat moss, organic compost, and the

1 biological activity possible for the release of
2 nutrients to the plants.

3 In my opinion, rather than ruling out
4 the possibility of growing organic plants in a
5 container, they should be for growing organic
6 grass in a container. Let's look at the benefits
7 of growing organic. The consumer always trust us
8 without clinical knowledge.

9 They enrich the soil with organic
10 method and micro-organism. By eliminating the
11 organic certification of the plants, the waste
12 promoting exploitation of the market with
13 products claimed to be organic, it might not be
14 because of certification. The only available
15 tool to give the legitimacy of being organic due
16 to the yearly control certifying organic growers
17 are subjected to.

18 I would like to conclude the plan as
19 a separate growing process in hydroponic, and
20 aquaponic. Thank you.

21 MS. FAVRE: Thank you, Jeff. Any
22 questions for Jeff? All right. Thank you, Jeff.

1 Next up is Karen Archipley and then we've got
2 Colin Archipley on deck. Go ahead. Karen, are
3 you with us?

4 MS. ARCHIPLEY: I am. Can you hear me
5 okay?

6 MS. FAVRE: Yes, we can. Thank you.
7 Go ahead.

8 MS. ARCHIPLEY: Great. My name is
9 Karen Archipley. I'm the co-founder of Archi's
10 Acres and Archi's Institute for Sustainable
11 Agriculture in partnership with Cal Poly Pomona.
12 We are a hydro organic farm that has been
13 certified for nine years. We are very proud of
14 our practices. We are in San Diego, where water
15 is the most expensive in the world now that
16 Israel has figured it out.

17 We proudly demonstrate in the stores
18 as well as in our marketing that we are hydro
19 organic and have experienced more business
20 because of this. We also train over 120
21 beginning farmers every year, many are just
22 transitioning out of the military, but also, a

1 large number of civilians who choose agribusiness
2 as a career.

3 Many of our students have gone on to
4 start their own hydro organic farms, and most, if
5 not all, are choosing the hydro organic
6 production methods, due to the affordability of
7 rural land which is unobtainable by most people,
8 so many would not be farming at all without the
9 use of hydro organic practices due to the
10 productivity and the limited space and the
11 limited interest.

12 This includes rural and urban areas.
13 It is known that biological processes conducted
14 in the hydro organic are equivalent, and then
15 some, compared to field production. There has
16 been a lot of misinformation about the use of
17 synthetics and inert inputs, which is not
18 acceptable for any organic production.

19 Archi's Acres has never used synthetic
20 inputs, not even the ones that the NOSB has
21 approved. Not the use of ozone, no chlorine, or
22 other chemicals that opponents have attempted to

1 associate with our type of hydro organic
2 production systems. It is our hope that the
3 group so loud -- it was our hope that the group
4 so loud about hydro organics would familiarize
5 themselves with our production methods and see
6 through the misinformation by visiting our farm
7 or others.

8 We are happy to say a few have, but
9 the loudest, have not. How can you say you're
10 protecting organic if you don't understand it
11 yourselves? We are in 2016. We should not be
12 afraid of innovation. In fact, our planet is
13 insisting on it. The container method was not
14 raised -- container, or hydro organic, was not
15 raised as a concern in a recent OTA research
16 consumer study or in CCOF blueprint for an
17 organic world, which took 18 months to produce.

18 I can say that the word soil was not
19 anywhere in that document. This is much of a
20 concern from growers not wanting to lose their
21 market share, certainly not our customers. When
22 I buy organic, I am looking to avoid chemicals.

1 Let's embrace this new generation of organic
2 growers and not turn them off with inappropriate
3 use or protectionism.

4 We should include all farmers, if you
5 want to have us label, I think the dirt farmers
6 should have to label as well. Let's all do a QR
7 code on our packages and include our
8 sustainability and production methods. We are a
9 B corp, Archi's Acres is a B corp, which measures
10 all of our inputs and our footprint on this
11 planet. We have been best for the world two
12 years in a row.

13 How often do we hear that, how do we
14 get more young farmers? Well, we have them on
15 our farm every day of the year and so far have
16 not seen as much as an olive branch handed their
17 way at all. Let's not live in fear of
18 innovation, especially innovation that dates back
19 to 600 B.C. Nothing new about hydro organics.

20 Seems this uproar is just another
21 example of protectionism, of market share, and
22 not welcoming new sustainable organic farmers.

1 Thank you for your time. I really appreciate
2 being able to present today.

3 MS. FAVRE: Thank you, Karen. We have
4 a question from Emily Oakley on the Board.
5 Emily, go ahead.

6 MS. OAKLEY: Hi, Karen. Thank you for
7 your presentation. You and several others have
8 mentioned a low cost of entry into hydroponic
9 production, particularly for beginning and young
10 farmers, and I was wondering if you could give me
11 an estimate for the cost of entry into production
12 for a profitable production in the first year for
13 a beginning farmer; what their capital outlay
14 would be?

15 MS. ARCHIPLEY: Sure.

16 MS. OAKLEY: Thank you.

17 MS. ARCHIPLEY: So we work in
18 partnership with Farm Service Agency who does a
19 micro-loan of \$50,000 for anyone that completes
20 our course or that they do a certified borrower
21 training, and I can tell you that with \$50,000
22 you can setup a container in hydro organic

1 production and actually make money. You can
2 actually pay that off and then be able to expand.

3 You can make it as small or as large
4 as you choose. We have graduates that have done,
5 with \$12,000, setup sodder production, setup
6 wheat grass production, and it's really amazing.
7 I mean, it's very reachable. You can go large
8 and you can go small, and that is the beauty of
9 it. We're not saddled to having to buy a piece
10 of property. We can be on a rooftop, we can be
11 on a parking lot.

12 You can do container production, you
13 can do the NOP production, you can do aeroponics,
14 there's a lot of ways that you can setup a farm
15 very reasonably.

16 MS. OAKLEY: Thank you.

17 MS. ARCHIPLEY: You're welcome. Thank
18 you for your question.

19 MS. FAVRE: Any other questions for
20 Karen? All right. Thank you for your comments,
21 Karen.

22 MS. ARCHIPLEY: Thank you.

1 MS. FAVRE: Next up is Colin Archipley
2 and we've got Julio Garcia on deck. Colin, are
3 you with us? Colin, are you here? If you're
4 speaking, we can't hear you.

5 MS. TUCKER: I've been communicating
6 with Colin. He says he's on a headset, but I
7 cannot -- oh, Karen says he's speaking, but we
8 can't hear you. Can you unmute your computer?
9 Your computer might be on mute. Try unmuting
10 your computer; unmuting your speakers on your
11 computer. We don't have him and I don't see him
12 listed on the headset.

13 MS. FAVRE: Yes, Colin --

14 MS. TUCKER: Okay. Give him a second.
15 He's going to a different computer.

16 MS. FAVRE: Okay. Just a moment.
17 Okay. Just while we've got the time --

18 MR. ARCHIPLEY: Can you hear me now?

19 MS. FAVRE: There you go. Here we
20 are.

21 MR. ARCHIPLEY: Great. Let me get my
22 notes real quick too. I just want to say, I'm a

1 proponent of container and bioponic production.
2 You have listened to a lot of these arguments
3 today, so I just want to pull a few things out
4 with my time. For one, look at what the vast
5 majority of soil growers do. They don't rely on
6 an inert soil particle to grow a crop, in fact,
7 most of them kill their soil in order to adjust
8 the structure of their crop to begin with, and
9 add organic matter, and add the components that
10 are required to be successful in growing crops
11 within that soil.

12 All we're doing is taking the same
13 things that make them successful and doing it in
14 a much more efficient manner. Furthermore, the
15 doctor has become a rock star in the organic
16 industry. Basically, gained her stardom by
17 telling soil-based growers to use water as a
18 media to grow a diverse level of biology that can
19 enhance that biology in the soil as well, and add
20 that compost heap, clean soil, just for our
21 production in the basis of our fertility program.

22 In terms of questions from, I think,

1 the Chairwoman of the Board earlier about, how do
2 we monitor biological activities in our systems?
3 Well, it's simple, we just take samples directly
4 from the root zone and put it under a scope, and
5 we can observe everything from bacteria to
6 protozoa.

7 When we clean the system, we pull out
8 worms, we pull out frogs, et cetera, so our
9 systems are equally as diverse as any good soil-
10 based production system would be.

11 Furthermore, I understand that, for
12 many of you, you may not understand the
13 importance of this, but I just wanted to point
14 out that the organic industry falls under
15 agricultural marketing service. So the consumer
16 needs to be put first, and I'm talking about
17 marketing products, and surveys are done with
18 consumers, and what are they concerned about?
19 Sustainability, chemical-free, pesticide-free, et
20 cetera. They're not concerned about container
21 production with or without.

22 In fact, when we ask them about it,

1 like my wife said about our operation, they enjoy
2 hearing about the enhanced sustainability of
3 these types of systems. It also makes a big
4 difference to underserved communities,
5 particularly in a rural environment, or excuse
6 me, urban environment, that are also food deserts
7 and lack access to good foods.

8 Furthermore, if you remove container
9 and bioponic production from the chain, from the
10 supply chain, you reduce up to 40 percent of
11 organic tomatoes. What is that going to do to
12 the supply chain? What is that going to do to
13 prices? Is that going to help the consumers of
14 3-plus billion more people that will be on the
15 planet in 30 years? And how is that going to
16 effect the overall sustainability and where
17 organics stand when there's 10 billion-plus
18 people on the planet?

19 Lastly, I just want to point out that
20 we know that there's a lot that's been brought
21 around this, and you guys are under a lot of
22 pressure, I'd just like to point out, making a

1 right vote doesn't always seem like the popular
2 vote. And don't only think about the consumer
3 today, but think about the consumer tomorrow,
4 think about the industry tomorrow, think about
5 overall consumer demands. Thank you.

6 MS. FAVRE: Okay. We have a question
7 from Harold Austin. Harold, go ahead.

8 MR. AUSTIN: Thank you, Tracy. My
9 question, listening to your presentation and
10 listening to your comments, you're talking about
11 container production and bioaponics all in the
12 same breath. From the Crop Subcommittee we've
13 got a proposal on bioaponics.

14 We've got a discussion document moving
15 forward on greenhouse and container growing, and
16 I guess my question to you is, the information
17 that we presented, both the proposal and the
18 discussion document moving forward, do you feel
19 as an organic stakeholder that we've afforded the
20 stakeholders adequate time to thoroughly digest
21 both of these documents or do you feel that we
22 should pull it back and provide more time for the

1 stakeholders to really dig into the meat of both
2 of these documents so that we can come forward
3 with a good solid discussion?

4 MR. ARCHIPLEY: Well, based on the
5 remarks I've heard from, various stakeholders,
6 there's a lot of uneducation, I think, involved
7 in this discussion, I don't think they even asked
8 for time to make their cases there, so I think
9 the discussion should be pulled back and
10 addressed.

11 And if I could take one minute to
12 touch on container and hydroponics or bioponics,
13 the reason why those two together, you look at
14 the processes that occur, they may look
15 differently, but the processes that occur are
16 equal and that's equal to the occurring soil
17 production, so there is one broad category for
18 overall container production because an NFT
19 system compared to a Dutch bucket system, even
20 though they may be using different media, the
21 processes that occur are equal and are equal to
22 what occurs in soil.

1 MR. AUSTIN: Thank you.

2 MS. FAVRE: Okay. Any other questions
3 for Colin? Okay. Thank you very much, Colin.
4 We appreciate it.

5 MR. ARCHIPLEY: Thank you.

6 MS. TUCKER: Tracy, let's do a quick
7 process check. We're seeing some patterns here.
8 For some reason, we don't appear to always be
9 seeing who is on a headset. If you are on a
10 headset, you should be able to unmute yourself
11 when it is your turn. So if you're on a headset,
12 you can unmute yourself when it's your turn. Do
13 make sure that your computer speaker is on so
14 that we can hear you.

15 If you are calling from a phone and
16 you're going to be speaking, we really do need
17 you to IM us, text us, in the chat button with
18 your name and the number you're calling from,
19 otherwise we can't find you to unmute you for
20 when it's your turn to talk.

21 MS. FAVRE: Great. Thank you, Jenny.
22 Next up is Julio Garcia and then we've got James

1 Gratzek on deck. Julio, are you with us?

2 MS. TUCKER: We've been trying to chat
3 with him. We don't have a number and we don't
4 see him online, and he has not responded to any
5 of our chats.

6 MS. FAVRE: Okay. There's an 805
7 number listed. Carmella, can you send that to
8 the Chairperson, please via chat.

9 MS. TUCKER: We don't have anybody
10 from -- oh, just a second, no, we do not have an
11 805 on the phone list. We jump from 760 to 814,
12 so there's no 805.

13 MS. FAVRE: I actually see an 805, but
14 it's a different 805 number.

15 MS. TUCKER: Well, try and unmute him.
16 I don't know why I'm not seeing that phone
17 number.

18 MS. FAVRE: Okay. I've just attempted
19 to unmute. It doesn't look like it -- oh, wait.
20 Okay. There we go. I just unmuted 805, Julio,
21 if you're speaking, go ahead. Can you speak?
22 No. Doesn't look like we're going to be able to

1 hear you. Okay. All right. I'm sorry. We're
2 going to have move on. Sorry, Julio. Next up is
3 James Gratzek and then we've got Adam
4 Schretenthaler on deck. James, are you with us?
5 James, if you're speaking, we can't hear you.

6 MS. TUCKER: We don't have a phone
7 number for him. We did chat with him, but he has
8 not responded.

9 MS. FAVRE: Okay. Last call for James
10 Gratzek. Okay. Adam Schretenthaler. Adam, are
11 you with us?

12 MR. SCHRETENTHALER: Can you hear me?

13 MS. FAVRE: Yes, we can. And hold on
14 just a moment, Adam, before you proceed. After
15 Adam we've got Cecille Madriz on deck. Adam, go
16 ahead, please.

17 MR. SCHRETENTHALER: Thank you. My
18 name is Adam Schretenthaler. I'm an independent
19 product development consultant making comments on
20 my own behalf and not on the behalf of any of my
21 clients. I wanted to speak today to express my
22 belief that carrageenan is an essential to both

1 dairy and non-dairy low-acid beverages.

2 I have over 12 years of experience
3 developing and commercializing aseptic dairy and
4 non-dairy beverages. In the past, some of the
5 specific products that I have developed,
6 commercialized, and/or made significant
7 contributes to include Muscle Milk protein
8 drinks, including the organic variety, Vital
9 Cuisine and other products sold through the
10 nutrition industry.

11 I feel very strongly that carrageenan
12 is an essential component of these beverages.
13 Carrageenan is unique in its ability to provide
14 product stability. The other organic compliant
15 material, including gellan gum and xanthan gum,
16 do not independently or in conjunction provide
17 the same or vastly similar functionalities as
18 carrageenan.

19 While I will concede that the
20 combination of these two gums, gellan and
21 xanthan, can provide somewhat similar properties,
22 these ingredients have crippling disadvantages

1 that make them not suitable replacements for
2 carrageenan. Xanthan and gellan gum, when used
3 in these applications, do not have the same
4 thixotropic properties as carrageenan, meaning
5 they do not bend when shaping or sheared.

6 And gellan and xanthan also have less
7 sensitivity to temperature and remain thick as
8 temperatures increase. When gellan and xanthan
9 gums are used at the levels necessary to provide
10 adequate particle suspension for stability, the
11 thermal processing viscosity parameters cannot
12 always be met.

13 Basically, the lack of thixotropic
14 properties of these gums make the product too
15 thick when it goes through the thermal process to
16 create turbulent flow, which is necessary to
17 ensure sterility and product safety. When
18 produce viscosity, and often times, the product
19 is also slimy in texture and it doesn't provide
20 the same benefits as carrageenan from a mouth
21 feel or organoleptic standpoint.

22 These factors cause formulators often

1 to use lower rates of gellan and xanthan, and
2 because of this, it's not uncommon to find gellan
3 or xanthan products to require vigorous shaking
4 or to have products that have, basically, the
5 contents at the bottom that cannot be shaken back
6 into solution as, certainly, the product gets
7 later in shelf life.

8 Also, specific to the 95 percent
9 organic certified products, the inclusion rate of
10 carrageenan is very low in comparison to the
11 gellan and xanthan, and that gives -- it makes it
12 very difficult to create a 95 percent organic
13 product using gellan and xanthan to meet that 5
14 percent threshold.

15 So in summary --

16 MS. FAVRE: Okay. Adam, I'm sorry,
17 your timer has gone off. I know it's hard to
18 hear, so we need you to wrap it up, please.

19 MR. SCHRETENTHALER: Okay. Thank you.
20 In summary, gellan and xanthan, collectively, do
21 not meet the standard of wholly non-synthetic
22 alternatives to carrageenan. Thank you for your

1 time and consideration of my comments.

2 MS. FAVRE: Okay. Do we have any
3 questions for Adam? Okay. I'm not seeing any.
4 Thank you very much, Adam, we appreciate it.

5 MR. SCHRETENTHALER: Thank you.

6 MS. FAVRE: Next up is Cecille Madriz
7 and I did -- Jenny, I think we just sent you a
8 phone number for Cecille too?

9 MS. TUCKER: Yes, and she should be
10 unmuted now, 831, just a second, yes, try
11 talking, Cecille.

12 MS. ARSENAULT: We have two phone
13 numbers for the 831 area code, and neither one of
14 them is the one that Cecille provided.

15 MS. TUCKER: Yes, if there are any
16 presenters, what we are realizing on our end as
17 Chairperson here, is we know that there are more
18 people on the phone than we can see, and so for
19 some reason it is not showing all the numbers.
20 So Board Members who have been promoted to
21 presenter, if you're seeing a number come in, and
22 you see that number, if you could go ahead and

1 unmute it for us.

2 The other alternative is, we could go
3 ahead and try again to unmute everybody and see
4 if we can do that again. I don't know why we're
5 not seeing all the numbers, but clearly, not all
6 the numbers are showing up on our list.

7 MS. FAVRE: Okay. I am seeing an 831
8 number for Cecille and it is showing unmuted, so,
9 Cecille, if you'll try to go ahead --

10 MS. MADRIZ: Hello?

11 MS. FAVRE: Yes, we can hear you.

12 Please go ahead.

13 MS. MADRIZ: Okay. Hi. Well, my name
14 is Cecille Madriz. I am the substrate manager of
15 Fennel Farms. We are here in Aromas, California
16 and we grow organic blueberries in substrate
17 container production. I'm 25 years old. I'm a
18 first generation farmer and I've been studying
19 how to work in controlled environments for a
20 while now.

21 And this is, honestly, the most
22 conventional way for people my age to get into

1 farming organically. And basically, in the
2 course of a year, because we planted this day
3 last year, we have seen a lot of similarities
4 between substrate and soil, incredibly close
5 similarities, like, it's amazing what you can do
6 in a controlled environment to produce the same
7 environment as you would in soil.

8 But that's not to say that aquaponics
9 and hydroponics can't do the same thing either.
10 It's all microbiologically the same and it
11 produces, efficiently, what a plant needs without
12 creating as much waste, water, fertilizer, or any
13 kind of application.

14 We also rarely ever have to use any
15 sort of pesticide because our plants are
16 maintained at an adequate level so we don't have
17 an excess amount of nitrogen, which attracts a
18 lot of different types of pests, or anything else
19 in the soil which would increase the likelihood
20 of root pathogens.

21 So basically, I don't know, it's
22 essential to let people my age have an

1 opportunity to see how far we can get organically
2 out of the soil, because honestly, soil
3 commercially, organically, is not the same thing
4 as a small farmer. A small farmer is a lot
5 better at being organic than a commercial farmer
6 of a large-scale, like, 300-acre plot farmer
7 because there is nothing but inputs, and inputs,
8 and inputs without maintaining the soil structure
9 at the healthy level that a plant requires,
10 requiring more inputs year after year.

11 And never cover cropping or rarely
12 cover cropping is one of the biggest problems
13 with commercial farmers is, they end up leaving
14 their grounds to waste and although it's organic,
15 it's not maintained or improved like they should
16 be. So substrate is the answer of letting more
17 ground become organic, allowing more people like
18 myself to get into the business who contain the
19 organic philosophy, like it has been shown to us,
20 and not how someone else has perceived it.

21 And it's just -- oh, that's it?

22 MS. FAVRE: Yes, Cecille, that's the

1 end of your time. Thank you. Anybody have
2 comments or questions for Cecille? Thank you,
3 Cecille, it's nice to hear from young farmers.
4 We appreciate you calling in.

5 MS. MADRIZ: Thank you.

6 MS. FAVRE: Next up is John
7 Schoenecker. John, if you can hear us, and then
8 we've got Dan Bensonoff on deck. John, can you
9 hear us?

10 MR. SCHOENECKER: Yes, I can. Can you
11 hear me?

12 MS. FAVRE: Yes, we can. Please go
13 ahead.

14 MR. SCHOENECKER: Okay. Thank you for
15 this opportunity to comment. My name is John
16 Schoenecker and I've been working in the
17 vegetable seed industry for over 29 years. I'm
18 here because I'm passionate about the seed
19 business and the value it brings to growers,
20 consumers, and the environment.

21 I'm currently employed by HM Clause.
22 We're a company that specializes in breeding

1 production and distribution of new and innovative
2 vegetable varieties. In 2014, I served as the
3 Chair of the American Seed Trade Association.
4 I'm offering these comments as a private citizen.

5 I understand that the NOSB has
6 identified topics of excluded methods and plant
7 breeding innovations, or modern biotechnology,
8 also at times called new breeding techniques, but
9 a whole laundry list of new methodologies, as
10 having implications for the organic community and
11 note that your current draft proposal does not
12 really fully capture the potential benefits and
13 positive outcomes these new breeding technologies
14 will provide.

15 Some of the goals of plant breeders
16 are to develop new varieties that are improved
17 for diseases resistance, reducing chemical usage,
18 yield, adaptation to a wide range of climates,
19 and improve fruit quality. Less improved sheet
20 varieties will challenge producers sustainability
21 with lower yields and higher input costs.

22 For consumers, inferior genetics

1 result in more expensive or lower quality
2 produce. Please consider that these plant
3 breeding innovations will have a significant and,
4 I believe, positive impact on plant breeders in
5 the wider agricultural communities ability to
6 meet the need for environmentally sound and
7 sustainable farming practices.

8 It's imperative that the positive use
9 of these methods be accepted by society. While I
10 understand your charge is organic food
11 production, I ask and urge you to recognize that
12 with the maturity of the NOP comes a broader
13 responsibility to all forms of agricultural
14 production. Improved plant varieties are really
15 important to all sectors of all agriculture and
16 especially organics.

17 Plant breeding improvements can
18 provide built-in solutions that are more
19 sustainable, environmentally friendly, and have a
20 positive impact on organic and all forms of
21 production. By excluding these methods, plant
22 breeders will have fewer tools to produce

1 improved and beneficial varieties.

2 I believe that by excluding these
3 methods you will exclude solutions for farmers.
4 I urge you to please take the time to really
5 carefully consider and understand all the
6 implications your decision will have. Your rules
7 will determine which modern breeding methods will
8 be allowed to provide solutions for organic
9 growers and it will have a significant impact on
10 global societies ability to produce the best
11 possible food for an ever-growing population.

12 Thank you for the time to comment and
13 your attention.

14 MS. FAVRE: Good timing, John. Just
15 in time as the timer went off. Any questions for
16 John? Okay. I'm not seeing any. Thank you very
17 much, John.

18 MR. SCHOENECKER: Okay. Thank you.
19 Thanks, everybody.

20 MS. FAVRE: You're welcome. Next up
21 is Dan Bensonoff and then we've got Margaret
22 Scoles on deck. Dan, are you with us?

1 MR. BENSONOFF: Yes, I am. Can you
2 hear me?

3 MS. FAVRE: Yes, we can. Please go
4 ahead.

5 MR. BENSONOFF: Okay. Thank you for
6 allowing me to speak today. My name is Dan
7 Bensonoff and I'm the policy director for the
8 Northeast Organic Farming Association in
9 Massachusetts. While we do not dispute that
10 hydroponics has a role to play in our food
11 system, and that it can meet certain criteria of
12 sustainable production, we believe that it does
13 not fit into the definition of organic production
14 under the OCPA, nor does it meet the standards
15 under the NOP rule.

16 Well-known organic practices, such as
17 crop rotation, green manures and cover crops,
18 continual improvement of soil organic matter and
19 fertility do not exist in any substantial way
20 within a bioponic system. Such practices not
21 only enhance soil biology, they also sequester
22 carbon and enhance bio-diversity.

1 Moreover, the complexity and diversity
2 of the soil food cannot be matched by a bioponic
3 system. It is not enough to simply add some soil
4 biology into a bioponic system. The entire soil
5 food web includes both micro and macro fauna,
6 including highly complex symbiotic relationships
7 with fungi and bacteria that affect both plant
8 health and nutrition.

9 Additionally, the ease and temptation
10 to stray from organic materials is far greater in
11 a controlled hydroponic or bioponic system than
12 in a soil-based system. Detection of liquid-
13 based conventional fertilizers and pesticides is
14 much more challenging to detect in a bioponic
15 system. It would take a highly-trained and
16 experienced inspector to notice those
17 substitutions.

18 In fact, several inspector that I've
19 corresponded with have said that bioponic systems
20 are essentially uninspectable. We are not
21 opposed to a sublabel of organic bioponics to
22 give a competitive edge to bioponic growers who

1 use organic inputs. However, we do believe that
2 consumers associate organic production with
3 natural soil ecosystems.

4 Therefore, we urge the NOSB to uphold
5 the 2010 NOSB recommendations at this fall
6 meeting and fill in the necessary gaps for clear
7 and well-defined rulemaking. Thank you very
8 much.

9 MS. TUCKER: Tracy, are you there? We
10 can't hear you if you're talking.

11 MS. FAVRE: Oh, yes, sorry, I had
12 muted myself as instructed. Sorry about that,
13 folks. Yes, thank you, Dan. Any questions for
14 Dan? I'm not seeing any. All right. Thank you
15 very much for your comments, Dan. Next up is
16 Margaret Scoles and then we've got Curt Chittock,
17 or Chittock, on deck. Margaret, are you with us?
18 Margaret, if you're speaking, we can't hear you.

19 MS. TUCKER: Margaret was with us
20 earlier on headset. I no longer see her name on
21 the list. Does anybody else see her name on the
22 headset list?

1 MS. FAVRE: I do not see her at the
2 moment.

3 MS. TUCKER: Oh, she's going to call-
4 in.

5 MS. FAVRE: Oh, wait. Yes, I do. I
6 do see her there, Margaret, but it looks like it
7 may be disconnected, you're not lit up in green,
8 so maybe it's not currently active?

9 MS. TUCKER: Margaret, go ahead and
10 say something on the headset. You should be able
11 to speak even though it's not green. We should
12 have a headset symbol, but she should be able to
13 speak. I just don't see her. We had unmuted her
14 before, told her to unmute herself.

15 MS. SCOLES: Can I call-in?

16 MS. TUCKER: Hi. We hear you.

17 MS. FAVRE: Yes, we can hear you,
18 Margaret. Go ahead.

19 MS. SCOLES: Great. Thank you for
20 this opportunity to comment. This is Margaret
21 Scoles from the International Organic Inspectors
22 Association, an international association of

1 inspectors. We train inspectors --

2 MS. FAVRE: Margaret, let me interrupt
3 you just for a minute. We can almost not hear
4 you at all and there's also somebody, sort of,
5 banging in the background, so, Margaret, if you
6 could speak up a little bit or turn up your
7 volume, that'd be appreciated.

8 MS. TUCKER: Yes, we also need
9 everybody else to mute yourselves. We have been
10 unmuting people as you've been giving public
11 comment, but once you're done, you got to put
12 yourself back on mute.

13 MS. SCOLAS: How about now?

14 MS. TUCKER: Much better.

15 MS. FAVRE: Much better. Thank you.

16 MS. SCOLAS: I actually didn't release
17 about the microphone. This is Margaret Scolas.
18 I'm the Executive Director of the International
19 Organic Inspectors Association. We train organic
20 inspectors globally and we provide membership
21 support for inspectors. I'm commenting on the
22 discussion document on personnel performance

1 evaluation of inspectors.

2 And I wanted to speak to two things,
3 one is the value of inspector field evaluations
4 and to, two, that promote the idea that there are
5 other alternatives that are viable to annual
6 inspection of inspectors, or annual evaluation of
7 inspectors.

8 We agree with the certifier
9 instruction 2027 that the NOP published in 2013,
10 that says that inspectors cannot be evaluated
11 just on the basis of the reports and client
12 feedback. That's paraphrasing pretty broadly,
13 but we do agree that field evaluation is an
14 essential part of evaluating inspectors.

15 Inspectors work solo and we think that
16 more field evaluations are a good thing. Our
17 pilot field evaluation program last year showed
18 that over half of the inspectors evaluated felt
19 that they learned something about how to do a
20 better job on inspections and more than 1/4 said
21 that they learned something about the NOP
22 regulations.

1 So we are in favor of evaluations, but
2 we do think and are working hard to make the IOA
3 inspector accreditation more robust, to make it
4 be an alternative to annual evaluations, and we
5 would like to see the NOSB's 2001 documents on
6 inspector qualifications be looked at again
7 because in that document the NOSB suggested that
8 IOA accreditation could be one way to establish
9 qualifications for inspection.

10 Our program includes work life
11 experience, commitment to organics, education,
12 inspection experience, continuing ed, and also
13 very essential, an evaluation from all the
14 certifiers they'd worked for in the last three
15 years.

16 The only thing that was missing, and
17 we're working to change, is that there were not
18 witness audits or field evaluations, so our
19 program will include an evaluation every three
20 years or every five years for very experienced
21 inspectors. And we think this would be adequate
22 oversight and it could be a more affordable

1 alternative and we would like to see the NOSB
2 resurrect that in anything that you do.

3 And that's what I'd like to say.

4 Thanks very much.

5 MS. FAVRE: Thank you, Margaret.

6 Anybody have questions for Margaret? Okay. I
7 don't see any. Thank you very much Margaret.

8 MS. SCOLES: Thank you.

9 MS. FAVRE: All right. Next up is
10 Curt Chittock and it says that you are unmuted,
11 Curt, so hold on just a minute, and next up is
12 Guillermo Martinez on deck. So, Curt, are you
13 with us?

14 MR. CHITTOCK: Yes, this is Curt.

15 MS. FAVRE: Okay. We can hear you.

16 Please go ahead. Thank you.

17 MR. CHITTOCK: Great. Thank you for
18 the opportunity to speak to day. My name is Curt
19 Chittock. I'm a second generation seed dealer in
20 Northern California and I've been involved in
21 providing grain for livestock, commonly referred
22 to as fodder. My company uses soil technology to

1 sprout virile grains in a six-day process.

2 Because we only use water in a growing medium,
3 livestock can consume the entire sprout, roots
4 and all.

5 I understand that sprouts are produced
6 for a short time using only water and getting
7 their energy and nutrition from the seed, that
8 sprouts could be considered as a processing step
9 in the organic seed. I would request that there
10 be a clearly stated guideline regarding sprouts
11 that are produced in this way, with only water
12 for a short period, that it can be considered
13 organic when organic grains or seeds are used,
14 and this will help bring clarity for the
15 producers that are currently using this
16 technology in their organic feeding programs.

17 In regards to hydroponic, aeroponic,
18 and aquaponics, I believe that they have merit
19 being labeled organic and that no pesticides,
20 herbicides, or GMOs are used. It is a
21 sustainable and an environmentally-friendly
22 method to produce a clean food source, especially

1 in inner cities where lack of available land is
2 present.

3 But I also believe that a label
4 stating the method of farming should be used to
5 inform the consumer of such. I appreciate your
6 time and thank you.

7 MS. FAVRE: Okay. Thank you very
8 much, Curt. Do we have questions for Curt?
9 Okay. Thank you very much, Curt. Next up is
10 Guillermo Martinez and we've got Phaedra LaRocca
11 on deck. Guillermo, are you with us?

12 MR. MARTINEZ: Yes. Can you hear me?

13 MS. FAVRE: Yes, we can. Please go
14 ahead.

15 MR. MARTINEZ: Thank you very much for
16 the opportunity for sending our comments to the
17 NOSB. Basically, we are actually organic growers
18 of vegetables, mainly tomatoes. For site-
19 specific conditions, container growing is a lot
20 more sustainable for the environment than growing
21 it on soil.

22 Water is a precious resource where our

1 farms are located. Using container for growing
2 assures us that we use the water efficiently. In
3 fact, containers are a lot more efficient than
4 traditional irrigation methods on soil. We
5 nurture each plant with the right amount of water
6 so there is no waste.

7 We recycle all the drainage of the
8 containers to use it again in our crops, that
9 reduces the water consumption, of course. We use
10 a rich soil in our containers where we combine
11 certified organic natural materials that help us
12 achieve better yields and reduce the use.

13 The materials that we use are
14 certified organic compost from different sources
15 of residues with high nutrients plus
16 microorganism that create an active biology in
17 the soil. At the end of our cycles, we use those
18 materials from our containers to incorporate into
19 other fields, such as corns and soybeans, around
20 the area.

21 That means that the active soil
22 biology, but improve the fertility of the fields.

1 So using container growing methods not only just
2 help in maintaining the richness and naturalness
3 of the soil where the crop has been cultivated,
4 but also in maintaining the richness and
5 naturalness of other fields as part of our
6 process of continually recycling materials and
7 nutrients. This is sustainable.

8 Using containers and greenhouse
9 growing methods helps us to achieve better yields
10 per acre. Actually, we have more supply for the
11 growing demand for organic products. This is the
12 basic principle of less is more, we produce more
13 in less acreage.

14 We believe it is the obligation of
15 organic producer to strive to make organic
16 produce affordable for American families. If
17 existing organic growing methods are restricted,
18 yields will go down, price will go up, and many
19 of our existing consumer will no longer be able
20 to consume organic produce.

21 That's basically it and thank you very
22 much for the opportunity again.

1 MS. FAVRE: Thank you, Guillermo. Do
2 we have any questions for Guillermo? I don't see
3 any. Thank you very much. Okay. Next up is
4 Phaedra LaRocca and on deck is Phil LaRocca.
5 Phaedra, are you with us?

6 MS. LAROCCA: Yes. I'm here. Can you
7 hear me?

8 MS. FAVRE: Yes, we can. Please go
9 ahead.

10 MS. LAROCCA: Excellent. Well, good
11 afternoon and thank you all for allowing the
12 phone call. This is a wonderful addition and use
13 of technology. My name is Phaedra LaRocca
14 Morrill. I'm with LaRocca Vineyards and we are
15 an organic winery and vineyard. And as a
16 certified organic wine producer I would like to
17 support the continued use of peracetic acid used
18 for sanitation of our tanks and parts.

19 I would like to support the continued
20 use of tartaric acid, which is a natural acid
21 adjustment for our wines only when needed, and I
22 would like to support the continued use of copper

1 sulfate, used for very little, but for frost
2 protection and to protect black rot in the
3 vineyards.

4 And as an organic consumer, mother,
5 and quality food purchaser, I would like to speak
6 in favor of organic hydroponic growing practices.
7 While shopping for quality clean food, I always
8 purchase organic first, looking for the USDA
9 seal, and I would no doubt purchase an organic
10 hydroponically-grown item versus a conventional
11 choice.

12 As I understand it, this is an
13 excellent opportunity for young farmers to
14 continue growing organically without having the
15 mass amount of funds needed to purchase land.
16 Also, from what I've read, hydroponic farming
17 actually uses less water and can be, if
18 organically done, an environmentally-friendly way
19 to grow.

20 I think it is fair to say that organic
21 growing is a -- excuse me, it's fair to say that
22 hydroponic growing is a current form of

1 agriculture around the world, so why wouldn't we
2 make it the best it can be and allow these
3 growers to become certified organic?

4 I encourage the board to certify
5 organic hydroponic crops for consumers to choose
6 from and enjoy. I think the label should read
7 certified organic hydroponically grown, then the
8 consumer has the ability to choose what they want
9 to purchase. Thank you.

10 MS. FAVRE: Okay. Thank you for your
11 comments, Phaedra. Harold has a question for
12 you. Harold, go ahead.

13 MR. AUSTIN: Thank you, Tracy.
14 Phaedra, kind of a two-part question. One, with
15 the use of the peracetic acid in your production
16 process, have you looked at other disinfectants
17 and sanitizers, and, you know, why have you gone
18 with a peracetic over those, if you have, and
19 secondly, coming into play, does that take and
20 make increased a need for proper sanitation and
21 disinfection in your facility and your process?

22 MS. LAROCCA: Okay. Sorry. Peracetic

1 acid, yes, we have used other things in the past,
2 however, peracetic acid, from what we've come to
3 understand, it actually, eventually, evaporates,
4 so it keeps the sanitation of your item clear and
5 free of the potential hazards of getting soiled,
6 however, afterwards, if it's left out, it will
7 evaporate.

8 And we do work with, like, a company
9 locally that helps us with sanitation and
10 peracetic acid in the wine industry has been the
11 best. It can't affect the wine product or
12 anything.

13 And also, following my comments is
14 Phil LaRocca, my father, who works with us, and
15 he has a little bit more knowledge on the
16 peracetic acid and long-term organic wine
17 production, so if I could derail that question to
18 him, that'd be awesome.

19 MR. AUSTIN: Perfect. Thank you.

20 MS. LAROCCA: Okay. Do you want me to
21 pass it to him right now because he's next in
22 line?

1 MS. FAVRE: No, let's wait, please.
2 All right. Anymore questions for Phaedra? Okay.
3 I don't see any, so thank you, Phaedra. Next up
4 is Phil LaRocca and just before you start, Phil,
5 I just want to give everybody a heads up that
6 it's, by my clock, 2:58, which is two minutes
7 prior to our scheduled deadline.

8 We do have, though, about, maybe, 12
9 other people that we're going to go ahead and
10 continue with, but for those of you that have
11 other obligations, please know that we are coming
12 up on the 3 o'clock hour, so we will go ahead and
13 continue and try to get to everybody if we can.

14 Okay. Next up is Phil LaRocca and
15 then we've got Martin Gramckow on deck.

16 MS. LAROCCA: Hi. This is Phil
17 LaRocca. I'm the owner and winemaker of LaRocca
18 Vineyards. I'm also the Chairman of the Board of
19 Directors for California Certified Organic
20 Farmers, CCOF. My first comments will be as an
21 organic citizen and my final comment will be as
22 representing CCOF's Board of Directors.

1 I really like to attend the NOSB
2 meetings in person, but because of scheduling I
3 can't make it, so I really want to thank you for
4 giving us this opportunity to do this on the
5 phone. As my daughter said, and I'll give a
6 little information on the peracetic acid, I've
7 been around a long time, 42 years as an organic
8 farmer, 32 years in the wine business.

9 Prior to this, for example, CCOF, we
10 had our own in-house security holding review, and
11 at that time, we were using iodine as a
12 sanitizer, and through our materials review in
13 the past, we've recommended that we switch to
14 peracetic acid, and then the company that we used
15 began spreading this throughout the whole wine
16 industry, and the beer industry pretty much uses
17 it.

18 So that's how we do it. It's kind of
19 an extra protection be we steam a lot of things.
20 We use tartaric acid when needed for adjustment,
21 and as my daughter said, copper sulfate, we use
22 sparingly, using mostly as a frost protectant.

1 I also want to speak in favor of
2 hydroponic organics, but I'm in favor it's
3 labeled as certified organic hydroponics so you
4 would allow the consumer to make a decision on
5 what he or she wants to purchase.

6 Whether it was a mistake or not, the
7 fact is that most certifiers have been certifying
8 hydroponic operations for a while. I believe we
9 have someone 12 years in the certification and I
10 know we have quite a few between the five and
11 ten-year range, and in an era where the small
12 farmer is becoming extinct, to actually get rid
13 of these growers would be a shame.

14 It would be a shame to have somebody
15 that's made their living all these years under an
16 organic certification label, or hydroponics, to
17 have the rug pulled out from under them. I would
18 see that as a crime, quite frankly.

19 Now, to speed it up, I'm switching
20 hats and this is mostly directed to the NOP, but
21 have the Board share this. In California, we're
22 the only state that has to pay a state

1 registration fee. CCOF, we put together a bill,
2 18-6, which we got passed, signed by the
3 governor, which was good, it was a compromise,
4 but we removed duplicative paperwork, for
5 example, we're the only state that had to fill
6 out paperwork for the state and for the NOP, so
7 we got rid of that.

8 We also got some fees lowered for
9 growers under \$250,000, and some of the money
10 which they have stockpiled to go to organic
11 research. However, the majority of our growers
12 are still having to pay a pretty large fee, which
13 I look at as a California organic tax.

14 And I'm bringing this up to the board
15 because, as the state with the largest amount of
16 certified farms, and I believe we are 65 percent
17 or organic income coming in, we don't get any
18 money from the NOP because everybody says the
19 state's covering it. And as long as we get that
20 attitude, organic farmers in the State of
21 California will continue to be taxed.

22 MS. FAVRE: Okay. Phil?

1 MR. LAROCCA: Thank you.

2 MS. FAVRE: Thank you very much.

3 We've run over time a little bit, so thank you
4 for wrapping it up. Any questions for Phil?
5 Okay. I don't see any. Thank you very much,
6 Phil. We appreciate your comments.

7 MR. LAROCCA: Thank you.

8 MS. FAVRE: Next up is Martin Gramckow
9 and we've got Kristen Adams on deck. Martin are
10 you with us?

11 MR. GRAMCKOW: I'm here. Can you hear
12 me?

13 MS. FAVRE: Yes, we can. Thank you.
14 Please go ahead.

15 MR. GRAMCKOW: Very good. Thank you.
16 Honorable members of the NOSB, I want to thank
17 you for the opportunity to comment. Together
18 with my brother, I own and operate Southland Sod
19 Farms in Southern California. The company was
20 founded over 40 years ago and we are proud to be
21 a founding family of the turf industry in the
22 state.

1 Drawing on our own patented growing
2 processes, however, we became one of the early
3 innovators of organic container berry production.
4 We grow our berries both in the field and in
5 containers, with virtually identical input. The
6 only differences are location of the fields and
7 the growing media, soil versus substrate in a
8 container. Same inputs, same biology, less
9 water, less fertilizer, more sustainable.

10 I'm troubled by the recent
11 recommendation of the Crop Subcommittee to
12 disallow bioponic systems. I am particularly
13 concerned with the current lack of discussion and
14 lack of justification for de-certification. The
15 USDA has supported new bioponic growers through
16 cost-sharing program for certification, as well
17 as startup capital through the Farm Services
18 Agency.

19 The Obama Administration even
20 recognized a bioponic grower as a champion of
21 change. Yet, the Crop Subcommittee voted to de-
22 certify these growers with virtually no

1 discussion on the topic. These producers, many
2 of them small growers, no face the real potential
3 that they will not have a business after the fall
4 meeting.

5 I encourage the NOSB not to carve out
6 liquid-based bioponic systems from the discussion
7 and to vote yes on the motion. If not, then I
8 encourage the NOSB to send a recommendation back
9 to subcommittee to validate the legitimacy of any
10 decision, a recommendation to de-certify should
11 at least include a thorough explanation as to why
12 bioponic systems are inconsistent with the
13 applicable organic certification program.

14 And it should include an exit plan for
15 the many small growers whose livelihood will be
16 taken away. The essence of organic is embodied
17 in the USDA regulation which states, a production
18 system that is managed in accordance with the act
19 and regulations as part to respond to site-
20 specific conditions by integrating cultural,
21 biological, and mechanical practices that foster
22 cycling of resources, promote ecological balance,

1 and conserve bio-diversity.

2 Our innovative systems do all of those
3 things and should be embraced. Additional
4 regulation is unnecessary unless it can be shown
5 that these systems do not meet the guiding
6 principles. Consumers should have an option.
7 NOSB members highest responsibility is to
8 consumers who purchase products under the organic
9 label.

10 Consumers want organics and are not
11 concerned with the soil bioponic controversy. In
12 fact, I am familiar with one grower that
13 increased their sales by labeling their product
14 as hydro organic. There are some growers who
15 have told me there is a magic in the soil that
16 cannot be duplicated, that is an article of
17 faith, not science.

18 I urge the members of the NOSB to keep
19 organics relevant and to stay innovative. Thank
20 you.

21 MS. FAVRE: Thank you, Martin. Do we
22 have any questions for Martin? Okay. I'm not

1 seeing any. Thank you very much for your
2 comments, Martin.

3 MR. GRAMCKOW: Very good.

4 MS. FAVRE: Next up is Kristen Adams
5 and we've got Beth Jones on deck. Kristen, are
6 you with us?

7 MS. ADAMS: I am. Can you hear me?

8 MS. FAVRE: Yes, we can. Please go
9 ahead.

10 MS. ADAMS: Great. Thank you for the
11 opportunity to provide this verbal comment and
12 also, I did submit written comments on the
13 aquaponic and hydroponic task force report and
14 the Crop Subcommittee proposal on hydroponics,
15 aquaponics, bioaponics.

16 Here at MOSA we support the continued
17 expansion of the organic industry into new
18 systems that are sustainable and in line with
19 organic principles. The standards are rooted in
20 improving and in maintaining our whole
21 environment.

22 The backbone of organic production is

1 about complex natural interactions and symbiotic
2 relationships. And while we have traditionally
3 focused on soil ecology, we recognize that life
4 and all of its diversity exists in a continuum of
5 living conditions, not just those reliant on
6 soil.

7 And organic producers role is to
8 nurture and steward the complex interactions
9 found in nature, to foster cycling of resources,
10 to promote ecological balance, and conserve bio-
11 diversity. Soil is a part, but holistic thinking
12 is really the heart.

13 We believe that organic principles
14 hold solutions to our current challenges, climate
15 change, food safety concerns, food deserts,
16 extreme weather, and diminishing natural
17 resources, and the organic community is being
18 called on to adapt and to be ever-cultural
19 innovators.

20 We've witness this communities'
21 ability to be outside-of-the-box thinkers as
22 we've considered yeasts and mushrooms,

1 aquaculture and agriculture, and perhaps we are
2 no experiencing, as we did during the rise of the
3 traditional organic movement, the rediscovery of
4 a valid and valuable agricultural production
5 system that was lost during the recently
6 historical access to synthetic agricultural
7 inputs.

8 We recognize that bioponic systems
9 could contribute to the growth of the organic
10 industry while still addressing current concerns.
11 And so as we consider the four production systems
12 that are addressed in this task force report, we
13 agree that sterile, inert hydroponic systems do
14 not align with OCPA and the USDA organic
15 regulations.

16 But we do see areas of alignment in
17 bioponic and aquaponic production systems. In
18 order to continue this discussion, a standardized
19 set of definitions must be carefully considered.
20 Establishing regulations is a reasonable and
21 expected path and we think that this proposal
22 prematurely arrives at a closed door for

1 innovation in the organic production
2 opportunities.

3 MOSA supports the motion to allow
4 bioaponics as consistent with organic production
5 under the provisions and recommendations to be
6 developed by the NOSB in 2017. We also support
7 the growth of the organic industry and encourage
8 standards or guidance developments in all areas
9 where production systems do not entirely align
10 with current standards. Thank you.

11 MS. FAVRE: Thank you, Kristen. Any
12 questions for Kristen? Okay. Thank you very
13 much. Next up was Beth Jones, but she had to
14 drop off and so next up on top of that Emily
15 Posner, Posner, and then on deck after Emily will
16 be Joan Norman. Emily, I unmuted you, are you
17 able to -- why don't you say something. We'll
18 see if we can hear you.

19 MS. POSNER: I'm here.

20 MS. FAVRE: Good. We can hear you.
21 Please go ahead.

22 MS. POSNER: You can hear me?

1 MS. FAVRE: Yes, we can. Thanks.

2 MS. POSNER: Okay. Excuse me. Hi.

3 This is Emily Posner and I'm calling in on behalf
4 of Recirculating Farms Coalition. I am the
5 organization's policy and legislative director.
6 I also wanted to thank the NOSB for including
7 this call-in option for comments as this presents
8 an efficient and ecologically efficient way to
9 participate in the democratic process, so thank
10 you and we hope you continue to do that.

11 I'd like to reiterate in support of
12 many of the comments I've already heard today
13 about the support of adopting the hydroponic and
14 aquaponic organic label as well. In particular,
15 I also wanted to comment about the aquaponic task
16 force report that was submitted from the task
17 force committee.

18 Recirculating Farms Coalition is very
19 concerned about this particular report and we
20 find it problematic for a couple of reasons.
21 First, the report's first page presents three
22 items in the table of contents. One was the 2010

1 NOSB recommendation subcommittee report, the
2 second was the Hydroponic and Aquaponic
3 Subcommittee report, and the third was an
4 Alternative Labeling Subcommittee report.

5 We're concerned that this report
6 doesn't have any type of introduction or
7 presentation as to why the task force decided to
8 break up into these particular subcommittees,
9 which on their face, do not seem to be in line
10 with what the task force's identified objectives
11 were.

12 Most glaringly, it is entirely unclear
13 why there was even a 2010 recommendation
14 subcommittee on the task force, however, in the
15 subcommittee's report, they self-described itself
16 as accepting the task of providing clarification
17 for their support for the position taken in the
18 2010 NOSB recommendation on the production
19 standards for terrestrial plants in containers
20 and enclosures.

21 However, it is unclear from whom. It
22 seems wholly outside of the initial that was

1 assigned to the task force in the first place.

2 RFC does not contend that the 2010
3 NOSB recommendations to the NOP should have been
4 discussed by the task force as to why
5 aquaponic/hydroponic operations align with U.S.
6 law and regulations, but the six-year-old
7 recommendations are just that, they are
8 recommendations, and the NOSB recommendations
9 have no course of law without final approval and
10 implementation of the USDA.

11 And since NOP and the USDA have not
12 adopted these recommendations, it does not seem
13 logical or efficient to devote so many pages, 100
14 in all, of this report to a document that is not
15 about law or regulations, 2010 recommendation
16 subcommittee, this would seem to inappropriately
17 claimed authority could be the final word on
18 whether hydroponic or aquaponic farms do not
19 align with the 2010 recommendations.

20 They have no actual authority to do
21 this, as the entire task force was to evaluate
22 six, among many other things, for the report.

1 Talk about creating a report on that particular
2 aspect of the issue at hand was -- seems both
3 wasteful of time and effort and in the end was
4 very misleading to the public, the NOSB, and the
5 USDA.

6 This section of the report should not
7 be given anymore priority or authority when
8 submitted by the task force. They should be
9 viewed skeptically by the NOSB, given that is
10 surrounding in its creation.

11 RFC is also troubled that the task
12 force included --

13 MS. FAVRE: Emily, I'm sorry to
14 interrupt, but we've run out of your time. I
15 apologize for interrupting you.

16 MS. POSNER: That's okay. I had a
17 hard time hearing the beep in the first place.

18 MS. FAVRE: Yes. It's hard to hear
19 and it's particular hard when you're talking too.
20 It's really hard. Any questions for Emily?
21 Okay. I'm not seeing any questions. Thank you
22 very much, Emily. We appreciate it.

1 MS. POSNER: Thank you.

2 MS. FAVRE: Next up is Joan Norman and
3 we've got Patty Lovera on deck. Joan, are you
4 with us?

5 MS. TUCKER: Did any Board Member --
6 was anyone able to see her? We can't see Joan or
7 the number she's calling from on our list. Was
8 anyone able to see her on the list?

9 MS. FAVRE: I do not see any 410
10 number at all, Jenny.

11 MS. TUCKER: Okay. And you don't see
12 her name on a headset.

13 MS. FAVRE: Let me see. No, I don't
14 see her. It doesn't look as though she's here.
15 Okay. Last call for Joan. Okay. Patty Lovera,
16 you're up next, and then we've got Drew Norman on
17 deck. Patty, are you with us?

18 MS. TUCKER: Let me unmute Patty.
19 Patty, we've just unmuted you. You should be
20 able to speak now. Go ahead.

21 MS. LOVERA: Okay. Hi. Can you hear
22 me?

1 MS. TUCKER: Yes.

2 MS. FAVRE: Yes, we can. Thank you.

3 Go ahead.

4 MS. LOVERA: Hi. My name is Patty
5 Lovera. I'm with Food & Water Watch and I
6 appreciate the opportunity to comment on the
7 webinar this afternoon and Food & Water Watch is
8 also a member of the National Organic Coalition,
9 so I'm just going to hit a couple of topics very,
10 very quickly all at once.

11 So on the excluded methods, we urge
12 the Board to adopt all three sections, and was
13 mentioned earlier, there's a couple of specific
14 items on the to be determined list that we think
15 should move to the excluded list, including
16 transposon, cisgenesis, intragenesis,
17 agroinfiltration, and I also would support the
18 concern that Jaydee from Center for Food Safety
19 raised earlier about embryo transfer.

20 And I would also, I know several
21 people said this, but it's really very clear in
22 our work, in light of the legislation this

1 summer, consumers are looking for information
2 through labels about where GMOs are and are not,
3 and it really raises the stakes on organic being
4 as current as we can be on what a GMO is so we
5 can give the best most solid answer that if you
6 don't want GMOs, organics is a place where you
7 can achieve that.

8 Quickly, on hydroponics, I know this
9 is a long discussion, I would just say that, you
10 know, we spent a lot of time thinking about this
11 and talking to people, and really can't escape,
12 kind of, the roots and philosophy of organic in
13 the role of systems and the role that soil plays
14 in the system, so we think that it's not
15 appropriate at this time to put the bioptic
16 systems under the organic label.

17 And I think that the comments heard
18 from Massachusetts did a good job outlining the
19 many reasons why. And then last, I just want to
20 read a couple of, kind of, we think, emerging
21 issues for organic that we think the Board should
22 be thinking about. One is, similarly, with this

1 system approach, you know, the role of clean
2 water and clean land in producing good food and
3 the threat that goes to that by oil and gas
4 extraction.

5 So I know that OCPA and National
6 Organic Coalition have mentioned in their
7 comments the need and the role that developing
8 agricultural impact mitigation plans could play
9 and we would certainly support that. We would
10 also just really urge the NOSB, as you have an
11 ongoing conversation about inputs, preventing
12 contamination of inputs, to think about water as
13 an input. We're already having this conversation
14 because of oil waste water has ended up in some
15 parts of the irrigation systems in California.

16 This is a conversation that is
17 happening and we're getting these questions from
18 consumers and I think it's time for organics to
19 be talking more explicitly about this. And then
20 finally, the last emerging issue that I'll raise,
21 as much for the program as for the Board is, you
22 know, an ongoing discussion that needs to be

1 happening about the role of imported organic
2 grains.

3 These are very long, complicated
4 supply chains and we worry about the opportunity
5 for mishandling, commingling, or outright fraud
6 in those kind of supply chains and we think that
7 the program, in particular, needs to spend more
8 attention on it, whether it's a certification
9 question, you know, a research question, what
10 data do we have about what's coming in, we think
11 there's a bigger discussion to be had here to
12 make sure that we have organic integrity in the
13 viability for domestic producers isn't hurt.
14 Thanks.

15 MS. TUCKER: Tracy, I think you might
16 be on mute.

17 MS. FAVRE: Oh, yes. I'm just
18 chatting away over here. Yes, Patty, I'm
19 congratulating you on your good timing and then I
20 didn't follow my own instructions and unmute, so
21 thank you very much. Any questions for Patty?
22 Okay. Thank you, Patty. Next up is Drew Norman

1 and we've got Dennis Nuxoll on deck. Drew, are
2 you with us? Drew Norman.

3 MS. TUCKER: Tried to locate Drew and
4 we don't see him online either.

5 MS. FAVRE: Okay. One last call for
6 Drew Norman. Okay. Sorry, Drew. If you're on
7 here, we're going to have to move on. Next up is
8 Dennis Nuxoll and then we've got Charles Mulamata
9 on deck.

10 MR. NUXOLL: Good evening. I know
11 that I'm in-between you and happy hour, so I'm
12 going to move along. My name is Dennis Nuxoll.
13 I'm the Vice President of Federal Affairs for
14 Western Growers. On the screen you should have a
15 slide that introduces you to Western Growers. I
16 will try to cover three topics. For the longer
17 written comments, we submitted to the Board
18 earlier, so seed guidance, excluded methods, and
19 timed research.

20 Seed guidance. We believe several of
21 the methods of encouragement cited in the
22 discussion document intended to increase the use

1 of organic seed are productive and we support
2 them. However, there are several proposals that
3 would drastically alter the landscape and do so
4 without regard to the facts on the ground or
5 market conditions.

6 Let me walk through a couple of
7 examples where we have these concerns. First,
8 the Board should be weary of limitations on or
9 the elimination of the three sources rule. From
10 our perspective, the underlying issue with
11 organic seeds is availability, as the state of
12 organic seed report acknowledges. If organic
13 seeds are not available in sufficient quantity,
14 then they aren't simply available for use.

15 Limiting the number of seasons the
16 producer has before non-organic seed is
17 disallowed or forcing producers to spend more
18 time engaging with more than three sources does
19 not solve that fundamental problem. All these
20 types of proposal will result in is the loss of
21 production of organic produce, an outcome no one
22 within the organic community, nor at the Board,

1 should support.

2 Further, the Board should be weary of
3 other proposals that would propose drastic action
4 to close loopholes. For example, producers grow
5 different varieties to meet a number of on-farm
6 and marketplace objectives, such as disease and
7 pest resistance, seasonal and climatic
8 variations, forcing a change or organic seed may
9 not take into account these on-farm issues.

10 Second, in instances in which seed
11 variety are dictated in a buyer's contract,
12 forcing the immediate use of an organic seed
13 variety could eliminate sales and potential
14 reduce organic produce available in stores. Why
15 is that?

16 Buyers often like varieties of product
17 based on the look, the shape, the color, the
18 shelf life, the taste of a product, forcing
19 producers to switch varieties and the getting the
20 buyer to accept this switch is not a simple
21 process. Gaining a buyer's acceptance of a new
22 variety can take many years.

1 These, among other factors, suggest
2 the need for continued incremental rather than
3 drastic change in the space, we urge the Board to
4 keep that in mind as they work on these
5 strengthening seed purity.

6 Excluded methods, Western Growers
7 agrees that terminology surrounding excluded
8 materials needs to be updated. In doing so, we
9 strongly believe the Board should adhere to this
10 basic principle. If the advancement could have
11 been done using traditional breeding, then that
12 advancement, even if done using advanced genetic
13 techniques, should be allowed.

14 Here's a hypothetical, with our
15 knowledge of the genome of a tomato, we could
16 identify which tomato gene enhance the water use.
17 In turn, we could identify genes from a wild
18 tomato variety that use less water and insert
19 them into commercial organic tomato plants in
20 order to improve water use efficiency.

21 While this type of cross-breeding
22 between otherwise compatible plants could be

1 accomplished using existing breeding techniques,
2 doing so would take many years and it's very
3 expensive. Securing research investment to
4 create new seed varieties for small acreage crops
5 like those found in the produce sector is
6 difficult. Modern genetic technology has the
7 potential to reduce development of cost and
8 shorten the time it takes to bring an organic
9 seed to market.

10 If we can use technology accelerate
11 that work, what would otherwise have been done
12 through normal breeding, then the Board must
13 allow that technology as you consider the
14 excluded method.

15 Research priority. One of the earlier
16 speakers talked about the need for research into
17 animal compost. We heartily concur. Not only do
18 we need to do work on the food safety aspects of
19 animal compost, but we also need to ensure that
20 organic producers have the best management
21 practices in place to ensure that we are not
22 contributing to nitrogen runoff problems in the

1 environment. Those are research priorities that
2 need to be added. Thank you for your time. Any
3 questions? I'm happy to answer.

4 MS. FAVRE: Thank you, Dennis. Any
5 questions for Dennis? I don't see any. Thank
6 you very much, Dennis. Next up is Charles
7 Mulamata and on deck with the last current
8 listing is Gilbert Calhoun. Charles, are you
9 with us?

10 MS. TUCKER: We didn't see him on the
11 list so we don't have his phone number. Does
12 anybody see his phone number in the Board? It's
13 a 256 number?

14 MS. FAVRE: No, I do not see a 256
15 number.

16 MS. TUCKER: Okay. So there's no 256
17 number and I don't see him as a headset person,
18 so last call.

19 MS. FAVRE: Last call for Charles
20 Mulamata. Okay. Next up is Gilbert Calhoun.
21 Gilbert, are you with us?

22 MS. TUCKER: It's the same deal, we

1 don't see him on our list. Do any Board Members
2 see a 661 number?

3 MS. FAVRE: No. I do not see a 661
4 number and I don't see him on alphabetical
5 listing for headsets either.

6 MS. TUCKER: Okay.

7 MS. FAVRE: Okay. Now, I know there
8 were a couple people. We've run over and run
9 long. I'm sorry we weren't able to circle back
10 around and accommodate people that missed their
11 times lot. I know that this is a relatively new
12 process for us with webinars, but they are
13 becoming increasingly popular, and as a result,
14 we had an extraordinary number of people calling
15 in today, and so I appreciate, in the future,
16 we'll all have our process down and be able to
17 have everybody show up on time and be available.

18 With that, I will wrap it up here
19 today. We do want to tell you how much we
20 appreciate those of you that have called in today
21 to share your thoughts. We understand that it's
22 onerous sometimes to get to the meeting and we

1 want to tell you how much we value and appreciate
2 you participating in this process. It's vital to
3 our decision making and we appreciate that you've
4 taken the time to be here today.

5 Any comments from any of the Board
6 Members before I wrap it up and close it down?

7 MR. AUSTIN: Thank you.

8 MS. FAVRE: Okay. Thank you,
9 everybody. We appreciate it. Thank you for
10 participating. Everybody have a great afternoon.
11 Take care.

12 MS. TUCKER: Thank you. We are now
13 going to terminate the call on the NOP side.
14 Thanks to everybody for attending. Tracy, thank
15 you. That was masterful moderating. Excellent
16 job.

17 MR. AUSTIN: See you in St. Louis,
18 everybody.

19 (Whereupon, the meeting in the above-
20 entitled matter was concluded at 4:26 p.m.)
21
22

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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

Before: USDA

Date: 11-03-16

Place: teleconference

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



Court Reporter

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UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

FALL 2016 MEETING

+ + + + +

WEDNESDAY
NOVEMBER 16, 2016

+ + + + +

The Board met in the Chase Park Plaza,
212-232 Kingshighway Boulevard, St. Louis,
Missouri, at 8:30 a.m., Tracy Favre, Chair,
presiding.

PRESENT

TRACY FAVRE, Chair
TOM CHAPMAN, Vice Chair
HAROLD AUSTIN
CARMELA BECK
HARRIET BEHAR
JESSE BUIE
LISA DE LIMA
EMILY OAKLEY
SCOTT RICE
JEAN RICHARDSON
DAN SEITZ
ZEA SONNABEND
ASHLEY SWAFFAR
FRANCIS THICKE

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ALSO PRESENT

MILES McEVOY, Designated Federal Officer, Deputy
Administrator, National Organic Program
MICHELLE ARSENAULT, Advisory Board Specialist,
National Organic Program
LISA BRINES, Ph.D., National List Manager,
National Organic Program
SAM JONES, Public Affairs Office, Agricultural
Marketing Service
PAUL LEWIS, Ph.D., Director, Standards Division,
National Organic Program, USDA
BRUCE SUMMERS, Associate Deputy Administrator,
Agricultural Marketing Service
JESSICA WALDEN, Materials Specialist, National
Organic Program

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

2 9:04 a.m.

3 MR. McEVOY: Good morning. Good
4 morning, everyone. Good morning. We're going to
5 get started. Hello and good morning. I'm Miles
6 McEvoy. I'm the Deputy Administrator of the
7 National Organic Program, part of the USDA's
8 agricultural marketing service.

9 I'm also the designated federal office
10 for the National Organic Standards Board which is
11 a federal advisory committee. Welcome to St.
12 Louis and Missouri. This is the first NOSB meeting
13 that has been held in Missouri as far as the records
14 that I have seen. Missouri is home to over 400
15 certified organic farms and handlers producing a
16 wide variety of organic products. It's really
17 great to be here.

18 The next few days will be full of great
19 comments from a variety of people. I look forward
20 to hearing the diversity of perspectives and the
21 great discussions. We look forward to receiving
22 the NOSB recommendations that come out of this

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1 meeting that guide our work at AMS.

2 With that, I open the fall 2016 National
3 Organics Standards Board Meeting. I'll now turn
4 it over to Tracy Favre, the Chair of the Board.

5 CHAIR FAVRE: Good morning, everyone.
6 I hope everyone is well rested and ready to tackle
7 the issues this morning. First thing we're going
8 to do is a brief introduction with the board members
9 and we are going to start with Francis Thicke down
10 at the end.

11 MR. THICKE: I'm Francis Thicke. I'm
12 an environmentalist, I'm in the environmental seat
13 and I'm also a soil scientist and an organic farmer,
14 crop and dairy farmer from Iowa.

15 MS. OAKLEY: Emily Oakley and I have
16 Three Springs Farm in Oklahoma and I sit in one of
17 the farmer seats.

18 MR. RICE: Scott Rice. I'm with the
19 Washington State Department of Ag. Organic Program
20 and I sit in the certifier seat.

21 MS. SONNABEND: Zea Sonnabend,
22 Watsonville, California. I sit in the scientist

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1 seat. I'm also the owner of Fruitilicious Farm and
2 work part-time for CCOF.

3 MS. BEHAR: I'm Harriet Behar. I'm
4 with the Midwest Organic Sustainable Education
5 Service, otherwise known as MOSES. I'm a
6 certified organic farmer and I'm in the
7 environmentalist seat and I'm from Wisconsin.

8 DR. RICHARDSON: Jean Richardson in
9 one of the consumer seats. I'm professor emerita,
10 environmental studies and environmental law,
11 University of Vermont, and an organic inspector for
12 the last 16 years.

13 MR. SEITZ: Good morning. My name is
14 Dan Seitz. I fill one of the consumer member
15 seats. I'm also the Executive Director for the
16 Council on Naturopathic Medical Education and the
17 board member of a food co-op and I live in Great
18 Barrington, Massachusetts.

19 VICE CHAIR CHAPMAN: Good morning.
20 Tom Chapman from Clif Bar and Company based in
21 Emeryville, California. I sit in the handling
22 seat.

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1 MS. DE LIMA: Lisa De Lima. I sit in
2 the retailers seat. I'm Vice President of MOM's
3 Organic Market.

4 MS. SWAFFAR: Ashley Swaffar. I sit
5 in the producer seat of a small certified organic
6 vegetable farm in Fayetteville, Arkansas. I also
7 am an independent organic and animal welfare
8 inspector.

9 MS. BECK: Good morning. My name is
10 Carmela Beck. I'm the organic program manager at
11 Driscoll's based out of Watsonville, California.
12 I sit in the producer seat.

13 MR. BUIE: Good morning. Jesse Buie.
14 I'm President of Ole Brook Organics in Brookhaven,
15 Mississippi. I sit in the -- I'm a farmer and I
16 sit in the organic producer slot.

17 MR. AUSTIN: Good morning. Harold
18 Austin. I'm the Director of Orchard
19 Administration for Zirkle Fruit Company located in
20 Selah, Washington, a fourth generation organic
21 apple, pear, cherry, blueberry, and wine grape
22 producer, packer, and shipper. I sit in one of the

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1 two handler positions.

2 MS. WALDEN: Good morning. I'm
3 Jessica Walden. I'm with the National Organic
4 Program.

5 MS. ARSENAULT: Michelle Arsenault,
6 Advisory Committee Specialist. Good morning.

7 DR. LEWIS: Good morning. I'm Paul
8 Lewis, Director, Standards Division, National
9 Organic Program.

10 DR. BRINES: Good morning. I'm Lisa
11 Brines. I'm the Nationalist Manager for the
12 National Organic Program.

13 CHAIR FAVRE: I'm Tracy Favre. I'm
14 from Granbury, Texas where I have a small farm with
15 my husband. I'm the Director of QAI and I sit in
16 one of the environmental seats. With that we are
17 going to turn it over to our board secretary Lisa
18 de Lima for the acceptance and meeting.

19 Oh, yes. I'm sorry. I even made a
20 note about it, Michelle. We do have one member
21 that's not here with us today, A-Dae Briones.
22 She's had a personal family emergency and was not

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1 able to attend today. We all wish her and her
2 family the best.

3 With that I will turn it over to Lisa
4 de Lima for the secretary's report.

5 MS. DE LIMA: Thank you. At this time
6 I would like to ask the members of the board if they
7 have any changes or corrections to the posted April
8 2016 meeting summary. Seeing none, we'll accept
9 those, Madam Chair.

10 CHAIR FAVRE: Thank you, Lisa.

11 We have a very packed agenda today so
12 we're just going to keep rolling along. Without
13 anymore ado, we're going to turn it back over to
14 Miles for the USDA National Organic Program Report.

15 MR. McEVOY: Okay. I would also like
16 to recognize Bruce Summers who is the AMS Associate
17 Administrator.

18 Bruce, I don't know where you
19 disappeared to but you are somewhere in the room.

20 There he is in the back. Bruce Summers
21 was recently appointed or selected to become the
22 Associate Administrator at the Agricultural

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1 Marketing Service. The Agricultural Marketing
2 Service has programs including the National
3 Organic Program.

4 Bruce has had many years of experience
5 in agricultural marketing service, especially the
6 fruit and vegetable programs and specialty crops.
7 He's new to the position. This is his 13th day as
8 the Associate Administrator.

9 Big supporter of organic. He's here to
10 learn. He does need to leave later today but is
11 very interested in learning more about the organic
12 community, the organic issues and supporting the
13 work of organic agriculture.

14 We also have Sam Jones here from our
15 Public Affairs Office so any press inquiries if you
16 could coordinate that through Sam. Sam is also in
17 the back of the room there.

18 We have a duck in the back as well.

19 Not with AMS but we love ducks at AMS
20 as long as they have outdoor access.

21 Okay. It's great to be here and I'm
22 happy to report on the progress we've made over the

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1 last few months. I think I have control. Okay.

2 First of all, I would like to celebrate
3 the board members that have devoted countless
4 hours, hundreds of hours to supporting this process
5 at the National Organic Standards Board. We have
6 five members of the National Organic Standards
7 Board whose terms end in January so this is their
8 last public meeting.

9 They have contributed so much to the
10 organic community, to this whole public process to
11 writing proposals, to making recommendations.
12 We'll have official sending off on Friday but since
13 more people are here the first day of the meeting,
14 I wanted to make a special shout-out to Tracy Favre,
15 current Chair of the Board from Texas; Jean
16 Richardson, past Chair of the National Organic
17 Standards Board; Zea Sonnabend, who has done a lot
18 of the wrangling on the Crops Subcommittee for many
19 years; Carmela Beck, who has run a lot of the things
20 in the CACS, the Certification Accreditation
21 Subcommittee; and Harold Austin, who not only ran
22 the Handling Subcommittee but suffered and

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1 recovered from an awful fall in San Diego. It's
2 great to have you back here, Harold, as well.

3 Thank you all for your service. I
4 think they deserve a round of applause for
5 everything they have done. We are going to miss
6 them a lot.

7 So with that, we are next going to
8 announce the new appointees to the National Organic
9 Standards Board that the secretary has made. So
10 everybody get out your -- there will be a press
11 release later today as well as lots of information
12 about these new appointees but here is a preview
13 of the new appointees to the National Organic
14 Standards Board.

15 We will start with Joelle Masso from
16 Fresno, California. She's currently the product
17 line manager at Olam International, one of the
18 largest suppliers of processed organic tomatoes.

19 She previously served as Senior Manager
20 of Strategic Quality for WhiteWave Foods Company,
21 Earthbound Farms from 2014 to 2016 and a Senior
22 Manager for Quality Food, Safety, and Organic

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1 Integrity at Earthbound Farm from 2009 to 2014.

2 She has a masters in food science and
3 microbiology and also well versed in organic seed
4 use, supply limitations, and consumer and grower
5 perspectives. She is going to fill the organic
6 handler spot that's opening up in January.

7 Next we have for the public interest our
8 consumer interest representative Ms. Sue Baird
9 from Missouri. I think Sue may be in the room.
10 There she is.

11 Welcome, Sue, to the National Organics
12 Standards Board. It's going to be great to work
13 with you over the next number of years. Ms. Baird
14 serves as the executive director of the Missouri
15 Organic Association doing business as the
16 Mid-America Organic Association which educates
17 consumers and farmers about the advantages of
18 organic food and production practices.

19 She also serves as an independent
20 organic consultant, inspector, and reviewer.

21 She holds a masters in animal science and
22 poultry diseases and has served on numerous local,

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1 state, regional, and national boards that serve the
2 organic community and industry. Since 1995 she
3 has owned and operated a cow/calf operation.

4 I had the pleasure of working with Sue
5 through the National Association of State Organic
6 Programs when Missouri had a state organic program.
7 That was a while ago. Probably back in the
8 mid-90s. Nice to be able to work with Sue again.

9 Next we have for the Environmental
10 Protection and Resource Conservation
11 Representative Dr. Asa Bradman from Berkeley,
12 California.

13 Dr. Bradman is at the School of Public
14 Health at the University of California Berkeley,
15 Associate Director of the Center for Environmental
16 Research and Children's Health, an adjunct
17 associate professor of environmental health
18 sciences, the co-founder and associate director of
19 the Center for Children's Environmental Health
20 Research and the Director of the Initiative on
21 Environmental Quality and Childcare.

22 He also serves as a member of the Board

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1 of Trustees of the Organic Center and has reviewed
2 conventional and organic ag. inputs and materials.
3 He has a Ph.D. in environmental health sciences
4 with a background in conservation resource
5 studies. We will welcome Dr. Bradman to the Board
6 in the spring.

7 In terms of organic farmer
8 representative we have Mr. Steve Ela from Colorado.
9 He's a partner and manager Silver Spruce Partners
10 doing business as Ela Family Farms, been a
11 certified organic farm and fruit orchard, since
12 2004. The operation is also certified for the
13 processing and handling of organic fruit butters
14 and other fruit products.

15 He serves as a consultant at Gerber
16 Products as well. Mr. Ela has a masters in soil
17 science and has served on a wide variety of boards
18 and advisory committees addressing food and
19 agricultural issues nationally, regionally, and
20 locally.

21 Next for the scientist position we have
22 Dr. David Mortensen from State College

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1 Pennsylvania. He's a professor of wheat and
2 applied plant ecology at Penn State University.
3 Served previously as professor of wheat ecology at
4 the University of Nebraska from 1987 to 2001.

5 He's the current chair of the Pests and
6 Beneficial Species in Agricultural Production
7 Systems Foundational Program. That's a mouthful.
8 USDA National Institute of Food and Agriculture
9 Competitive Grants Program.

10 He serves on the Board of the
11 Pennsylvania Association for Sustainable
12 Agriculture and is a member of the Rodale Farming
13 Systems Advisory Committee. He's got a Ph.D. in
14 crop science and soil physics.

15 With that, welcome to the new members.
16 As I said, there will be more information available
17 on our website through press release and other
18 information about the new members.

19 Okay. Next let's dive into the work of
20 the National Organic Program. Our mission is to
21 ensure the integrity of USDA organic products
22 throughout the world. Our vision is organic

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1 integrity from farm to table. Consumers trust the
2 organic label.

3 Meaning it's not just certification of
4 the farm level but making sure that there's a
5 complete audit trail from farm to market and that
6 there's certification and verification along the
7 way. Our core role, it's a regulatory program to
8 implement the Organic Foods Production Act and the
9 USDA organic regulations.

10 The National Organic Program has five
11 core goals. First and foremost, protecting
12 organic integrity. Second, market access for
13 those interested in participating in the organic
14 market. Third, clear standards. Fourth,
15 utilizing technology to advance organic integrity.
16 Last, people and process, ensuring that people
17 working in the National Organic Program are well
18 supported, qualified, and trained and we have
19 effective and efficient processes.

20 A little bit more about people and
21 process. We currently have around 45 staff in
22 three divisions in the Office of the Deputy

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1 Administrator. We have a stable budget. It's
2 been the same for the last three years and will
3 probably will be the same for 2017, though we're
4 operating under a continuing resolution at the
5 current time.

6 We are responsible for 80 certifying
7 agents as well as eight trade arrangements to
8 ensure organic integrity. We ensure that these
9 parties are meeting all requirements and we rely
10 on them to conduct the certification, the
11 verification, and the enforcement work around the
12 world.

13 So it's not just the 45 employees of the
14 USDA Department of Agriculture that protect
15 organic integrity. It's the hundreds, if not
16 thousands, of organic inspectors, reviewers,
17 material review organizations and enforcement
18 compliance officers around the globe that work to
19 protect organic integrity.

20 There's 31,000 directly certified
21 operations under the USDA Organic Program in 120
22 countries, plus thousands of farms and handlers

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1 that are certified through recognition and
2 accreditation arrangements. It's a very broad
3 scope and huge workload for the National Organic
4 Program with a relatively modest budget of \$9
5 million.

6 A \$9 million budget for a \$43 billion
7 industry, that translates to about 0.1 percent of
8 our budget is related to the sales in the US alone
9 of organic products. But we're not alone in
10 protecting organic integrity. We have lots of
11 partners that help us along the way.

12 Our goal is to provide our people with
13 the training equipment and work space to be
14 successful. We provide feedback to our staff
15 through appraisals, support through training
16 needs, and support work life balance.

17 There is a very heavy workload within
18 AMS' National Organic Program. We recognize that.
19 We try to address that and have a reasonable work
20 life balance for our staff. It's a really great
21 place to work.

22 We are in the process of recruiting some

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1 additional staff for the National Organic Program
2 so anyone that's interested in joining the team,
3 please keep your eyes out for announcements for new
4 auditor positions and new compliance officer
5 positions that will be announced relatively soon.
6 Or if you know someone that's interested, we are
7 looking for qualified staff to help us in our work
8 to protect organic integrity.

9 In regards to process, we do a lot to
10 continually review our processes, identify areas
11 for improvement, and implement systems that more
12 effectively and efficiently utilize our resources
13 and protect organic integrity. We are constantly
14 reviewing our systems through internal audit,
15 through management review of those audits, and are
16 strategic and operating plans.

17 We have a peer review process that we'll
18 get into in a little more detail a little bit later
19 this morning. We have assessments that are
20 conducted by foreign governments. This past year
21 we've had assessments conducted by Japan, Korea,
22 and Mexico that have looked at our accreditation

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1 and enforcement systems.

2 We also have an Office of Inspector
3 General audits that is currently underway.
4 Security warning. Okay. But that's not here.
5 Evacuation drill not here but somewhere else in the
6 USDA system. Sorry about that.

7 Yes. We do have an OIG audit underway
8 that's looking at the organic equivalency
9 arrangements so we are looking forward to the
10 recommendations that come out of that process.
11 There's many different assessments that are
12 underway. We take these very seriously. We are
13 always looking for ways to improve our process and
14 make the system better.

15 We also take a team approach to many of
16 our projects. We have our sound and sensible
17 projects. We have an internal communications
18 team. We have an import oversight team that's
19 doing a lot of work to look at ways of strengthening
20 our oversight of organic imports into the US.

21 This includes people from APHIS Plant
22 Protection and Quarantine office that are

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1 providing a lot of assistance in that project.
2 We've had a lot of success in this team approach.

3 We took a team approach to the writing
4 of the final rules for the organic livestock and
5 poultry practices and that was very successful, as
6 well as our work on addressing our FOIA, Freedom
7 of Information Act, responses.

8 Okay. So moving on to protecting
9 organic integrity. We like to describe the whole
10 system of protecting organic integrity. The
11 certification process is certainly an important
12 part of that, but there are many other aspects of
13 a comprehensive oversight of the organic sector.

14 So clear enforceable standards,
15 communication about those standards, a transparent
16 process so that we provide the opportunity for
17 public input into the process. The certification,
18 which is the core business process, that's done
19 thoroughly by qualified staff that are doing
20 inspections correctly, looking at organic system
21 plans, conducting all the work that's important in
22 that certification process effectively.

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1 An effective complaint process. So a
2 way that folks can file complaints and that we
3 address and review and investigate those
4 complaints and take appropriate action. A penalty
5 system that is appropriate for the types of
6 violations that are found.

7 Market surveillance so that there is a
8 review of labels in the marketplace to see that they
9 are compliant with the requirements. Unannounced
10 inspections that are conducted so it's not just
11 scheduled inspections but a certified operation
12 may be inspected at any time on an unannounced basis
13 helps to build that trust, build that capacity in
14 the control system.

15 Periodic residue testing as a component
16 of this overall system. Then, as we just talked
17 about in the process part, continue improvement in
18 our processes as well as the processes of
19 certifiers and producers and handlers. That's
20 kind of our overarching way of looking at the
21 organic control system.

22 This slide is a little small but this

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1 shows compliance and enforcement actions for the
2 last two fiscal years. Last fiscal year ended at
3 the end of September. The primary mission of our
4 Compliance and Enforcement Division is to bring
5 operations, uncertified and certified, into
6 compliance with the regulations.

7 Compliance creates a level playing
8 field for certified operations and assures
9 consumers that organic products meet a consistent
10 standard. We review every complaint we receive
11 and investigate those that are within our
12 jurisdiction and provide evidence of violation of
13 the regulations that are sufficient to warrant an
14 investigation.

15 In 2015 we received nearly 550
16 complaints and closed a total of 390 complaint
17 cases which was a record number. Last fiscal year
18 we received almost 500 complaints and closed a
19 total of 357 complaints. Most of these complaints
20 contain sufficient evidence of violation of the
21 regulations and, thus, were investigated.

22 Their closure represents that more

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1 operations are now in compliance. You can see the
2 numbers here and this presentation will be
3 provided. It is also provided in our compliance
4 report that is provided through the USDA organic
5 insider as well as the USDA organic integrity
6 newsletter.

7 The National Organic Program has
8 expanded its publication of data regarding
9 enforcement of the Organic Foods Production Act and
10 the USDA organic regulations. We've published
11 enforcement records involving certified and
12 uncertified operations.

13 We've published enforcement documents
14 that are not completely new for the National
15 Organic Program. Many of these documents were
16 previously on our website but were removed during
17 the website refresh which was over a year ago now.
18 As part of that ongoing effort to increase
19 transparency, we are posting more and more of these
20 enforcement actions that we have taken.

21 We've include settlement agreements,
22 AMS administrator decisions that were finalized in

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1 fiscal year 2016, the administrative law judge
2 hearings for three of the six cases, and over 25
3 administrative law judge decisions and orders from
4 2004 through 2016.

5 So all these things are available for
6 review on the USDA National Organic Program.
7 We're on the AMS website actually. Then we also
8 have a link to all of the judicial officer decisions
9 and we plan to continue to post more of these
10 enforcement decisions as we move forward.

11 Some notable enforcement actions
12 include Yorgo Foods and Saul Farms. An
13 administrative law judge entered a consent
14 decision regarding the sale of agricultural
15 products as organic without certification by Yorgo
16 Foods. This was a long-term process. It took
17 numerous years for us to get to this point.

18 Sometimes it does take a while to respect the
19 due process rights of an operation, a certified
20 operation or suspended operation. It takes a
21 while. In this particular case in April we
22 prevailed and Yorgo agreed to a three-year

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1 suspension and a civil penalty of \$880,000 with
2 \$540,000 held in abeyance provided it complies with
3 the regulations during its suspension period.

4 Another significant case is Saul Farms
5 which in March Bernard Saul pleaded guilty to wire
6 fraud and money laundering in connection with the
7 sale of conventional alfalfa seed as organic. We
8 worked very closely with the Idaho State Department
9 of Agriculture and the Department of Justice on the
10 investigation and the enforcement on this
11 particular case.

12 A lot of these enforcement cases,
13 especially when they go beyond civil penalties,
14 involve us working with the Office of the Inspector
15 General and Department of Justice.

16 A little bit about the Freedom of
17 Information Act. Since 1967 the Freedom of
18 Information Act has provided the public the right
19 to request access to records from any federal
20 agency. Federal agencies are required to disclose
21 any information that is requested under FOIA unless
22 it falls under one of nine exemptions which protect

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1 interests such as personal privacy, national
2 security, and law enforcement.

3 FOIA also requires agencies to
4 proactively post online certain categories of
5 information including frequently requested
6 records as Congress, the President, and the Supreme
7 Court have all recognized that FOIA is a vital part
8 of our democracy.

9 President Obama and the Department of
10 Justice have directed agencies to apply a
11 presumption of openness in responding to FOIA
12 requests and AMS works in the spirit of cooperation
13 with our FOIA requesters.

14 FOIA requests are processed within 20
15 business days. That's the requirement under the
16 Freedom of Information Act. NOP staff are
17 responsible for identifying the responsive
18 records.

19 Those records must be reviewed to
20 ensure that they are complete. We need to redact
21 the information that falls under the nine FOIA
22 exemptions. Some FOIA requests are very

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1 straightforward but many involve hundreds or
2 thousands of pages and years of records.

3 Currently we have four NOP full-time
4 staff members that are devoted to FOIA as well as
5 two full-time contractors and additional staff
6 support assist as needed. FOIA is becoming
7 increasingly time consuming because of the number
8 and breadth of the FOIA request.

9 We always strive to provide information
10 as fully and complete as possible through the AMS
11 website and will be posting more information on our
12 website related to these FOIA requests. We are
13 dedicating about 10 percent of our resources to
14 responding to these FOIA requests.

15 We have nothing to hide and we are happy
16 to share this information. Please understand that
17 we have limited resources, a limited budget, and
18 the resources that we devote to FOIA are taken away
19 from other core activities of enforcement and
20 oversight.

21 Okay. Let's move on to talk about the
22 Organic Integrity Database and other technology

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1 assessments. Our vision for the Organic Integrity
2 Database is to develop a modernized database that
3 contains up-to-date and accurate information that
4 increases supply chain transparency and supports
5 the integrity of the organic control system.

6 The first release of the new integrity
7 system was launched just a little over a year ago
8 and this modernized system is funded from the 2014
9 Farm Bill. It was \$5 million funding was provided
10 for five years. It is a rather modest IT
11 investment and we've already done a lot with the
12 implementation of this database.

13 Because of integrity certifiers can log
14 into the database and regularly update the list of
15 organic operations that they certify. Certifiers
16 can track the history of an operation to support
17 certification and compliance activities.
18 Industry and the public can conduct searches and
19 access standard reports more easily and with
20 greater precision than with the old posted list.

21 Certifiers are increasingly using more
22 structured listing of commodities so we've created

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1 a taxonomy of commodities and services which is a
2 significant improvement over the previous listing.

3 Industry and public can perform
4 increasingly sophisticated advance searches by
5 operation status, effective date, exact product
6 name, and other criteria. More data is becoming
7 available as it is being populated by certifiers
8 such as labeling categories.

9 Certifiers and third party application
10 developers can access data through automated data
11 feeds. Farmers and handlers can find a certifier
12 based on the office and the certified operations
13 locations.

14 One new feature that was recently
15 launched was that certifiers can provide a federal
16 organic certificate through the integrity
17 database. This is a new feature that was launched
18 last month. It allows certifiers to provide a
19 federal certificate to certified operations.

20 Currently each accredited certifier
21 utilizes its own certificate with different
22 formatting and different information that's

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1 provided on the certificate. By moving to a
2 federal certificate the certificates will provide
3 the same information. It will be more difficult
4 to create fraudulent certificates.

5 The federal certificate has a watermark
6 and a QR code that links back to the integrity
7 database. These are additional safeguards to
8 reduce fraudulent certificates and improve the
9 ability of buyers, certifiers, auditors, and other
10 regulatory officials to track and verify organic
11 products.

12 The integrity database has been a huge
13 success. The team is very active and continuing
14 to make improvements. They have one
15 administrator's award as well as a secretary's
16 honor award for the work that they have done on this
17 database.

18 The database is developed and improved
19 with lots of input from certifiers. Many
20 certifiers are actively engaged. There are over
21 40,000 operations actually listed in the database
22 because it includes both certified operations as

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1 well as suspended revoked and surrendered
2 operations.

3 We continue to learn and improve the
4 system based on input from certifiers and other
5 data users so we appreciate all the input that we've
6 gotten to continue to make this a better system.

7 We will continue to make improvements
8 to the system with the remaining funds for the
9 project. The funds for this project will run out
10 over the next couple of years but we do intend to
11 make additional improvements. Our final year of
12 development, a rough sketch is that making the
13 system work more quickly. It's a little slow so
14 we are looking at making it work more quickly.

15 Enhancements to the certificate
16 module, improvements of data analysis tools and
17 make more data reports. Commodity reports with
18 aggregate acreage to support transition of
19 certifier survey data from the National
20 Agricultural Statistics Survey to the integrity
21 database.

22 We are working very closely with NASS

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1 to get that information and be able to publish
2 reports on the organic sector. Additional system
3 administration tools and then working to improve
4 data quality of the information that is submitted.
5 Lots still going on for the integrity database.

6 We also have some other technology
7 initiatives that we are working on. We are
8 investing in technology for the accreditation
9 processes and workflow. This will save time and
10 resources for audit scheduling, report generation,
11 report reviews, and basic certifier contact
12 management.

13 There is a lot of work involved in
14 scheduling audits of certifiers and conducting all
15 the review. This technology initiative will help
16 us with that work. It also will enable certifiers
17 to more easily transmit information to the National
18 Organic Program, streamline our corrective action
19 submittal and reviews of those corrective actions.

20 There are annual reports that are
21 submitted and other data exchanges. No new
22 technology investments will be needed for

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1 certifiers to benefit from these new capabilities
2 but it will make it easier for certifiers to provide
3 information to the National Organic Program.

4 Okay. On to standards and we'll talk
5 about standards and standards-related work.
6 First of all, the rules that we are working on, we
7 have the organic livestock and poultry practices.
8 This rule was published in April of 2016. The
9 final rule is now in interagency review at the
10 Office of Information and Regulatory Affairs at the
11 Office of Management and Budget. It was submitted
12 earlier this month and the plans are to have the
13 final rule published before the end of the
14 administration.

15 For organic aquaculture the proposed
16 rule is also at interagency review at Office of
17 Information and Regulatory Affairs and we do also
18 expect that proposed rule will be published before
19 the end of the year or the end of the
20 administration. It's getting down to the wire,
21 though.

22 Sunset 2016 final rule, that was

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1 published in August of 2016 so this completed the
2 sunset process for 2016 materials. There were a
3 few products that were removed from the National
4 List including egg white lysozyme,
5 cyclohexylamine, diethyl amino ethanol,
6 octadecylamine, tetrasodium pyrophosphate.

7 Okay. We'll go on to the next thing.
8 Treated lumber draft guidance. We published
9 treated lumber draft guidance in the summer. The
10 public comment period closed end of October but
11 this is our continual work to expand the program
12 handbook and provide further clarification around
13 the USDA organic regulations.

14 Lumber treated with arsenate and other
15 non-allowed synthetic substances cannot come in
16 contact with soil or livestock. Organic farmers
17 use lumber for many different purposes; fences,
18 farm buildings, structures, animal housing, and
19 lumber treated with arsenate or other prohibited
20 synthetic materials can't be used in organic
21 production areas or come into contact with any part
22 of an organic crop.

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1 This draft guidance explains how
2 organic producers can prevent soils, crops, and
3 livestock from contacting lumber treated with
4 prohibitive substances. This was open for public
5 comment through the end of October. We received
6 many comments from you all. We really appreciate
7 that and it will help us to finalize this guidance
8 and make it better.

9 We also published material review
10 instructions. This was issued as interim
11 instructions. By interim we mean this is
12 effective upon issuance with a request for
13 comments. Instructions are issued to certifiers
14 under the authority of the administrator.

15 The administrator has the authority to
16 tell accredited certifiers to do certain things.
17 That's what an instruction is, instructing the
18 certifiers to follow certain procedures certainly
19 in line with the USDA organic regulations. This
20 is effective upon issuance.

21 It's based on the National Organic
22 Standards Board recommendations from 2011 and 2012

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1 so thank you NOSB for your recommendations on this
2 particular topic. It clarifies certifier
3 responsibilities for reviewing substances that are
4 used by organic producers and handlers and those
5 include maintaining documentation that supports
6 their determination for all substances that are
7 used by a producer or handler.

8 Demonstrate the qualifications of
9 personnel that are conducting the materials
10 review. So ensuring that there are qualified
11 staff that are doing the materials review work and
12 that they have clear procedures, as well as
13 additional information. Again, this was open for
14 public comment. We appreciate the comments that
15 we have received. We plan in the future as we issue
16 new instructions to issue them as interim
17 instructions and request comments.

18 So a quick review of recommendations
19 that the National Organic Standards Board has
20 provided. We have this more detailed list
21 available on our website. In terms of practice
22 standards, there's been 178 recommendations from

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1 1994 to 2015. 149 of those have been addressed,
2 completely addressed.

3 24 are in process including things like
4 aquaculture and animal welfare. There are many
5 things that we are currently working on. We have
6 identified five recommendations that are
7 outstanding meaning we haven't begun work on and
8 that includes expiration dates on certificates,
9 inspector qualifications, retail compliance and
10 certification, mushrooms, and GMO prevention
11 strategy guidance.

12 In terms of the National List from the
13 same time period, about 20 years here, there have
14 been 280 recommendations on the National List.
15 254 of those have been addressed. The outstanding
16 ones are very recent and they are all in process
17 in terms of us addressing those through notice and
18 comment rulemaking.

19 In terms of sunset, 129 reviews have
20 been completed. Sodium nitrate, this will make
21 Zea very happy I think, that we do have a plan to
22 address sodium nitrate for 2017. We plan to get

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1 a proposed rule out on sodium nitrate for 2017.

2 Okay. Thumbs up on that one. Good.

3 Okay. So the Board creates a lot of
4 work, a lot of really excellent recommendations.
5 There's a lot of work for AMS and NOP to do to
6 implement those recommendations. A lot of those
7 have been addressed. A lot of those are in process
8 but we still have a lot more work to do to fully
9 implement all the NOSB recommendations.

10 In terms of underdevelopment, meaning
11 things that are very far along in the process, a
12 lot of work was completed in 2016 for these
13 particular topics. So basically the rules are
14 written that they are not -- they haven't gotten
15 through the clearance process. These are those
16 projects.

17 The final rule on origin of livestock,
18 very far along in the process but it will not be
19 published this -- it won't be published this
20 calendar year. There is still more work to do on
21 that. Organic livestock and poultry practices, as
22 I mentioned that is at OIRA and we do expect that

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1 to be published before the end of the
2 administration.

3 In terms of proposed rules, we do expect
4 the aquaculture proposed rule to be published
5 before the end of the administration.
6 Aquaculture, pet food, and import certificates are
7 all written and they are at various stages of the
8 clearance process.

9 We have a regulatory pipeline and it is
10 only so big and there are only so many things that
11 can fit through that pipeline and these things are
12 waiting for the port to open, for the arrival gate
13 to open so that they can go through the process.
14 They are very far along in the process. We just
15 have to wait for that pipeline to open. I don't
16 know if pipeline is the right analogy, but maybe
17 I'll think of something better next time.

18 In terms of our plans for the coming
19 year, in terms of things that are new projects that
20 we plan to work on for 2017 around standards,
21 National List. We continue to implement previous
22 NOSB recommendations. Actually, this is -- some

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1 of these things are fairly far along in the process
2 so we should see some rulemaking on the National
3 List in 2017.

4 One thing to keep in mind is we have a
5 new administration coming in. It's going to take
6 some time for the new administration to get settled
7 and determine what their regulatory priorities are
8 and so things will probably slow down for a while
9 until that gets all sorted out.

10 For sunset we will be completing the
11 2017 sunset process this coming fiscal year. As
12 I have already mentioned, we should have a proposed
13 rule out on sodium nitrate in 2017. At least that
14 is the plan.

15 Other things that are under
16 development, the compost from the lawsuit on
17 compost. We are doing a Notice and Comment
18 Rulemaking on compost. That should be out later
19 in 2017. Then the big project that we are going
20 to work on in 2017 is improving oversight and
21 control of the organic trade.

22 There are many things that we have

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1 identified in the organic regulations that could
2 use improvement, could use tightening to improve
3 organic integrity, to improve control systems.
4 One of these is eliminating exclusions for brokers
5 and importers.

6 This is a thing that I think is really
7 important. It's 205.101(b). They are currently
8 excluded from certification so we are looking at
9 including them in the requirements to be certified
10 to make sure there is a complete audit trail. It
11 will help us with enforcement as well to eliminate
12 that exclusion.

13 Looking at the expiration date on
14 certificates, which is from a previous NOSB
15 recommendation, codifying the requirement for
16 unannounced inspections, clarifying compliance
17 procedures. There is some work in that area.
18 Then clarifying identification of non-retail
19 organic products.

20 These are some of the things that we're
21 looking at. We feel like this is an important
22 update, revisions that are needed to improve the

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1 regulations around the control systems that
2 protect organic integrity. We will be providing
3 more details of this as this project moves along
4 during 2017.

5 We also have guidance under development
6 for 2017. Final guidance on classification
7 materials and materials for organic crop
8 production. Those are actually final and ready to
9 publish and will publish hopefully relatively
10 soon. They are very close to being published.

11 We have draft guidance. This is the --
12 missing pieces here. Here we go. Okay. Draft
13 guidance on calculation of organic ingredients
14 also is complete so that should be published very
15 soon. We will be working on draft guidance on
16 grower groups. Then we will be publishing
17 instructions, interim instructions, on import
18 requirements for certifiers in 2017. That is the
19 plan. Then also
20 materials used in organic livestock production,
21 draft guidance on that.

22 Okay. So now moving to control

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1 systems, accreditation, certification and
2 oversight. This is an important topic that I think
3 we need to spend some time with today. It is the
4 accreditation and certification work and the
5 oversight that is done to protect organic
6 integrity.

7 I was thinking about this a lot last
8 night after the National Organic Coalition
9 meeting. At the NOC meeting there were
10 allegations made concerning imported organic grain
11 from Turkey. We have seen a major increase in
12 organic grain imports from Turkey over the last few
13 years and we've received complaints that the grain
14 isn't organic because there is not enough organic
15 production in Turkey.

16 We are undertaking an extensive review
17 and investigation of the organic corn imports and
18 we have learned a lot over the last few months. One
19 thing to point out is that in all this work we have
20 not identified any non-organic imports coming into
21 the US. We certainly identified areas for
22 improvement, areas that need strengthening, but we

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1 have not identified any non-organic imports in this
2 review.

3 We have learned that there is a very
4 comprehensive and a very effective control system
5 that is in place. There are areas for improvement
6 and we have plans to improve the system but organic
7 production in Eastern Europe has increased
8 dramatically.

9 There are many projects underway to
10 build capacity for organic production in Eastern
11 Europe. There are areas that need improvement but
12 we have not identified any non-organic grain
13 imports at this time. We will continue to review
14 and investigate and take appropriate enforcement
15 action when necessary, while at the same time
16 respecting the farmers, handlers, and certifiers
17 that are involved and their due-process rights.

18 So organic trade is expanding globally.
19 The US and the EU organic market are over \$80
20 billion in value. Many governments have
21 established organic standards and control systems
22 and this is a good thing. This improves the

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1 integrity of the whole system.

2 Import requirements can be barriers for
3 farmers and suppliers to access export organic
4 markets. Fraudulent certificates continue to be
5 identified. Alleged violations in foreign
6 countries can be complex and they can be
7 challenging to investigate and enforce. We
8 recognize all those things. There are many things
9 that we're doing to try to improve the system.

10 In terms of an international framework,
11 we have the CODEX Alimentarius in terms of organic
12 guidelines, in terms of standards. Then the two
13 major standards that because they are the two major
14 organic markets in the world really dominate in
15 terms of standards and those are the European Union
16 Organic Regulations and the USDA Organic
17 Regulations. In terms of reference points for
18 standards, those are the major points; CODEX, the
19 EU Regs and the US Regs.

20 We also have a very strong and
21 established conformity assessment system in place
22 worldwide through the ISO/IEC standards and this

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1 is for accreditation bodies like the National
2 Organic Program, as well as certification bodies
3 like the certifiers that do all the verification
4 work and those are ISO Standard 17011 for
5 accreditation bodies and then ISO Standards 17065
6 and 17021 and others as well for control bodies for
7 the certifiers. We have that context that helps.

8 It's really a pretty amazing system
9 that's been developed worldwide to protect organic
10 integrity. We have these organic standards.
11 They are very similar. There are differences
12 between the EU and the US and CODEX but most of the
13 standards are equivalent and very, very similar.

14 We have the standards, mostly agreed
15 worldwide. We have certifiers that verify that
16 organic farmers and handlers comply with those
17 organic standards. We have accreditation bodies
18 that ensure that certifiers are conducting
19 thorough and complete inspections, have qualified
20 personnel, are meeting all aspects of their
21 responsibilities as certifiers.

22 Certifiers are also involved in

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1 enforcement under their authority to issue notices
2 of noncompliance, issue notices of suspension and
3 revocation and provide those due-process rights to
4 the farmers and handlers. And then the competent
5 authorities, the governments involved, also are
6 involved in enforcement and take their appropriate
7 action under their respective authorities. Lots
8 of different parties involved in this overall
9 organic control system.

10 In terms of equivalency, there's a lot
11 of things in equivalency that help to protect
12 organic integrity. There are many things that we
13 look at when we look at these equivalency
14 arrangements. First of all, that the standards
15 are equivalent. That does not mean they are
16 identical. I means that they meet equivalent
17 outcomes.

18 We ensure that the competent authority,
19 that is the foreign government, that they provide
20 effective oversight over the certification bodies,
21 over the certifiers that they are responsible for.

22 That the control system within that

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1 governing authority, that competent authority, is
2 effective in terms of enforcing and protecting
3 organic integrity. They have civil penalties or
4 stop sales or some way of enforcing the
5 requirements.

6 The equivalency arrangements all
7 involve ongoing assessments of each other's
8 systems, annual reports of how the systems are
9 being implemented. There are critical variances.
10 Then there's a lot of cooperation on complaint
11 handling and enforcement. When there are
12 complaints that are involved in international
13 trade, we get a lot of assistance and collaboration
14 with our partners.

15 I would like to specifically talk about
16 Mexico to give you a more specific example of how
17 these trade arrangements can help to protect
18 organic integrity. There are 23 NOP accredited
19 certifiers that are operating in Mexico so we have
20 direct oversight over those certifiers. There are
21 1,635 currently certified organic operations in
22 Mexico so a large number of certified organic

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1 operations in Mexico.

2 There is also a lot of organic trade
3 between Mexico and the US. In 2015, \$154 million
4 of US organic products were exported to Mexico so
5 Mexico is a fairly large and emerging organic
6 market. Then imports from Mexico were \$141
7 million led by coffee, avocados, and bananas.

8 One of the things on the numbers is that
9 we don't have complete trade data because there's
10 only certain commodities that there is a harmonized
11 trade code established. We are working to
12 establish more but we do believe that there is quite
13 a bit more product than what is represented here.
14 This is only the numbers that represent those trade
15 codes that have been established.

16 So in terms of working with Mexico,
17 Mexico is in the process of implementing their
18 organic regulations, the Mexican organic
19 regulations. They have been doing that for a
20 number of years and it is getting to the final
21 phases of their implementation. We've had a lot
22 of technical exchange with SENASICA which is the

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1 competent authority in Mexico.

2 They have observed audits that we've
3 conducted of certifiers. We've observed
4 agriculture and grower groups. We've done peer
5 review assessments using 17011 criteria for Mexico
6 as a competent authority, as well as 17065 for the
7 certifiers that they accredit.

8 We have ongoing negotiations to
9 identify and discuss and resolve issues and to
10 create a mutual understanding to create confidence
11 in each other's respective control systems.
12 Recently we established what we call an organic
13 compliance committee which is a proactive strategy
14 to strengthen compliance and enforcement in trade
15 between the US and Mexico.

16 This includes the requirement for
17 import certificates. Import certificates are
18 part of CODEX guidelines. We require import
19 certificates under most of our equivalency
20 arrangements. For instance, with the European
21 Union with Switzerland, Japan, and Korea import
22 certificates are required but they are not required

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1 outside of these equivalency arrangements.

2 We are working to require import
3 certificates for all imported organic products.
4 With the establishment of this Organic Compliance
5 Committee with Mexico we will be implementing this
6 requirement for import certificates for all
7 organic imports coming from Mexico. The plan is
8 to implement that in January of 2017.

9 The Organic Compliance Committee is
10 also doing a number of other things to strengthen
11 oversight; tracking complaints, monitoring trends
12 in noncompliances that are identified, providing
13 training to certifiers, doing some market
14 surveillance residue testing, and supporting
15 certifiers that are working in high-security risk
16 areas. There are some areas in Mexico that need
17 some support in terms of security, in terms of
18 conducting inspections and unannounced
19 inspections so we are working with Mexico on that.

20 So those are some specific things that
21 we do to work with foreign governments to protect
22 organic integrity on a worldwide basis.

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1 Certifiers have a very important role, not just in
2 conducting their inspections and verification of
3 the operations that they certify, but as they do
4 that verifying that the terms of these equivalency
5 and recognition agreements are met.

6 They have to verify, for instance, that
7 critical variances are met for exports. They have
8 to review attestation statements for imports and
9 exports that are involved with trade with Canada.
10 They have to verify labeling requirements.

11 They have to issue certificates for
12 exports to certain countries. They have to verify
13 the authenticity of NOP import certificates when
14 those are required so they have a role to play here.
15 We provide training and oversight to those
16 certifiers to make sure that they are doing that
17 effectively.

18 So I provide that with all that
19 background to talk about some of the things that
20 we're looking at in terms of strengthening the
21 control system. I already mentioned a few times
22 this concept of requiring organic import

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1 certificates. It is currently required under
2 equivalency arrangements.

3 It's included in the CODEX guidelines.
4 They will assist in product tracking, audit trail,
5 and enforcement. We are looking at getting a
6 proposed rule out next year on import certificates
7 for all organic imports.

8 Also I mentioned requiring
9 certification of importers, brokers, and traders.
10 We feel like that is a very important initiative
11 that we move forward on next year. That will also
12 assist in product tracking, audit trail, and
13 enforcement.

14 Also clear identification of organic
15 imports. That is something that needs
16 strengthening as well as we move more to electronic
17 records and database tracking and notification and
18 working with the various agencies that are
19 responsible for imports at the port of entry.

20 And making sure that we have a complete
21 audit trail from farm to market.

22 And one of the outcomes of this is

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1 hopefully much better data on organic trade. This
2 is an area that we certainly could use some better
3 information on how much trade is actually
4 happening.

5 So one other thing that we're doing, and
6 I'm almost done here, is we are working with the
7 Inter-American Commission on Organic Agriculture.
8 This is the competent authorities in the Latin
9 American countries that their goal is to strengthen
10 control systems, organic control systems in Latin
11 America, support the development of internal
12 markets in Latin America, providing technical
13 support to organic producers in the trade in Latin
14 America so we are doing a lot of work to support
15 the work of this Inter-American Commission on
16 Organic Agriculture.

17 The annual assembly on CIAO, which is
18 a Spanish word for Inter-American Commission on
19 Organic Agriculture, will be held in Portland,
20 Oregon this year so we're sponsoring that in July.
21 We also are providing certifier training through
22 CIAO and also training to these competent

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1 authorities to help to strengthen the control
2 systems in Latin America.

3 In summary, we are doing a lot of work
4 to enhance organic control systems. We also
5 provide a lot of support to farmers, handlers, and
6 others interested in organic production and
7 handling through a sound and sensible initiative
8 through a lot of the work that USDA does through
9 the Organic Working Group, through various
10 agencies at USDA.

11 There is a very strong support network
12 that has been developed over the last number of
13 years to support all aspects of organic production
14 and marketing. We are also working to clarify and
15 improve organic standards.

16 A lot of work has been done. There's
17 a lot of work that needs to be done. Appreciate
18 all your work to support our work and your comments
19 so we can continue to make this the best system
20 possible. Thank you very much. I think I went a
21 little bit long but we're on to the next thing.

22 CHAIR FAVRE: Thank you, Miles.

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1 Does any of the Board have any questions
2 for Miles? Thank you. I know there's --

3 Yes, Jean.

4 DR. RICHARDSON: Back in 2012 in the
5 CACS I was lead on doing the calculation the
6 percentage of organic and organic ingredients.
7 You keep telling us it's going to come out. Could
8 you give me any specificity as to where that is
9 right now? Because it's really important.

10 MR. McEVOY: Yes. We were hoping that
11 would get published before this meeting. It is
12 complete. There have been some things that have
13 distracted the USDA, I guess, over the last few
14 weeks so it hasn't been published yet but should
15 come out any day now.

16 CHAIR FAVRE: Zea.

17 MS. SONNABEND: Thank you, Miles.
18 Back to the Organic Integrity Database. I heard
19 you say yesterday that there would be the
20 possibility for growers who produce seed to have
21 seed listed for sourcing in the database if I heard
22 correctly.

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1 I'm wondering if, and I may not be as
2 familiar with the exact structure of the database
3 as I should be, but for a small farm like mine who
4 grows a small amount of seed and wants to sell it
5 to seed companies but not really to individual
6 people who go searching for seed, I would really
7 not want to have my listing reflect -- I mean, I
8 don't want people to be calling me up for a few
9 ounces of seed here and there, you know.

10 I'm wondering if you distinguish that
11 in the database because already as it is, you know,
12 if I have two mulberry trees certified and then I
13 get calls for a ton of mulberries. That's just
14 from the CCOF database. I think it's really
15 important to think it through an opt-in system like
16 Organic Seed Finder where people choose to have
17 their seed listed seems better than automatically
18 have it listed as a source of seed.

19 MR. McEVOY: That's a good point.
20 There are a lot of things that -- the Organic
21 Integrity Database has a lot of capacity, a lot of
22 ability to list specific products but it all is

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1 based on the information submitted by the certifier
2 so the certifier is the one that provides that
3 information in the details.

4 This is something that I think needs to
5 be discussed with the developers of the integrity
6 database and the certifiers of how best to both
7 provide information about what organic seeds are
8 available. The integrity database has some
9 capacity. It is also the seed finder and we have
10 supported that effort as well. I don't know what
11 the exact answer is but we need to keep working on
12 what is the best format for providing as much
13 information as possible.

14 CHAIR FAVRE: Scott.

15 MR. RICE: I had a question for you,
16 Miles, on the tree lumber guidance. I'm curious
17 to hear if you would be open to issuing that as
18 another draft as opposed to a final given the number
19 of comments and interest in that.

20 MR. McEVOY: Certainly that's
21 possible. With guidance we have a lot more
22 flexibility in terms of how we move forward with

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1 that. We haven't reviewed the comments at this
2 point so I can't really respond whether or not we
3 want to come out with the final guidance or another
4 draft.

5 The other thing to keep in mind is that
6 with guidance we're not -- we are able to continue
7 to talk about guidance documents after the comment
8 period closes. It's not the same ex parte process
9 as a formal notice and comment rulemaking process,
10 so let's keep the conversation alive around treated
11 lumber.

12 CHAIR FAVRE: Harriet.

13 MS. BEHAR: So recently there was a
14 meeting of people who got together and discussed
15 personal care products and the labeling of those
16 that are kind of areas that are outside the scope.
17 I'm just kind of wondering what is the interface
18 with the National Organic Program and those
19 questions? And I'm happy to see apiculture is
20 still flying around.

21 MR. McEVOY: I'm going to let Lisa
22 cover that. I was not able to make that meeting

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1 so I'll have Lisa Brines respond.

2 DR. BRINES: Sure. Thank you. So,
3 Yes, this is written in response to the roundtable
4 that FTC and USDA co-hosted on October 20th. FTC
5 had put out a report about consumer expectations
6 as it relates to organic labeling on
7 non-agricultural products. That report is now
8 available to the public. They are accepting
9 written comments on that report until December 1st.
10 So I'd certainly encourage stakeholders to submit
11 comments to the FTC on the content of that report.

12 The intent of the data gathering was
13 really for products that fall outside of the scope
14 of NOP, so things like some textiles that are
15 processed that are sold as organic. That was the
16 intent but they are accepting comments, so I'd
17 encourage those to get the report and to make
18 comments if you have them. And there's a website
19 set up with that information through FTC.

20 CHAIR FAVRE: Francis.

21 MR. THICKE: Miles, you spoke about
22 equivalency with other countries. I'm wondering

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1 if hydroponics continues to grow and gets to become
2 a significant part of our production in the US, how
3 might that affect our equivalency with the European
4 Union where there is virtually no allowance for
5 that?

6 MR. McEVOY: Yes. I was just over
7 there a few weeks ago and met with a number of the
8 EU officials on -- and we talked about the
9 hydroponics issue. One of the things that my
10 understanding of the EU's perspective on this is
11 that what we call organic hydroponics they may not
12 consider hydroponics.

13 There are a number of systems in
14 Northern Europe that are bioponic-like systems
15 that are certified organic under the EU
16 regulations. So I think it's partially a language
17 understanding -- or misunderstanding of what we
18 mean by hydroponics, because organic hydroponics
19 are significantly different than the classical
20 hydroponic system.

21 The EU regs specifically say you can't
22 grow hydroponic crops in an inert substrate. The

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1 bioponic systems -- the organic hydroponic systems
2 -- could be argued that there's no -- it's not an
3 inert substrate that they are produced in.

4 There are systems in Northern Europe in
5 particular where there are greenhouse operations
6 that are using these bioponic-like systems.
7 Further discussions could occur. There is no
8 critical variance on hydroponics with the European
9 Union at the current time.

10 There is a critical variance with
11 Canada around hydroponics systems, is that any
12 hydroponically produced products, organic
13 hydroponics produced in the US, can't be exported
14 to Canada but it's not part of the critical variance
15 with the European Union.

16 CHAIR FAVRE: Thank you, Miles.

17 Next on our agenda is the NOP Peer
18 Review Update. We are going to have our Board
19 Member Dr. Jean Richardson give us an update on
20 that. She will actually be acting as one of the
21 authors of this report. Hence, she's going to go
22 up and speak just like the regular public does.

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1 DR. RICHARDSON: Do we have slides?
2 Not particularly. That's going to be interesting.
3 Good job, I have them in front of me.

4 All right. The reason why I'm standing
5 up here is that, although in terms of my position
6 as a volunteer on the NOSB -- that is certainly
7 influenced and had a very useful impact on giving
8 me detail to work on the Peer Review Panel that took
9 place this year -- this report is given in my
10 capacity as a contracted person with the American
11 National Standards Institute. Hence, I'm up here
12 presenting this report to the Board rather than sit
13 there in my capacity as a volunteer.

14 I have a few slides that I've put
15 together to try to give some background because
16 this, I think, is probably the first time this type
17 of report has been given and hopefully it will be
18 the first of a regular annual report on peer review
19 of the NOP. First, the general background. The
20 peer review is required. The administrator is
21 required to do this under 205.509 and -- in order
22 to determine that it meets its own accreditation

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1 procedures.

2 The history on this is that back in 2005
3 and 2014 the ANSI -- American National Standards
4 Institute -- undertook this review at the time and
5 provided detailed information posted on the web in
6 terms of the areas of improvement -- the OFIs as
7 they are called -- were identified with follow-up
8 as to how the NOP then addressed those issues.
9 Similarly, in 2010 the NOP contracted with NIST.

10 These reports are on the website but I
11 have to admit -- and looking again this morning,
12 with the rearrangement of the website over the last
13 year or so, it's extremely difficult to find these.
14 I am actually working right now to see if we can
15 get up this report that I have in my hand -- the
16 detailed report -- posted. It has not yet been
17 posted as of this morning, the one that I'm talking
18 about today. Hopefully it will get posted before
19 the end of this week, maybe even today. When it
20 does get posted, I will provide it through
21 Michelle.

22 We will put up the actual link so that

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1 people in the audience and on the NOSB can be able
2 to read the full report and not just the review that
3 I'm doing here today. So it's difficult for the
4 NOSB, I know, probably even to pose questions on
5 the things that I'm talking about because they
6 haven't had the opportunity to read the entire
7 report.

8 We should note also that foreign
9 governments have regularly conducted peer reviews
10 of the NOP and several are listed there and that
11 is an ongoing activity that takes place in order
12 to ensure that the NOP is in compliance with the
13 governments with which it has memoranda. Some of
14 this is already covered a little bit with what Miles
15 was saying earlier.

16 In terms of their responses, an example
17 that I have is that in 2014 there were 14
18 opportunities for improvement and the NOP provided
19 a response to that which is posted, and so that is
20 worth looking at. I'll talk a little bit more
21 about that later when I talk about the methodology
22 of what we did and how we did it.

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1 So a little bit of history is important
2 here to see the role of the NOSB in helping to move
3 us forward with this extremely important area as
4 the NOP and the organic program has matured over
5 the last few years. NOSB has made strong
6 recommendations to the NOP on peer review in 2001,
7 2005, 2009. In 2010 the OIG determined that just
8 using third-party organizations to conduct these
9 peer reviews didn't satisfy 205.509. So the steps
10 forward -- it's always slow, isn't it?

11 By 2014 the NOP asked the NOSB if they
12 would provide some recommendations to establish a
13 repeatable and transparent process. And I think
14 that those are important terms to keep in mind, that
15 whatever we do from here on needs to be both
16 repeatable and transparent. So when I was on the
17 CACS subcommittee, we sought public comment and we
18 did provide a detailed recommendation to the NOP
19 in April of 2015.

20 The next line on there says that the
21 peer review panel was contracted in 2016. It was
22 -- in effect it was contracted in October 2015, but

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1 nothing really seems to have gone forward with it
2 in terms of its actions until the beginning of this
3 year in 2016.

4 So this was the group that was
5 assembled. The individuals you see on there and
6 the kind of people that were selected to be on there
7 were based on a combination of the recommendations
8 for the types of people that should be on this
9 repeatable panel by the -- from the document of the
10 NOP in fall of 2014, as well as from the
11 recommendations of the CACS that we submitted in
12 April of 2015.

13 So we have -- there is a peer lead
14 assessor who would normally be giving this report
15 here rather than me. We did have -- I don't need
16 to go into the details but it became a complex
17 process because the lead auditor that had been
18 identified had some serious health problems so
19 there was a lot of stumbling at the very beginning
20 and Robert Miller came in towards the end of this
21 process to provide the assistance as it related to
22 an analysis of the ISO 17011 standards.

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1 There was a little bit of backwards and
2 forwards with us making slow process initially.
3 The other panel members are myself because of my
4 background on the CACS over the last five years and
5 knowing what's going on right now at NOP. Also
6 because I've been involved in organic
7 certification directly for a long time, etc.

8 It was great to have Jim Riddle, who has
9 a long association with the organic standards and,
10 in fact, wrote some of those earlier
11 recommendations that I referenced earlier in terms
12 of the history of trying to get this off the ground.
13 He is a very active member of this panel providing
14 some really important opportunities for
15 improvement for the NOP.

16 The other two members -- sorry, the
17 other member, Susan Rank, is a person trained and
18 works always with ANSI, as well as the two program
19 persons, Elizabeth and Ronaldo at ANSI. It was a
20 very interesting and diverse panel, each of us
21 bringing very different perspectives to analyzing
22 the documents that we had to review.

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1 The methodology here is pretty critical
2 because that is part of the thing that has to be
3 repeatable over time. We should have been
4 provided at the beginning with some sort of a useful
5 checklist. This sort of template should have been
6 in place before we started work because it turned
7 out it really wasn't. So we developed a
8 methodology, sort of a checklist of ways in which
9 we would analyze these materials based on the scope
10 of the contract provided and the information
11 provided by the NOP in the earlier documents by the
12 NOSB.

13 We had a number of panel meetings where
14 we met both by conference call and face to face.
15 One of the first things to do was to select
16 certifier files to review. This is a highly
17 detailed process and we had provided specific
18 criteria both in the CACS NOSB recommendation and
19 through the NOP. We'd provided specific sets of
20 criteria for the types of files that we wanted to
21 review. There had to be some that were large, some
22 that were small, some that were medium size, some

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1 that were overseas, some where there had been a
2 suspension.

3 There was a set of specific criteria
4 which were identified and selected and narrowed
5 down from a group of files provided by the NOP that
6 had been dealt with over the previous 12 months --
7 so they were all fairly recent, some of them, in
8 fact, ongoing -- that would allow us to review those
9 files in great detail. We then
10 undertook a detailed review of five different files
11 -- certifier files -- to find out how things have
12 been going and I can't describe to you the amount
13 of detail you then go into in order to do this. We
14 looked, for example, at a document which had been
15 developed by the NOP in response to previous
16 concerns brought up by previous peer reviews to be
17 more consistent in their checklists.

18 NOP had developed a document -- which
19 is NOP-2005 if you want to look it up in the handbook
20 -- which is a 102-page document filled with links
21 to every possible policy or quality control
22 document that you can possibly imagine. Sort of

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1 like your ultimate nightmare of looking down into
2 a whole range of documents.

3 It is absolutely astounding to see the
4 range of things that each of the auditors were
5 supposed to do when they went out to review these
6 various certifiers worldwide. So we did a
7 detailed analysis not only of how they used their
8 own documents but also looking at the documents and
9 comparing them with each other. I was
10 particularly interested from my law background to
11 be able to compare all of the various policies.

12 So we looked -- if you go to the
13 handbook, there's -- I don't know, whatever it is,
14 70 or so that relate directly in the handbook of
15 terms of policies to -- policy-type documents to
16 accreditation. We read all of those 70 in great
17 detail and analyzed them and compared them with
18 each other to come up with some of the interesting
19 flaws within them, which was -- not every one of
20 which we'll get into today, of course, obviously.
21 We looked at all of the procedures and anything that
22 should be used in the accreditation process.

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1 We did not review previous reports.
2 This was seen by a couple of us on the board -- on
3 the panel to be a bit of a problem. We would have
4 liked to have had that as part of our purview, but
5 it was not part of our purview to review and compare
6 the previous actions. And we hope that going
7 forward -- once we've got a template that is easily
8 repeatable -- that we will, in fact, each year
9 analyze previous years' areas of opportunities for
10 improvement and see if, in fact, those changes have
11 been put underway, knowing that many of these will
12 take several years, obviously, to be tidied up as
13 we go forward.

14 Three of us -- me -- myself, Jim Riddle,
15 and Susan Rank, we were the three that analyzed the
16 files in great detail. Bob Miller was the person
17 who was assigned as the lead auditor through ANSI.
18 He was the person assigned to do the analysis of
19 the ISO 17011 analysis.

20 We each of us prepared individual
21 reports in detail from our different perspectives
22 and then we got together and critically reviewed

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1 each other's individual reports. I believe that
2 these individual reports together with the
3 consensus report will be part of what is posted for
4 the public record.

5 We critically reviewed our reports,
6 discussed, and hammered out which would be the main
7 areas of opportunities for improvement that we
8 would put forward. All of our comments as
9 individuals are still there in the individual
10 reports for you to look at to see the broader scope
11 of the areas of concern that we had identified that
12 we believe need to be improved over the next few
13 years even though they don't rise to the level of
14 being of significance.

15 Then we finished this work in September
16 and submitted the consensus report and all the
17 individual reports to the NOP. There was then
18 communication with the NOP and back to ANSI and
19 minor technical information was modified and the
20 final report is now available for being looked at.

21 The findings will be considered part of
22 the NOP quality management system and corrective

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1 actions are made as necessary and appropriate.
2 And the findings, we are required to present them
3 to the NOSB, which is what I'm doing now.

4 So if we can go to the next one, that's
5 the lead report. Michelle talks to herself, you
6 know, while she's up here doing this. Yes, you need
7 it, right. This is the document that was prepared
8 by Bob Miller, the lead auditor in this panel
9 review. We utilized the NOP-1031 which was
10 promulgated on 5/12/16. Next one -- promulgated in
11 May. We'd already started our work at this time and
12 it was a little bit of a frustration for us but,
13 nonetheless, we did work from this document.

14 It would have been nice to have got it
15 earlier. And we -- it was modified by further
16 information from Miles on 5/19 which limited some
17 of the -- I think one of the things that it included
18 there was that we wouldn't be -- because we had
19 questions, obviously, which had gone back to the
20 NOP and this was a response to our questions about
21 how to get this whole methodology in place. This
22 is one of the ones that said on 5/19/2016 was --

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1 that we were not going to be looking at the previous
2 reports as part of this initial new peer review
3 panel.

4 So the panel was tasked with looking at
5 all the policies and procedures as I've just
6 described to you and to review implementation of
7 the whole accreditation process through the
8 selected file review which I have described to you,
9 and then to report them both to the deputy
10 administrator and to the NOSB.

11 The key findings were that the -- in
12 general, the NOP does a good job. A really good
13 job. I mean, the NOP program worldwide is
14 incredibly complicated and all of these policies
15 and procedures which have come up over the last 20
16 years really just make it -- you have to pay really
17 great attention to the fine detail and look into
18 everything to see just what an amazing job they
19 managed to do despite the limited number that they
20 look at worldwide and the budget and staff
21 constraints that they have to deal with. It was
22 very interesting work to do.

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1 There were a number of opportunities
2 for improvement which are the standard way in which
3 this kind of peer review panel information is then
4 provided and fed back to lead for onward
5 improvement of the NOP. We know that the
6 accreditation body's procedure lacked clarity to
7 verify that the auditors are reviewing the
8 regulatory status of ingredients and processing
9 aids.

10 In other words, when we looked at the
11 files to see did the inspectors or the auditors,
12 as they are called -- remember, you've got
13 auditors, assessors, inspectors. All these terms
14 are used differently by different agencies and
15 entities worldwide. We found that it wasn't clear
16 whether or not the inspectors, the auditors, had,
17 in fact, verified the ingredients and processing
18 aids being used. And, of course, it comes back
19 actually to my nagging concern that we still don't
20 have the calculating percentage organic, because
21 that's one of the challenges often when these
22 materials are being looked at worldwide.

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1 Another item that we found was during
2 file review there was one case where they weren't
3 following the NOP-200 policy document -- sorry,
4 2000 policy document. That's the foundation
5 document for accreditation that sort of in theory
6 would be the document in which you would find
7 reference to all the other documents that are being
8 used, although we did identify that there was a
9 failure in one instance to appropriately notify the
10 body of a suspension.

11 We also found that consistent
12 accreditation records are not being used and
13 retained in order for the NOP to be in full
14 compliance with 205.502, which is application for
15 accreditation. And I think part of the reason for
16 that is that there are too many darn documents.
17 That is a very professional term. There is just an
18 enormous number of documents, a plethora of
19 documents for them to look at and sometimes a lack
20 of concordance between those policy documents.
21 Which I think makes it a challenge, especially if
22 it's an international applicant. Next

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1 key finding -- yes, it's there. NOP-20054. The
2 witness audit checklist we found is not complete.
3 The procedure doesn't provide the necessary
4 control to document the adequacy prior to use.

5 We also found that the accreditation
6 body does not ensure that there is immediate
7 notification to the NOP for potential changes by
8 certified bodies that could affect compliance.
9 The accreditation body is required to ensure a
10 balanced representation of interested parties with
11 no single party predominating. There is a need for
12 a balanced representation of interested parties,
13 which is not just a requirement in NOP-2012, clause
14 2 qualifications, but it also ties directly to an
15 analysis of the application to the ISO standards
16 at 4.3.2.

17 Finally, these were the items from
18 reviewing ISO 17011, clause 4.3.2, as I just said,
19 where conflicts are identified, appropriate action
20 shall be taken, but the procedure in place doesn't
21 identify procedure to determine appropriate
22 action.

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1 Secondly, the ISO clause 5.3 requires that all
2 documents should be controlled. We found that not
3 all documents are adequately controlled.

4 The NOP indicates it has procedures for
5 identification collection indexing, accessing
6 filing storage maintenance and disposal of the
7 records, but specific procedures are not
8 identified. Finally, just a note, is that the ISO
9 guide 65 has been superseded by the ISO 17065 but
10 some of the documents and procedures scattered
11 through all these many policy documents still refer
12 to Guide 65.

13 Those are the main findings of the ANSI
14 panel. What I would say is that we believe what
15 we did was we developed a procedure which can be
16 replicated and which needs to have greater
17 transparency. I am concerned that it was not
18 posted before this meeting and that members of the
19 public have not had the opportunity to comment and
20 neither have the NOSB members themselves.

21 Hopefully next year, when -- because
22 this is supposed to be an annual review. Hopefully

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1 next year when this takes place there would be able
2 to be more discussion with the NOSB and questions
3 based on public comment that would have come in so
4 that we can clearly show that the issues are being
5 addressed.

6 I will make one additional comment is
7 that one of the observations that I had -- and if
8 you read my individual report, you see I commented
9 on there quite a bit -- is that there is some
10 carelessness in the way in which their documents
11 are handled. Sometimes it will say shall, should,
12 may in different places, different things.
13 Legally they mean different words.

14 We also found there wasn't always
15 correct dates on things. We also found that there
16 were an enormous number of documents which are not
17 sent out to the public but which are used only
18 internally. Looking at some of these -- including
19 1031, which is the document we use for the scope
20 of this review, that is an internal document and
21 I believe it should be an external document open
22 to the public. Those are the types of things which

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1 I think we can pay more attention to in order to
2 increase the transparency of the process as this
3 peer review continues to go forward.

4 What I would like to do at this moment
5 is to now feed it back to Miles and ask if the NOP
6 has had the opportunity to read the entire report
7 and if you have had the opportunity to consider what
8 would be the responses that you have to the ANSI
9 recommendations and areas of improvement --
10 opportunities for improvement.

11 MR. McEVOY: Yes, we have reviewed the
12 report and we have preliminary corrective actions
13 that we have developed and we do have some slides
14 that will show those. In terms of 1031, the
15 Internal Peer Review Procedures, that is now
16 available on our website so we put that up
17 yesterday.

18 There's not really any particular
19 reason why it was an internal document. It was
20 basically the same procedure that was presented to
21 the National Organic Standards Board that we asked
22 for your review and recommendation. For some

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1 reason it was put into our quality manual as an
2 internal document. It is now an external document
3 and available for review. It seems appropriate
4 that it is an external document.

5 In terms of the ANSI reports
6 themselves, they will be posted later today is my
7 understanding. There were some errors that needed
8 to be corrected and that has delayed our ability
9 to be able to post them but they are ready and they
10 are working on getting those things posted today.

11 This process of peer review is both in
12 the statute and in the USDA organic regulations.
13 It's been an ongoing challenge, I think, for the
14 program to figure out how to implement this peer
15 review process. There has been multiple
16 recommendations from the National Organic
17 Standards Board on this process.

18 We also had an OIG audit finding in 2010
19 that indicated that we had not implemented the peer
20 review requirements as per the regulations and the
21 statute. So this new process is -- as Jean says,
22 this is the first year that we are implementing this

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1 peer review process. It is a process that will be
2 conducted annually.

3 There is the intent that the peer review
4 process will look at the findings from the previous
5 year to see how the corrective actions have been
6 addressed. Thank you very much to Jean and the
7 whole team for the work that they did on this peer
8 review. I think that will help us tremendously in
9 terms of improvements to the accreditation
10 process.

11 So -- let's see what we have here. So
12 we did contract with the American National
13 Standards Institute to conduct this particular
14 peer review process, as Jean said, where
15 independent auditors were involved. It's driven
16 by the memo to the NOSB on peer review of NOP
17 accreditation. It's a very important process for
18 our continual commitment to continuous
19 improvement.

20 Our goal is to align with ISO/IEC 17011
21 that applies to accreditation bodies like the
22 National Organic Program. We are a small program

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1 serving a large and growing industry. We have a
2 stronger but accreditation procedures, skilled
3 pool of auditors who receive ongoing training.

4 Those several are new to the National
5 Organic Program and they go through a rigorous
6 training and review process before they are
7 approved to go out as, first, second auditors and
8 then lead auditors. We also provide annual
9 training to certifiers on a number of different
10 topics. We have regulations, checklist
11 guidelines, procedures, and the NOP handbook as
12 reference documents.

13 So corrective actions based on the
14 findings. The audit found that not all NOP
15 documents are adequately controlled so we are
16 actively improving processes that will make it more
17 consistent in how the team applies its
18 accreditation procedures and checklists. This
19 will work towards avoiding inconsistencies in the
20 future.

21 We are planning to inventory where
22 document controls are lacking and in this fiscal

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1 year implement process improvement for document
2 management and control. It's something that we've
3 always done but this year we are putting additional
4 resources into improving our document management
5 and control process.

6 In 2017 we will make sure that all
7 auditors consistently use the correct version of
8 the checklist. That was one of the findings, is
9 that some auditors were not using the most
10 up-to-date version at times. We recognize the
11 importance of records management. We've made
12 significant progress and will continue to improve
13 in this area.

14 Additionally, we will update the
15 out-of-date references in terms of replacing
16 ISO/IEC Guide 65 with the correct reference to
17 ISO/IEC 17065. As government employees, NOP staff
18 adhere to strict conflict of interest and ethics
19 laws. These rules and any necessary enforcement
20 steps are detailed in USDA directives but are not
21 included in the NOP's quality manual.

22 We will continue to strictly follow all

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1 these federal laws related to conflict of interest
2 and ethics. This is part of our oath when we become
3 federal employees and civil servants. We will
4 update our quality manual to explicitly document
5 that these are existing requirements.

6 Also, in 2017 we will update our
7 procedures to help auditors more clearly document
8 how they perform ingredient and processing aid
9 review when they are auditing certifiers. This is
10 something that is being done, it just needs to be
11 documented more completely that this is being done
12 during the audit of the certifier's process.

13 Certifiers need to notify the NOP when
14 changes occur that could impact compliance. NOP
15 will provide more examples to certifiers of when
16 this applies and we will -- an example of that is
17 when a certifier adds a satellite office to their
18 organization. So they would need to notify us if
19 they are adding a certain satellite office to their
20 organization that is conducting NOP certification.
21 And we will provide that clarity through training
22 and other ways that we communicate with certifiers.

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1 We appreciate the constructive
2 feedback. We look forward to continuing to refine
3 our records management and continue to work with
4 ANSI and the Peer Review Panel to strengthen our
5 accreditation procedures and support the organic
6 integrity and the organic community. Thank you
7 very much for that.

8 DR. RICHARDSON: Thank you, Miles, for
9 your response on behalf of NOP. I should just
10 mention to everybody as I do have a copy of the
11 report with me if anyone wants to look at it. I
12 also would be happy to answer questions from the
13 Board as we go through. I'll be here until Friday
14 obviously like all of you.

15 Same for folks out there that had
16 questions. I was not at the NOC meeting yesterday.
17 If you have specific questions under what we did,
18 how we did it, the idea is that these will be
19 transparent peer panel reviews and I'm happy to
20 answer anyone's questions. Any questions from the
21 Board right now?

22 CHAIR FAVRE: Harriet.

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1 MS. BEHAR: Not so much a question but,
2 just looking at the audience, I know this is not
3 the most exciting topic for most people but it is
4 an extremely important one. As an organic
5 inspector for many years I know that the importance
6 of this peer review trickles all the way down to
7 the very smallest vegetable grower, that it is very
8 important to them that the program under which
9 their livelihood and their lifestyle depends is
10 also meeting that continuous improvement.

11 And so to the NOP, I would say any
12 annoyances that you might feel about people being
13 nitpicky or wanting to -- you know, to push that
14 continuous improvement, that is felt all the way
15 down the chain, the certifiers, the inspectors, the
16 operators. This is really an important part of
17 continuous improvement and we are all in this
18 together and we all want to succeed.

19 CHAIR FAVRE: Tom.

20 VICE CHAIR CHAPMAN: This is a question
21 for Miles. Can you provide some more details on
22 how the peer review process will continue into

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1 2017? Are there timelines or plans around that?

2 MR. McEVOY: I don't know the -- I don't
3 know where we are in the contracting process but
4 we are certainly planning on contracting with ANSI
5 again to conduct the peer review process and follow
6 the same procedures that we followed this year. I
7 think it will be -- go a little more smoothly this
8 year because they worked out some of the bugs.
9 This is the first year that ANSI has done it. So
10 it is certainly started. It is the new fiscal
11 year. This one is ending but we plan to follow the
12 same process in 2017.

13 CHAIR FAVRE: Scott.

14 MR. RICE: I heard it mentioned that --
15 obviously, a continuing process and, Jean, you
16 mentioned continuing to have that panel. Is that
17 going to be the same members or do you see that
18 changing year to year? I didn't catch exactly how
19 that would work.

20 MR. McEVOY: The NOP doesn't select the
21 panel members. The contracted peer review body is
22 the one that contracts with the assessor. We

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1 review who are the people that are put forward by
2 ANSI -- and we assume that it will be ANSI again
3 this year, but it's the peer review assessment body
4 that chooses those panel members.

5 CHAIR FAVRE: Emily.

6 MS. OAKLEY: This is a question for
7 Jean and Miles, I guess. In terms of reviewing a
8 metric for how to judge improvement over time in
9 creating something that would allow future panels
10 to examine the opportunities for improvement and
11 measure the extent to which they are improved, is
12 that in this current report, or how do you plan to
13 measure that going forward?

14 DR. RICHARDSON: So you want to say how
15 we would measure this year's against next year's?
16 It hasn't been done like that in the past because,
17 as I understand it, the criteria and the mechanism,
18 the methodology used in the previous panel reviews
19 was not the same as the one that we followed.

20 This one we have now I think is a robust
21 criteria based on a repeatable sort of checklist
22 and a transparent document that we will be able to

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1 say, okay, here is how we did it last time. We'll
2 do it exactly the same way, so to speak, next time.
3 I don't know for sure exactly who is going to be
4 on that panel again. I don't know whether it's
5 going to be exactly the same four people or not,
6 that -- assuming ANSI is contracted.

7 But that template would be being used
8 if it was with ANSI. We would then say, okay, so
9 let's -- based on what we've come up with this year,
10 how can we then compare the OFI that were proposed
11 from last year and see if, in fact, they have made
12 any progress towards changing those. Some will be
13 simple to change, you know, because they're sort
14 of secretarial, like, you know, shape-up. Just
15 change these documents and get them all tidied up.
16 Others will be more complex to do, and so we will
17 be able to hopefully this time next year provide
18 to the Board an analysis comparing last year's with
19 this year's report. Perhaps there will be also the
20 ability to meet with staff.

21 We didn't meet with staff last time,
22 that wasn't -- NOP staff. We did it at the ANSI

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1 headquarters and I don't know if that will happen
2 or not. Just stay tuned. I certainly intend
3 staying on top of it regardless of where it goes.

4 MR. McEVOY: Yes, I would just say that
5 how we handle this with a certifier, for instance,
6 is that when there are findings -- and there almost
7 always are some findings, there is always room for
8 improvement -- then the certifier has to respond
9 with corrective actions. Then we review that
10 corrective action to see whether or not that is
11 acceptable or not based on a number of criteria.

12 Then the next time that we go in, we
13 verify that those corrective actions have been
14 taken. I would see a similar process here. But
15 we haven't worked out all those details because we
16 don't have that ongoing relationship with the
17 assessment body, with the ANSI at this point.
18 Maybe that is something we can do in the future.

19 As we finalize those corrective
20 actions, what would usually happen that goes back
21 to the assessment body and then they review that
22 to see that that's adequate to address those

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1 opportunities for improvement. Then they verify
2 that those things have been done in that following
3 cycle.

4 CHAIR FAVRE: Any other questions from
5 Board members?

6 Tom.

7 VICE CHAIR CHAPMAN: Would it be
8 possible in the future to do a multi-year contract
9 with a peer review assessor or is there other
10 reasons why that's prevented?

11 MR. McEVOY: Yes, I'm not sure. We
12 do multi-year contracts for other things so I don't
13 see why not, but I'm not up on the details on what
14 we're doing here. I can find out for you and report
15 back at the Executive Subcommittee.

16 VICE CHAIR CHAPMAN: That would be
17 great. Thank you.

18 CHAIR FAVRE: Thank you very much,
19 Jean, for a great presentation and, Miles, for your
20 response.

21 Moving on into our agenda, we are going
22 to take a few minutes now, I just want to give you

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1 a little bit of an overview from the NOSB
2 perspective on our work semester. I just want to
3 say that I've been extremely proud of this Board.
4 We've had some pretty controversial issues that
5 have come up this year in the semester and I've been
6 very proud. While we have had some pretty diverse
7 opinions on the Board, well represented in the
8 spectrum, it has been done with great
9 professionalism and respect for each other. I
10 want to thank you all for that as we move through
11 some of these topics.

12 Little bit of housekeeping today, too.
13 We are going to be starting public comments in a
14 little bit and we'll talk more about it but you'll
15 notice there are some stations set up here. We are
16 going to ask the public to stay on that side of the
17 station. I'll give you some more updates when we
18 start the public comment.

19 I think it's important for us to note
20 here today during this week we are actually
21 allocating more time for public comments than we
22 are actually allocating for the Board to do its

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1 work. I know there is consternation among people
2 from time to time that the public either doesn't
3 get enough time or in a particular individual
4 comment the three minutes goes really really fast
5 when you're up there at the podium. I understand
6 that.

7 We only have so many days allocated for
8 the Board meeting. I know there has been some
9 discussion about the opportunity to change that.
10 I think that will be an ongoing discussion. We do
11 value the public comments we get, both here at the
12 meeting and in written form. They do influence our
13 conversations within the Board and we appreciate
14 the time and effort that all -- of those in our
15 organic community take to make sure we hear their
16 voice and I want to thank you for that.

17 We've had some pretty significant
18 issues that we'll be discussing at this Board
19 meeting. One is carrageenan, which will be
20 brought up in the Handling Subcommittee. We've
21 had lots and lots of wrangling and conversations
22 over this. Me and my four other cohorts on the

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1 Board that came in in 2012, we have the dubious
2 pleasure of this being our second sunset review on
3 carrageenan. I think it has been an interesting
4 detailed conversation for all of us.

5 We also have some great information
6 coming out of the Materials Subcommittee on
7 excluded methods terminology and definitions. We
8 recognize that some of these documents are not
9 perfect but sometimes perfect is the enemy of good
10 or even complete and there is an opportunity again
11 for continuous improvement but it's important for
12 us to at least sort of stake our claim on some of
13 these topics and recognize that there is additional
14 work that needs to go forward.

15 Then we have the hydroponics issue
16 which has been widely covered, widely discussed and
17 debated. I think this Board has had some very
18 substantive conversations about it and will have
19 a very robust conversation on the record on Friday
20 when we address it.

21 On top of all these rather
22 controversial issues, we also have just the general

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1 workhorse work that we have to do. Petitions,
2 technical reviews, sunset reviews and materials
3 which have obviously been significantly less this
4 year than that massive lump of them that we had last
5 fall.

6 Our intent is that with the
7 reorganization of the presentation of sunset
8 materials going forward, which will be implemented
9 -- actually is already being implemented now --
10 there is going to be a breakup of that block that
11 came last year.

12 We are going to have a more manageable
13 workload in future years. But when I say more
14 manageable, you know, when you had 217 or whatever
15 -- 211 last year, something like that -- and we are
16 down to 50, 50 is still a significant number. This
17 Board is still doing some pretty amazing work.

18 Because we've had so many issues around
19 the topic of our interest policy and conflict of
20 interest, I've asked Miles to give us a primer or
21 reminder both for the public and for our Board
22 members today on exactly what constitutes a

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1 conflict of interest so I'm going to turn that over
2 to Miles now.

3 MR. McEVOY: Okay. Thank you very
4 much, Tracy.

5 The National Organic Standards Board is
6 composed of many individuals that represent
7 various interests. It's very important that these
8 interests are represented. It's very similar to
9 many other standards-related boards, that -- the
10 idea is that you have all the interests around the
11 table so that they can all participate and provide
12 their perspective and represent those interests in
13 the development of those standards and those
14 recommendations.

15 NOSB members represent the interests of
16 particular groups and interest is acceptable if it
17 is carried out on behalf of a represented group and
18 if a Board member receives no disproportionate
19 benefit from expressing the interest.

20 According to the NOSB Policy and
21 Procedures Manual, true conflicts of interest
22 arise when an interest directly and

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1 disproportionately benefits the member or a person
2 associated with that member, could impair the
3 member's objectivity in representing their group,
4 or has the potential to create an unfair
5 competitive advantage.

6 There have been specific questions
7 concerning NOSB member Carmela Beck's service on
8 the NOSB and the Board's upcoming deliberations on
9 hydroponics at this meeting. Ms. Beck is employed
10 by Driscoll Strawberry Associates and it's related
11 to her -- whether Driscoll and hydroponic
12 production and the deliberations on this topic.

13 So Driscoll's crop production occurs in
14 a variety of different ways, including directly in
15 soil. Based on a review of the criteria to address
16 conflict of interest, NOP has concluded such a
17 conflict does not exist from Ms. Beck. Thus, Ms.
18 Beck can fully participate in the NOSB
19 deliberations and any voting of Board
20 recommendations addressing hydroponics.

21 In a similar manner, those NOSB members
22 that grow crops in the soil may fully participate

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1 in the hydroponic production deliberations and
2 voting. Thank you.

3 CHAIR FAVRE: Thank you, Miles.

4 Any questions from the Board members?

5 Okay. All right. Next on our agenda
6 today is the National Organic Program's Material
7 -- all right. Rightfully so, we discussed
8 yesterday during our administration that we would
9 like to make any disclosures of interest statements
10 and then should there be interest statements
11 disclosed, the Board parliamentarian and deputy
12 administrator will then give us any rulings on
13 whether that starts.

14 Do we have any disclosures of interest?

15 Zea?

16 MS. SONNABEND: Thank you. I believe
17 that it is worthwhile to make -- for transparency
18 to make a disclosure of interest. I'm a small
19 farmer from Watsonville, California with 20 acres
20 of diversified fruit and an acre of vegetables for
21 seed. I hold the scientist seat on the Board
22 because of my long career in evaluating organic

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1 materials.

2 I work part-time for CCOF, a nonprofit
3 organization with 3,367 certified clients, 1,400
4 of which are small farmers and 1,000 of those are
5 very small. About 1,300 processors, some of which
6 are also farms, and 600 or so medium size and large
7 farms.

8 All of the sunset materials may or may
9 not be used by some of the CCOF clients and two of
10 the crop inputs for this meeting of sunset are used
11 on my own farm. I'm a small voice without a big
12 medium machine behind me and I'm also a small
13 farmer, what I do -- doing what I think is right
14 for most farmers, large and small, in my work with
15 NOSB.

16 Once again, I'm being named in press
17 releases and on the internet by a group seeking
18 their own publicity at my expense. I'm being
19 accused of conflict of interest because my
20 certifier has hydroponic clients, even though I
21 voted against the proposal to allow hydroponics.

22 My response is in the words of Michelle

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1 Obama. When they go low, we go high. Although
2 neither political party was going very high in the
3 election, I will state here for the record that I
4 have no conflict of interest on hydroponics or any
5 other subject on this agenda. Furthermore, CCOF
6 does not tell me what to say or how to vote and my
7 statements are mine alone and do not represent the
8 position of CCOF when I serve on the NOSB. Thank
9 you.

10 CHAIR FAVRE: Tom.

11 VICE CHAIR CHAPMAN: There are
12 materials on the November 2016 NOSB meeting agenda
13 that are in use, or have been considered for use
14 in Clif Bar and Company's supply chain. Clif Bar
15 and Company is not a seller, exclusive buyer, nor
16 do any of these materials directly or
17 disproportionately benefit me or a person
18 associated with me.

19 They do not impair my objectivity in
20 representing handlers, nor do they have the
21 potential to create an unfair competitive
22 advantage and so they do not mount a conflict of

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1 interest for the 2013 NOP conflict of interest memo
2 and our Policy and Procedures Manual. I have
3 reviewed the conflict of interest materials as
4 prepared and distributed and I do not have a
5 conflict of interest.

6 CHAIR FAVRE: Carmela.

7 MS. BECK: Driscoll's independent
8 organic farmers produce both in-ground organic
9 crops and in containers substrate organic crops.
10 Driscoll's independent farmers do not farm
11 conventional or organic hydroponic crops.

12 CHAIR FAVRE: Ashley.

13 MS. SWAFFAR: So I would like to
14 declare that I do have an interest in the hydroponic
15 discussion but I do not feel that I have a conflict
16 of interest in the hydroponic discussion. As a
17 certified organic producer that does grow crops in
18 the soil, I just want to completely state that for
19 the record.

20 CHAIR FAVRE: Okay. And for the
21 record I'd like -- go ahead, Harriet.

22 MS. BEHAR: For the record, when I

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1 review comments, it's -- everyone's comments are
2 equally viewed whether it's an organization or an
3 individual because everyone should have a voice.
4 I grow actually in containers but not
5 hydroponically and I grow in the ground.

6 I have bees and I have all kinds of
7 stuff. I talk to thousands of farmers a year and
8 so I hear lots of voices and I really try to give
9 everyone a similar weight. Because whether you
10 are part of a large organization or you are just
11 one person, you should have a voice.

12 CHAIR FAVRE: Thank you. And, for the
13 record, I would like to say that I am the Director
14 of QAI as of about four weeks ago. While we do have
15 some container operations, we do not certify in
16 hydroponics and I do not feel as though this rises
17 to the level of conflict of interest.

18 We should have just gone around the room
19 and had everybody say something. Go ahead, Scott.

20 MR. RICE: As an employee of the
21 organic program that I work for in the
22 certification agency we do, as Zea noted, with CCOF

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1 certify. Quite a number of operations and quite
2 diverse. Some of those may or may not use the
3 materials that we are discussing this week.
4 However, I do not feel that my relationship with
5 our certification agency or the use of those by
6 those that we certify presents a conflict.

7 CHAIR FAVRE: Anybody else? Okay.
8 Here endeth the discussion. Thank you.

9 Okay. Now, we are happy to have Dr.
10 Lisa Brines give us the update on the materials
11 update and a summary of new and outstanding
12 petitions.

13 Dr. Brines.

14 DR. BRINES: I'm just trying to see
15 what screen I'm going to be able to read from here.
16 I don't know if I can do this all from memory.

17 Good morning, everybody. Just a quick
18 15-minute update this morning on the status of
19 materials and the petitions that have come in since
20 our last meeting. I'm not going to be able to read
21 those slides.

22 We have 12 petition materials that are

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1 on the agenda for today spread over the three
2 subcommittees that traditionally review
3 materials, Crops, Livestock, and Handling. In
4 addition to that, we have 15 materials that are up
5 for sunset for 2018. There are actually 17
6 listings that are affected that are on the National
7 List, but a couple of those materials repeat and
8 they are both up for sunset for this round.

9 In terms of the evaluation criteria for
10 materials, the criteria provided for in the Organic
11 Foods Production Act. In terms of the review
12 materials that are associated with this meeting --
13 that means the petition guidelines, the technical
14 report, evaluation questions, and the NOSB review
15 documents -- all of those tools were developed to
16 align with the criteria that are in the Organic
17 Foods Production Act. Those provide a tool for the
18 Board to document its evaluation of these materials
19 against the OFPA criteria.

20 There are different criteria for crop
21 and livestock production materials versus
22 handling. There are some additional criteria in

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1 the regulations at 205.600(b) that are specific to
2 synthetic materials that are used as processing
3 aids or adjuvants in organic handling.

4 Okay. So, in terms of what materials
5 the Crops Committee will be looking at at this
6 meeting, we have aluminum sulfate on the agenda,
7 soy wax, which is a carryover from our last meeting,
8 1-methlycyclopropene, or 1-MCP.

9 We also have two petitions for
10 chelating agents, ammonium citrate and ammonium
11 glycinate. These two petitions we also had a very
12 late addendum submitted by the petitioner that is
13 now posted as of yesterday on the NOP website. So
14 that's addendum number 3 for both of those
15 petitions. It's the same material for each.

16 There is also a petition for ammonium
17 cellulose glycolate which is under review. I'm
18 sorry, that's potassium. I can't read the slide
19 from here. Thanks.

20 All right. And there are several other
21 petitions that are currently under review by the
22 Crops Committee, many of which have technical

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1 reports that are under development. Once those
2 reports are complete and approved by the Board,
3 we'll have them posted on the public for the
4 public's review on our website.

5 The ones that are currently still under
6 subcommittee review include fatty alcohols, allyl
7 isothiocyanate, sodium citrate, natamycin,
8 ammonium nonanoate is a recent addition, and
9 polyoxin D zinc salt.

10 Some of you in the audience and on the
11 Board might recognize a few of these materials. A
12 few of them have been petitioned and reviewed by
13 the Board previously and were either withdrawn or
14 had a recommendation against them. Petitioners do
15 have the opportunity when their petition is turned
16 down by the Board to resubmit the petition if they
17 can provide new information. That is incorporated
18 into the NOP procedures on petition evaluation
19 which is in the handbook, I think it's NOP 3011.

20 In terms of livestock materials that
21 will be considered at this meeting, there is a
22 petition to remove ivermectin from Section 205.603

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1 of the National List which is on the agenda and
2 there are three poultry litter treatments that are
3 under review, so aluminum sulfate, sodium
4 bisulfate, and acid-activated bentonite.

5 We had a few additional petitions that
6 were submitted for livestock uses since our last
7 meeting. Those include sulfur, hypochlorous
8 acid, and glycolic acid. We do also have the ten
9 aquaculture petitions which are still on the agenda
10 for the Livestock Subcommittee.

11 Some of you may remember the recent NOSB
12 recommendation to add hypochlorous acid to Section
13 205.603 of the National List, which was recommended
14 by this Board. And this petition is for expanding
15 the use for other purposes in livestock production,
16 so they are not covered under the scope of the
17 previous NOSB recommendation and they weren't the
18 focus of the previous petition for that material.

19 Okay. For Handling for this round
20 there is a petition for oat protein concentrate as
21 an agricultural substance petitioned to Section
22 205.606. The Board will also be considering a

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1 petition for sodium chlorite for generation of
2 chlorine dioxide gas. These petitions, as all the
3 petitions on the agenda, are posted on our website
4 for the public's review.

5 Three additional petitions that are
6 currently under consideration by the Handling
7 Subcommittee and will be addressed at subsequent
8 meetings. One petition is for L-methionine.
9 That is for fortification purposes. We do have an
10 outstanding recommendation from the Board for
11 L-methionine for fortification of soy-based infant
12 formula. This petition is for uses that go beyond
13 the scope of that original consideration.

14 There is a petition under consideration
15 for sodium dodecyl benzene sulfonate, or SDBS. I
16 believe a technical report is still being developed
17 for that material. We have a recent petition for
18 short DNA tracers that is available as well.

19 So in terms of other technical reports,
20 we have had a number of technical report requests
21 that have come from various subcommittees that were
22 not in response specifically to petition materials

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1 or in response to sunset materials that are still
2 under development. Currently we have a couple
3 that are in development. There is a technical
4 report still not available to the public yet on
5 bisphenol A. It will be posted as soon as it is
6 approved by the Board. That's BPA for use in
7 packaging.

8 There is a report for newspaper and
9 other recycled paper that was requested by the Crop
10 Subcommittee that is a follow-up to the sunset
11 review of that material that was completed for the
12 last round. There is a petition -- I'm sorry,
13 technical report also in development for anaerobic
14 digestate products.

15 We do have several other technical
16 reports that are now available to the public as
17 well. Some of these were available at the last
18 meeting, too. There is a technical report for
19 xanthan gum regarding a possible reclassification.
20 There was a report developed for a class of
21 phosphates to address their handling uses as
22 ingredients in process products.

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1 We updated the technical reports for
2 peracetic acid for both livestock and handling uses
3 since we were updating the crops report as part of
4 the sunset 2018 just for convenience sake. Those
5 reports are available. And the report for marine
6 plants and algae has also been posted on the
7 website.

8 In terms of our technical report
9 contractors -- so these are always identified on
10 the first page of any technical report, but we do
11 work with several different organizations and they
12 are listed on the slides. Again, those are always
13 available to the public on the first page of the
14 report.

15 In terms of voting procedures, for the
16 petitioned substances, the first vote is generally
17 for classification. In general, for materials
18 that have not been previously classified or that
19 are not on the National List with this specific
20 classification, the Board will first vote on a
21 motion to either classify the material as synthetic
22 or nonsynthetic. It is mainly for crop and

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1 livestock materials, and for nonagricultural
2 materials use and handling. For
3 handling substances they may also be classified as
4 agricultural or nonagricultural as appropriate.

5 The second motion the Board will take
6 for these petition materials is for the action that
7 would take place for this material. So that may be
8 to list the material, to remove it or to amend it
9 as provided in the proposal. In order for either
10 of those motions to pass, OFPA does require a
11 two-thirds majority for any decisive action of the
12 Board. At this meeting with the 14 members that
13 are present, that still takes ten votes for either
14 of those motions to pass.

15 For the sunset 2018 materials that are
16 on the agenda -- so there are two different sunset
17 dates that might apply depending on when the
18 material was last renewed or amended on the
19 National List. But for convenience sake, we
20 consider all the sunset 2018 materials over the
21 same two meetings.

22 We did consider these materials at the

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1 last meeting in the spring and the sunset review
2 will conclude at the end of this meeting. All
3 those National List materials and their sunset
4 dates are available in the program handbook at NOP
5 5611. That includes a comprehensive list of
6 everything on the National List as well as its
7 current sunset dates.

8 I didn't go through these individually
9 but the Crops Committee has five materials up for
10 sunset for 2018, the Handling has nine materials,
11 and there are no Livestock materials up for sunset
12 for this round.

13 We were able to meet all of the
14 subcommittees' requests for updated technical
15 reports for sunset 2018, which means we did update
16 the crops peracetic acid technical report. We had
17 four new handling reports that were available at
18 the request of the Handling Committee. That
19 includes carrageenan, cellulose, glucono
20 delta-lactone, and potassium hydroxide. All
21 those reports have been available since the last
22 meeting.

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1 That's it for today. I'm happy to
2 answer any questions you might have.

3 CHAIR FAVRE: Any questions for Dr.
4 Brines?

5 Dan.

6 MR. SEITZ: So when there was a TAP --
7 a technical advisory panel -- it was very helpful
8 for me to know who the people were, what their
9 background was, and so forth. I know that in the
10 technical review we know which company has been
11 contracted with but we don't know who the actual
12 participants are who have done the research and so
13 forth. I am wondering whether it will ever be
14 reconsidered whether that type of information will
15 be provided just as one more piece of information
16 that is helpful for assessing the completeness or
17 the accuracy or the ability to do the type of
18 analysis that you would want in a report.

19 DR. BRINES: Thank you. Yes, we have
20 heard that question before. Under our current
21 contract with the contractors, we contract with the
22 organization rather than with any particular

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1 individual. Just as a matter of practice, we have
2 always listed the contracting organization name on
3 the first page of the report rather than a list of
4 individuals who might have participated in its
5 development or review.

6 We haven't made, I guess, a
7 determination not to include that, other than we
8 just haven't included that information in the past.
9 You will see in some of the old technical advisory
10 panel reports, or TAP reports, from 1995, 1996 that
11 are posted on the website, those typically did not
12 list the individuals that were associated with
13 those.

14 They wouldn't identify the panelists by
15 name. They might give some information in terms
16 of their background for context, but my
17 understanding is they weren't named individually
18 in the report so it would just be listed as the
19 organization rather than those individuals.

20 CHAIR FAVRE: Any other questions?

21 Emily.

22 MS. OAKLEY: I would just echo Dan's

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1 comment that it is helpful if possible to have the
2 author's name or the participants involved just
3 because it gives us more information in terms of
4 their expertise. Thank you.

5 DR. BRINES: Thank you.

6 CHAIR FAVRE: Thank you, Dr. Brines.

7 Okay. We've come to the point in our
8 agenda where we are going to take about a 15-minute
9 break and then when we start back at 11:30 we will
10 begin public comments.

11 (Whereupon, the above-entitled matter
12 went off the record at 11:16 a.m. and resumed at
13 11:31 a.m.)

14 CHAIR FAVRE: Okay, folks, we're ready
15 to start our public comment, my favorite part of
16 the board meeting, actually. If we'll all take our
17 seats, please.

18 A couple of housekeeping items. First
19 one is, please silence your phone. Yes, that means
20 you. Please check. Yes, the duck in the
21 background, please silence. If you've got a
22 computer with your volume turned up, please turn

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1 that down, just out of respect for everybody. And
2 yes, I mean you.

3 Public comments are limited to three
4 minutes. We've got a super-packed agenda. I ask
5 that you be respectful of that. Michelle will, as
6 she normally does, has a timer with a light, which
7 will indicate green when you're good to go, yellow
8 when you're getting close, and red when it's done.
9 And then a tone will be sounded. Please be
10 respectful of that.

11 Some of you may have noticed that we
12 have stanchions set up here with ropes on the side.
13 The room layout is a little bit awkward with these
14 pillars here in the front.

15 We don't want to limit access for the
16 public back here during the breaks, but while the
17 board is in session, no public will be permitted
18 beyond the stanchions please. It's distracting to
19 the board, and I think it's distracting to the
20 audience as well.

21 This is a public meeting and photos and
22 video could potentially be taken. I will ask that

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1 if you do it, you do it in as least disruptive method
2 as possible. We're going to ask for your
3 forbearance on that.

4 And if you become disruptive during the
5 public comments, you will be given a warning, and
6 then you will be asked to leave if we cannot get
7 you to comply with that, out of respect for those
8 that have taken the time to be here and make our
9 public comments.

10 Okay, also, we are going to have a
11 remote for those of you that have PowerPoint
12 presentations during your comment period. The
13 remote will be up there, and you will be able to
14 advance your own slides. Michelle will be happy
15 to give you a brief instruction on that as you get
16 ready for your comments. And we look forward to
17 hearing everybody's thoughts and opinions.

18 So with that, we'll go ahead and get
19 started with our first speaker today. Our first,
20 excuse me, first presenter, commenter, will be
21 Davey Miskell. Davey Miskell, are you here?

22 MR. MISKELL: Yes. Yes, run it. So

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1 after all this past, we're going to liven it up a
2 little bit, show you some video that was
3 suppressed, and we'll go forward. So if you want
4 to go ahead, Michelle, and Michelle's been great
5 helping on this with trying to figure out how we
6 do all this properly, and thank you. It's all set?
7 Okay.

8 I am Davey Miskell, I'm a Vermont
9 certified organic greenhouse soil-grown greens and
10 basil grower. I farmed organically for 40 years,
11 and have been testifying against the USDA organic
12 certification of soilless hydroponics since 2001.

13 The rally that you're seeing here, Dave
14 Chapman, in Stowe, Vermont, and I organized it
15 October 30. We wanted to show NOSB and NOP that
16 Vermont congressional delegation and the organic
17 farmers from, some organic farmers, mostly from
18 Vermont but also from Maine and Massachusetts, have
19 extreme opposition to organic hydroponic
20 certification.

21 I was very upset when NOP refused to
22 allow us to show the video unless it was soundless.

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1 Everybody here, do go to keepthesoilinorganic.org.
2 You can watch, listen to the video. You can also
3 buy these tremendously great t-shirts.

4 Today, here, watch Senator Leahy, who's
5 the father of NOSB, NOP, and OFPA, be muted. I'm
6 ashamed that that is happening. Yet such a refusal
7 is a symbol of NOP's silencing of the opposition
8 and letting organic hydroponic certification
9 continue its merry way with no regarding the soil
10 requirements of OFPA and with no rulemaking by NOP.

11 The legacy of the 2010 NOSB will always
12 be applauded for listening to the public for their
13 2010 recommendations to prohibit soilless
14 organics. So will the 2-16 NOSB crops committee
15 vote recently on the same prohibition. I ask NOSB
16 the following: to concur with the crops committee
17 and prohibit organic hydroponics that have
18 substrates without soil. And to do it now, in St.
19 Louis.

20 There's a rule adopted by NOP without
21 thorough public review. The usual NOP delaying
22 tactics must stop immediately. Such delay makes

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1 the present too big to fail for organic hydroponics
2 even worse.

3 In the meantime, I and other longtime
4 organic farmers are seriously investigating
5 forming a new label with presups of soil grown and
6 proper animal welfare standards, as well as other
7 true organic presups. We can't wait another ten
8 years for a NOP rule. We don't want to do this.
9 Surprise me.

10 I have two quick questions. I'm
11 wondering what actions --

12 CHAIR FAVRE: I'm sorry, I'm sorry,
13 your time is elapsed. Maybe we can answer it and
14 address it during questions if any of the board
15 members have questions for you. Are there any
16 questions for Davey? Zea?

17 MS. SONNABEND: My question may not be
18 what you wanted to pose. But I'm very interested
19 in what Senator Leahy might have said about his
20 vision for when he first implemented or wrote the
21 OFPA, if you can summarize that briefly.

22 MR. MISKELL: I can't, because I was

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1 told that -- the goal of what we did here was to
2 have a sound so you could hear Senator Leahy --

3 MS. SONNABEND: But didn't you hear
4 him? Weren't you there?

5 MR. MISKELL: I heard him, but I was
6 told that I couldn't -- since I was told that I could
7 not explain or talk about what he said, because he
8 would not be here to answer questions from the NOSB.

9 CHAIR FAVRE: I'm sorry, let me
10 clarify. There is a misunderstanding here. The
11 reason that the decision was made that the audio
12 portion of this video could not be presented is it
13 would constitute a proxy testimony, which is
14 prohibited under our policies and procedures
15 manual.

16 We very much appreciate the passion and
17 effort that went into producing this video and
18 wanted to give you an opportunity to show it. And
19 I highly encourage anybody in the audience or any
20 of the board members to seek you out during breaks.

21 MR. MISKELL: All they have to do is
22 they can go to --

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1 CHAIR FAVRE: And furthermore --

2 MS. SONNABEND: But it's inappropriate
3 to ask for a summary?

4 CHAIR FAVRE: Furthermore, you are
5 allowed to relay what Senator Leahy said. You just
6 are not allowed to have him speak without the
7 opportunity for us to provide questions.

8 MR. MISKELL: It would have been real
9 nice to have that explained when I got the emails.
10 Because I could have had a transcript of exactly
11 what he said. But I would recommend that anybody
12 here, it's all right on our website
13 keepthesoilinorganic.org.

14 CHAIR FAVRE: You are allowed, and you
15 can even speak to answer Zea's question if you
16 choose to now.

17 MS. SONNABEND: Or maybe a future
18 commenter who was there would summarize.

19 MR. MISKELL: He said, just off the top
20 of my memory, which these days seems to get worse
21 and worse, but he talked about his commitment and
22 the problems that he had to go through in the Senate

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1 and in the legislature to get the original OFPA
2 passed.

3 And basically he said that he would not
4 -- that soil at that point was critical, and soil
5 at this point is critical. And he would do
6 everything that he could to make certain that soil
7 is the key part of organic farming.

8 MS. SONNABEND: Thank you.

9 CHAIR FAVRE: And other questions for
10 Davey? Thank you very much.

11 MR. MISKELL: Thank you. And I
12 thought the process was was that you were getting
13 a warning bell and then --

14 UNIDENTIFIED SPEAKER: A warning
15 light, so if you don't --

16 UNIDENTIFIED SPEAKER: That's being an
17 amateur.

18 CHAIR FAVRE: Okay, our next speaker is
19 Mark Girardin. And we've got Pete Overgaag on
20 deck.

21 MR. GIRARDIN: Good morning, my name's
22 Mark Girardin, and I'm speaking as a small grower

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1 and also as the president of North Bay Produce. As
2 NOP certified growers in both ground and
3 soil-filled containers, the direction taken in
4 certifying container systems should be broken into
5 two categories: soil and soilless.

6 The following comments are in
7 consideration for the certification of soil-based
8 bioponic container systems. Soil would include
9 the standard in-ground system approach, plus
10 container systems where the organic matter closely
11 resembles what would be found in the in-ground
12 approach. These two organic systems have more in
13 alignment than in any other approach in discussion.

14 The NOSB 2010 discussion provides
15 emphasis that the core principle of organic farming
16 is the concept of fostering soil biology to create
17 symbiotic relationships with the plant. And since
18 all typical soil-dwelling organisms, such as
19 earthworms, protozoa, fungi, bacteria, etc., can
20 thrive in a properly designed compost-based
21 growing media, producing the beneficial symbiotic
22 ecological relationships found in soil.

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1 Such growing media should be rightfully
2 considered soil, and therefore should be certified
3 without labeling. Additionally, in a proper
4 bioponic container growing system, there are many
5 advantages.

6 Water conservation, which can use up to
7 80% less than in field-grown situation. Food
8 safety, disease, and weed suppression, and soil
9 conservation. Think of the areas where there is
10 no arable land that exists.

11 In conclusion, organic farming relates
12 to the fostering the soil, whether that soil is
13 contiguous with the bedrock or in a container, as
14 long as it meets the requirements of the Act and
15 the organic systems plant.

16 As to the soilless systems, there is
17 agreement with the 2010 NOSB recommendation,
18 observing the framework of organic farming based
19 on its foundation of sound management of soil
20 biology and ecology. It becomes clear that
21 systems of production that eliminate soil from the
22 system, such as hydroponics or aeropics, cannot be

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1 considered as examples of acceptable organic
2 farming practices.

3 However, there can be an organic path,
4 but proper labeling and rules are a must so as not
5 to confuse the retail consumer.

6 CHAIR FAVRE: Thank you. Any
7 questions?

8 MR. GIRARDIN: Thank you.

9 CHAIR FAVRE: Thank you very much.
10 Next up is Pete Overgaag, and Dave Chapman is on
11 deck.

12 MR. OVERGAAG: Hi, I'm Pete Overgaag
13 from Hollandia Produce. We're an efficient
14 hydroponic grower in drought-stricken southern
15 California. For those who missed it at the last
16 hearing in DC, I brought another head of lettuce
17 all the way with me to show as a visual.

18 This lettuce was grown with all OMRI
19 approved inputs. No pesticides, no fungicides, no
20 chemicals of any kind. Yes, it was grown in water,
21 which I think we all agree is natural as well. So
22 we have clean, healthy products for consumers.

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1 Why would we even think of arguing about what the
2 roots are in while it is growing? If it is all
3 natural, it should not matter.

4 Stepping back and thinking about it,
5 it's very odd to expect the USDA to start trying
6 to control how much growing media the roots are in
7 or how much water the roots are in. What's next,
8 how tall each crop is allowed to grow? And what
9 do we do about crops like watercress that in nature
10 grow only in water?

11 My point today is simplicity. The
12 understanding of the word organic in consumers'
13 minds are products that are free of synthetic and
14 chemical inputs so they are confident that they are
15 receiving a healthy product. This is what they
16 expect and this is what they receive when they buy
17 certified organic produce that is grown
18 hydroponically or in containers.

19 So in this spirit of simplicity, what
20 certified hydroponic and container growers are
21 doing is already covered under the current
22 regulations. As we heard in the opening

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1 presentation today, the USDA and NOP already have
2 plenty to monitor and regulate. They should not
3 be pushed into adding another thick book of rules
4 by creating another designation and layers of
5 regulation.

6 I'm surprised this debate has come this
7 far. However, now that it has come to this point,
8 it's clear that the complaint is not about where
9 the roots are, but it is about a small, vocal group
10 that is not happy about larger companies producing
11 organic product. So they're trying to turn back
12 the clock and keep organics from becoming
13 mainstream.

14 My answer to this is, the ship has
15 sailed. It's too late to scale it back. Organics
16 is mainstream, and yes, there are larger companies
17 growing organic products to help fulfill the
18 ever-increasing demand. Our company is one of
19 them.

20 We have about 150 employees. Since we
21 are an employee-owned company, you could say we are
22 owned by 150 farmers.

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1 The decision allowed hydroponics and
2 container growing to be certified. To disallow
3 hydroponics and container growing to be certified
4 organic would negatively affect our 150 farmers and
5 their families.

6 CHAIR FAVRE: I'm sorry, we're going to
7 have to stop you there. Appreciate it. Any
8 questions? Emily.

9 MS. OAKLEY: Hi, thank you. I was
10 wondering how frequently nutrients are delivered
11 to the plants in your system?

12 MR. OVERGAAG: Continuously. so we
13 have biological activity in the water, and we add
14 the nutrients to the water, and there's beneficial
15 bacteria breaking them down and converting them to
16 be available for the plants. It's the same process
17 that happens in the soil.

18 CHAIR FAVRE: Harriet.

19 MS. BEHAR: If your production was not
20 certified organic, would your operation be
21 economically viable?

22 MR. OVERGAAG: It would be tougher, and

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1 we've invested a lot of money, and our whole
2 transformation is to go in the organic direction.
3 We're not 100% yet, some of our production's still
4 conventional.

5 CHAIR FAVRE: Thank you very much.

6 MR. OVERGAAG: Thank you.

7 CHAIR FAVRE: Next up is Dave Chapman.
8 We've got Ashley Buhler on deck.

9 VICE CHAIR CHAPMAN: Good morning, I'm
10 Dave Chapman. I'm an organic grower for last 36
11 years. I grow greenhouse tomatoes, in the soil of
12 course. I served on the USDA hydroponic task force
13 as the sole representative of commercial soil
14 growers.

15 I feel it's necessary to adjust my
16 comments today based on the New York Times article
17 that came out last night. Once again there was a
18 personal attack on me and those who work with me
19 to keep the organic standards firmly rooted in the
20 soil.

21 A leading hydroponic spokesperson
22 said, Hydroponics have, quote, put competition on

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1 farmers, specifically in Vermont, and so what this
2 really is about is market protection, unquote.

3 This is wrong on so many levels.
4 First, it wrongly states that this conversation is
5 just about Vermont farmers, but 540 organic farmers
6 from all over the country signed the first soil
7 petition. Vermont was strongly represented, but
8 52 organic farmers from California signed that
9 petition, including two CCOF board members.

10 We had farmers from 40 states sign it,
11 and I would add that the thousands of consumers who
12 have signed one the following petitions are from
13 all over the country. Furthermore, the 41
14 organizations and 58 organic leaders who signed the
15 moratorium letter came from all over the world.

16 To say that this only an issue of a few
17 malcontented farmers from Vermont is either
18 wishful thinking or an outright lie.

19 Secondly, it suggests that the soil
20 proponents want to use the organic standards to
21 protect their markets, while hydro growers are
22 solely motivated by an altruistic desire to spread

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1 the good word. Really, I mean.

2 Finally, and most upsetting to me, is
3 the assertion that I personally am only using this
4 issue to make more money off the back of organic
5 certification.

6 Aside from the crazy talk that I got
7 into organic cause it looked so profitable, because
8 it did not look very profitable 36 years ago, this
9 ignores the reality that if I really wanted to make
10 more money off the organic label, I would just go
11 hydroponic myself.

12 I would see an immediate boost in yield
13 of 30-40%. This is well known. I learned from the
14 task force that my hydroponic brothers and sisters
15 are in fact getting those yields. And it's what
16 conventional growers get when they go from the soil
17 to hydroponic also.

18 I am not a Luddite, and I'm not
19 intimidated by the simple technologies required
20 for a hydroponic setup. Do you have any idea of
21 how profitable hydro would be for me if I called
22 it organic? Why wouldn't I do that? Because I

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1 think it would be fraud. I actually believe that
2 organic must be based in the soil. Thank you.

3 CHAIR FAVRE: Any questions?
4 Francis?

5 MR. THICKE: Thank you for your
6 comments, Dave. There seems to be a lot of
7 confusion between container growing and
8 hydroponics. And from your experience on the task
9 force, can you give us some perspective on that?

10 VICE CHAIR CHAPMAN: Yes, there's
11 actually a lot of misunderstanding about this.
12 And from my experience, not just on the task force
13 but from many years being pretty immersed in the
14 hydroponic community, because my Dutch consultant,
15 I was the only organic grower that he ever worked
16 with.

17 Everybody else was hydroponic. I have
18 good friends who run large, 75-acre hydroponic
19 glass greenhouses growing vegetables.

20 In the world of tomatoes, cucumbers,
21 and peppers, hydroponics is all container growing.
22 It's not grown in a little trough of water, it is

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1 grown in some kind of a container, and usually the
2 growing medium in that container is either rockwool
3 or coconut coir.

4 In the world of organic hydroponic, as
5 such, it's mostly grown in coconut coir and peat
6 moss. Peat moss was abandoned as being not as
7 good, they certainly tried that in conventional
8 hydro.

9 I wanted to give you an example. Pete
10 brought his head of lettuce, so I brought some
11 coconut coir. This is a welcome mat for your
12 house, and it says, Dash away all, which is
13 unfortunately what I think is happening to the
14 organic standards right now.

15 It is made of 100% coconut coir,
16 untreated, and it lasts very well as a welcome mat.
17 You wipe your feet on it, and the soil it will ever
18 get is what comes off your boots.

19 The reason that coconut coir is so
20 popular in conventional hydroponics is because it
21 doesn't break down. So it doesn't provide any
22 nutrition. That's what makes a good substrate.

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1 It keeps its texture so that when they dry it out,
2 air comes in, and when they wet it and give the
3 nutrients, all the nutrients come from the liquid.

4 If you had a pot of this and you threw
5 in a couple of handfuls of compost, still, 99% of
6 the nutrients for a long crop like tomatoes are
7 going to come from the substrate. It is a
8 hydroponic setup.

9 So just because you're growing in a
10 container rather than in a tube of water does not
11 mean in any way that it's not hydroponic. And only
12 in this room do we seem to hold that to be some sort
13 of confusing issue. In the world, the rest of the
14 world, in conventional hydro, of course they talk
15 about container growing as hydroponic.

16 There was one last thing about that,
17 there was another statement in the New York Times
18 that said, Soil to me as a farmer -- this must come
19 from a hydroponic grower -- means a nutrient-rich
20 medium that contains biological processes.

21 And that doesn't have to be dirt. So
22 to that person, this is soil. But I think you need

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1 a very special perspective to embrace that idea.
2 This is not soil.

3 MR. THICKE: Could I follow up?

4 CHAIR FAVRE: Follow up Francis, and
5 then Zea.

6 MR. THICKE: Yes, follow up is also,
7 there seems to be confusion around the European
8 standards regarding container growing and
9 hydroponics, and you look at that quite a bit in
10 the task force. Can you tell us what you learned
11 there?

12 VICE CHAIR CHAPMAN: Yes, yes, there
13 seems to be confusion coming in in the comments that
14 I've written about. In the EU, the way the
15 standards currently are, 96% of the population,
16 those countries require organic growing to be in
17 the ground, without a container, with the
18 exceptions of transplants and ornamentals and
19 herbs. But otherwise, it must be in the ground.

20 It's been said that throughout Europe
21 they're allowing something like what we're
22 allowing. That's not true. They're not allowing

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1 any kind of container growing. In the three
2 northern countries, Sweden, Finland, and Denmark,
3 they do allow substrate growing, which is
4 hydroponic. And it's actually going to come up for
5 a vote in December.

6 Whether the EU commission will continue
7 to permit that or not, there's considerable motion
8 that they will not continue to permit it. In which
9 case, I assume we will have to renegotiate our trade
10 agreement with them. There's been a lot of push
11 to keep organic organic.

12 CHAIR FAVRE: I believe Zea was next.

13 MS. SONNABEND: Thank you, Dave. Do
14 you have anything further to add to the question
15 that I asked the previous commenter, about Senator
16 Leahy's vision in passing the OFPA?

17 VICE CHAIR CHAPMAN: Yes, the senator
18 was pretty strong, pretty clear. He said that ever
19 since they passed OFPA, there have been attempts
20 to undermine the standards. He said this was one
21 of them. He said, Look, we all know what organic
22 is, we know what growing in the soil is, we know

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1 what hydroponic is.

2 And he was very clear, and it's one of
3 the great disservices of this argument that somehow
4 it's besmirching hydro, he was very clear that
5 hydroponic is a great way to grow, but that it's
6 not organic. And his sort of famous line was, Let
7 organic be organic. Organic must be organic must
8 be organic.

9 So he said he was committed to seeing
10 this through. And he just got reelected, so I
11 guess he'll be around for a few more years to help
12 us. Does that give a --

13 CHAIR FAVRE: Dan, you had a question.

14 MR. SEITZ: Has anyone done research on
15 the nutritional profile of vegetables grown
16 in-ground versus those that are grown
17 hydroponically, comparing like types of
18 vegetables?

19 VICE CHAIR CHAPMAN: There have been
20 tests done comparing conventional hydro to
21 conventional soil-grown. And conventional hydro
22 did great, you know. It tested well on the basic

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1 nutrients, as it should. They're very good at
2 that.

3 Of course, one of the things that we've
4 learned is we don't know what we're testing for.
5 We only know what we know, we don't know what we
6 don't know. They're learning stuff all the time.
7 The latest stuff that I assume a lot of us have seen
8 is that a little bit of dirt is good for you, you
9 know.

10 A little bit in your diet, maybe instead
11 of salt we'll be sprinkling a little bit of soil.
12 It's good for preventing cancer, it's good for mood
13 disorder. So who knew that, right? Who knew
14 that? There's so much that we don't know.

15 I think that the whole organic movement
16 was based on what we don't know. And based on a
17 respect and a reverence for that \$350 million
18 co-evolution of plants and soil. It's a pretty
19 magical process that we do not understand.

20 So the tests -- nobody's tested organic
21 hydro that I'm aware of, and I've never seen it
22 compared nutritionally. I did see one interesting

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1 test some years back where they fed chickens
2 conventional tomatoes and biodynamic tomatoes and
3 the chickens always ate the biodynamic tomatoes
4 first. So that's a pretty good test.

5 CHAIR FAVRE: Thank you very much.
6 I'm sorry, we're going to have to move on. We're
7 already about 20 minutes behind schedule with, you
8 know, four people into --

9 VICE CHAIR CHAPMAN: Okay. Thank you
10 very much.

11 CHAIR FAVRE: Thank you very much,
12 Dave. Next up is Ashley Buhler, and then we've got
13 Paige Tomaselli on deck.

14 MS. BUHLER: My name is Ashley Buhler,
15 I am a broiler technician and organic coordinator
16 for Miller Poultry. Our poultry company is a
17 small, family-owned company in northern Indiana
18 and southern Michigan. We serve mostly Amish and
19 Mennonite farm families who take care of our birds.

20 I'm talking about sodium bisulfate and
21 the other alternatives that are out there. Barn
22 Fresh is an alternative that is OMRI approved, but

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1 as you can see in this graph, it does not do a good
2 enough job of reducing the ammonia. The red line
3 is the 25 parts per million that OSHA recommends
4 for employees and for the birds, to not have ammonia
5 over those levels.

6 It doesn't do a good enough job.
7 There's still ammonia in there, even after days of
8 heat and ventilation for those birds. It also has
9 not been effective in reducing the bacteria loads.
10 The Amish growers must run their generators 24
11 hours a day, seven days a week, to keep the fresh
12 air going to be able to get rid of the ammonia that's
13 in the barn.

14 As the birds grow, they produce more
15 ammonia, and it's causing the birds to have all
16 sorts of respiratory issues because the ammonia
17 cannot be reduced with simply applying the Barn
18 Fresh and ventilating.

19 The sodium bisulfate could be placed in
20 the barn at any age of the birds. As the birds
21 grow, you can put more sodium bisulfate in. You
22 could also reduce the environmental impact of

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1 having to ventilate and having to heat additional
2 resources if the sodium bisulfate could be put in.
3 If it takes the ammonia down below those levels,
4 the barn could be run as normal.

5 Whereas now, with the Barn Fresh, the
6 heat and the fans have to keep running constantly
7 to try and get that out. And it could be used by
8 all organic producers and not just dependent on
9 certifier.

10 I know there have been different
11 certifiers who've come up with a different
12 alternative to Barn Fresh or different options.
13 But if a certifier doesn't approve that other
14 product that's not Barn Fresh, they can't go with
15 that option.

16 The bacteria and the health challenges,
17 it reduces clostridium, e-coli, salmonella, the
18 dermatitis, and it also lowers the pH. Barn Fresh
19 claims to do that, but in my experience, it hasn't
20 done that. We've had challenges of bacterial and
21 fungal and viral in our barns.

22 So we talked about the levels. This is

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1 the comparison. We have barns that are able to put
2 the sodium bisulfate in it. About 75% of our barns
3 are conventional ABF, and then 25% are organic. Of
4 the barns that are on the top data points there,
5 those were all Barn Fresh barns. Upwards of 100,
6 120 parts per million ammonia.

7 CHAIR FAVRE: Thank you. Ashley, you
8 had a question.

9 MS. SWAFFAR: Sorry, I have several
10 questions actually. Can you please go back to your
11 first slide that showed ammonia levels in barns
12 after Barn Fresh application.

13 MS. BUHLER: Yes.

14 MS. SWAFFAR: I'd like to get a little
15 better look at that. So the Barn Fresh ones are
16 which? It's kind of hard to see.

17 MS. BUHLER: They're all Barn Fresh.
18 All of those are Barn Fresh. So the Barn Fresh was
19 applied two days prior to bird placement, and the
20 measurements were taken. There are several
21 measurements taken, so, that correspond, like the
22 red squares are one grower that I took on certain

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1 days.

2 So the day the chicks were placed, a few
3 days in to the placement, and before the chicks were
4 placed. So you can see that at any time, even
5 within a week of constant ventilation to the barn,
6 that it never reduced the ammonia below that level.

7 MS. SWAFFAR: So you're telling me that
8 those levels that you had showed PPM, parts per
9 million of ammonia.

10 MS. BUHLER: Yes, parts per million.

11 MS. SWAFFAR: Sixty, 80, and 100 parts
12 per million of ammonia?

13 MS. BUHLER: Yes, and I've seen it as
14 high as 200 in a barn when chicks were supposed to
15 be coming to that barn within hours.

16 MS. SWAFFAR: How are your birds
17 surviving?

18 MS. BUHLER: It's been a challenge.
19 You know, the birds have, you know, sores in their
20 eyes. You know, they're blinded, they're to the
21 point where they can't breathe, they can't move
22 around. You know, we've gone to MOSES, we've gone

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1 to our own certifier and said, Give us something
2 else. What else can we use?

3 And we haven't been able to find
4 something that OMRI certified or even that our
5 certifier would let us allow long-term to be able
6 to do this, to keep that ammonia down and keep those
7 birds healthy.

8 MS. SWAFFAR: Okay, sorry, Tracy. I
9 have some more questions.

10 CHAIR FAVRE: Let's do Francis first,
11 and then we'll come back to you, Ashley.

12 MR. THICKE: Are you aware of the
13 difference between Barn Fresh and Activated Barn
14 Fresh?

15 MS. BUHLER: Yes. And we've tried the
16 different types.

17 MR. THICKE: Okay. The data that I've
18 seen submitted replicated research showed that the
19 difference is that the Activated Barn Fresh, and
20 I don't have any stock in Barn Fresh, but the data
21 -- it has citric acid in it, and it lowers the pH
22 actually lower than does sodium bisulfate.

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1 Sodium bisulfate takes it down to about
2 pH 4. And the Barn Fresh Activated takes it down
3 to about 2.7, over a tenfold decrease in pH.

4 And so I don't think -- and also the data
5 that was submitted with that showed that there was
6 zero PPM ammonia, because if you have that low pH,
7 as you probably know, you're going to take that
8 gaseous ammonia, NH₃, and make it into NH₄⁺, the
9 cation will be not gaseous.

10 And so that was a completely different,
11 I'm wondering if, I guess you really probably to
12 need to look at apples to apples and have an acidic
13 form versus the sodium bisulfate.

14 CHAIR FAVRE: Ashley then Jean then
15 Zea.

16 MS. SWAFFAR: Okay, so one of your
17 things here on why you said ventilation does not
18 work is because you work with a lot of Amish farms
19 that would have to run their generator 24/7.

20 So, I've spent a lot of time on Amish
21 farms in northern Indiana myself, and you know,
22 best I can tell, generators have to run 24/7 because

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1 your fans are probably on cycle timers and things
2 like that. So, and I'm not sure where that
3 argument's coming from, because they should be
4 running anyways, correct?

5 MS. BUHLER: Well, if the growers want
6 to run, you know, just use curtain ventilation to
7 use fresh air coming in from the curtains, then they
8 don't have to use the generator. But they have to
9 increase their fan cycle time in order to get rid
10 of the ammonia.

11 You know, it's normally, you know, if
12 they would have a fan cycle time of out of a total
13 of 300 seconds, you know maybe 90 seconds for the
14 small chicks. They would have to go up to 150-200
15 out of 300 seconds, which is a lot air on those small
16 birds to be able to get the ammonia out.

17 You know, the only place we've had
18 success with removing the ammonia once the Barn
19 Fresh has been applied is to get that fan cycle
20 running, you know, almost 300 seconds out of that
21 cycle time. And that's too much air on those
22 birds, and they're suffering there as well because

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1 they have too much air going across them, and that
2 creates respiratory issues, different respiratory
3 issues than the ammonia.

4 CHAIR FAVRE: Okay, let me see if I can
5 remember. It was Zea then Jean -- no Jean and then
6 Zea.

7 MS. RICHARDON: Yes, like most
8 inspectors, I've been in quite a few poultry farms,
9 including Amish ones. Some of the times, these are
10 very small barns that have a very limited number
11 of broilers, for example, rather than a large
12 number.

13 Do you see, what's the range of sizes
14 of number of birds you have per building that
15 they're in, and do you see any difference in the
16 ability to manage for the ammonia in the
17 small-scale ones as opposed to the large-scale
18 ones?

19 MS. BUHLER: I would say it's a
20 challenge in both. Our barns, we've tried to
21 reduce the densities to try and help with that.
22 You know, we've gone from a .9 square foot per bird

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1 to even upwards of close to a foot and half per
2 square foot for each bird.

3 But the number of birds in the house
4 range from 23,000 to 42,000 in some of our newer
5 houses. And that's, even with the reduced
6 numbers, it isn't enough to get that ammonia
7 decreased.

8 CHAIR FAVRE: Okay Zea and then Emily.

9 MS. SONNABEND: Thank you. I'm far
10 from a livestock expert but, so this may be an
11 oversimplified question. But if you're having
12 ammonia build up the barns, why aren't you cleaning
13 out the waste more often?

14 MS. BUHLER: Good, that is an excellent
15 question. We've tried complete clean outs.
16 We've had barns that were upwards of 400 birds dead
17 in, you know, a day, consistently, so we tried to
18 completely clean out the litter and then put in new
19 litter that very next block.

20 We had the exact same reaction. So
21 they still had the necrotic enteritis.

22 MS. SONNABEND: How quickly after you?

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1 MS. BUHLER: The next block. So they
2 cleaned it out, you know, they had a two-week
3 period. And then the birds were placed and three
4 weeks in, you know, about day 18, those birds
5 reacted with necrotic enteritis.

6 MS. SONNABEND: You couldn't clean it
7 every week for some reason?

8 MS. BUHLER: It's inches. So the
9 poultry house has four to six inches of shavings,
10 sawdust, and so in order to clean that out, you have
11 to remove, you know, four to six inches, you know,
12 in a 42 x 560 foot house. That's going to be a
13 significant cost to get that out of there every
14 single time you had birds.

15 You know, it takes these growers even
16 they compost it in windrows, it takes them, you
17 know, a good part of a day to even take out the
18 center windrow to try and reduce the amount that
19 builds up between flocks. So to clean out each
20 time wouldn't be economically, it wouldn't be
21 possible without a large burden. And it also
22 wouldn't help, because the ones we've completely

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1 cleaned out have still broken with necrotic
2 enteritis the next block.

3 CHAIR FAVRE: Emily, and then we get
4 one more question on Ashley's part.

5 MS. OAKLEY: Thank you. How many
6 square feet would you need to allot to each bird
7 to bring the ammonia levels to healthy levels
8 without a form of intervention?

9 MS. BUHLER: I mean, we've seen it up
10 to a foot and half square foot and there's still
11 ammonia in there. But if you start taking birds
12 away from the barn, you're also taking away a heat
13 source. And so you're going to have to add more
14 heaters, you're going to have to add more ways to
15 heat the barn, because they're on this litter, and
16 so you may have to make it deeper.

17 But as you make it deeper, and if you
18 want to keep the litter in there, it's going to
19 build up bacteria over levels. So I don't think
20 that stocking density reductions are the way to go,
21 because it's going to create other undue burdens
22 on keeping the barn ecology consistent within the

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1 systems it's working under now.

2 CHAIR FAVRE: Ashley.

3 MS. SWAFFAR: So I understand the
4 principles of litter build-up and why it's required
5 in a broiler barn. So you didn't really hit Zea's
6 question on applying litter build-up to ammonia
7 levels. My question would be really, on this slide
8 here that you show us those high ammonia levels,
9 how old is that litter?

10 MS. BUHLER: It would probably be
11 somewhere in the three to four year range. We
12 haven't had organic broilers for more than four
13 years. So the oldest operation I think is four
14 years. So four years would probably be the most,
15 but I know that they at least take out a wind row
16 probably every other flock to change the levels.

17 So within that, you know, four to six
18 inches, it's changed probably every six to eight
19 weeks when they remove a portion of it. And they
20 top dress every flock. So even with that, those
21 numbers, that is a barn that has been composted,
22 put into windrows, heated to a 145 degrees, leveled

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1 back out, Barn Fresh has been applied on top of new
2 shavings.

3 So those birds are not -- they're
4 starting on new shavings with Barn Fresh applied
5 on top of that new shaving. So they're not
6 actually even contacting the old litter when they
7 start. And that's still the level of ammonia. I
8 mean, it's fresh shavings with Barn Fresh put on
9 top of that and you're still getting those high
10 levels.

11 CHAIR FAVRE: Thank you, Ashley, we
12 appreciate it. Next up is Paige Tomaselli, and
13 we've got Sarah Taber on deck.

14 MS. TOMASELLI: Good morning, I'm
15 Paige Tomaselli, senior attorney for the Center for
16 Food Safety. I'm going to cover two topics today,
17 strengthening organic seed requirements, and
18 conflicts of interest.

19 Last week, I traveled from California
20 to Washington, DC, where I chaired a meeting on
21 sustainable animal agriculture. At dinner, I was
22 speaking with several environmental and animal

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1 advocates about different aspects of the organic
2 program.

3 As I explained the history of the
4 organic program, the unique nature of the NOSB, and
5 the function of the National List to my colleagues,
6 it became clear to me that these informed organic
7 consumers and environmental advocates were unaware
8 that there is an exception for synthetics in
9 organic, and that an exception even applies to
10 seeds when organic seeds are unavailable.

11 Organic seed is critical to the
12 integrity of organic food. Conventional seed
13 production uses highly toxic chemicals, so their
14 use in organic farming is antithetical to the
15 principles of organic agriculture. While the
16 supply of organic seed in the United States is
17 increasing, significant improvement is still
18 necessary if the organic program is going to be
19 truly independent.

20 Most organic farmers still use some
21 conventional seed, with the largest farmers using
22 relatively little. In order to drive further

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1 increases in organic seed production, the NOP must
2 provide a clear framework for what continuous
3 improvement looks like for organic seed.

4 This includes encouraging producers
5 that do not demonstrate improvement to consult
6 extra sources, at least five, before turning to
7 conventional seed; requiring producers to list
8 organic seed sourcing strategies in their organic
9 systems plans; including handlers in the
10 requirements; and improving inspector and
11 certifier training.

12 Every sector of the organic program
13 must work together toward 100% organic seed in
14 organic. This will bring organic in line with the
15 consumer protection and desire.

16 Another aspect of the organic program
17 that consumers, even the most educated consumers,
18 are unaware of is the incredible amount of public
19 participation, comment, and testimony that goes
20 into the organic program. For example, the recent
21 changes to the PPM are a response to the public's
22 desire for an open docket in a NOSB. We really

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1 appreciate that.

2 That allows public input on key issues
3 throughout the year. Public participation,
4 however, cannot exist in a vacuum. There must also
5 be transparency. This is why CFS requests that the
6 PPM provide procedures by which the public can
7 formally raise concerns about NOSB member conflicts
8 of interest.

9 Congress designed the 15-member NOSB to
10 bring a diverse collection of ideas and experiences
11 to the table. Many members of the board will
12 inherently have some conflicts of interest at some
13 time during their tenure.

14 Transparency about these conflicts is
15 not meant to undermine a member's ability to vote,
16 but instead shine a light on each member's unique
17 experience to further inform the rest of the board
18 and the public why each member is voting the way he
19 or she is.

20 Creating a forum by which members of the
21 public can raise potential conflicts of interest
22 will incentivize members to disclose conflicts of

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1 interest themselves and allow the public to bring
2 forward relevant concerns --

3 CHAIR FAVRE: Thank you. Any
4 questions? Zea?

5 MS. SONNABEND: Thank you, Paige.
6 Sorry to change the subject, but since I know that
7 you have been the author of many of the Center for
8 Food Safety's comments on excluded methods, I need
9 to ask you a question about that.

10 Throughout the comment period on these
11 issues, which has been going on for three or more
12 years now, you have stated that, Any clarification
13 of the excluded methods definition should be in
14 guidance and not regulation. And yet this latest
15 comment implies that it should proceed to
16 regulation as quickly as possible, and I'm
17 wondering why you changed your position?

18 MS. TOMASELLI: Can you -- do you have
19 the comments in front of you? Does it specifically
20 state that?

21 MS. SONNABEND: Yes, something to that
22 effect.

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1 MS. TOMASELLI: All right.

2 MS. SONNABEND: Proceed into
3 regulation as soon as possible.

4 MS. TOMASELLI: All right, that's not
5 our position, so that was -- I didn't write that set
6 of comments. But our position is still that this
7 should be dealt with through guidance and not
8 through regulation.

9 MS. SONNABEND: Okay, thank you.

10 MS. TOMASELLI: You're welcome.

11 CHAIR FAVRE: Thank you very much.

12 MS. TOMASELLI: You're welcome.

13 CHAIR FAVRE: Next up is Sarah Taber,
14 and we've got David Harris on deck.

15 DR. TABER: Good afternoon everyone.
16 Real quick show of hands -- who, perhaps in a
17 previous job in conventional ag, has been gassed by
18 methyl bromide? Anyone? Okay, so I like to say I
19 understand the hazards of conventional agriculture
20 better than anyone in this room. Let me tell you,
21 it's not fun.

22 So, again, my name is Dr. Sarah Taber,

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1 I'm with the Aquaponics Association. Real quick,
2 so the idea that soil flora is mysterious and
3 unknowable and can't be understood and can't happen
4 anywhere else was born at the turn of the last
5 century. And at the time, with the tools that we
6 had, it was true.

7 In the century and more that has passed
8 since then, we've learned a whole lot. We know what
9 lives in soil, we know what lives in compost. We
10 know who makes up a really key component, which is
11 the rhizobacteria living in that sheath around the
12 root, interacting with the host plant and affecting
13 a lot about its health. And we also know that those
14 same organisms also live in the same numbers in
15 hydroponics.

16 NOSB has repeatedly requested data to
17 support banning hydroponics and aquaponics from
18 organic certification and received none. Instead
19 it's gotten only platitudes and philosophical
20 musings from soft-core twentieth century
21 eugenicists like Rudolph Steiner.

22 Board, I bring you some data. This

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1 comes from a comprehensive survey of scientific
2 literature that I did for the Aquaponics
3 Association to learn how we could do our due
4 diligence on food safety and grow food responsibly
5 for our customers.

6 To meet this high standard, we had to
7 learn everything there is to know about what lives
8 in the water in a hydroponic and in an aquaponic
9 setting. One of the many things that we learned was
10 everyone was saying that hydroponics is sterile,
11 and different from soil. And when I was doing that
12 review, we never found one piece of evidence to
13 support that.

14 What we did find instead was this. All
15 right. We got Berkleman, et al., 1994, Florida
16 hydroponics reaches soil level density, ten to the
17 fifth to ten to the eight CFU per mil within 20 hours
18 of putting it in the plants. Milnard, et al., 1992
19 and Egado, et al., 2011.

20 Mycorrhizae grow great in hydroponics,
21 they grow in hydroponics so well that that inoculum,
22 that people buy for their organic farms to bring

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1 mycorrhizae to their farm is grown in hydroponics.

2 Flora in rockwool is plentiful and
3 beneficial and it exists, and it fights disease
4 very, very effectively. Post, middle of 2004, Tu
5 et al., 1995. Daniel et al., 2004, El Gahoof, et
6 al., 1994.

7 Vonns, et al., 2011 is a review of 80
8 papers showing that. Van Os, et al., 2000. That's
9 really all I've got to say. Dr. Taber out. Thank
10 you. Any questions?

11 CHAIR FAVRE: Any questions for Dr.
12 Taber? Thank you very much.

13 DR. TABER: Thank you.

14 CHAIR FAVRE: I appreciate the thump on
15 the podium to make sure we're all awake, too.

16 DR. TABER: You've got to keep them
17 lively.

18 (Laughter.)

19 It's a long day, very long.

20 CHAIR FAVRE: Okay, next up is David
21 Harris, and on deck is Madison Monty.

22 MR. HARRIS: Yes, hello, everyone, my

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1 name is David Harris, I'm president of Insight &
2 Measurement. We do survey research, among other
3 things. I'm trying to go forward -- thank you.

4 This was a survey about general
5 attitudes towards organic produce and container
6 growing. We went to 500 people in the United
7 States, ages 25-64, and these were people who at
8 least purchased some organic produce. This survey
9 was done in late August, early September.

10 We found, when we asked people, Why do
11 you purchase organic produce, it really centers on,
12 I want something that's healthier for me and my
13 family, I want to reduce the amount of pesticides.
14 Issues like they taste better, they build healthier
15 soils, comes in a lot later in terms of a rationale
16 or a reason why I purchase organic produce.

17 We asked people about six priorities for
18 improving the farming of organic produce, and what
19 comes to the top, and this is true from other
20 research we've done, reducing pesticides and making
21 organic produce more affordable.

22 We then asked if they favor or oppose

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1 allowing container growing to be certified organic,
2 and 91% of people favor a policy that allows organic
3 farmers to grow organic produce in containers.

4 We also asked people what would happen
5 to your feelings about the integrity of the USDA if
6 they banned container growing, and the majority of
7 people, 54%, felt like the integrity would be
8 decreased. Only seven percent thought the
9 integrity would be increased if banning container
10 growing was required for organic certification.

11 And then we simply asked people, this is
12 just attitudinally, do you feel organics is more
13 about healthier products for me and my family, or
14 about improving the condition of the soil, and the
15 majority of people are selecting this is healthier
16 product for me and my family. And that basically
17 summarizes some of the things that we found.

18 CHAIR FAVRE: Thank you, any questions?
19 Harriet.

20 MS. BEHAR: So organic is much more than
21 just input substitution, it's not just only about
22 the input. So can you talk about how a container

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1 growing operation improves the general ecosystem of
2 the land that you're on, or biodiversity for
3 wildlife?

4 MR. HARRIS: No, I really can't. There
5 are probably 100 people behind me who can.

6 MS. SONNABEND: How did you choose the
7 people -- oh, he called on me.

8 CHAIR FAVRE: Zea.

9 MS. SONNABEND: How did you choose the
10 people that you surveyed and how many of them were
11 there?

12 MR. HARRIS: Yes, we went to a sample of
13 500. And so we do a lot of things, you know, there
14 are algorithms to balance that the people are
15 representative across the United States by
16 geographic region.

17 And the only thing we really selected
18 for was that you had to be, I forget what the slide
19 was, 25-64, that they had a household income of at
20 least \$25,000. And we wanted to measure the
21 attitudes of people who are in the organic game, if
22 you know what I mean.

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1 So they had to at least buy some organic
2 produce. They weren't people that completely
3 rejected organic produce.

4 MS. SONNABEND: But did you walk up to
5 them on the street, or call them on the phone?

6 MR. HARRIS: Oh, I'm sorry, no. This
7 survey was administered over the internet.

8 MS. SONNABEND: So you asked for people
9 who wanted to comment.

10 MR. HARRIS: Yes, there are, oh, I don't
11 know, there are many dozens of different panels of
12 people who take surveys, and so we use an algorithm
13 that involves a balanced panel to get a
14 representative view of the United States. And so
15 we went to, I believe there were five different
16 panels.

17 MS. SONNABEND: Thank you.

18 CHAIR FAVRE: Tom and then Harold.

19 VICE CHAIR CHAPMAN: Has your survey
20 been provided to us in previous written comment, or
21 is it available for us to review the data?

22 MR. HARRIS: Yes, happy to have you

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1 review it, just let me know what the process is for
2 that. And I assume I'll talk with you about that.

3 CHAIR FAVRE: Harold.

4 MR. AUSTIN: This part of your survey,
5 did you happen to ask any of those responding to your
6 survey whether or not they had a preference whether
7 the organic products that they purchased were
8 soil-born, came from soil production, or from
9 hydroponically? I mean, did it matter to them?
10 Did you get a response, or did you ask that question?

11 MR. HARRIS: Well, I can tell, you, no,
12 we didn't ask that particular question. But the
13 majority of people really don't know a lot about the
14 term hydroponic. So, yes.

15 CHAIR FAVRE: I have a question for you.
16 You indicated in your graphic that 91% said that
17 they felt like the integrity might be damaged by not
18 allowing containers, did you have any background
19 information on why they felt that was the case?

20 MR. HARRIS: Well, let me just correct
21 that. The 91% was, you know, the question was, The
22 USDA currently allows organic farmers to grow

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1 organic produce in containers. Do you favor or
2 oppose this policy? And that was the 91%.

3 CHAIR FAVRE: Okay.

4 MR. HARRIS: And so 91% favored that
5 policy.

6 CHAIR FAVRE: Okay, thank you for
7 clearing that up.

8 MR. HARRIS: Yes, that's all.

9 CHAIR FAVRE: Harriet, last question.

10 MS. BEHAR: Did you ask people about how
11 they felt about crops being grown under continuous
12 artificial lighting versus in sunlight?

13 MR. HARRIS: No, we've never asked
14 that, no. And not in any other work about
15 continuous lighting I haven't.

16 CHAIR FAVRE: Thank you very much, and,
17 yes, if you'll make sure we get copies of that
18 survey, that'd be helpful.

19 MR. HARRIS: Sure, okay.

20 CHAIR FAVRE: Next up is Madison Monty,
21 followed by Theoary Crisantes.

22 MS. MONTY: Hi, okay. Good afternoon,

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1 my name is Madison Monty, I am policy advisor for
2 the Northeast Organic Farming Association of
3 Vermont. NOFA Vermont is one of the oldest organic
4 farming associations in the country, with around
5 1200 members.

6 I appreciate the opportunity to comment
7 today, and I would like to address the board, as
8 you've heard so much already, on the subject of
9 hydroponics.

10 In these discussions, the term bioptic
11 has been used to refer to hydroponic, aquaponic, and
12 aeroponic systems. And with regard to their
13 inclusion in organic, I want to point out that the
14 principles of hydroponic and other so-called
15 bioptic systems are the same.

16 What sets these systems apart, and what
17 should disqualify them from organic certification,
18 is their reliance on liquid feeding systems rather
19 than biologically active soil to supply crops with
20 the nutrients they need. It is clearly an
21 exaggeration to claim that coconut coir and
22 rockwool mimic the biological activity inherent in

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1 soil.

2 These inert substrates do not supply
3 sufficient nutrients on their own. It's true that
4 bacteria are present in these systems, but they are
5 also present literally just about everywhere. To
6 compare the biological activity that occurs in
7 these substrates to that found in a health soil
8 ecosystem is a fallacy.

9 Beyond what an earlier commenter
10 proposed, we believe consumers' expectations for
11 organic go beyond the absence of synthetic
12 fertilizers and pesticides to a positive
13 expectation that organic supports biodiversity,
14 something hydroponics do not and cannot accomplish.

15 Hydroponic and other bioponic systems,
16 by purporting to know exactly what nutrients the
17 plants need and supplying them through liquid
18 feeding solutions, represent the conventional
19 model.

20 It has been said, and I agree, that to
21 accept these systems as organic is analogous to
22 suggesting that a cow can live its entire life in

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1 a factory and still be considered organic as long
2 as it is only fed organic grain and treated with
3 approved medications.

4 To accept this way of thinking would be
5 a disservice to those who have worked for so long
6 as stewards of the complex soil ecology that is
7 critical to organic farming. This morning you
8 heard two of Vermont's dedicated organic farmers
9 who, like many others, have worked for decades
10 developing and maintaining healthy, biologically
11 active soils to provide nutrition for their crops
12 and to the people they feed.

13 To them, to me, and to so many others,
14 caring for the soil is what it means to be organic.
15 I ask you to take these farmers' comments to heart
16 in your decision this week, and know there are
17 legions of farmers and consumers behind them asking
18 you not to redefine what it means to be organic.

19 Please concur with the vote of the crop
20 subcommittee and exclude hydroponics from organic
21 production.

22 CHAIR FAVRE: Harold.

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1 MR. AUSTIN: In your presentation, you
2 made a comment about the claims about the
3 hydroponics being a fallacy. Was that based on
4 personal opinion, or is that based on scientific
5 data?

6 MS. MONTY: I just, well, mostly
7 personal opinions, to be honest. I just have a hard
8 time seeing how a system that uses an inert
9 substrate that provides physical support but that
10 can't supply the majority of the nutrients itself
11 can be compared fairly to the very complex soil
12 ecology that's present in a healthy soil ecosystem.

13 I just don't think that the two are
14 comparable, and I think that that is proven by the
15 fact that those systems require constant feedings
16 of nutrient solutions. Whereas soil-based systems
17 only require, you know, occasional supplementation
18 and not constant nutrient additions.

19 CHAIR FAVRE: Thank you, Madison.

20 MS. MONTY: Thank you.

21 CHAIR FAVRE: Next up is Theojary
22 Crisantes, followed by Michael Sligh on deck.

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1 MR. CRISANTES: Good afternoon, board
2 members, ladies and gentlemen. My name is Theoary
3 Crisantes from Wholesome Harvest. Today I would
4 like to talk to you about our certified organic
5 container production and the nutrient cycling
6 process we follow to feed our vegetables grown in
7 containers.

8 The process starts by making compost.
9 Following the NOP guidelines, and assuring that the
10 final product is mature with high end C/N ratio.
11 The same compost we brew -- with same post we brew
12 compost tea.

13 As you can see in the lab analysis shown
14 here, the compost tea has plenty of beneficial
15 microbial activity. The tea is then carefully
16 applied to the container to inoculate the cocoa
17 husk, creating ideal conditions for the beneficial
18 microbes to establish themselves in the root zone
19 of the growing crops.

20 As you can see on the following lab
21 analysis from one of our containers, the microbial
22 activity is above the suggested ranges, creating an

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1 environment suitable for high cycling of nutrients.
2 All of this biology activity is then translated to
3 plant nutrition through the cycling process.

4 We perform plant tissue analysis, and
5 nitrogen levels are correct for the plants to grow.
6 Through observation of the plant itself, we can
7 confirm that the plant is growing healthy as well.
8 But when we perform traditional media nutrient lab
9 analysis, the nitrogen levels of the plants are --
10 not the plants, of just the immediate self, are
11 below the requireds for the plants to grow healthy.
12 So we know that our current cycling process is
13 working correctly in feeding our plants.

14 So I wanted to take this time to present
15 to you a study performed by the Department of
16 Agriculture and Ecology of the University of
17 Copenhagen, published in April of 2012 in the
18 Journal of Biogeoscience, titled, Interactions
19 between Uptake of Amino Acids in Inorganic Nitrogen
20 and Wheat Plants.

21 The conclusion was, and I quote, It is
22 concluded that amino acids can constitute a

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1 significant nitrogen source for wheat plants. And
2 there is an interaction between the uptake of
3 inorganic and organic nitrogen. The lysine uptake
4 is not down regulated in the presence of nitrates,
5 while nitrates uptake is reduce in the presence of
6 lysine, end quote.

7 There is more significant data
8 describing similar process in which plants uptake
9 nutrients in organic form. We wrote a comment to
10 the NOSB board, which includes a detailed
11 description of our growing practices and scientific
12 data references which support our field
13 observations. We urge the NOSB board to take this
14 scientific data and observations to continue to
15 allow for the use of organic containers.

16 CHAIR FAVRE: Thank you, any questions?

17 MR. CRISANTES: Yes.

18 CHAIR FAVRE: Harriet.

19 MS. BEHAR: I will ask the same question
20 I asked before, so on your larger operation where
21 -- now, first, are you growing in high tunnels, or
22 indoors, under artificial light?

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1 MR. CRISANTES: No, no, just a regular
2 greenhouse with sunlight coming in.

3 MS. BEHAR: Okay, so it's a greenhouse.
4 So in the larger aspect, how is your operation
5 promoting the overall health of the greater
6 ecosystem where it's located, and maintaining or
7 enhancing biodiversity?

8 MR. CRISANTES: For example, you know,
9 after we're done with the coco coir, we take it out
10 of the greenhouse, we have the field next to our
11 greenhouse where we introduce that coco husk. We
12 incorporate it into the soil, and that soil then we
13 grow Sudangrass throughout the summer.

14 And then we have a local farmer that
15 comes and harvests that Sudangrass and takes that
16 Sudangrass and feeds it to his cows. He comes and
17 harvests that Sudangrass throughout the summer.

18 And you know, we do like a cooperation
19 between the part of our production that we can't do
20 anything with, and then he does something with, you
21 know, organic matter that is, let's say, not
22 sellable. And so we do that cooperation. In other

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1 farms where we grow other crops, we incorporate it
2 into the soil, and then we grow crops such as
3 zucchini.

4 So you think that just because it's
5 inside a greenhouse, that there's no use for that
6 material that we're using inside the greenhouse.
7 But there is, there's tons of uses for it. And
8 that's how we promote the cycling of nutrients and
9 the biodiversity.

10 And the biodiversity is not only, let's
11 say, it's more than just outside of the greenhouse.
12 It's inside, where all the microbes that live
13 inside. So if you look at the analysis that I
14 showed before, there's tons of biological activity
15 going on.

16 If you saw the numbers that I showed you
17 there, they're not just tiny little things that are
18 there. The numbers are greatly exaggerated, you
19 know. Because it's not a little bit.

20 Yes, sir.

21 CHAIR FAVRE: Harold.

22 MR. AUSTIN: Your greenhouse

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1 construction, is it planted on ground that could be
2 farmable, or is this non-farmable ground that it's
3 constructed on?

4 MR. CRISANTES: So it's in Arizona. So
5 imagine, you know, it's pretty dry, Arizona. It's
6 desert, so, you know, the dirt there, it's pretty
7 alkaline. So it's pretty rocky. If you throw a
8 tomato seed outside of our ground, it will not grow.

9 CHAIR FAVRE: Thank you very much.
10 Next up is Michael Sligh, with Jim Garrison on deck.

11 MR. SLIGH: Good morning, I am Michael
12 Sligh with RAFI. Welcome to the new board members,
13 and to those of you who are retiring,
14 congratulations and thank you for your service.

15 I rise today to summarize my written
16 comments and to make three areas of comment.
17 First, new genetic techniques. I support the
18 committee recommendations and strongly urge the
19 NOSB to adopt the principles, the criteria, and the
20 list of techniques as the current NOSB position.
21 There is broad support for this.

22 As we see, this is a critical moment as

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1 we move into a new administration to enter in with
2 clarity, precaution, and policy signals that can
3 preserve consumer confidence and protect the rights
4 of farmers and plant breeders.

5 Secondly, fairness. In mean times, it
6 is critical that we more comprehensively embrace
7 fairness as a principle in our organic claim.
8 While fairness is a key pillar of our international
9 principles for organic, we have not managed to
10 formally include this into our regulations. We
11 cannot get to sustainability without fairness,
12 workers cannot have justice if farmers do not have
13 justice.

14 That said, for those who have
15 volunteered to followed this rule, our promise is
16 a level playing field. You play by the rules, you
17 can compete on fair terms.

18 Here are few examples where we can
19 improve on our promise. GMOs, organic farmers
20 deserve protection. The NOSB and the NOP should
21 not shy away from continuing to urge and voice
22 guidance and policies to embrace fairness as a key

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1 way to resolve GMO contamination.

2 Secondly, imports. Organic
3 equivalency is based on ensuring a level playing
4 field. We cannot allow the U.S. to become a low bar
5 dumping ground for organic products that do not meet
6 the U.S. standard. I strongly urge immediate
7 action to address the comments of OFARM. I support
8 USDA's adoption of import transaction certificates
9 and the establishment of a high risk regions import
10 policy that requires greater scrutiny for such
11 imports.

12 Hyrdoponics. It's my understanding
13 that currently hydroponics can be imported from
14 other countries that do not allow organic
15 hydroponics in their own country, and they can come
16 into our country without any additional
17 clarification. I support the NOSB and those who
18 call on urgently to take a vote of the growing
19 problem of hydroponics allowance into organic.
20 The original NOSB position has been misrepresented.

21 And finally, I think now is a critical
22 time for us as a community to recommit to our shared

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1 vision and common support for organic integrity.
2 We are heading into uncharted waters that require
3 greater unity of purpose and focus. Let us call on
4 our better selves, as this will serve us as we move
5 forward. Thank you.

6 CHAIR FAVRE: Thank you, any questions?

7 MR. SLIGH: Thank you.

8 CHAIR FAVRE: Thank you very much.
9 Next up is Jim Gerritsen, and we've got Nicole Dehne
10 on deck.

11 MR. GERRITSEN: Hi, I'm Jim Gerritsen.
12 I've been an organic farmer for 40 years, certified
13 organic by MOFGA for 34 years. And in disclosure,
14 I make my living from farming, from raising organic
15 seed crops primarily.

16 In addition to farming, I've served the
17 organic community extensively. I worked as a
18 volunteer on MOFGA's Certification Committee for
19 almost 25 years. I served for three years as
20 president of Organic Seed Alliance, based in
21 Washington. And I'm currently the president of
22 Organic Seed Growers and Trade Association, based

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1 in the State of Maine.

2 OSGATA is farmer-controlled trade group
3 focused on trying to be a steward for the organic
4 community and developing the integrity and
5 expansion of organic seed supplies for the organic
6 community.

7 So one issue I want to talk about, OSGATA
8 supports the excluded methods technology proposal
9 that's coming up. We support all three, and we
10 believe that it needs to be voted in at this meeting.

11 And in fact, at yesterday's National
12 Organic Coalition pre-meeting, there was a general
13 consensus by I think probably everyone in that room,
14 including Organic Trade Association. And you
15 might want to ask them, because they had some
16 hesitancy about supporting the vote now, but after
17 a discussion there, I came away thinking that they
18 support voting on that at this meeting.

19 Okay, another issue I want to talk about
20 is hydroponics. In addition to farming, I'm a
21 member of a group called The Agrarian Elders, and
22 we have previously submitted two letters on this

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1 hydroponics issue to the NOSB.

2 The Agrarian Elders is a group of
3 experienced organic farmers which total over a
4 thousand years of organic farming production, and
5 we're unanimous in our view that in order to be
6 organic, production must be soil-based.

7 And what that means is that it has to be
8 in the soil, in the ground. And we have a hundred
9 years' worth of experience from the very beginnings
10 of organic farming. This is what organic meant.
11 It has to be soil-based. One of the important
12 reasons is that we have soil, we have climate change
13 to face and the carbon sequestration is important.

14 The final thing I wanted to say is this
15 question that Davey Miskell tried to ask. I'd like
16 to address this question to Mr. McEvoy. Please
17 clarify for the audience and the NOSB what actions
18 the NOP will take if the proposal to approve
19 hydroponics fails.

20 CHAIR FAVRE: Thank you, Jim. Hold on
21 just a minute. Yes, you can, go ahead. Might as
22 well.

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1 MR. MCEVOY: Yes, we're going to get
2 into this a bit on Friday, and I think that's the
3 best time. When the crops subcommittee is
4 discussing the hydroponics proposal, we can talk
5 about specifically what it means in terms of
6 different outcomes.

7 MR. GERRITSEN: Okay. From my
8 perspective, I think a lot of the audience members
9 were confused as to what this was going to be. So
10 to try to move this ahead so that the comments can
11 be more valuable to the NOSB, I think it would be
12 helpful.

13 When we say we don't want hydroponics,
14 we think that the NOSB should be making a advisement
15 in the strongest possible terms to the NOP that
16 hydroponic certification should end immediately.

17 MR. MCEVOY: Yes, I don't know what the
18 outcome of the NOSB will be in terms of
19 recommendations to AMS. But any recommendation
20 we'll take seriously, we'll work towards
21 implementation, we'll have to do some kind of action
22 in terms of further regulatory work, notice and

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1 comment rulemaking.

2 It's unknown, it depends upon what that
3 recommendation is going to be. So remember that
4 the NOSB is an advisory committee, it provides
5 recommendations to AMS. AMS is the one that sets
6 the standard, sets the regulatory framework. So
7 some kind of action would have to be taken by AMS
8 to change the current status.

9 MR. GERRITSEN: Okay, and I was on, part
10 of my work on MOFGA's certification committee was
11 in the late 1980s, and we provided input to Senator
12 Leahy and the Organic Foods Production Act.

13 The NOSB was created as a compromise so
14 that the organic community would have
15 representation with the government. It would be
16 that interface. So the fact is NOSB created a clear
17 statement in 2010 on hydroponics, and NOP has
18 ignored it. They've allowed hundreds of millions
19 of dollars of hydroponic production to go on.

20 And so this status quo can't remain.
21 That's what I want to get some action, so that we
22 can get justice.

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1 CHAIR FAVRE: I appreciate your
2 passion, but we do have to stick with the question
3 and answer format if you would please. Ashley, you
4 had a question.

5 MS. SWAFFAR: I have a question for you
6 as a potato farmer, not as all your other stuff.
7 Where do grow bags fit into all this hydroponic
8 container and all that? Do you -- what do you think
9 about grow bags?

10 MR. GERRITSEN: I think it's fine if
11 you're a backyard person living in a city and you've
12 got a balcony and no other access to land. I've got
13 no problem with hydroponics. But it is not
14 organic, and it is fraudulent to allow hydroponic
15 operations that are not in the soil, in the ground,
16 to call their stuff organic.

17 CHAIR FAVRE: Tom, you had a question.

18 VICE CHAIR CHAPMAN: Yes, you just said
19 in the soil, in the ground for the second time, so
20 I just want to clarify your position. Any amount
21 of soil and any size of container is not allowable
22 under organics from your --

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1 MR. GERRITSEN: In the soil, in the
2 ground. That's the European definition, and I
3 think that's the correct one.

4 VICE CHAIR CHAPMAN: You would apply
5 that to transplants and seeds as well?

6 MR. GERRITSEN: It's a soil-based
7 system. The transplants are used as a temporary
8 measure before they go into a soil-centric system
9 for the growth of the majority of their life.

10 VICE CHAIR CHAPMAN: So OFPA states
11 that for seeds, seedlings, planting practices, for
12 a farm to be certified under this title, producers
13 of such farms should not apply materials to, or
14 engage in practices on, seeds or seedlings that are
15 contrary or inconsistent with applicable organic
16 certification.

17 So stating that if it's not in the
18 ground, in the soil, and that's required, wouldn't
19 that exclude seeds and seedlings?

20 MR. GERRITSEN: Well, we grow tomato
21 seed is one of the organic seed crops that we raise.
22 We start the tomatoes inside because it's cold in

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1 Maine and you can't start them outside. So, they
2 are started inside.

3 As you say, it's in the OFPA to allow
4 that. But for the majority of the life of that
5 plant, it's in the soil, in the ground.

6 VICE CHAIR CHAPMAN: No, OFPA does not
7 allow that if you can't grow in containers.

8 MR. GERRITSEN: I guess I'm not
9 following what you're saying.

10 CHAIR FAVRE: I think this is a
11 discussion left for the debate on Friday. Thank
12 you very much. Thank you very much, Jim. Next up
13 is Nicole Dehne, followed by Jo Ann Baumgartner --
14 you know, actually, hold on.

15 Nicole, we're going to, I apologize to
16 Jo Ann, but we're going to go ahead, and we're
17 running about half an hour behind schedule, so I'm
18 going to call an audible, as I am prone to do. We
19 are going to shorten lunch from 75 minutes to 60 in
20 an effort to try to make up about 15 minutes off our
21 schedule. And we're going to go ahead and let
22 Nicole be our last speaker, and then Jo Ann, you'll

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1 come back after lunch and get us started.

2 MS. DEHNE: All right, got right in
3 under the wire, great. Go ahead?

4 Okay, so good afternoon, my name is
5 Nicole Dehne. I'm the certification director for
6 NOFA Vermont's organic certification program.
7 It's called Vermont Organic Farmers. VOF, as we
8 call it, has been certifying organic farmers and
9 processors since 1985, and we currently certify
10 over 600 organic producers in the state.

11 I'd like to thank the NOSB members for
12 the hard work they do on this board, for their
13 dedication, and also for the opportunity to address
14 the board today.

15 There is, to me, a concerning lack of
16 farmer voice and participation in the national
17 conversation about organic production. You heard
18 today from two of our certified producers who've
19 traveled across the country to address the board on
20 the issue of hydroponics.

21 I urge you to listen to their testimony
22 and to remember there are many more farmers like

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1 them in Vermont, I can attest to that, and
2 elsewhere, that are unable to be here today but
3 share their views on this issue.

4 Please consider how the decision made
5 today by this board affects those farmers and their
6 businesses.

7 So we applaud the NOSB for their
8 diligence in carefully working through the gaps and
9 holes from the 2010 NOSB recommendation on
10 production standards for terrestrial plants in
11 containers and enclosures. We agree that this
12 recommendation allows container growing in
13 principle.

14 However, we do disagree that the 2010
15 recommendation implies that plants should be grown
16 in containers to maturity, or that crops should be
17 harvested from plants grown in containers.

18 The 2010 recommendation clearly
19 discusses container growing and greenhouse
20 production as allowed practices, but it is
21 reasonable to conclude that the intent of that
22 container growing discussion was to acknowledge

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1 that transplant starts and bedding plants should be
2 allowed to be sold as organic.

3 We strongly encourage the NOSB to limit
4 container growing to transplants and plants sold in
5 pots. We believe the NOSB should adopt the model
6 used by the vast majority of the European Union,
7 which prohibits any harvested crop from being grown
8 in a container. The EU limits organic
9 certification to what's grown in the ground with the
10 exception of transplants, ornamentals, and herbs
11 sold in pots.

12 It is true that three small member
13 states in the EU all permit substrate growing and
14 none of those substrates are required to be soil.
15 And this demonstrates the import and that the NOSB
16 has to clarify that crops grown in biodegradable
17 substrate that's fed using plant nutrient solution
18 still represent an out-of-soil system which is
19 essentially hydroponic cultivation.

20 So we feel this approach of requiring
21 plants to be grown in the soil with the limited
22 exceptions would be clear and verifiable. And it

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1 would prevent inconsistent application and
2 verification among certifiers. It would also
3 prevent the industry from the difficult task from
4 having to define how much soil is sufficient in
5 order to ensure that the plant is soil grown.

6 And drawing a line in the sand to
7 determine how much soil is sufficient, how much
8 compost is required, how much fertilization is
9 allowed post planting creates amongst growers a
10 feeling that the standards are arbitrary. So we
11 prefer the EU's simple approach that reflects the
12 principles of the organic movement. Thank you.

13 CHAIR FAVRE: Any questions? Thank
14 you very much for your comments.

15 MS. DEHNE: Everybody wants to go to
16 lunch, I get it.

17 CHAIR FAVRE: By my official
18 timekeeping clock, it's 12:54 right now. And we
19 will start back here at two o'clock.

20 (Whereupon, the above-entitled matter
21 went off the record at 12:54 p.m. and resumed at 2:00
22 p.m.)

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1 CHAIR FAVRE: Board members, if you could
2 take your seats, please. We're going to get
3 started back. Just as a reminder to everybody,
4 we're limited to three minutes. Silence your
5 phones, yes, I'm talking to you, every single one
6 of you, and silence your computers too, if you
7 would, we're still hearing some stuff from time to
8 time.

9 The duck left the room to seek some
10 outdoor access. Yes. Okay. Thank you for coming
11 back and joining us in a timely manner. We're going
12 to get started back with our public comments and
13 we've got Jo Ann Baumgartner up first. And we've
14 got Carl Freund on deck.

15 MS. BAUMGARTNER: Yes? Oh, okay, thank
16 you. Yes. I'm Jo Ann Baumgartner with the Wild
17 Farm Alliance. We recently published this
18 document to support the NOP's Natural Resource and
19 Biodiversity Conservation guidance, because the
20 NOP didn't address the issue of prohibiting the
21 conversion of high conservation value area into
22 organic production with the new guidance.

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1 We urge the NOSB to recommend a rule
2 change to do that. Currently, native ecosystems
3 can be converted overnight to organic, while
4 conventional land must be transitioned over three
5 years. It's useful to consider arguments for and
6 against this rule change.

7 Argument: transitioning land is
8 expensive. But NRCS transition program and
9 companies like General Mills support producers as
10 they transition to organic and OTA and NSAC are
11 working on future farm bill support.

12 Argument: it would be hard for organic
13 operations to adjust to the rule. But areas
14 previously converted could be grandfathered in and
15 many countries already prohibit conversion.

16 Argument: organic producers cannot find
17 land to expand their operations. But 99 percent of
18 the agricultural land in the world is farmed
19 conventionally, let's transition that instead.

20 As part of an effort to find out how much
21 conversion is occurring, we reached out to
22 inspectors. One said that he witnessed the tilling

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1 of native shortgrass prairie in Colorado plains to
2 grow grains. Rare species, like these prairie dogs
3 and burrowing owls, live or lived in this habitat.
4 He estimated 1,000 acres were converted.

5 Several inspectors reported conversion
6 of sagebrush steppe in the Northwest. One person
7 estimated 1,000 acres converted. This is or was
8 habitat for the rare sage grouse.

9 It's a moral issue. A sixth wave of
10 species extinction is occurring. We are now losing
11 1,000 to 10,000 times the historic natural
12 background rate. We need to change our role from
13 conqueror of the Earth to plain member and citizen
14 of it.

15 And it's a marketplace issue. Palm oil
16 is the world's number one vegetable oil. It used
17 to be -- it's used in many organic foods and it's
18 likely causing the destruction of orangutan
19 habitat. The integrity of the organic label is at
20 stake. Let's change that. The NOSB should make a
21 recommendation that the NOP can adopt. Thank you.

22 CHAIR FAVRE: Any questions? Francis,

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1 and then Emily.

2 MR. THICKE: Thank you, Jo Ann. Are you
3 opposed to all CRP conversion to organic?

4 MS. BAUMGARTNER: No.

5 MR. THICKE: Okay.

6 MS. BAUMGARTNER: In fact, probably a lot
7 of CRP could be converted. What we are concerned
8 about is lands that have high conservation value.

9 MR. THICKE: Okay. Good. I appreciate
10 that, because I know, like, in Iowa, a lot of CRP
11 land gets converted to grow corn for ethanol. And
12 if they can do it in organic, like, converted to
13 managed pasture or something, we can do a step-up,
14 I think.

15 MS. BAUMGARTNER: The CRP land is in CRP
16 because it has some environmental problems. So,
17 often it has high erosion rates, so we wouldn't want
18 to put it back into organic if that's an issue. And
19 then, if there's rare species or sensitive
20 habitats, we'd want to protect those too.

21 CHAIR FAVRE: Emily?

22 MS. OAKLEY: Yes, I probably couldn't

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1 care more about this issue. I feel really, really
2 strongly about it and wanted to know if any of the
3 other certifying entities could provide a
4 background or a framework that we might use and if
5 there are any that you can pinpoint to us, either
6 now or later?

7 MS. BAUMGARTNER: Yes. Well, in one of
8 my slides, I had listed some of the organic
9 certifiers around the world that already address
10 this. And in some earlier comments I made, I think
11 it was -- it was back when we were trying to get the
12 NOP to include this in the Natural Resource and
13 Biodiversity Guidance.

14 We had this huge spreadsheet that showed
15 what all these certifying agents are doing, or
16 actually, it's not all of them, we need to update
17 that, but in any case, there's a big spreadsheet
18 that shows who's doing what for what kind of crops
19 and how they verify that. So, yes, I'm happy to
20 update that and share that with you all.

21 CHAIR FAVRE: Lisa?

22 MS. DE LIMA: On the palm oil issue, have

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1 you guys submitted any comments more specific as to
2 what you'd like to see happen with palm oil in
3 organics? Are you calling for it to just not be
4 included at all or including some level of RSPO
5 certification on top of the organic or what are you
6 guys --

7 MS. BAUMGARTNER: Well, what we are
8 concerned about is high conservation value areas.
9 So, if a proposed operation wants to become organic,
10 the certifier ideally would go and look at that land
11 that they want to convert. And if there's
12 orangutans there, I doubt it's going to get
13 converted, or we would hope that it wouldn't,
14 because most of the orangutan habitat now is gone
15 and that's where a lot of palm oil production is
16 occurring.

17 So, it just depends on how sensitive the
18 habitat is. It's not that we're opposed to
19 converting lands that -- especially, there could be
20 lands that have had some earlier grazing and it's
21 really not good for much else than farming at this
22 point, the species that might have been important

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1 there are already gone.

2 CHAIR FAVRE: Harriet, and then Dan, and
3 then we need to wrap it up.

4 MS. BEHAR: So, I have a question about
5 whether or not, I know that many of the other
6 certifications around the world actually prohibit
7 the conversion to organic and from these high
8 conservation, basically lands that have not been
9 previously farmed or have endangered, threatened,
10 or at-risk species of all types.

11 So, are you leaning more towards a
12 discouragement by having, perhaps, a longer
13 conversion time or prohibition? And would that put
14 -- do you feel you have support in the organic
15 community for a complete prohibition?

16 MS. BAUMGARTNER: Well, that's the
17 question. Because a complete prohibition would
18 help to support many species that are in decline
19 worldwide and it would be a bigger blanket, but I
20 think we need to hear -- we need to get a discussion
21 document and hear from the public what they feel is
22 doable.

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1 There's three possibilities: complete
2 prohibition; going back, having a waiting period
3 instead of, like, three years for conventional
4 transition, five years is what the IFOAM
5 recommends; and then, some other certification
6 agencies pick a date, like, say 2010, anything after
7 that, you can't do. So, those are the options as
8 I see them.

9 CHAIR FAVRE: Okay. And final question
10 from Dan.

11 MR. SEITZ: Do any agencies provide
12 support to farmers who want to transition land
13 that's not high value land, so that there isn't an
14 incentive to seek the native habitat or virgin land?

15 MS. BAUMGARTNER: USDA Natural Resources
16 Conservation Service does have a program for
17 transitioning farmers. They help them fill out the
18 organic system plan and they help them address
19 conservation issues that are there on the land.

20 And then, OTA and NSAC, National
21 Sustainable Act Coalition, are trying to put or are
22 putting together a proposal where we would get Farm

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1 Bill money to pay for a mentoring program and some
2 actual funds to help the farmers transition. Plus,
3 there's businesses that are helping with that,
4 because they need more organic farmers.

5 CHAIR FAVRE: Thank you, Jo Ann.

6 MS. BAUMGARTNER: Thank you.

7 CHAIR FAVRE: Next up is Carl Freund.
8 And we've got Susan Finn on deck.

9 MR. FREUND: Hi, my name is Carl Freund,
10 I'm president of Unistraw North America. And what
11 we are is we're a company that makes probiotic
12 straws and essentially attaches them to different
13 ready-to-drink products, such as milk, protein
14 shakes, so on and so forth.

15 I'm here to speak on behalf of
16 carrageenan. And in the development of a lot of our
17 products, what we have found is we have found that
18 carrageenan, whether it's with protein, with fiber,
19 and with the interaction with probiotics, that we
20 find it essential to have a formulation that
21 actually works and works extremely well.

22 One of the things we do is we do a great

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1 deal of work with b-to-b. So, what we do is work
2 with other branded companies or other manufacturers
3 who are actually trying to produce innovation. And
4 so, we've done a number of formulas that we've
5 developed.

6 In looking at the whole issue of
7 carrageenan from a standpoint of trying not to use
8 it, we've looked at Clean Label and we've been able
9 to do that on some of our products, but for the most
10 part, what we really are focused on is how do we give
11 the best product to the consumer and make sure that
12 it stays stable and together?

13 And one of the things that we've found
14 is we haven't found any real good substitute at this
15 point in time. And nor do we believe there should
16 be substitute based on the science and the data
17 that's backing it, and also some of the things that
18 we're learning from a sustainability perspective.

19 If you look at organic products across
20 the U.S. right now, there's about 473 that have
21 carrageenan in them. That doesn't include sizes or
22 different SKUs, so it's a substantial number if you

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1 multiply it by the number of SKUs. And if you look
2 at where the bulk of that is, about 54 percent reside
3 in beverages, which is the key area where we
4 actually are operating.

5 Furthermore, if you look at things that
6 are being kind of determined as alternatives, such
7 as gellan gum and xanthan, number one is we aren't
8 finding that they do as well with complex formulas.
9 And we're also finding that, as I speak to other
10 manufacturers and retailers, that you don't see it
11 as a preferred solution.

12 But what they are finding is they're
13 finding that there is some backlash out there from
14 social media that's kind of pushing them to look at
15 different alternatives, but there's many
16 formulations that actually can't be substituted at
17 this time.

18 On another piece, it's cell viability.
19 With the probiotic area, which I've been in for a
20 number of years, cell viability is absolutely
21 critical. You got to make sure that they remain
22 alive and viable. And in some of our studies, we

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1 see different survivability with some formulations
2 versus others.

3 We've seen some degradation within the
4 gellan formulations, we're not exactly sure how to
5 assess that, but we also see almost a protective
6 state with some of the carrageenan. So, it's
7 something that we need to look into further.
8 There's some independent data out there that also
9 shows some of that. From a cytotoxicity
10 perspective, there's some deterioration of the
11 cells. So, I think it should remain on the list at
12 this time.

13 CHAIR FAVRE: Three minutes goes really
14 fast, doesn't it?

15 MR. FREUND: It does.

16 (Laughter.)

17 CHAIR FAVRE: Harriet, you had a
18 question?

19 MS. BEHAR: So, the carrageenan is used
20 in the straw with the probiotics?

21 MR. FREUND: No, our carrageenan, what we
22 do is we develop combination formulas. So, the

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1 straw, one of the things that's important from a
2 stability standpoint is, we attach it to the straw
3 in beads that are actually attached to the
4 ready-to-drink.

5 But what we design is the formulations
6 that also are in the Tetra Pack or the
7 ready-to-drink type of product, which would include
8 combinations of protein, fiber, and other
9 functional ingredients. So, it's a combination,
10 kind of a symbiotic product that goes together.

11 MS. BEHAR: So, are those --

12 MR. FREUND: We can't put the probiotic
13 actually directly into the liquid of a aseptic
14 product, we can do that --

15 MS. BEHAR: Sure.

16 MR. FREUND: -- on a cold chain product.

17 MS. BEHAR: Right. So, I'm still just
18 confused. So, the use of carrageenan, is it in the
19 larger package or is it --

20 MR. FREUND: It's in the larger --

21 MS. BEHAR: -- in your straw?

22 MR. FREUND: -- package. We do not have

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1 it in the straw. So, it is in the larger package,
2 but that's part of our total -- we do the straw, but
3 we also do the formulations and the development and
4 some of our own b-to-c products that are the actual
5 total package.

6 MS. BEHAR: And so, the function of the
7 carrageenan in the larger product is when the
8 consumer would put the probiotic in, right, because
9 this is separate --

10 MR. FREUND: Right.

11 MS. BEHAR: -- right?

12 MR. FREUND: Yes.

13 MS. BEHAR: This is a consumer --

14 MR. FREUND: Right.

15 MS. BEHAR: -- puts that -- I'm just still
16 not sure if the consumer consumes that product
17 immediately, why would there be a lessening of the
18 probiotic?

19 MR. FREUND: Well, one of the things that
20 we look at when we're looking at it, when it rinses
21 over the product and actually take -- the probiotic
22 goes into your system, it looks like it's fine. But

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1 in our testing, what we have to do is plan for at
2 least 72 hours within the gut.

3 So, what we do is, when we're testing
4 survivability, we're actually flowing the liquid
5 over the straw to get it into one solution and then
6 we're shocking it in order to give it an environment
7 such as the gut and then we're monitoring
8 survivability in the gut, not just outside of the
9 product.

10 If you look at it -- if you just washed
11 it over the beads, yes, it would be fine at that
12 point in time, it's whether or not the solution
13 longer term for a 72 hour period at time would have
14 some deterioration.

15 MS. BEHAR: So, you're saying the
16 carrageenan is used as an extender of the activity
17 of the probiotic once it's in the human body?

18 MR. FREUND: Right. There's two things
19 that we're saying. We think it can be a protective
20 state, but the other thing that we find is that the
21 formulations that we're delivering in the
22 ready-to-drink pack, if they separate, if they

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1 aren't functioning well, we have a lot of clogging,
2 a lot of issues with the straw itself. So, it's a
3 combination.

4 One, we believe that carrageenan needs
5 to be in the actual ready-to-drink product, and that
6 helps stabilizes that and keep it together, the main
7 function of the carrageenan. And we think there's
8 some symbiotic potential, just with some of the
9 things that we've been looking at on survivability.

10 But it's more keeping that original
11 formulation together, not separated, not having the
12 consumer worrying about shaking it, and making sure
13 that the flavor profile works well with the straw
14 itself.

15 CHAIR FAVRE: Okay. Jesse, then Harold,
16 then Ashley. And then we need to move on.

17 MR. BUIE: Yes. Is there any difference
18 in cell viability in the refrigerated versus
19 non-refrigerated?

20 MR. FREUND: Well, in the refrigerated
21 ones where we're actually putting the probiotic in
22 the product, it's interesting, we haven't broken

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1 that down.

2 MR. BUIE: Yes.

3 MR. FREUND: We've seen definitely
4 different variations, but I don't think we've done
5 a gellan formulation to compare it to.

6 CHAIR FAVRE: Harold?

7 MR. AUSTIN: If we were to vote to delist
8 carrageenan during these deliberations, what
9 impact would that have on your business?

10 MR. FREUND: It would hurt our business,
11 especially from a development standpoint, because
12 one of our key differentiation points when we're
13 dealing with some of our co-manufacturers and
14 branded companies is bringing new ideas to them.

15 And we do have difficulty developing
16 different breakfast, different workout, different
17 other formulations on the organic side and bringing
18 them forth without having the carrageenan. And
19 we've also spent a fair amount of work developing
20 the products, so we'd have to go back and see what
21 else we can do to try to redo it.

22 CHAIR FAVRE: Ashley?

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1 MS. SWAFFAR: So, you said in your public
2 comment, there are formulas where carrageenan
3 cannot be substituted. Can you give specific
4 examples of those products?

5 MR. FREUND: Well, a couple of the -- as
6 it gets more and more complex with water, fiber,
7 proteins, we have found separation where the
8 product actually doesn't stay together well.

9 These have been on some of our branded
10 companies information, so I can't give you a
11 specific brand, because they don't want to have that
12 as a public piece, but it's really the combination
13 of those types of ingredients and/or other
14 functional ingredients.

15 MS. SWAFFAR: A specific product, like
16 chocolate milk or --

17 MR. FREUND: Well, chocolate, yes --

18 MS. SWAFFAR: -- are you just saying --

19 MR. FREUND: -- I mean, chocolate milk is
20 one of the factors that's a challenge, but if you're
21 looking at a protein shake that we actually have
22 designed, a protein shake is a combination of

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1 flavor, it's a combination of protein, it also has
2 a different fiber in it, and it also has some other
3 sport nutritional ingredients in there. And we
4 find separation and settling.

5 CHAIR FAVRE: Thank you very much.

6 MR. FREUND: Okay. Thank you.

7 CHAIR FAVRE: Okay. Next up is Susan
8 Finn. And then we've got Robert Hoffman on deck.

9 DR. FINN: Thank you very much. It's a
10 great opportunity to be here today. I'm Susan
11 Finn. I have a PhD in nutrition science and I'm a
12 registered dietician. I am here as director of
13 United 4 Food Science and I've testified before you
14 in April and I'm happy to have another opportunity
15 to speak to you today.

16 Since I saw you last, many of the leading
17 voices in my profession have submitted comments in
18 support of our very firm belief that carrageenan
19 must remain on the list of approved ingredients.
20 And here are three reasons.

21 One is the NOSB's Handling Subcommittee
22 reached the conclusion that carrageenan is safe,

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1 specifically stating in its preliminary report, and
2 I quote, we find that the body of scientific
3 evidence does not support claims of widespread
4 negative human health impact from consumption of
5 carrageenan in processed foods.

6 The second reason it must remain is that
7 it is emulsifying, thickening, and stabilizing
8 additives that are essential for the production of
9 organic products. You see, without these
10 additives, sediment can accumulate in the product
11 and may not resuspend completely, even with very
12 vigorous shaking, resulting in concentrations that
13 do not deliver the nutrients listed on the product
14 label.

15 This malfunction can lead to dangerous
16 nutritional deficiencies, particularly for babies
17 and those at high risk for malnutrition. In
18 addition, additives that emulsify, thicken, and
19 stabilize it are also essential for a desirable
20 sensory profile, which allows consumers to choose
21 organic products without sacrificing taste.

22 If organic products cannot contain the

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1 same additives that non-organic foods do, they will
2 be at a distinct disadvantage in the marketplace.
3 The NOSB should not set a precedent that makes it
4 difficult for organic foods to compete with
5 non-organic foods in nutrient delivery and sensory
6 profile.

7 And third, organic food manufacturers
8 should have the option to use different additives
9 in products, and they need carrageenan to be one of
10 those options. Variety allows manufacturers to
11 select the optimal additives in the lowest
12 concentrations possible for a particular food.
13 Carrageenan is not only effective in small amounts,
14 but does not require additional additives to
15 fulfill its function.

16 So, in conclusion, my colleagues in
17 nutrition science and I agree, there is no
18 legitimate rationale for delisting carrageenan.
19 Options for formulating organic products that meet
20 consumer demands are limited as it is.

21 Consumers who prefer a certain
22 additive, have a sensitive to a particular

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1 additive, or simply want to choose a product without
2 the additive are free to consult the ingredient
3 label and select the products they want.

4 Delisting carrageenan will diminish the
5 acceptability of certain organic products, which
6 may lead to consumers turning away from organic
7 foods altogether, a consequence that certainly runs
8 counter to NOSB's objectives and the National
9 Organic Program mission. Thank you very much.

10 CHAIR FAVRE: Gold star.

11 (Laughter.)

12 CHAIR FAVRE: Good job.

13 DR. FINN: I did this in April.

14 CHAIR FAVRE: I guess she's practiced
15 that a time or two.

16 DR. FINN: I didn't.

17 CHAIR FAVRE: Do we have any questions?
18 Zea?

19 MS. SONNABEND: Thank you. Could you
20 comment on the possibility of gellan gum as an
21 alternative or a combination of gellan cum with
22 other gums?

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1 DR. FINN: Well, carrageenan has a unique
2 taste and it -- taste rules when you start talking
3 about products. We can all talk about nutritional
4 value and cost and health, taste is absolutely key.
5 And there's nothing that produces, in my view, the
6 same taste and the same smoothness and the same
7 mouth feel.

8 And so, it is that -- now, again,
9 different products react slightly differently.
10 There are -- obviously, it's the complexity of food
11 science, but taste rules. And as my colleague in
12 food science says, it's fatal not to have foods
13 taste good. And so, that's true if they're organic
14 or non-organic. So, it is the taste factor and the
15 smoothness, the mouth texture, that's very unique
16 to carrageenan in lots of different products, like
17 dairy and beverages.

18 CHAIR FAVRE: Tom?

19 VICE CHAIR CHAPMAN: You raised the point
20 of medical foods for infants, enteral feeding type
21 products. Are you aware of organic enteral feeding
22 products on the market today? Can you give me an

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1 example?

2 DR. FINN: Well, I'm not exactly aware of
3 it, the organic version of them. I worked for years
4 and years in the medical nutritional delivery
5 system and in products with that product. But
6 they're probably powdered. Powdered is a whole
7 different deal.

8 But to stay in suspension and to have a
9 product that's tube fed or given to a patient that's
10 malnourished or is ill, it requires an enormous
11 skill set and requires taste and requires it to be
12 able to flow if it's being tube fed, and it has to
13 stay in suspension. And there is certainly nothing
14 more effective in that capacity than carrageenan.

15 VICE CHAIR CHAPMAN: So, for a product
16 being enterally fed into the stomach, taste is
17 important?

18 DR. FINN: Well, flow is and delivery of
19 nutrients. What you don't want is watered down
20 nutrients, you want that to flow uniformly so every
21 unit that's given to that patient is the same
22 nutritional value that that whole product has.

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1 VICE CHAIR CHAPMAN: Thank you.

2 CHAIR FAVRE: Thank you very much.

3 DR. FINN: Thank you.

4 CHAIR FAVRE: Next up is Robert Hoffman.

5 And then we've got Matthew Thompson on deck.

6 MR. HOFFMAN: Hi, I'm Bob Hoffman, chief
7 science officer of Shenandoah Growers. Shenandoah
8 Growers has a true organic system in every pot. We
9 specially blend our soil mix with NOP compliant
10 elements to achieve the proper balance between
11 water holding capacity, drainage, aeration,
12 nutrition, and biological diversity, to produce
13 health and nutritious plants for our consumers.

14 This biologically active, living
15 organic soil is home to beneficial bacteria and
16 fungi. This micro-flora and micro-fauna help to
17 release the nutrients present in our soil, which
18 allows our plants to thrive in our controlled
19 environment greenhouse and nurseries. Our liquid
20 organic nitrogen fertilizer is produced from
21 vegetative waste.

22 This fertilizer is diluted in water and

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1 a bio-filter, where it's digested by beneficial
2 bacteria into nitrite and then into nitrate. This
3 nitrified water is then blended with other NOP
4 compliant inputs to produce a balanced organic
5 nutrient solution to supplement our soil nutrition.
6 Although this is not an easy process, over the
7 years, Shenandoah Growers has learned to manage
8 this biological process well.

9 We use well water and rain water that is
10 collected from the greenhouse roofs to irrigate our
11 plants. Our irrigation nutrient solution is
12 recycled through a filter and reused continuously,
13 conserving our precious water resources. No
14 nutrients are discharged into the environment.

15 We use only NOP compliant integrated
16 pest management practices, such as scouting,
17 trapping, exclusion, beneficial insect releases,
18 and environmental control to help control our
19 insect and disease pests. This provides for
20 healthier and cleaner produce for our consumers.

21 We utilize cutting edge technology,
22 such as moving gutter growing systems, energy

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1 curtains, LED lighting, to name a few, in our
2 controlled environments to efficiently and
3 sustainably produce our organic culinary herbs.

4 As growers of both field-grown and
5 container-grown crops, we know that it would take
6 approximately 180 acres of land in our climate to
7 produce the same amount of herbs that we can produce
8 in our six acres of greenhouse and nursery rooms.
9 This conserves soil and wildlife habitat, while
10 producing quality food, safe organic herbs year
11 round for a growing population.

12 The demand for our food safe,
13 consistently high quality organic produce is
14 growing rapidly. We can produce quality crops year
15 round in our controlled environments despite the
16 changes in weather and the severity of climatic
17 changes.

18 Since 2007, we have built a productive
19 business while using only NOP compliant organic
20 inputs in a sustainable manner while preserving the
21 environment for generations to come. We
22 respectfully urge you to continue to certified

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1 containerized growing practices. Thank you.

2 CHAIR FAVRE: Questions? Harold?

3 MR. AUSTIN: Okay. So, you talk about
4 containerized growing in the greenhouse, but that
5 you've also got other acreage. Is your other
6 acreage also certified as organic?

7 MR. HOFFMAN: Yes.

8 MR. AUSTIN: How long has it been?

9 MR. HOFFMAN: At least ten years, if not
10 -- the farm has been there for 20 years and I believe
11 parts of it were certified before that. Now the
12 complete farm is certified organic. We have a
13 total of 150 acres available to us, we choose to grow
14 in the greenhouse in containers and also field
15 production. We only take up approximately 12 acres
16 of that land, the rest is left as wildlife habitat.

17 CHAIR FAVRE: Harriet?

18 MS. BEHAR: So, I hear a lot of hydroponic
19 growers speak about the food safety aspect and I'm
20 just wondering if we look at this as, like this is
21 the way we should go, do you think we should abandon
22 soil-based agriculture altogether and just look at

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1 hydroponic as the way we should feed the world?

2 MR. HOFFMAN: Not as long as that food,
3 that field-grown production should -- as long as
4 that is deemed food safe. So, as long as it's
5 tested and you know that it is food safe, I think
6 it's great. We do both.

7 As far as the ease of keeping it food
8 safe, the greenhouse growing environment is by far
9 easier to keep it food safe. We eliminate bird
10 populations, deer, runoff from the fields above us,
11 we're on a slope. We eliminate soil erosion. So,
12 for us, it's much easier to keep it food safe in the
13 greenhouse than it is in the field.

14 CHAIR FAVRE: Thank you very much. All
15 right. Next up is Matthew Thompson, followed by
16 Maria Ignosh.

17 MR. THOMPSON: Hi. My name is Matt
18 Thompson. I'm an aquaculture project lead at the
19 Anderson Cabot Center for Ocean Life at the New
20 England Aquarium in Boston, Massachusetts. My
21 area of expertise is in sustainable aquaculture.

22 My comment is, removing carrageenan

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1 from the National List of Approved Substances could
2 potentially reduce the market incentive for farmers
3 to engage in environmentally responsible and
4 socially beneficial seaweed farming.

5 Without this incentive, farmers may
6 switch back from seaweed farming to environmentally
7 destructive fishing practices, including dynamite
8 and cyanide fishing in critical habitats, such as
9 coral reefs.

10 To explain that further, carrageenan is
11 a thickening agent added to food. The primary
12 source for carrageenan is farm-raised seaweeds and
13 the majority of those seaweeds are raised on
14 small-scale subsistence-level family farms in
15 Southeast Asia. Seaweed farming provides
16 additional income, which directly improves living
17 standards for both farmers and their families.

18 It's also an important source of
19 employment for women. Eighty-one percent of the
20 global aquaculture production workforce is male,
21 but in places like Zanzibar, females actually make
22 up the majority of the seaweed farming industry.

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1 It's important to highlight these
2 because these benefits reflect the FAO, Food
3 Agricultural Organization's Blue Growth
4 Initiative, which is to promote sustainable
5 livelihoods, especially in the case of women and
6 youth, and to support small-scale aquaculture
7 development.

8 Environmentally speaking, seaweed
9 farming is relatively benign, especially compared
10 to other species like farmed shrimp or Atlantic
11 salmon. For example, seaweed farming does not use
12 feed, which means it doesn't contribute to
13 pollution, it doesn't place additional pressure on
14 fisheries that are used for fish meal and fish oil
15 ingredients in feeds, and it doesn't use chemicals,
16 such as antibiotics.

17 Seaweed farming also provides an
18 alternative livelihood for fishing on coral reefs.
19 This allows the stocks, the reef fish stocks, to
20 recover and it minimizes destructive dynamite and
21 cyanide fishing on coral reef, which further
22 protects the habitat that these reef fish need to

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1 survive. It also creates new habitats for
2 herbivorous reef fish, which increases their stocks
3 and potentially gives more access to food.

4 Despite all of these social and
5 environmental positives, seaweed farmers are
6 opportunistic and they may switch back to these
7 destructive fishing practices if market demand for
8 seaweed decreases. Removing carrageenan from the
9 National List may have such a market impact.

10 So, in summary, it's important for the
11 Committee to be aware of the potential social and
12 environmental consequences of removing carrageenan
13 from the National List. Thank you.

14 CHAIR FAVRE: Jean, and then Tom.

15 MS. RICHARDSON: Yes, a comment and then
16 a question. There is certainly -- we got inundated
17 by a large amount of public comment on marine
18 materials, as you're probably aware. And some of
19 them made assertions that the conditions of the
20 people that are on these farms in the Philippines
21 and other parts of the world generating the needed
22 carrageenan harvests, it wasn't exactly great

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1 living standards, et cetera, and there were a lot
2 of negative aspects of it.

3 I don't necessarily want you to go into
4 that, but to say, well, if it can be -- most of the
5 carrageenan is coming from cultivated beds
6 nowadays, why not just have them all go organic and
7 then you wouldn't be sort of worried about having
8 to get this on or off the list, so to speak, because
9 obviously it could be done organically, if they can
10 be cultivated the way they are now.

11 MR. THOMPSON: Okay. Well, let's -- if
12 I can address your question. The first is the
13 comment about the social conditions. I believe the
14 paper that was cited in there is essentially
15 highlighting some issues, which is it's a lot of
16 hard work to farm seaweed.

17 But that paper was trying to encourage
18 better practices on the farms, rather than removing
19 the market demand for seaweed. And that's
20 something that can be done. When we talk about the
21 potential for them to become organically certified,
22 I think it's really important to remember that these

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1 are -- when we say small-scale, we mean an
2 individual that has maybe a hundred square foot of
3 seaweed lines.

4 Each one of these seaweed lines, there
5 may be many hundreds in an area, are individually
6 managed. So, the potential for an individual
7 farmer to become certified is, it's impossible.
8 You're talking about a \$5,000 audit cost for a
9 general aquaculture certification, I'm not sure
10 about organics.

11 There's also -- because they're
12 individually managed, there's no -- they're not in
13 a position right now to have a central management
14 system, which is really what you'd need in order to
15 ensure that each one of those farmers are operating
16 in the same way, so you have a quality management
17 system.

18 So, at the moment, they're disorganized
19 and they're not in a position to -- that
20 certification or traditional certification makes
21 sense. If you want to make those improvements, the
22 best way to do it would be to go through one of these

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1 major buying companies to try to consolidate and try
2 to form central management groups, try to raise
3 practices and awareness of where potential impacts
4 are occurring, and make changes that way.

5 But I think those issues are occurring.
6 In fact, New England Aquarium has a partnership with
7 a company called FMC, where they are developing
8 better management practices through an independent
9 technical committee of experts to really highlight
10 that -- what those better practices are.

11 And we're trying to find ways that we can
12 have those individuals consolidate and form these
13 central management systems so that then we can
14 affect change. But, again, I think it's really
15 important to highlight that seaweed farming -- if
16 you look at something very closely, you're always
17 going to see cracks, but if we take a step back, it's
18 still nowhere near the level that you might find on
19 an Atlantic salmon farm or a shrimp farm in
20 Thailand.

21 So, we also need to be conscious, I
22 think, of the degree of impact and the weight and

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1 the tools that we sort of pressurize these people
2 into. Does that answer your question?

3 MS. RICHARDSON: Yes. Just a quick
4 follow-up, there are grow group certification
5 systems that could be used. So, just for your --
6 to follow-up. But I know that someone else has a
7 question.

8 CHAIR FAVRE: Tom?

9 VICE CHAIR CHAPMAN: So, you spoke to
10 your concern of, if carrageenan was removed from the
11 National List, the market impact it would have, can
12 you speak to what percent of the carrageenan
13 industry is being used in organic products?

14 MR. THOMPSON: I do not buy and sell
15 carrageenan, so I'm not equipped to answer that
16 question. I believe other speakers, including
17 Erick Ask from FMC, might be able to answer your
18 question later.

19 But I guess I'm more concerned about the
20 precedent than the potential of this group to drop
21 carrageenan. Because of the debate in the science
22 about its effects, the problem could be a knock-on

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1 effect if this group makes a decision early on such
2 an issue.

3 CHAIR FAVRE: Thank you very much.

4 MR. THOMPSON: Thank you.

5 CHAIR FAVRE: Okay. Next up is Maria
6 Ignosh, followed by Suzanne McMillan.

7 MS. IGNOSH: Good afternoon. My name is
8 Maria Ignosh and I'm the director of regulatory
9 compliance at Shenandoah Growers. I've been at the
10 company for over eight years and have been involved
11 in the development of our organic system plan and
12 food safety plan for the duration of that time.

13 Shenandoah Growers would like to ask the
14 NOSB to further examine the issue of containerized
15 growing methods. We strive to stay on the cutting
16 edge of innovation and have spent years developing
17 a living organic herbs product line, first
18 certified organic in 2007, based on the regulations
19 set forth by the NOP.

20 The system we have developed ensures the
21 availability of healthy, fresh organic produce for
22 our customers. Our model allows for the production

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1 of healthy organic herbs, using a minimum of space,
2 and greatly increased conservation of water and
3 nutrients, water being a precious natural resource
4 in many of our locations.

5 Our closed organic system uses a
6 substrate mix, which also allows us to eliminate
7 runoff of excess nutrients into the environment.
8 The Shenandoah Growers' model of controlled
9 environment agriculture employs improvements in
10 transportation efficiency, further improving the
11 sustainability of the system by creating a more
12 distributed food system.

13 Growing is not limited to arable land or
14 favorable climates and can be located nearer to
15 where the product is consumed. This allows us to
16 deliver high quality fresh organic product year
17 round with a minimized carbon footprint.

18 The innovative system we've created
19 does not rely on weather or climate and allows us
20 to produce a consistently high quality product. It
21 will, thus, be less susceptible to the changes
22 predicted as part of global climate change and helps

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1 to safeguard against disruptions in the food
2 system.

3 Our controlled environment agriculture
4 system enables us to reach new heights in food
5 safety, which is an absolute imperative in our
6 industry. The controlled environment gives us
7 better control over water and animal intrusion, two
8 of the major contributing factors of produce
9 contamination events.

10 Finding this delicate balance between
11 organic regulation and food safety regulation,
12 without compromising the integrity of either, is a
13 major component of the success of our system.
14 Shenandoah Growers has over 400 employees and has
15 invested over \$20 million in our certified organic
16 growing system to build a future for our company and
17 the individuals it supports.

18 Before expanding, we explored many new
19 innovative technologies, finding ways to make them
20 work within our system without compromising organic
21 integrity. We work with our organic certifying
22 agent to make sure that the technologies that we

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1 employ are in line with the regulations set forth
2 by the NOP.

3 It is with this approved organic system
4 plan that we have moved forward, providing an eight
5 year average of four million pounds of fresh organic
6 culinary herbs into the marketplace, herbs which
7 are sold still potted and which are accepted by our
8 customers as organic.

9 We would like to move forward with this
10 approved organic system plan, providing
11 sustainable food safe organic products to our
12 customers. Given the impact of the decision of the
13 Board, we respectfully request that you give this
14 decision the careful consideration that it
15 deserves. Thank you.

16 CHAIR FAVRE: Way to soldier on with the
17 lights out, I appreciate that.

18 (Laughter.)

19 CHAIR FAVRE: I apologize for that.
20 There you go. Any questions? Harriet?

21 MS. BEHAR: If you could no longer sell
22 your herbs under the organic label, would your

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1 operation be still economically viable?

2 MS. IGNOSH: It's hard to say. It's hard
3 to say which of our customers would drop us
4 completely. I lean towards no, I don't think -- I
5 think large portions of the business at least would
6 have to shut down, whole farms.

7 CHAIR FAVRE: Harold?

8 MR. AUSTIN: Two part question, one, how
9 long have you been certified organic and what
10 prompted you to seek organic certification?

11 MS. IGNOSH: Bob Hoffman was up here
12 before me and I think he said the farm was 20 plus
13 years of our in-ground production. The
14 greenhouses have been certified since 2007. It was
15 part of the original plan for those greenhouses and
16 why they were built, to grow organic container grown
17 crops. So, it was that way from the very inception.

18 CHAIR FAVRE: Thank you very much.

19 MS. IGNOSH: Thank you.

20 CHAIR FAVRE: Next up is Suzanne
21 McMillan, followed by Lee Frankel on deck.

22 MS. MCMILLAN: Hi, I'm Suzanne McMillan

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1 with the ASPCA's Farm Animal Welfare Department.
2 And I'm here today on behalf of our over 2.5 million
3 supporters around the U.S. and the public that we
4 and others continue to poll and find a strong
5 mandate from to ensure high animal welfare
6 standards in the organic system.

7 And before the lunch break, I know we
8 heard some testimony from someone associated with
9 a poultry facility discussing challenges around
10 ammonia control, necrotic enteritis, mortality,
11 all those problems.

12 And this, I think, really is a perfect
13 segue into what I came to discuss today, which is
14 a request to please continue to address animal
15 welfare in the organic system, really from a
16 holistic vantage point, focusing on more of the
17 upstream prevention tactics as opposed to
18 downstream sort of Band-Aids that we're attempting
19 to put on discrete outcomes.

20 And we're not here today to take a
21 position on the particular litter amendments that
22 are being discussed, but there is very much a

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1 connection between ammonia and welfare that I
2 wanted to highlight for you. There is sort of a
3 two-fold interaction there.

4 The first being that ammonia rates are
5 worsened by poor welfare. So, in other words, when
6 you have poor space allowance, poor ventilation,
7 lack of outdoor access, lack of indoor enrichment,
8 that sort of thing, you tend to get higher ammonia
9 rates.

10 Similarly, but in reverse, poor welfare
11 also tends to make birds more susceptible to the
12 effects of high ammonia. And we tend to see that
13 nexus particularly around the genetic factors at
14 play with meat birds.

15 So, with broiler chickens and with
16 turkeys, we tend to be using conventionally sourced
17 genetics, which means very fast growing and
18 disproportionate birds who reach heavy weights in
19 a short amount of time and tend to be in pain, they
20 have low stamina, they have a hard time moving, they
21 also tend to be immunocompromised.

22 And so, all of this then makes them more

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1 susceptible to the effects of the ammonia, partly
2 because they tend to spend more time in direct
3 contact with their litter over a greater percentage
4 of their body. And so, you have a greater
5 likelihood of the litter, the ammonia burns that we
6 see that can ultimately lead to open wounds and
7 then, of course, disease, pathogens working their
8 way in.

9 And we see that -- the European Food
10 Safety Authority has put out white papers on this
11 topic and they offer flow charts, essentially, that
12 look almost like spider webs.

13 CHAIR FAVRE: Thank you. Any questions?
14 Emily?

15 MS. OAKLEY: I want to ask the same
16 question that I asked with the previous speaker.
17 In terms of space requirements that would lead to
18 healthy ammonia levels for the birds and houses and
19 assuming, of course, outdoor access.

20 MS. MCMILLAN: Right. So, a couple of
21 things. One is that we tend to look to the private
22 animal welfare certification labels as a guide for

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1 at least minimum standards. The very minimum we
2 tend to see is about six pounds per square foot,
3 which works out to roughly on square foot per bird,
4 if you're talking about broilers.

5 But the point I was starting to make
6 there about these flow charts that you see that are
7 incredibly intricate and almost present a spider
8 web is that all of these factors interrelate with
9 one another and it ultimately is about the aggregate
10 effect.

11 So, things like enrichment very much
12 play in. And space lends itself towards more
13 activity from the birds, but that's not enough, you
14 also need other inputs. And when you have
15 enrichment, what happens is they're more motivated
16 to move, which means that they aerate the litter
17 naturally and so, that helps somewhat to address
18 ammonia.

19 So, everything sort of works together at
20 some level. And, of course, no matter how much
21 space you give them and how many other inputs like
22 enrichment, if they're in pain and have a hard time

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1 even breathing, they're not going to be motivated
2 to move to be able to make use of that space and to
3 be able to aerate the litter. So, it all sort of
4 is one giant cycle.

5 CHAIR FAVRE: Okay. Last question, from
6 Francis.

7 MR. THICKE: You were talking about
8 genetics, is it true that some of the conventional
9 growers, like Perdue, are actually changing
10 genetics for slower growth? And are those genetics
11 -- how do they compare with the organic growers'
12 genetics, do you know?

13 MS. MCMILLAN: Yes. Perdue just came
14 out in the last few months with a commitment to take
15 a look at genetics and to try to move towards slower
16 growth. So, thank you, that was another point I
17 meant to make and ran out of time.

18 Yes, and I think it's important -- so,
19 we don't know yet what genetics they're going to be
20 instituting, but we do know that there are already
21 genetics out there in the marketplace ready to go
22 for slower growth.

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1 And I think it's important to
2 distinguish between slow growth, which is heritage
3 generally, and then, slower growth, which is what
4 we term intermediate growth, and that really tends
5 to be just an extra two to three weeks per broiler.

6 So we're not talking about a really
7 extensive life span, we're talking about a few more
8 weeks, and so, I would imagine that they would
9 probably go somewhere in that direction.

10 CHAIR FAVRE: Thank you very much.

11 MS. MCMILLAN: Thank you.

12 CHAIR FAVRE: All right. Next up is Lee
13 Frankel, followed by Anais Beddard.

14 MR. FRANKEL: Good afternoon. My name
15 is Lee Frankel and I'm the executive director for
16 the Coalition for Sustainable Organics. The
17 Coalition for Sustainable Organics is a group of
18 environmentally and socially responsible growers
19 committed to maintaining the USDA's current high
20 standards for certifying organic produce.

21 Comprised of growers big and small, we
22 advocate for the continued allowance of

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1 containerized production methods under the
2 National Organic Program, while enabling growers to
3 select the most appropriate production systems for
4 their site-specific and commodity needs.

5 We applaud the continued efforts of the
6 Crops Subcommittee and the full National Organic
7 Standards Board to bring clarity to the role of
8 containers and growing media in organic production.
9 Nonetheless, please remember that the decision of
10 the NOSB will create enormous impacts on current
11 growers, workers, and consumers.

12 Any decision requires the most careful
13 and deliberate evaluation by the Board and only
14 after a full, fair, and open airing of all the
15 relevant issues should a decision be considered. I
16 encourage the NOSB to first define the principles
17 that should guide a more comprehensive and cohesive
18 set of recommendations to update the current USDA
19 policy.

20 The members of the CSO believe that
21 organics is defined by the inputs used and not used
22 and by the biology necessary to have a functioning

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1 nutrient cycle. The very name organics in English
2 refers to a natural and previously living origin of
3 inputs, while the name biologic used in the French
4 and German speaking countries for organics refers
5 to the biology inherent in organic production
6 systems to make those inputs available to the
7 plants.

8 Organic productions in containers does
9 meet the very spirit of organics by using the same
10 inputs and the same biological methods as used in
11 soil systems to produce healthy and sustainable
12 crops.

13 We encourage the NOSB to affirm those
14 foundational principles of organics and then give
15 freedom to growers to figure out the most
16 sustainable production techniques and methods that
17 meet their site-specific requirements.

18 If the NOSB believes that organics means
19 something entirely different, it should clearly
20 state what those other guiding principles is or
21 should be. We also believe it's an affirmation of
22 the organic movement that consumers can find

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1 organic fresh produce in their regular grocery
2 stores, without needing to make a special trip to
3 find the products that are important for them and
4 their families.

5 Organic container production systems
6 that have fed the growth of the organic market would
7 drastically reduce supplies and increase prices,
8 putting organics out of the reach of many current
9 consumers.

10 We stand ready to support the NOSB
11 through data, research, and farm tours to make sure
12 that you have accurate information so that the Board
13 can carefully analyze and thoughtfully deliberate
14 on this topic before making any decisions. Thank
15 you for your time and attention.

16 CHAIR FAVRE: Thank you. Any questions?
17 Thank you very much. Next up is Anais Beddard,
18 followed by Thomas Beddard on deck.

19 MS. BEDDARD: Hi. My name is Anais
20 Beddard and I represent the second generation at
21 Lady Moon Farms. We're the largest organic
22 vegetable grower east of the Mississippi, with

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1 farms in Florida, Georgia, and Pennsylvania.

2 My parents started farming organically
3 30 years ago, because they felt strongly about
4 growing healthy, delicious, good for you food, food
5 that was grown in the soil. In the last 30 years,
6 agriculture has changed a lot due to new innovation.

7 Hydroponics is one of these innovations
8 that allows food to be grown sustainably in a less
9 than ideal climate. This is a valuable development
10 as it opens up more routes to cultivate nutritious
11 food for the growing population. And as growers,
12 we applaud this production system for what it is.

13 However, what concerns us is that this
14 new technology is masquerading as something it is
15 not. Hydroponic growers are currently being
16 allowed to piggyback on a well-defined holistic
17 growing approach, also known as organic.

18 This approach is much more than just
19 growing plants. It's about creating healthy
20 ecosystems and promoting biodiversity in rural
21 communities all over the world. I've read many
22 comments and articles over the last few months,

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1 stressing that we soil farmers want to limit access
2 to healthy, pesticide free food to maintain market
3 share.

4 Nothing could be further from the truth.
5 Rather, this is about maintaining the spirit of OFPA
6 when it was forged 26 years ago through a long,
7 arduous process by people committed to the
8 longstanding principle of feeding the soil, which
9 then feeds the plants.

10 And I quote, an organic plan shall
11 contain provisions designed to foster soil
12 fertility primarily through the management of the
13 organic content of the soil through proper tillage,
14 crop rotation, and manuring.

15 We embrace farmers of every persuasion
16 in every locale, because farming, no matter what
17 production system, is not easy. We just feel
18 passionately about what is involved in an organic
19 production system and it is much more than is
20 proposed in any hydroponic or container system.

21 No matter the outcome, let's not fool
22 ourselves that hydroponics is different from

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1 aquaponics, from biaponics, from container
2 growing. They rely on the same foundations to grow
3 plants and should be treated as such. Anyone in the
4 conventional hydroponic world understands this to
5 be a simple truth.

6 I urge you all not to take the easy route
7 in front of us. It would be easy to continue to
8 allow these operations to be certified organically,
9 something that is questionably illegal under OFPA.
10 It will be much more difficult to maintain the
11 integrity of the organic label, but without its
12 integrity, it means nothing.

13 It's important that a decision is made
14 as soon as possible, as large business is pushing
15 forward without many regulations. Thank you so
16 much for your time on this very important issue.

17 CHAIR FAVRE: Thank you. Any questions?
18 Thank you. Let's hold it for the next one, thanks.
19 Next up is Thomas Beddard, followed by Jason
20 Whitcher on deck.

21 MR. BEDDARD: Good afternoon, everyone.
22 My name is Tom Beddard. I am the founder and

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1 president of Lady Moon Farms and I would like to
2 begin my three minutes by offering my heartfelt
3 thanks to all the current volunteers that give of
4 their time to serve on the NOSB.

5 It is your service that allows us all to
6 protect the integrity of the USDA Organic Seal. It
7 is the integrity of this Organic Seal that has
8 brought me here today to testify to what I know to
9 be the heart and soul of organic farming. And that
10 can be summed up in one word, soil.

11 I was born and raised in Pittsburgh,
12 Pennsylvania and from an early age, I learned the
13 joys that come from putting one's hands in the soil,
14 of putting hands full of soil under your nose and
15 breathing in the life affirming smell of rich,
16 organically managed soils.

17 From that time as a ten year old boy to
18 today, as a man in his sixth decade and now farming
19 more than 2,500 acres on nine farms in three states
20 in many different climates with many different soil
21 types, I want you all to know from me, the soil is
22 simply a miraculous substance.

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1 It is in fact the living skin of the
2 Earth, truly the interface between biology and
3 geology. And to this day, one of my absolutely
4 favorite smells in this world is a handful of
5 healthy soil brought to life through the management
6 practices commonly known as organic.

7 In many ways, I've always believed that
8 we organic farmers grow soil and it's that living
9 organism called soil that then grows our plants.
10 And I truly believe it is this mindset that has
11 caused this movement to flourish.

12 So, how do we find ourselves here today
13 trying to define what is meant by soil? How do we
14 find ourselves attempting to coin new terms to try
15 to fit a well-respected production system known
16 variously as hydroponic, aquaponic, bioponic, or
17 container grown into another well-respected
18 production system known as organic?

19 Simply put, they are two different
20 systems of production and to attempt to merge them
21 into one is a cause for concern by almost all
22 certified organic soil growers, as well as 40 public

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1 interest groups with a membership of more than 2.2
2 million.

3 So, as those of us that attempt to
4 understand the complex relationships between soil,
5 water, plants, and animals, our appreciation of
6 this dynamic interplay is why organic soil growers
7 have always believed that growing organic is about
8 much more than allowable inputs, it's about growing
9 healthy soils that then grow healthy plants that
10 grow healthy people, helping us all to live on a
11 healthy planet.

12 It is because of this passion for the
13 soil felt by the vast majority of organic producers
14 that I respectfully ask the NOSB to reaffirm its
15 position that the USDA Organic Seal belongs on foods
16 that are grown in the soil, that sits atop the
17 subsoil, that sits on the bedrock of the Earth.
18 Thank you all so much.

19 CHAIR FAVRE: Harriet?

20 MS. BEHAR: So, I asked the hydroponic
21 folks about the economic impact if they lost the
22 organic label. What would be the economic impact

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1 if hydroponics was, on you, a soil-based grower, if
2 hydroponics was allowed to continue the organic
3 label? I know it would probably have quite a bit
4 of growth due to its somewhat efficiency and food
5 safety and all the things that they're saying that
6 are the benefits of it. Would there be an economic
7 impact to you?

8 MR. BEDDARD: For our business,
9 personally, because we are of a certain scale and
10 because we are year round with multiple locations,
11 and because of our crop mix, really I don't, I
12 honestly don't know, but I don't think so. I can
13 tell you, up to this point, no, it hasn't affected
14 us in a financial way at all.

15 But, like, if you were more specialized
16 in just, say, greenhouse tomatoes that were grown
17 in the soil, I could see where that would have a
18 pretty strong impact on you, just because of the
19 efficiencies. But for us, no.

20 For me, it's the passion. I mean, when
21 I got in this in 1986, it was the soil. That's why
22 you were organic, because you believed the soil was

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1 a living organism and it had to be fed and then
2 everything went from there.

3 So, I kind of got into this late, because
4 it didn't affect me financially, and that will
5 usually get you going quicker than other things, but
6 I started to say, wait a minute, that's not organic,
7 rockwool nutrient systems, no. It's a wonderful
8 system, I love hydroponics, I support hydroponics,
9 but it's not organic, it's hydroponic.

10 CHAIR FAVRE: Thank you very much.

11 MR. BEDDARD: Thank you all very much.

12 CHAIR FAVRE: Next up is Jason Witcher,
13 followed by David Auner on deck.

14 MR. WHITCHER: Good afternoon. My name
15 is Jason Witcher. I stand before you today to
16 further comment on the issue of organic
17 containerized farming, or rather the opposition to
18 organic containerized farming.

19 The first thing I did ask myself, why the
20 opposition? There's no scientific evidence to
21 support their claims, actually there's quite a bit
22 of scientific evidence that supports the contrary,

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1 so it's not science.

2 Then I thought it was possibly an
3 environmental concern. However, containerized
4 growing uses less natural resources, does not
5 contribute to soil erosion, has no fertilizer
6 runoff, and is actually better for the environment
7 than conventional open field organic farming. So,
8 that can't be it.

9 Maybe it's the inputs. No, the rules
10 are the same, the same products, fertilizer, et
11 cetera, are used in both production methods. I
12 found myself scratching my head as to why all the
13 noise and opposition to a type of farming that uses
14 the same inputs, consumes fewer natural resources,
15 is better for the environment, and leaves me to
16 question, what exactly is the motivation?

17 The only conclusion I could come up with
18 is financial motivation. So, what are some of the
19 things that have led to this conclusion? For one,
20 the manner in which the opposition has tried to go
21 about this, trying to circumvent the normal
22 procedures in government institutions, such as the

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1 NOSB.

2 This can be evidenced in bullying
3 tactics applied with recent legal actions filed
4 through the Cornucopia Institute, misleading
5 letters that were sent to retailers, trying to lead
6 them to believe that they're breaking the law or
7 doing something wrong.

8 To quote one of these letters, I was very
9 disturbed to see that you were selling
10 hydroponically grown grape tomatoes labeled as
11 organic. The term organic is a legal term
12 controlled by the USDA and according to the 2010
13 recommendation of the National Organic Standards
14 Board, hydroponically grown produce are not organic
15 and should not be labeled as such.

16 This is a disservice to your consumers
17 and calls into question the credibility of all
18 labeling at, I will leave the retailer's name out.
19 I suggest you remove these mislabeled items from
20 your stores and discontinue until properly labeled.

21 While there's nothing really untrue in
22 this statement, it was very carefully crafted to be

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1 misleading and designed to fool the retailer into
2 believing they were doing something illegal. Then
3 there's my personal favorite.

4 In a telephone conversation where the
5 opposition was invited to come and see one of the
6 operations in California, so a producer could show
7 them their system and explain how it's truly
8 organic, their response was, what do you grow?
9 When the response to this was, micro-greens, basil,
10 leaf lettuce, and some other items, the opposition
11 responded with, don't worry about it, just don't
12 grow tomatoes. Really?

13 What about the numbers and availability
14 of organics? According to the Nielsen data,
15 organic tomatoes and peppers and cucumbers account
16 for a \$276 million industry. This industry is
17 growing at a rate of 19 percent, or \$43 million, a
18 year.

19 Greenhouse production accounts for 30
20 percent of the total and 47 percent of the growth.
21 Organic greenhouses are growing at much faster
22 rate, 33 percent versus 13 percent in the field.

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1 With these numbers, it's not hard to see the
2 financial windfall that would result from the
3 remaining producers with 30 percent of a growing
4 market disappearing overnight.

5 Where will all the families eating
6 healthy organic produce from greenhouses get their
7 organics if containerized growing was not
8 permitted? This supply and demand issue would make
9 organics affordable only to the financial elite.

10 Again, I must ask, based on what
11 consumers are looking for, science, and common
12 sense, what is the real motivation here? Based on
13 the testimony today --

14 CHAIR FAVRE: Excuse me, I'm sorry, I'm
15 going to have to ask you to stop.

16 MR. WHITCHER: That's fine.

17 CHAIR FAVRE: Any questions? Thank you
18 very much. Next up is David Auner, followed by
19 Fried De Schouwer on deck.

20 MR. AUNER: Thank you. I'm David Auner,
21 retired family physician, chemist, philanthropist,
22 and currently trying to build up a depleted fescue

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1 desert on my grandfather's Ozark 40 acres. A
2 family member of mine works in a quality hydroponics
3 outfit.

4 I support the work and the positions of
5 Cornucopia and think organic means more than just
6 nonpoisonous. Improving soil health sequesters
7 carbon and leads to more nutritious food.

8 I am too old to see which food industry
9 ideas will win the next round, but I predict
10 hydroponics, in greenhouses and in the high-rise
11 versions that Des Palmiers designs, with their LED
12 lights, will dominate and be controlled by a few
13 multinational corporations producing whatever
14 quality food is allowed after profits have been
15 maximized. Organic regulations are totally
16 inappropriate in this circumstance.

17 And like fracker's proprietary
18 information, which is not shared with the EPA or
19 health authorities, the USDA and this Board will
20 never again be able to withdraw the organic seal of
21 approval, even if like GM alfalfa fields, which the
22 cows now won't eat, the nutrition is lacking.

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1 USDA succeeded in Missouri's NRCS soil
2 and water conservation activities, but has failed
3 miserably at food in the face of corporate
4 corruption and a compliant Congress.

5 There is little reason to be optimistic,
6 but I urge this Board and the USDA to regulate
7 hydroponics through a different USDA Board and
8 separate organic from hydroponic. I thank those of
9 you who volunteer your time away from your
10 operations to improve American food. Thank you.

11 CHAIR FAVRE: Thank you very much. Any
12 questions? Thank you for your comments. Next up
13 is Fried De Schouwer, with Emily Brown Rosen on
14 deck.

15 MR. DE SCHOUWER: My name is Fried De
16 Schouwer. I represent Greenhouse Produce Company,
17 a U.S. based marketing company of premium
18 vegetables for over ten years. I've been selling
19 and marketing produce for over 30 years in Europe
20 and the United States.

21 We annually market one million pounds of
22 organic tomatoes, one-third of the total volume

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1 that we market on an annual basis. As a Belgian
2 native, I keep close ties with Europe and follow
3 market developments continuously.

4 I see a large difference between the
5 demand from the broad market in the United States
6 versus the current flat-line status of organics
7 that occupy in Europe. In my opinion, one of the
8 main reasons are the stringent EU government
9 regulations on conventional vegetable and fruit
10 production that inspire consumer trust in both
11 organic and non-organic offerings.

12 Greenhouse production has played a big
13 role in establishing this trust, by reducing the use
14 of pesticides and fungicides, which has been the
15 main drivers of consumer demand for organics in the
16 United States.

17 By contrast, in the United States, use
18 of GMOs is mounting and the use of pesticides and
19 fungicides is still rampant. Organic demand is up
20 by double digits according to USDA and industry
21 sources. The use of protected culture in North
22 America in the production of organic fruits and

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1 vegetables has been driving this growing demand and
2 supply.

3 Consumers benefit from the expanded
4 offering of organic produce in more retail outlets
5 on a year round basis. We should embrace the use
6 of containers as one of the organic production
7 methods so that we do not return to the dark days
8 where organics were available only to the
9 privileged few consumers.

10 The U.S. standards for organic
11 production should be based on the need to serve the
12 demand of U.S. consumers for healthier, sustainable
13 produce, rather than the desire to copy the EU
14 mishmash of standards.

15 I've seen it firsthand in Europe, that
16 the variable restrictions of the use of containers
17 is not a matter of organic production method or
18 philosophy, rather the standards have been pushed
19 as economic protectionist mechanism to stop the
20 expansion of the supply base for the economic
21 protection of a few small growers, who believe that
22 they are entitled to bigger premiums for their

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1 limited and seasonal production. Let us never lose
2 sight of this issue from a consumer's perspective.

3 Unless we can show there is a measurable
4 difference in nutrition, beneficial health, or the
5 genetics of the plant, we undermine our own
6 credibility in the industry by placing arbitrary
7 restrictions of supply of organics.

8 I do live in Florida and when I open my
9 eyes, I observe, I see orchids growing in trees,
10 mushrooms on barks, and lilies growing in ponds.
11 Who is to say that we must grow only in soil when
12 Mother Nature intended differently? Thank you for
13 your attention.

14 CHAIR FAVRE: Thank you. Questions?
15 Thank you very much for your comments. Next up is
16 Emily Brown Rosen, with Wil Hemker on deck. Emily,
17 it's nice to see you and you look more rested than
18 when you worked with us.

19 (Laughter.)

20 MS. ROSEN: Thank you very much. It's a
21 pleasure to be here on this side of the podium, it's
22 wonderful. I want to start off thanking all of you

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1 Board members for the excellent work you have done
2 this semester and especially congratulate the class
3 of 2017 for graduating or about to graduate, once
4 you get through one more meeting of your five years,
5 which is a tremendous commitment and we all
6 appreciate it.

7 It was a privilege to work with you when
8 I was at that NOP. I want to also mention the
9 outstanding job that was done on Sunset 2017. I
10 think this is the most thorough sunset review the
11 NOSB has ever done and I have seen them all, so I
12 was very pleased.

13 It included also the additional
14 attention to follow-up, when you found an issue that
15 couldn't be resolved in that time frame, you put it
16 back on the table and you dealt with it. So, I think
17 that's a really good standard for everyone to follow
18 and be supportive of.

19 I also support the excellent proposal to
20 divide up the future sunset work in reasonable
21 batches for the next round, so you don't ever have
22 to do 200, or whatever it was, 195, at one meeting.

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1 That was ridiculous. So, great job.

2 On hydroponics, I just want to say
3 briefly, I'm old school, I'm with the crowd that
4 originally -- we all thought organic means organic
5 matter in the soil, that's what the founders wrote
6 into the law, that's what organic farmers -- you've
7 heard from so many passionate farmers, it's
8 wonderful.

9 But it is a tough decision. And one
10 thing I want to point out to you, when you're
11 reviewing new production systems, in addition to,
12 of course, using the criteria of OFPA and the
13 regulations, you have another valuable tool, which
14 is in your policy and procedures manual, which is
15 the 2001 NOSB Recommendation on principles of
16 organic production.

17 And so, I just want to draw your
18 attention again that number one was an organic
19 production system is designed to optimize soil
20 biological activity, maintain long-term fertility,
21 and minimize soil erosion. Organic production
22 systems strive to achieve agroecosystems that are

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1 ecologically sustainable.

2 So, whatever you do decide to do, I think
3 some of these comments about, what are your
4 principles, are really important to come back to and
5 that you might want to consider in the future an
6 addition to these principles to include the goal of
7 carbon sequestration, because climate change, we
8 all know, is one of the biggest environmental
9 challenges facing us and organic can do its part to
10 mitigate.

11 And so, it would be nice to have that in
12 your criteria as one of the many things you consider
13 going forward. Stepping back, I have a few more
14 general comments to the community at large here.

15 We all have some bigger fish to fry, I
16 have to say, with the changing administration. We
17 don't really know what's going to happen in the next
18 five years, but it's really important that we can
19 all keep the momentum on organic going and support
20 for organic going.

21 So, one thing that's really
22 disheartening to me, which Miles mentioned this

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1 morning, the large number of FOIAs and lawsuits
2 against USDA and I think we can do better than that.

3 I think we can work together, NOP I know
4 is open for people to come in and call, make
5 appointments, present your case. A lot of things
6 can be solved through direct, ordinary
7 conversations, and I'd like to urge everyone to do
8 that. Thanks. That's it.

9 CHAIR FAVRE: Thanks.

10 MS. ROSEN: Any questions?

11 CHAIR FAVRE: Zea, question?

12 MS. SONNABEND: Emily, could you please
13 let us know, us on the Board and Miles know, your
14 opinion on the continued work on changing the inert
15 annotation.

16 MS. ROSEN: I think that's a very
17 important piece that needs to happen. I know
18 there's -- basically, what you all recommended was
19 that we revise the annotation of the National List
20 so that there is a better system for this, more
21 modernized, to look at the inerts for List 4 and List
22 3.

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1 It needs to get -- there's many
2 important things on the list, it needs to get
3 revised before the next sunset comes around, and we
4 need to kind of keep the momentum going on that
5 project if possible.

6 CHAIR FAVRE: Harold?

7 MR. AUSTIN: So, when you coming back out
8 of retirement?

9 (Laughter.)

10 MR. AUSTIN: No, seriously, I have this
11 idea. I do have a serious question. Didn't you
12 provide us with some written comments on
13 tocopherols?

14 MS. ROSEN: I did.

15 MR. AUSTIN: Could you clarify, just let
16 us know what your thoughts were on that?

17 MS. ROSEN: Well, my thoughts were that
18 I was -- it was kind of technical, I mean, I don't
19 know if you want me -- I can't go into whole details
20 now, we can talk about it more later, but the idea
21 was that you indicated that you felt there were some
22 non-synthetic tocopherols as well synthetic and you

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1 were going to list both of them on the National List.

2 But it was not clear to me from your
3 proposal which forms you were considering
4 non-synthetic, and I think that's important to
5 identify as you go forward, so that if you ever want
6 to take the synthetics off, so that everybody knows
7 which is which. And that's why I suggested you try
8 and follow the decision tree and so we have a record
9 of your opinion. Thanks.

10 CHAIR FAVRE: Thank you very much.

11 MS. ROSEN: Good luck.

12 CHAIR FAVRE: We've missed you. Next up
13 is Wil Hemker, followed by Aish Balasubramanian.
14 Sorry about that.

15 MR. HEMKER: Good afternoon. My name is
16 Wil Hemker, fellow at the University of Akron
17 Research Foundation in Akron, Ohio. My work is in
18 applied research in the sustainable food and
19 environmental technologies venue, which brings me
20 here today.

21 I'm in support of retaining
22 certification of container and hydroponic indoor

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1 farming, following the Organic Foods Production Act
2 that enables organic certification to be between
3 the organic farmer and the certifying agent.

4 The essence of organic growing is in the
5 intersection of the stewardship of the Earth's
6 agriculture resources and managing plant vitality
7 by nurturing the root zone ecology.

8 The organic greenhouse and indoor
9 farmer is a valid grower. Why? Because they farm
10 at this intersection, where essential biological
11 symbiosis happens in the root zone, soil or none.

12 Today's world faces severe challenges
13 in farming and food production. The average age of
14 the U.S. farmer is nearly 60 years. Clean water,
15 productive land, and favorable weather patterns all
16 are decreasing. Demand for locally grown, fresh
17 organic food crops is increasing.

18 Who is going to grow our food? Our
19 youth, if we give them an opportunity and clear
20 guidelines to become farmers. Young artisan
21 growers to engineering students are engaged in
22 controlled environment agriculture. They are

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1 passionate and ask our schools and universities,
2 like mine, to guide them in education, mentoring,
3 and entrepreneurship in indoor farming.

4 The young demand transparency in their
5 lives, authentic food grown safe, wholesome, and
6 using methods to conserve the Earth's resources.
7 Sustainable hydroponic and container organic
8 growing offers a viable opportunity for the
9 millennial farmers of the future.

10 Where and how will the demand for
11 quality food be grown? Well, appropriate
12 technologies allows indoor urban and peri-urban
13 local growing 365 days a year. For example, leafy
14 greens grow 25 times more productive per acre and
15 use up to 30 times less water compared to field
16 growing.

17 This subcommittee must recommend, based
18 on sound science and valid practices,
19 responsiveness to the food supply needs and opening
20 pathways for young talented farmers. Greatly
21 restricting appropriate technology is
22 counterproductive to the organic movement.

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1 Twenty-first century technologies
2 enable organic farming to be more productive and
3 excites American youths to be engaged. More young,
4 tech-savvy farmers are needed to grow clean, safe,
5 healthy, and local food. The NOSB must step up to
6 our country's need for quality food, jobs for young
7 farmers, and sound ecological practices in
8 agriculture. Thank you very much for your time.

9 CHAIR FAVRE: Thank you. Questions?
10 Harriet?

11 MS. BEHAR: Have there been any studies
12 on, like, the energy use? Like for lights and pumps
13 and all -- I know there's a lot of energy use in a
14 hydroponic as compared to -- because of the
15 controlled environment that you're talking about,
16 heat and all that, in comparison to growing food out
17 in a natural system.

18 MR. HEMKER: The closest that has been
19 done is a study done at Carnegie Mellon about six,
20 seven years ago, on the carbon footprint. And they
21 did find that, even coming from California out to
22 the East, if you grew locally hydroponically, it is

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1 a greater carbon footprint than even shipping it.

2 So, yes, there is an energy use. But
3 the counter to it, which I'm heavily involved in,
4 are renewable energies, smart energy design systems
5 for these houses that reduces that energy burden.
6 So, I think it's yet to come, but it is carbon
7 negative versus even shipping from California.

8 CHAIR FAVRE: Emily?

9 MS. OAKLEY: You mentioned young farmers
10 getting into agriculture, and I'm wondering, do you
11 work with students who then go on to become farmers?

12 MR. HEMKER: Yes, we do. We're not an
13 agriculture school, but right down the road is the
14 largest agriculture research center in the United
15 States, at the Ohio State University campus in
16 Wooster, Ohio.

17 We work very closely with them and with
18 many other land grant universities. But we are a
19 materials science technology school and I have
20 electrical engineers now making sensors for water
21 quality that can very much impact farms.

22 MS. OAKLEY: I'm no longer a young or

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1 beginning farmer, but I was not very long ago and
2 am still very much in touch with that community and
3 I can say from my anecdotal experience that I don't
4 see very many young and beginning farmers getting
5 into hydroponics, because there's a very high
6 up-front equipment investment, capital investment,
7 that isn't necessarily there with land based
8 farming. So, I'm wondering if you are seeing a
9 different trend that I'm not seeing?

10 MR. HEMKER: Well, that's an assumption,
11 Emily, that I think is incorrect. We have
12 contrasting technologies based on the economies of
13 scale and the developments of the country.
14 Presently, we are working with systems that are very
15 expensive that are robotic, for this in North
16 America.

17 But at the same time, I've got a project
18 going in Haiti that's very low-tech and it actually
19 can turn better crops and do it quicker on
20 non-arable land down there. And we know what the
21 devastation is in many of our developing countries
22 and these students are responding with some very

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1 interesting designs that bring it within the means
2 of small farmers.

3 CHAIR FAVRE: Thank you very much.

4 MR. HEMKER: Thank you very much.

5 CHAIR FAVRE: Next up is
6 Balasubramanian. On deck is David Hiltz.

7 MS. BALASUBRAMANIAN: Good afternoon.
8 My name is Aish and the last name is
9 Balasubramanian. Thank you. Thank you all for
10 your time and consideration. I'm here on the
11 behalf of the organic apple growers.

12 They have asked AgroFresh, that's us, to
13 support them as they believe in
14 1-methylcyclopropene, or 1-MCP as we call it, and
15 they say with the access to 1-MCP, they would have
16 a tool to manage their supply and provide quality
17 apples to consumer, while reducing waste and
18 minimizing carbon footprint.

19 Our goal at AgroFresh has always been to
20 help apple growers have a peace of mind that the
21 apples they grow reach the consumers. And we have
22 been doing this for 15 years and we have been doing

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1 this safely and successfully with our SmartFresh
2 technology for non-organic apples.

3 Being here is very important to me on a
4 personal level. I'm a vegetarian born and raised,
5 I'm passionate about food and as a scientist in
6 AgroFresh, I do what I do everyday is because I get
7 to see firsthand how science benefits people. And
8 I think that is very important to know and I'm proud
9 to be a part of it as a scientist.

10 SmartFresh is proven and it's a
11 time-tested technology. It has been reviewed and
12 approved for use in over 40 countries. In all
13 cases, it was found to be safe to consumers,
14 workers, environment, and it's effective in
15 maintaining the quality of apples.

16 So, there is so much effort being put
17 into growing organic apples. You have from land,
18 water, equipment, energy, transportation, it is
19 imperative that we realize the value for this
20 investment and the only way to make sure is that
21 apple that the organic farmers grow is consumed.

22 SmartFresh can make that possible by

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1 ensuring this apple quality from farm to table. It
2 means less waste and more locally grown organic
3 apples available.

4 Yes, you may say there is -- you can
5 import apples, apples come from other Southern
6 Hemispheres, but we need to think of the carbon
7 footprint associated with this, and SmartFresh can
8 really help minimize the carbon footprint, and we
9 have proved that over 15 years with non-organic
10 apples.

11 SmartFresh is also successful in
12 reducing energy requirements, so apples need not be
13 stored at as cool of temperatures. It is effective
14 even in the cold storage, or in some case regular
15 storage, which is very important for small organic
16 growers. Having SmartFresh as a tool will pave the
17 way for more small farmers to transition.

18 There is controlled atmosphere, there
19 is dynamic controlled atmosphere, all these are
20 great as a storage means, but they are not enough,
21 because once you take that apple out of the storage,
22 perfection ceases to exist. That means apple

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1 starts to rot a lot faster, they will start getting
2 softer, and they don't last that long after that.

3 Without SmartFresh, you lose the eating
4 quality of these apples. Moreover, these apple
5 storage methods have high energy consumption, high
6 infrastructure, which are all expensive and may not
7 be an option for a small grower. Thank you for your
8 time. And just wanted to conclude by saying, there
9 is no greener technology than SmartFresh, in our
10 opinion. Thanks.

11 CHAIR FAVRE: Thank you. Questions?
12 Harold?

13 MR. AUSTIN: I think one of the
14 challenges that the subcommittee had when we were
15 looking at SmartFresh was where we could actually
16 categorically try to fit it onto the National List.
17 And I think that was the biggest challenge. Issues
18 -- technically what would you classify it as? A
19 growth regulator or what?

20 MS. BALASUBRAMANIAN: It is an ethylene
21 activity inhibitor and it's used in storage.
22 Because apple is a biennial bearing crop, one year

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1 you have a bumper crop, the next year, you won't.
2 It is a great tool to manage supply that you get and
3 it does a great job at minimizing the ethylene
4 activity for the fruit.

5 So, it is just like ethylene, but
6 opposite to it. It degrades, biodegrades into
7 carbon dioxide and water and it exists only as a gas
8 form, has a half-life of only 4.4 hours.

9 MR. AUSTIN: Okay. I guess I -- just for
10 a comment for clarification for you. On the
11 subcommittee, I did vote to not allow this on the
12 material and I've since -- and I'm quite familiar
13 with SmartFresh with 1-MCP on the conventional
14 side.

15 I've heard from numerous organic
16 growers growing apples in the Pacific Northwest
17 that have asked me to change my vote, to support
18 1-MCP, and I will be doing that when we bring it up
19 in the subcommittee.

20 MS. BALASUBRAMANIAN: Thank you.

21 MR. AUSTIN: Just wanted to share that
22 with you.

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1 MS. BALASUBRAMANIAN: Thank you.

2 CHAIR FAVRE: Thank you very much.

3 MS. BALASUBRAMANIAN: Thanks.

4 CHAIR FAVRE: Next up is David Hiltz,
5 followed by Jake Gutzwiler on deck.

6 MR. HILTZ: Good afternoon and thanks for
7 the opportunity to speak to the NOSB regarding the
8 topic of marine plants and algae. My name is David
9 Hiltz, I'm a research director with the company
10 Acadian Seaplants.

11 We're a private company who has been
12 harvesting and manufacturing marine plants and
13 marine plant products for about 35 years. Our
14 company roots are in the maritime provinces of
15 Canada, but more recently, we've expanded our
16 activities into Maine and Ireland as well.

17 We appreciate the NOSB interest in the
18 sustainability of marine plant harvesting, but
19 we're deeply concerned with the theme of the
20 discussion document that was published, which seems
21 to imply that there's wide acceptance of the
22 position that the species *ascophyllum nodosum* is

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1 commercially over-harvested.

2 My colleague, Dr. Raul Ugarte, has been
3 studying the ecology of ascophyllum nodosum for
4 more than 20 years and he has published numerous
5 peer-reviewed papers on the growth patterns and
6 effect of the commercial harvest of this species,
7 many in collaboration with government scientists
8 and renowned phycologists worldwide.

9 Dr. Ugarte submitted comments to the
10 Board, which I hope you've had a chance to consider.
11 The comments outline the commercial landings of
12 ascophyllum and compare them to the scientific
13 estimates of the standing biomass of the areas where
14 ascophyllum grows at a density which would allow
15 commercial harvesting.

16 And you can see from that data that only
17 a small fraction of the total biomass is actually
18 harvested annually. And given that the
19 peer-reviewed publications also show that the
20 annual regrowth of ascophyllum can approach 35
21 percent of the actual biomass, it's clear that the
22 commercial harvesting activities remove less than

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1 the annual turnover of the plant itself.

2 If it's not clear to the Board, the
3 commercial harvest of ascophyllum is actually a
4 highly regulated industry, subject to regulations
5 and scrutiny. As summarized in the technical
6 review, the current state of the commercial
7 ascophyllum harvest is actually -- has resulted in
8 favorable observations by both researchers and
9 industry.

10 In Atlantic Canada, for example, the
11 ascophyllum resource is owned by the government and
12 access is granted through a licensing agreement to
13 companies that can demonstrate a sustainable
14 harvesting plan.

15 Harvesting methods have evolved through
16 science-based innovation and now focus on cutting
17 the top of the plant as they stand in the water
18 column. This technique will leave the holdfast
19 attached to the rocks and it will also leave the
20 lower section of the plant intact, which will allow
21 for rapid regrowth without requiring new
22 recruitment.

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1 Commercial landings of ascophyllum are
2 monitored both by industry itself and by government
3 inspectors for the quantity that we bring in, as
4 well as the presence of these holdfasts. And by
5 doing that, it ensures that damaging harvesting
6 practices are not occurring.

7 When ASL began harvesting ascophyllum,
8 we were typically given license with annual
9 renewals, but as we have developed a good
10 credibility and gathered scientific information,
11 the leases that are now awarded to us are much more
12 long-term and it demonstrates the scientific
13 credibility that we've obtained. Thanks for your
14 time to comment. There was one comment in public
15 comment that suggested that companies were --

16 CHAIR FAVRE: I'm really sorry, we have
17 to cut you off.

18 MR. HILTZ: Okay. That's fine.

19 CHAIR FAVRE: We're almost an hour behind
20 schedule now, I apologize.

21 MR. HILTZ: That's fine.

22 CHAIR FAVRE: Any questions?

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1 MR. HILTZ: Thanks very much for your
2 time.

3 CHAIR FAVRE: One question.

4 MR. HILTZ: Oops, sorry.

5 MS. RICHARDSON: I get one question.
6 So, you may have noted that we got probably
7 thousands of pages of comments, plus the research
8 articles. And so, we have read all of those and
9 they do cover a cross-spectrum and some of them
10 support the statements that you've made and some of
11 them suggest over-harvesting in certain
12 geographical areas.

13 What I want to just do is just make a
14 comment to you and then for others that are going
15 to be commenting on this, is that out of this
16 meeting, the first thing we'll be trying to look for
17 to get clarification of the species listed on the
18 National List.

19 So, anything that you can do to help us
20 to know the right Latin names that will go with the
21 common names, that will enormously helpful to us,
22 because that's what we'll do first. We're not

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1 going to be proposing any specific standards at this
2 point that are going to change them and we really
3 value this whole cross-section of data that we've
4 been getting.

5 And I'm saying this for all of you who
6 are also going to be commenting on this subject
7 during these two days. So, we really appreciate
8 the detail of information that you're providing us
9 with. Thank you.

10 MR. HILTZ: Thanks, Jean, and just
11 quickly to say, some of the statement, the idea, or
12 some of the history of the ascophyllum harvest, a
13 lot of the reports of over-harvesting were done at
14 a time before the commercial licensing system that
15 has come into place now. And since that system has
16 come into place, we see a much better regulation and
17 a much better sustainability, I believe. So, thank
18 you all.

19 CHAIR FAVRE: Thank you very much. Next
20 up is Jake Gutzwiler. And we've got Carl Knueven
21 on deck.

22 MR. GUTZWILER: Hi, I'm Jake Gutzwiler.

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1 I'm here to support the approval of 1-MCP for
2 organic apple production or application to organic
3 apples. The relatively innocuous product that's
4 applied post-harvest, doesn't affect any of the
5 sustainability of the soil or the land and
6 definitely adds a lot to apple sustainability
7 post-harvest.

8 I am a fourth generation orchardist from
9 Wenatchee, Washington and I'm the quality control
10 manager at Sternilt Growers in Wenatchee also. My
11 responsibility is to store apples, whether they're
12 conventional or organic, and also to store cherries
13 and pears.

14 I represent in my own organization more
15 than 50 individual organic growers, all of whom
16 support the use of 1-MCP if we could get it, simply
17 because we know that we are going to see a dramatic
18 proliferation of organic apples within the next two
19 years, a number of orchards are in transition from
20 conventional to organic, which is fantastic for
21 consumers. Availability of more organic product
22 to the consumers, potentially for a longer period

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1 throughout the season.

2 One thing that is a negative to all that
3 though, is that history shows us that in apple
4 production, we see periods of dramatic increase in
5 production of apples immediately followed by that
6 increase going out to the marketplace and then a
7 mass availability of fruit at the warehouse level.

8 We have dramatic demand and then we have
9 supply that reaches that demand and then we start
10 having to store the fruit a little bit longer
11 throughout the season. Which is okay, because that
12 allows the consumer to eat organic apples longer
13 throughout the year. Instead of just four months,
14 we have enough to store for five months, six months,
15 seven months.

16 But at some point, the quality starts to
17 decline. We start seeing rot, we start seeing
18 superficial scald, we start seeing general
19 degradation of the product, just the integrity of
20 the fruit starts to decline, so it becomes
21 unpackable, unshippable, unavailable to consumers
22 at that point.

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1 And at that point, although we're still
2 going to pack, we're still able to ship, we lose a
3 certain amount of the fruit that we can pack at the
4 production level. Once we lose that pack-out, once
5 that pack-out drops, then growers start losing
6 money.

7 And once growers start losing money,
8 then they have to make the decision, do I stay
9 organic and have lower pack-outs or do I go back to
10 conventional, have higher pack-outs, able to sell
11 the entire crop, because they can store it longer?

12 1-MCP would be one more tool to help us
13 store that fruit a little longer and sell the entire
14 organic crop and keep more fruit in organic, more
15 fruit organic for the consumers. Any questions?

16 CHAIR FAVRE: Jean, and then Dan.

17 MS. RICHARDSON: So, how often do you
18 have to -- would you have to use 1-MCP? We heard
19 that it has a life of about four and a half hours,
20 I think the earlier speaker said, and that it's an
21 ethylene inhibitor. So let's suppose that you
22 notice that the fruit is going downhill, doesn't

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1 store as well, what do you then do?

2 MR. GUTZWILER: You apply 1-MCP at the
3 beginning of the season. The closer to harvest you
4 apply it, the better off you are. If you apply it
5 later in the season -- what it does, 1-MCP is
6 essentially the same shape as ethylene.

7 Ethylene is the ripening hormone in
8 fruit. And so, it's this self-proliferating
9 process, where once it starts to ripen, it produces
10 ethylene and then it absorbs that ethylene. And
11 when it absorbs the ethylene, it gets riper faster.

12 So, it essentially blocks the ability
13 for the fruit to absorb more ethylene. And when it
14 blocks that ability to absorb the ethylene, it
15 doesn't ripen as fast. So, once you start down this
16 path in apples, it ripens a heck of a lot faster.

17 So if we can stop it early, then we can
18 store it longer. If we can store it longer, then
19 we have more delight for consumers later. Because,
20 I heard someone talk about how important flavor is
21 when you're eating fruit, or when you're eating
22 food, excuse me, tons and tons of sensory work on

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1 apples has shown that the most important component
2 to consumers in apple consumption is crunch.

3 So, we can draw more consumers to buy
4 that organic apple if we can keep the crunch there,
5 plus we don't lose the integrity of the product, so
6 we lose pack-out, so we lose organic growers.

7 MS. RICHARDSON: So, you only use it
8 once?

9 MR. GUTZWILER: One time.

10 MS. RICHARDSON: Okay.

11 CHAIR FAVRE: Dan?

12 MR. SEITZ: What's the maximum length of
13 time you can keep an apple when you've treated it
14 shortly after picking it?

15 MR. GUTZWILER: That is dependent on
16 variety of apple. But there are people who hold
17 apples as long as 14 months. Typically, what you
18 see, the real solid shelf-life of an apple, if you
19 put it in controlled atmosphere, reduced oxygen,
20 you put the apple to sleep, you can hold it for 12
21 months.

22 Now, you can do that at some -- if you

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1 have a perfect year, if you have the perfect fruit,
2 if you have perfect conditions, you can do that
3 sometimes without applying any kind of a product to
4 it and just dropping the oxygen low, but that's rare
5 that it occurs. Typically, you see degradation in
6 pack-out, which means degradation to the return to
7 the grower.

8 CHAIR FAVRE: Harold?

9 MR. AUSTIN: Jake, I'm going to assume,
10 since I come from the apple communities myself, that
11 you're talking on the 14 month, conventional fruit.
12 What's the longevity of organic fruit compared to
13 conventional fruit storage regimes?

14 MR. GUTZWILER: I only count on storing
15 organic red delicious for five months, because I
16 know beyond that, it's a ticking time bomb. You've
17 lit the fuse and it's going to rot.

18 I know that I can store organic granny
19 smith at ultra-low oxygen levels most years, at the
20 most, nine months before I start developing
21 superficial scald. But that's only on good years,
22 some you just start seeing that superficial scald

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1 even earlier than that. So, you've got a range of
2 five months to nine months, at best.

3 CHAIR FAVRE: Thank you very much.

4 MR. GUTZWILER: Thank you.

5 CHAIR FAVRE: Next up is Carl Knueven,
6 with Mark Kastel on deck.

7 MR. KNUEVEN: Good afternoon. My name
8 is Carl Knueven. I'm the R&D director for
9 Jones-Hamilton Company. Sodium bisulfate is a
10 safe, dry granular acid salt. It's approved for
11 food by FDA, World Health Organization, and USDA,
12 and for animal feed in the U.S. and Europe. It's
13 a common ingredients in products such as soups,
14 sauces, salad dressings, and beverages.

15 It lowers pH to help control salmonella,
16 listeria, and e coli. Of the three products being
17 petitioned, sodium bisulfate is safe and
18 environmentally friendly. It's on EPA's Safer
19 Choice list as both an antimicrobial and a
20 processing aid. It received a full green circle,
21 verifying it to be of low concern.

22 When added to poultry litter, sodium

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1 bisulfate breaks down into sodium, hydrogen, and
2 sulfate, all of which are naturally found in the
3 litter. The hydrogen lowers pH, which controls
4 ammonia and salmonella.

5 Sodium bisulfate has unique
6 characteristics that make it ideal for use in
7 broiler houses. Broiler houses are dry
8 environments. In this dry environment, sodium
9 bisulfate absorbs water from the air when the
10 relative humidity is above 45 percent.

11 At 40 percent humidity, the hydrogen is
12 locked in the dry crystal form. At 45 percent
13 humidity, the crystals will absorb water, turn
14 liquid, releasing the hydrogen, which lowers pH.

15 There is no approved material for use in
16 or on organic poultry that functions this way,
17 including Activated Barn Fresh that contains citric
18 acid. Citric acid absorbs water and turns liquid
19 only when the humidity is above 73 percent. In the
20 dry crystal form, citric acid cannot lower pH or
21 control ammonia.

22 The National Poultry Technology Center

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1 recommends relative humidities between 50 and 70
2 percent to keep litter moisture at acceptable
3 levels. Humidities above 70 percent cause
4 condensation on walls and ceilings and wet litter.
5 Wet litter contributes to health problems and
6 increased ammonia production.

7 Therefore, approved materials for use
8 on or in organic poultry that contain citric acid
9 cannot control ammonia or reduce pH under
10 recommended farm conditions, which differ from test
11 tubes where water is added.

12 The University of Toledo conducted a
13 life cycle analysis on sodium bisulfate following
14 international guidelines. The results indicate
15 that the production and distribution of one ton of
16 sodium bisulfate generates 700 pounds of greenhouse
17 gas emissions.

18 That same one ton of sodium bisulfate
19 applied in a poultry house reduced CO2 emissions by
20 16,200 pounds during winter months and 3,100 pounds
21 during summer. In addition to reducing greenhouse
22 gases, sodium bisulfate reduces ammonia emissions,

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1 which are an environmental concern and a worker
2 safety issue.

3 The general public purchases organic
4 products because they believe they are safer,
5 healthier, and better for the environment. Sodium
6 bisulfate makes products safer, healthier, and
7 better for the environment.

8 CHAIR FAVRE: Thank you.

9 MR. KNUEVEN: I also have a bunch of
10 letters from organic growers stating that there's
11 no organic product out there that works and to
12 please approve sodium bisulfate --

13 CHAIR FAVRE: Thank --

14 MR. KNUEVEN: -- for the health and
15 welfare of the bird.

16 CHAIR FAVRE: Thank you. Ashley,
17 question? Followed by Jean.

18 MS. SWAFFAR: Can we see those letters
19 that say individual --

20 MR. KNUEVEN: Yes, I have them all --

21 MS. SWAFFAR: -- companies --

22 MR. KNUEVEN: I have them all right here.

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1 MS. SWAFFAR: Yes. I'd love to get those

2 --

3 MR. KNUEVEN: Okay.

4 MS. SWAFFAR: -- because I just saw on
5 mainly poultry veterinarians.

6 MR. KNUEVEN: All right.

7 CHAIR FAVRE: Jean?

8 MS. RICHARDSON: So, when the sodium
9 bisulfate degrades --

10 MR. KNUEVEN: Yes.

11 MS. RICHARDSON: -- you've scattered it,
12 it's in use, what does it degrade into in the litter?

13 MR. KNUEVEN: Yes. It's a very simple
14 compound. It's made up of sodium, hydrogen, and
15 sulfate. So when it gets into the litter, it's
16 going to break down into the those three products,
17 which are already found naturally in the litter.

18 The sodium -- there's a lot of sodium in
19 litter anyway, because it's in the diet. And
20 sulfate is already in the litter too, because it
21 comes through from the sulphur containing amino
22 acids. So, it's just the hydrogen ion which will

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1 be additionally there and that hydrogen will react
2 with the ammonia, which is NH₃, and make it NH₄,
3 ammonium.

4 So, it's really -- you can't tell a
5 difference between product treated with sodium
6 bisulfate or litter treated with sodium bisulfate
7 and litter not treated with sodium bisulfate, other
8 than a little bit higher in nitrogen levels, when
9 you look at the chemistry.

10 CHAIR FAVRE: Thank you very much.

11 MR. KNUEVEN: You're welcome.

12 CHAIR FAVRE: Next up is Mark Kastel,
13 with Nicholas Gardner on deck.

14 MR. KASTEL: Okay. My name is Mark
15 Kastel, I'm the co-director of the Cornucopia
16 Institute and I act as our senior farm policy
17 analyst. Our membership consists of about 10,000
18 individuals, including an important percentage of
19 the nation's certified organic farmers.

20 I want to formally deliver the 1,400
21 individually signed proxies, again, with a high
22 percentage of certified organic farmers from over

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1 40 states and Canada, not just in Vermont. They are
2 all making it very clear that hydroponic and
3 container growing, whether it is with the roots in
4 liquid or in a non-nutritive substance in a
5 container, is not consistent with the spirit and
6 letter of the organic law.

7 Why should you listen to these
8 stakeholders? Why should you listen to the veteran
9 experts who will be testifying this week, like Dr.
10 Michael Hansen and Charlotte Vallaeys of the
11 Consumers Union, Dr. Terry Shistar of Beyond
12 Pesticides, Dr. Linley Dixon with the Cornucopia
13 Institute?

14 Please allow me to make this clear: all
15 these organizations, with long legacies of
16 monitoring organic policymaking, are all tax
17 exempt, public interest groups. The voting record
18 of this panel indicates, in contested votes, many
19 members universally reject the advice and counsel
20 of these learned public representatives.

21 A sizeable percentage of this body, in
22 contested votes, stand almost 100 percent in

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1 consort with the Organic Trade Association and its
2 corporate members. And what is the OTA? Let me
3 first tell you what the OTA is not. It is not a
4 public interest group.

5 It is a trade association mandated by
6 its charter to lobby on behalf of business interests
7 in the organic industry. Although they might want
8 to say they represent farmers, they represent
9 businesses that buy commodities from farmers.
10 They might want to say they represent consumers, but
11 they represent the businesses that sell organic
12 products to consumers.

13 And so, who should you be listening to
14 in the organic community? Maybe the FMC
15 Corporation, originally Food Machinery and
16 Chemicals, that are here to talk about carrageenan.
17 One reason that they are funding the agribusiness
18 kind of AstroTurf campaign to convince you folks
19 that carrageenan in organic food is essential, why?
20 Profit.

21 How about the -- likewise, the reasons
22 that multinational corporations like Driscoll's,

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1 who's vast preponderance of business is
2 conventional, yes, container growing is
3 hydroponic, or Wholesome Harvest, who you've heard
4 from, a multinational corporation, they funded this
5 phony grassroots group, the Coalition for
6 Sustainable Organics. Why would they invest in
7 that? Profit. I have one last sentence. Profit
8 is not a dirty --

9 CHAIR FAVRE: Mark --

10 MR. KASTEL: -- word, but suggesting that
11 --

12 CHAIR FAVRE: Mark --

13 MR. KASTEL: -- labeling organic and
14 growing without soil is legal is --

15 CHAIR FAVRE: Mark --

16 MR. KASTEL: -- flatly wrong, but it
17 appears to be highly profitable. Thank you very
18 much.

19 CHAIR FAVRE: Thank you. Any questions?
20 Thank you very much.

21 MR. KASTEL: Thank you, Madam Chair.

22 CHAIR FAVRE: Next up is Nicholas

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1 Gardner, with Jose Zertuche on deck.

2 MR. GARDNER: Good afternoon. My name
3 is Nicholas Gardner and I'm the general manager of
4 Marinalg International, a trade association
5 representation companies that produce seaweed
6 derived hydrocolloids, including carrageenan.
7 Marinalg strongly supports the continued listing of
8 carrageenan on the National List.

9 Carrageenan meets OFPA criteria as a
10 safe and essential food ingredient. Carrageenan
11 has been used in foods for hundreds of years,
12 because of its unique functionality, which is
13 unmatched by alternatives.

14 Carrageenan is commonly used to
15 stabilize and thicken foods, to bind water, to
16 promote gel formation, and to reduce or substitute
17 fat. Carrageenan is generally found in dairy
18 products, although it is also present in processed
19 meat and fish products, beverages, condiments,
20 desert gels, and infant formula.

21 Although non-organic alternatives do
22 exist for some applications, alternatives are not

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1 available for many. Formulators who have tried to
2 replace carrageenan have found that these
3 non-organic alternatives do not perform as well as
4 carrageenan, leading to product discontinuations.

5 In other cases, formulators have been
6 forced to use more non-organic ingredients to
7 achieve the same functionality as a small amount of
8 carrageenan. To demonstrate these points, I would
9 like to note the results of a recent dairy food
10 producer survey, which was published by
11 dairyfoods.com on November 9.

12 While I'm not going to read the quote
13 that I have here on the slides, I want to note that
14 carrageenan alternatives identified by the
15 Handling Subcommittee were evaluated in the survey
16 and dairy producers responded that carrageenan was
17 superior in terms of performance and functional
18 characteristics.

19 I appreciate the priority that the NOSB
20 has placed on ensuring that only safe ingredients
21 are used in organic foods. However, there can be
22 no question when it comes to carrageenan. It is

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1 safe. Extensive scientific research, including
2 literature published since the spring NOSB meeting,
3 demonstrate that carrageenan does not cause adverse
4 health impacts when consumed in food.

5 The Handling Subcommittee has also
6 thoroughly investigated carrageenan's safety,
7 including reviewing the results of a limited scope
8 TR on the subject. Their conclusion was that the
9 scientific evidence does not support claims of
10 widespread health impacts from carrageenan. Like
11 the Handling Subcommittee, regulatory bodies all
12 over the world, including USDA, have come to the
13 same conclusion.

14 To summarize, Marinalg continues to
15 believe that carrageenan is safe and compatible
16 with organic principles. Seaweed cultivation for
17 carrageenan production, as noted by other
18 commenters, actually has positive impact on
19 environment and socioeconomic development.

20 However, because the decision before
21 the NOSB rests on whether carrageenan is essential,
22 I would like to spend my remaining time posing some

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1 points for the Board's further consideration. It
2 is clear that wholly organic alternatives do not
3 exist for carrageenan. And I will conclude there.

4 VICE CHAIR CHAPMAN: Thank you. Any
5 questions? I have one. You were starting to talk
6 about criteria by which we evaluate substances, one
7 of which is compatibility with organic handling
8 system, it's a quite vague term, but we have
9 guidance in terms of a proposal that was accepted
10 in 2001.

11 And in that, there's a question posed,
12 does the substance satisfy expectations of organic
13 consumers regarding authenticity and integrity of
14 organic products? Can you help us in answering
15 that question?

16 MR. GARDNER: Sure. And, Tom, would you
17 like me to sort of reflect on that from the
18 production side or from the use side in foods
19 themselves?

20 VICE CHAIR CHAPMAN: I mean, we're
21 talking about the expectations of organic consumers
22 --

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1 MR. GARDNER: Sure.

2 VICE CHAIR CHAPMAN: -- and not -- so,
3 authenticity and integrity of the product --

4 MR. GARDNER: Yes.

5 VICE CHAIR CHAPMAN: -- so I'd imagine on
6 the finished product side.

7 MR. GARDNER: Okay. Sure. Well, I
8 think that one of the things that carrageenan
9 provides, as you've heard from many formulators, is
10 an option that allows them to deliver a consistent
11 product that has unique characteristics compared
12 with other ingredients.

13 I think when organic consumers,
14 particularly new organic consumers, who are
15 emerging into this market, like younger people, who
16 want new and innovative products, they are looking
17 to an ingredient like carrageenan to satisfy that
18 technical need for a very functional, very
19 consistent product, while also having the integrity
20 of coming from a natural source, seaweed, and used
21 at an extremely low level as compared to some of the
22 alternative ingredients that would be used to

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1 substitute carrageenan.

2 VICE CHAIR CHAPMAN: Any other
3 questions? Thank you.

4 MR. GARDNER: Thank you.

5 VICE CHAIR CHAPMAN: Up next is Jose
6 Zertuche, followed by Erin Silva on deck.

7 DR. ZERTUCHE: Yes. Good afternoon.
8 My name is Jose Zertuche, I'm a professor at the
9 State University de Baja California in Mexico. I
10 obtained my PhD in SUNY Stony Brook in coastal
11 oceanography and marine botany.

12 I have 30 years of research experience
13 on the ecophysiology and sustainable use of
14 commercial seaweeds. I also have been an FAO
15 consultant and I belong to the Latin American
16 Consortium for Sustainable Seaweed Industry.

17 I want to inform you that seaweed
18 harvesting has proved to be a successful
19 sustainable fishery in many regions of the world.
20 Presently, it's practiced in more than 30
21 countries. Over 55 percent of the biomass harvest
22 from natural populations comes from Latin America.

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1 Chile is by far the largest producer,
2 but seaweed natural beds are also harvest in Mexico,
3 Argentina, Peru, and Brazil. In Chile, which is
4 one of the first agar producers in the world,
5 seaweed represents a significant source of income
6 for rural coastal communities.

7 In Mexico, seaweed harvesting has been
8 practiced since the early 1960s and provides
9 without a doubt the best record of sustainable
10 fishery in the country. The Mexican seaweed
11 industry consists mainly as a source of raw
12 material, exporting seaweeds to the U.S. for agar,
13 alginate, and carrageenan production.

14 Seaweed exports to the United States
15 have been a significant income for fishermen along
16 the coast of Baja California, promoting roots in
17 local communities. Seaweed harvesting also
18 provides an additional alternative for commercial
19 fisheries, helping to reduce the fishing effort on
20 over-exploited species.

21 Several reasons explain the success.
22 First of all, seaweed harvesting is regulated by the

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1 government through permits and concessions, which
2 outline specific harvesting methods based on
3 scientific studies according to a life history of
4 different seaweeds.

5 Additionally, seaweeds need to be
6 present in high densities in order to make a
7 profitable harvest, which makes it, to some extent,
8 self-regulated. Although seaweed population can
9 be drastically reduced by natural events, such as
10 El Nino, global warming, have shown to have a high
11 capacity for recovery.

12 Regarding the recommendation to
13 substitute carrageenan by other gums, consider that
14 seaweeds is the raw material for gums, with a lower
15 ecological footprint, because they do not require
16 fresh water, farmland, or fertilizers. Replacing
17 carrageenan with other gums would have a greater
18 environmental impact.

19 In summary, programs for sustainable
20 harvesting of seaweeds have proved to be successful
21 and relatively easy to implement, providing a
22 complementary source of income in rural coastal

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1 areas, with a minimum ecological footprint. Thank
2 you.

3 VICE CHAIR CHAPMAN: Thank you. Any
4 questions? Thank you.

5 DR. ZERTUCHE: Thank you.

6 VICE CHAIR CHAPMAN: Up next is Erin
7 Silva. And Abigail Youngblood is on deck.

8 MS. SILVA: Good afternoon, everyone.
9 I'm Erin Silva. I'm an assistant professor at the
10 University of Wisconsin Madison, specializing in
11 organic agriculture and the State Extension
12 Specialist for Wisconsin. I'm here before you
13 today to provide an update on the work of the celery
14 powder working group, which is a subgroup housed
15 under the Organic Trade Association's National List
16 Innovation Working Group.

17 The celery powder working group was
18 formed to explore organic alternatives to
19 conventional celery powder, which is used as an
20 organic curing agent for organic meat products,
21 which is scheduled to sunset as of 2022. And this
22 was also listed as a research priority by the NOSB

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1 Materials Subcommittee.

2 As a quick update to our work, to date,
3 we have established a strong partnership of
4 industry representatives, university researchers,
5 including myself and a meat scientist at the
6 University of Wisconsin Madison, and farmers to
7 evaluate the current state of the industry and to
8 identify bottlenecks and opportunities for the
9 development of alternatives to the conventional
10 celery powder that's allowed today.

11 To support these activities, we have
12 applied for and received a USDA Organic Research and
13 Extension Initiative Planning Grant, which funds
14 some staff time and travel to support the activities
15 of the celery powder working group.

16 Additionally, we have begun some
17 small-scale research, replicated evaluations on
18 the University of Wisconsin certified organic
19 research land, and using samples from organic farms
20 across Wisconsin and California to evaluate the
21 nitrite and nitrate levels of organic celery as a
22 potential alternative to conventional powder,

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1 measuring both the nitrate concentrations and the
2 related nitrite conversion from these crops.

3 We're also looking at alternative crops
4 as well that might serve as an alternative to
5 celery, such as Swiss chard and beets and also some
6 cover crops, such as oat. All of this work is done
7 using certified organic land, using good, solid
8 organic management practices and fertility
9 approaches with organic cultivars available as
10 organic seed.

11 This preliminary data will support
12 future work involving not only the agronomics of the
13 system, but also economics and consumer acceptance.
14 A schematic of our approach can be seen in the
15 Organic Trade Association's Resource Booklet on
16 Pages 35 and 36.

17 On this schematic, we have already
18 progressed to the point of receiving, again, this
19 OREI Planning Grant and are working towards moving
20 to the next steps of getting larger funding to move
21 the research on to a larger scale, to provide the
22 solutions we need to find an alternative to the

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1 conventional celery powder used today.

2 In closing, as we continue to move
3 forward in developing the alternatives for
4 conventional celery powder for the curing of
5 organic meat products, the working group will
6 continue to provide updates and let the NOSB know
7 of our continuing efforts as we move along on this
8 path.

9 CHAIR FAVRE: Good job. Harriet, and
10 then Jean.

11 MS. BEHAR: Nice to see you, Erin.

12 MS. SILVA: Good to see you.

13 MS. BEHAR: So, I have a question, I just
14 have some concern about, and maybe I just don't
15 understand meat curing, but we're focusing so much
16 on nitrites, which is something that I think we do
17 have a concern about in our food, and I'm just
18 wondering if there's any research being done on --
19 I mean, right now, we're looking at, how can we get
20 something with nitrites in it --

21 MS. SILVA: Yes.

22 MS. BEHAR: -- is there some other

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1 methods that you're also looking at to even
2 completely bypass that --

3 MS. SILVA: Right now --

4 MS. BEHAR: -- ingredient?

5 MS. SILVA: -- we're still looking at the
6 conversion of nitrate to nitrite. Jeff Sindelar,
7 who, again, is a professor at UW Madison that's
8 worked in natural curing for years now, was really
9 the foundation of his career, he's done a lot of
10 research and literature review to demonstrate that
11 actually nitrate and nitrite, even though there's
12 been recent news reports to demonstrate or to show
13 that there may be a link between cured meat products
14 and health risk, that the research really documents
15 that that is not necessarily the case.

16 So, from my understanding, it's moving
17 along this path of looking at an organic alternative
18 based in nitrite is not increasing human health
19 risk. And, indeed, nitrites have been used since
20 the 1800s for curing, it certainly isn't something
21 that's new as a synthetic product.

22 CHAIR FAVRE: Any other questions? Oh,

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1 yes, I'm sorry, Jean.

2 MS. RICHARDSON: So, it's good to see
3 this research coming out of some of the
4 recommendations from the NOSB, because it was hard
5 to sort of say, yes, go ahead with the celery, when
6 we thought it could come from organic plants. So,
7 are you finding that -- are you using a combination
8 of cultivars and fertilizers to try to increase the
9 nitrite levels that you're looking for?

10 MS. SILVA: Right now, we're
11 concentrating -- yes, we are looking at cultivars
12 as a potential solution and looking at cultivars
13 that might inherently have higher levels of
14 nitrates. But our approach is not to look at
15 excessively fertilizing the crops. So, we may --

16 MS. RICHARDSON: Okay.

17 MS. SILVA: -- look at management
18 strategies and optimizing management strategies
19 with fertility management, but not dumping nitrogen
20 on the system, that would be against that organic
21 philosophy or organic fertility management.

22 All of our experiments thus far have

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1 been using the typical fertility management
2 approaches that organic farmers would use. So,
3 that's not the approach that we're hoping to take.
4 We are using some foliar feeds, but that is not
5 necessarily uncommon with some of our vegetable
6 production, organic vegetable production in the
7 state.

8 MS. RICHARDSON: Okay. Yes, because
9 that was one of our main concerns when we were
10 looking at it in committee.

11 MS. SILVA: Yes.

12 MS. RICHARDSON: And so, my PhD's from
13 University of Wisconsin Madison, so your research
14 must be good too.

15 (Laughter.)

16 MS. RICHARDSON: Thanks.

17 CHAIR FAVRE: Thank you very much.

18 MS. SILVA: Thank you.

19 CHAIR FAVRE: Next up is Abby Youngblood,
20 with Jake Lewin on deck.

21 MS. YOUNGBLOOD: Good afternoon. My
22 name is Abby Youngblood and I'm the executive

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1 director at the National Organic Coalition. Thank
2 you NOSB members for all that you do. We greatly
3 appreciate and value your service to the organic
4 community.

5 I want to begin by urging the NOSB to
6 pass all three parts of the proposal on excluded
7 methods, including the terminology chart. The
8 NOSB needs to provide as much guidance as possible
9 for the incoming administration about the specific
10 techniques that are excluded from organic.

11 We have had copious public comments and
12 vetting of the excluded techniques listed in the
13 proposal and we have consensus. Let's act now to
14 give ourselves the best shot possible at protecting
15 organic.

16 On hydroponic production, I have no
17 problem with innovation, I value helping new
18 farmers get started, I believe in food justice, but
19 that does not mean that hydroponic or bioponic
20 should be certified as organic. These systems are
21 not consistent with organic principles.

22 They are not centered on the long-term

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1 improvement of the soil of the farm, and that is the
2 foundation of organic farming. Allowing these
3 types of hydroponic systems to proliferate in
4 organic is badly damaging trust in the Organic Seal
5 and the NOSB process.

6 We urge the NOSB to remove carrageenan
7 from the National List. My colleagues at Consumers
8 Union, including senior scientist Michael Hansen,
9 have reviewed the scientific literature in detail
10 and have concluded that there is a substantial body
11 of evidence that points to potential harm to human
12 health.

13 NOC is eager to have the sunset review
14 process be less cumbersome and to provide more
15 opportunity for public engagement. So, thank you,
16 we strongly support the proposal to reorganize the
17 sunset review workload.

18 We applaud your efforts to strengthen
19 organic seed guidance and want to see the final
20 guidance amended to require handlers to determine
21 if the varieties they require are available as
22 organic.

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1 And thank you for the presentation this
2 morning on the peer-review report. This process
3 for NOP oversight is essential, especially as we
4 consider changes in administration. We urge the
5 NOSB to pay attention to this issue and we urge that
6 the process for this peer review be publicly
7 available and debated, because the process is just
8 as important as the outcomes of the report.

9 And we agree with Dr. Richardson that a
10 review of past reports, as well as continuous
11 oversight, must be part of the process. We have
12 additional questions, concerns, and comments on
13 this issue, as well as on the issue of disclosure
14 of conflict of interest by NOSB members, and we look
15 forward to using the open docket as a mechanism to
16 communicate with the Board further on these issues
17 in a public and transparent way. Thank you.

18 CHAIR FAVRE: Thank you, Abby. Any
19 questions? Thank you very much. Next up is Jake
20 Lewin, with Christie Badger on deck.

21 MR. LEWIN: Hi, everybody. I'm Jake
22 Lewin. I'm the president of CCOF Certification

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1 Services. I'd like to just mention that the CCOF
2 Foundation Bricmont Hardship Assistance Fund is
3 currently open for applications for any organic
4 operation until November 21 and the Future Organic
5 Farmer Grant Funds are currently open too. And,
6 well, they're a bright spot in our lives, so I just
7 wanted to mention them.

8 So, you can see in our comments, we
9 currently certify about 130 container-based
10 operations. A single digit number of these is bio
11 or hydroponic. And I want to be clear that we look
12 at these operations closely in terms of their role
13 in the system and how the standards are applied.

14 I also want to be clear that I and we have
15 tremendous respect for everyone involved in this
16 and I wanted to talk about how we approach these
17 issues. As greenhouses evolved, so has our
18 approach. Now, this whole thing has grown into a
19 big discussion.

20 Not just anybody can just walk in and
21 apply and be certified organic or hydroponic with
22 the way we apply the standards. Their systems are

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1 very, very different from their conventional
2 versions.

3 We look at the spirit and intent of the
4 standards, provide feedback to operations, and
5 there's no bright lines between the container and
6 the hydroponic systems, it's hard to tell them apart
7 depending on which definitions you use.

8 We give all operations feedback against
9 guidance and NOSB recommendations, but we're not in
10 a position to enforce them until they're finalized
11 and implemented. We'd like to see this stuff move
12 forward and get more clarity and nuance.

13 We see operations of all sizes and a
14 variety of production systems doing a great jobs and
15 others, in every production system, with room for
16 improvement. The argument that one system is input
17 substitution and another is not is just not, in our
18 experience, a well-founded argument.

19 We find that these systems are often
20 creative, innovative, and operated by individuals
21 with fierce alignment to organic. A lot more is
22 container production implemented per the 2010

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1 Recommendation. We've required a lot from these
2 operations in terms of practices.

3 We want to ensure that they're very
4 different from their conventional counterparts
5 and, just like all farmers, we're consistently
6 working to improve that. The bigger picture is,
7 something to think about, where we're going to go
8 with regards to climate change and with extreme
9 resource limitations.

10 We're seeing operations that are able to
11 farm with container production instead of that area
12 becoming condos. We're seeing people with
13 extremely limited access to water and inputs, and
14 at a certain point, we're looking at this and these
15 things have evolved as we've been working with
16 greenhouses and requiring them to meet natural
17 resource issues for many years, and the situation
18 in farming is getting really, really challenging
19 with regards to land and water and other concerns.

20 CHAIR FAVRE: Thank you. Questions?
21 Thank you, Jake. Next up is Christie Badger,
22 followed by Safari Azis on deck. Before --

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1 MS. BADGER: Thank you.

2 CHAIR FAVRE: Before you start,
3 everybody, I'm once again going to call an audible.
4 We're going to go ahead and work through the break.
5 If folks need -- yes. That's it.

6 (Laughter.)

7 CHAIR FAVRE: NFL football term, Jean,
8 for you non-Americans. And for those that don't
9 follow sports, Zea.

10 (Laughter.)

11 CHAIR FAVRE: Okay. My apologies, let
12 me take care of this really quick. So, those of you
13 that need to get up and take a break, please do so,
14 but try to do it with the minimum of disruption.
15 It's a little bit distracting if we're getting up
16 and moving around a lot, but we need to make up some
17 time. Thank you, go ahead.

18 MS. BADGER: Thank you. Good afternoon.
19 My name is Christie Badger and I'm speaking today
20 on behalf of the National Organic Coalition. Thank
21 you for the opportunity to be a part of a process
22 that I continue to be excited about and thank each

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1 of you for the important work that you do to further
2 the integrity of the organic label.

3 NOC thanks the Compliance Accreditation
4 and Certification Subcommittee for taking on the
5 topic of inspector field evaluations. While we
6 review inspector field evaluations as important to
7 consistency and integrity in the inspection portion
8 of organic certification, we see this requirement
9 as overly proscriptive with aspects that are
10 neither sound nor sensible.

11 NOC disagrees with the every inspector,
12 every year requirement. The lack of a formal
13 comment opportunity at the time of the initial
14 publication of NOP Instruction is a concern. We
15 feel as though much would have been gained by
16 following the appropriate channels and much of this
17 back work could have been prevented.

18 NOC recommends a model for field
19 evaluations that is risk-based, not overly
20 proscriptive, and which will allow assessment of
21 all inspectors over a period of three years. We
22 believe that such a model will accomplish the goal

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1 of accuracy and integrity in the inspection
2 process, while maintaining a sound and sensible
3 approach to field evaluations.

4 Defining emergency treatment for
5 parasiticides. NOC supports the work and time
6 spent by the Livestock Subcommittee on the
7 annotation changes for fenbendazole and
8 moxidectin. We submit, however, that this work was
9 left incomplete.

10 Without a definition for emergency use
11 as it relates to livestock operations in the final
12 regulation, the subcommittee has missed an
13 opportunity to provide further transparency. We
14 urge you to close the loop in using parasiticides
15 as preventative measures.

16 Agriculture impact mitigation plans to
17 address fracking and other related activities.
18 For some time now, producers have faced oil and gas
19 industry activities on organic farms. The issue of
20 oil and gas extraction on or in close proximity to
21 organic farms is complex and multifaceted and, as
22 such, will require effort over the long term.

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1 We ask the NOSB to begin to work on this
2 topic. The lack of discussion on this topic is not
3 preventing its impact on organic farms and your
4 leadership on this topic cannot come soon enough.
5 There must be a consistency under the National
6 Organic Program.

7 Along with our comments, we shared an
8 agricultural impact mitigation plan, developed by
9 Atina Diffley and edited by OFA, to incorporate
10 livestock concerns. This document is a tool to
11 address fracking and related activities on organic
12 farms and help protect organic producers'
13 operations. We urge the NOSB to add the topic of
14 agriculture impact mitigation plans with respect to
15 oil and gas industry activities on organic farms.

16 CHAIR FAVRE: Thank you. Any questions?
17 Ashley?

18 MS. SWAFFAR: I just want to let you know
19 that defining emergency is on our work agenda item.
20 We have been working on it in committee led by
21 Harriet and we didn't want to rush it for this
22 meeting, we wanted to get it right.

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1 MS. BADGER: Thank you.

2 MS. SWAFFAR: Look for it in the spring.

3 MS. BADGER: Great, we'll look forward to
4 that.

5 CHAIR FAVRE: Thank you very much.
6 Harriet, quick question.

7 MS. BEHAR: So, you mentioned about
8 fracking, are you talking about fracking water or
9 just the actual impact of having oil and gas wells
10 on organic land? What is the specific or is it all
11 of the above?

12 MS. BADGER: Well, in the long run, I
13 would assume it's all of the above, at some point.
14 However, Harriet, as you have shared with NOC
15 previously and kind of said, when we were talking
16 about this, that you had been told that the NOSB does
17 not have jurisdiction over water.

18 And that's interesting to me, and I
19 don't know all the ins and outs of that discussion
20 and such, but as I've said to Harriet previously and
21 I will say here, if you don't have jurisdiction over
22 water, I really can't imagine that we could include

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1 hydroponics in organic. Just a thought.

2 CHAIR FAVRE: Thank you very much.

3 MS. BADGER: Thank you.

4 CHAIR FAVRE: Next up is Safari Azis.
5 We've got Joan Norman on deck.

6 MR. AZIS: Good afternoon. My name is
7 Safari Azis. I've traveled here from Indonesia to
8 represent the Indonesian Seaweed Association of
9 seaweed farmers also who are very concerned for the
10 NOSB to remove carrageenan and agar agar from the
11 National List.

12 As an archipelago state, consisting of
13 around 1,300 island, Indonesia is part of coral
14 triangle that inhabit many species of seaweed. Two
15 of them are cultivated for use in two food
16 ingredient under review by the NOSB: gracilaria for
17 its agar agar and eucheuma for its carrageenan.

18 Therefore, seaweed become an essential
19 commodity for coastal community in Indonesia.
20 They have been extensively cultivated in the
21 brackish water and seawater, respectively.
22 Seaweed cultivation is unique in its impact on the

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1 environment, distinguished from mining,
2 agriculture and fishing activities in four key
3 ways.

4 Economically, seaweed cultivation
5 activity plays a crucial role in poverty
6 alleviation as it provide employment with stable
7 income to support household needs and to afford
8 medication and children education. In addition,
9 seaweed cultivation is the main livelihood for
10 coastal community, especially for those living in
11 remote island with limited option for other
12 employment.

13 It is simple to practice with fast
14 production and sustainable resources, with no
15 additional chemical investment needed. It is also
16 important to note, seaweed cultivation is a
17 non-corporate activity that doesn't need high
18 capital and sophisticated technology.

19 In ecology, seaweed stakes with
20 mangrove and enriches the marine environment.
21 Seaweed is important to balancing nutrient in water
22 and serving as nursery and spawning ground for other

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1 organism.

2 Seaweed cultivation activity creates an
3 income for coastal community and to protect the
4 environment. Seaweed farmer practice firmly there
5 is a right clear way or nice, as its sociological
6 system imposing social sanction for those who do not
7 apply ecofriendly practice for sustainability.

8 It's implied that in the socio-cultural
9 elements in seaweed cultivation have to it the
10 communities to respect Mother Nature. As a
11 national community in our archipelago country,
12 seaweed cultivation become a tool to support our
13 economic development goals.

14 To conclude, the listing carrageenan or
15 agar will impact Indonesian seaweed farmers and
16 diminish the benefit brought by seaweed farming to
17 coastal communities. The NOSB must consider this
18 collateral damage when completing sunset review of
19 this material.

20 The listing will impact seaweed demand
21 due to product formulation, as well as public
22 perception of what the listing means. As

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1 consequences, when there is a drop in demand for
2 seaweed, seaweed farmer lose their living income,
3 causing them to seek out other less sustainable
4 vocation.

5 They will struggle for fulfilling their
6 daily needs and will leave them with no choice but
7 to turn to things like destructive fishing or
8 begging or maybe annoying tourists on the beach.

9 (Laughter.)

10 CHAIR FAVRE: Well, we can't have that.
11 Jean, and then Zea.

12 MS. RICHARDSON: Do you know what
13 percentage of the carrageenan and the agar are going
14 to organic uses as opposed to non-organic?

15 MR. AZIS: That's not my purpose to
16 answer, sorry.

17 CHAIR FAVRE: Zea?

18 MS. SONNABEND: Yes, hi.

19 MR. AZIS: Hi.

20 MS. SONNABEND: It sounds like your
21 methods of seaweed cultivation very easily could be
22 certified organic. So, why is it not certified

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1 organic and do you see it could be?

2 MR. AZIS: Oh, there is no institution.
3 Our government of Indonesia already give them
4 education to practice good farming practice.
5 Then, they --

6 MS. SONNABEND: Yes.

7 MR. AZIS: Yes.

8 MS. SONNABEND: But if we remove it from
9 the list, then only organic seaweed would be able
10 to be used in organic products, so removing it from
11 the list is not necessarily taking it away if you
12 can grow it organically.

13 MR. AZIS: The problem is, you grow
14 seaweed and then you need to be processed to
15 carrageenan and then they can have value. If only
16 seaweed, no value. That's the problem.

17 MS. SONNABEND: Thank you.

18 CHAIR FAVRE: Thank you very much. Next
19 up is Joan Norman, followed by Marshall Fong on
20 deck.

21 MS. NORMAN: Good afternoon. My name is
22 Joan Norman. My husband and I own One Straw Farm.

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1 We were a certified organic vegetable farm in
2 Maryland for 26 years. In 2012, we withdrew our
3 application for certification in order to use
4 bio-based films.

5 We went through the process, there was
6 a petition filed, and in 2014, the Board voted to
7 approve biodegradable mulch films. Later, I found
8 out, the conversation came up that it had be 100
9 percent bio-based. That was never part of the
10 discussion, nor part of the whole process.

11 The NOSB and the NOP have been to my
12 farm, they've seen what happens with the mulches,
13 the way it biodegrades. It's a positive thing on
14 our farm. It allows us to get our cover crops in
15 for the next year, we have fertilizers that -- the
16 cover crops are the fertilizer product.

17 In a really dry year, it doesn't matter
18 so much, but in a wet year, and you never know ahead
19 of time, we have to get those films out, if you use
20 plastic polyethylene film, it has to come out and
21 be rolled up and put into a dumpster and sent to the
22 landfill. So, basically, I'm taking something out

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1 of my backyard and putting it into somebody else's.
2 I don't feel that's a good, strong organic practice.

3 I think it's important that we look at
4 all these things and I think it's very important
5 that the Board vote and make the final decision and
6 approve this product so organic farmers can be the
7 best stewards of the land and do what's best for all.

8 CHAIR FAVRE: I think you win the award
9 for the least amount of time used in the comment
10 period.

11 MS. NORMAN: I wanted to make my point.

12 CHAIR FAVRE: Thank you very much.

13 MS. NORMAN: You're welcome.

14 CHAIR FAVRE: Any questions? All right.
15 Thank you very much.

16 MS. NORMAN: You're welcome.

17 CHAIR FAVRE: We've got Marshall Fong up,
18 with Melody Meyer on deck.

19 MR. FONG: Hello. I'm Marshall Fong
20 with FMC and I want to share a brief carriageenan
21 stakeholder analysis with you. Starting with the
22 consumer, while it's true that there are more social

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1 media conversations on carrageenan today versus
2 five years ago, many of them negative, it's still
3 a minor concern, representing just 0.2 percent of
4 all ingredient related social conversations.

5 Forty-one percent of those can be
6 attributed to targeted social media attacks on
7 Facebook pages of mass-market brands using
8 carrageenan, who recently completed long and
9 difficult reformulations. And 11 percent were on
10 cat related sites, where anti-carrageenan groups
11 attributed the death of a cat to carrageenan
12 consumption. These are areas of niche consumer
13 concern, I believe largely unrelated to the organic
14 consumer.

15 On safety, I ask that you weight more
16 heavily the human clinical evidence on carrageenan
17 safety over studies on rodents having to endure
18 carrageenan being injected into their paws or fed
19 in combination with potent carcinogens. I think
20 PETA would agree with me on that.

21 These four public institutions not only
22 found carrageenan to be safe in humans, they

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1 attributed profound health benefits to it. We plan
2 to duplicate these trials next year in the U.S. and
3 we believe that consumers should continue to have
4 the benefits of carrageenan through organic
5 products.

6 On that note, I want to point out to you
7 that companies representing nearly 40 percent of
8 U.S. organic products containing carrageenan
9 submitted comments to you that they find
10 carrageenan to be critical to their formulations
11 and want it continued on the National List. We
12 spoke to another two dozen companies who wanted to
13 be here today to comment, but who also feared being
14 victims of social media attacks.

15 Finally, you suggested that gellan and
16 xanthan are suitable substitutes for carrageenan,
17 but the empirical data don't support that. Gellan
18 is used in only a few dozen U.S. organic products
19 across all categories, as it lacks the functional
20 versatility of carrageenan.

21 CHAIR FAVRE: Thank you. Jean, you had
22 a question?

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1 MS. RICHARDSON: Yes, do you know what
2 percentage of the carrageenan is utilized in
3 organic products as opposed to non-organic?

4 MR. FONG: Yes, I think that's a
5 difficult question. FMC is a public company and we
6 do not report down to the product level. I think
7 it's maybe a fair statement for me to say is, of the
8 few reformulations that have happened so far, it
9 might be fair to say that some 10,000 seaweed
10 farming jobs have been lost due to that.

11 It is an important segment, not only in
12 organic, but the domino effect, it's -- I believe
13 that organic and mass-market are inextricably
14 linked.

15 CHAIR FAVRE: Tom, and then Zea.

16 VICE CHAIR CHAPMAN: So, we've asked
17 several of the commenters about why this product is
18 not available in an organic format, why we're not
19 growing organic seaweed to then be processed into
20 organic carrageenan, and we've been referred to a
21 manufacturer. And you're our manufacturer, so can
22 you help answer that question?

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1 MR. FONG: I think many explanations
2 point to why it hasn't been. We are currently
3 evaluating things that we can do as a supplier of
4 carrageenan to make that happen. I think that will
5 take at least a few years.

6 VICE CHAIR CHAPMAN: Have you guys taken
7 any action up to this point to take it organic?

8 MR. FONG: I think that's probably a
9 question better addressed to our seaweed expert,
10 who you'll see later on.

11 VICE CHAIR CHAPMAN: Thank you.

12 CHAIR FAVRE: Zea, and then Ashley.

13 MS. SONNABEND: I pass, Tom asked my
14 question. Tom asked the question I was going to
15 ask.

16 CHAIR FAVRE: Okay, thank you. Ashley?

17 MS. SWAFFAR: Tom asked part of my
18 question, but I have a couple others. Can you
19 please set the record straight, is it cara-G-nan or
20 cara-gee-nan? That is the burning question.

21 MR. FONG: Yes, it depends on whether I'm
22 in Ireland or here. I think cara-gee-nan is the

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1 most common pronunciation here in the States.

2 MS. SWAFFAR: Okay. Great. So, my real
3 question is, reformulating without carrageenan,
4 are you aware of any of the products that your
5 customers can't reformulate without carrageenan?

6 MR. FONG: Quite a few. In fact, the few
7 products where there have been reformulations are
8 relatively simple formulations. You're talking
9 some soy milks, where you have a little bit of soy
10 powder, some calcium, some vitamin D, that is
11 relatively easy. Most of the other beverage
12 applications where carrageenan is prevalent and
13 gellan and xanthan are not, those are very
14 challenging systems, where there really is no other
15 substitute.

16 MS. SWAFFAR: And, specifically, those
17 examples would be -- that's what I'm wanting to
18 know. Like --

19 MR. FONG: More protein, I think there
20 was a gentleman here, Carl Freund, who talked about
21 more nutrients, more fiber, more things. Those
22 become very challenging systems, oftentimes where

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1 there are other stabilizers as well.

2 CHAIR FAVRE: Thank you very much. Next
3 up is Melody Meyer, with Marc Cool on deck.

4 MS. MEYER: Hello. Thank you very much.
5 I want to thank the Board and everybody on staff for
6 the hard work that you do and your tireless efforts,
7 thank you. I'm Melody Meyer with UNFI.

8 I've been in the industry for 40 years
9 and I really care about this industry. We're the
10 largest distributor of organic products in North
11 America. Regarding -- I have several topics, I'm
12 going to go quickly, because, Michelle, I emailed
13 you my comments, my full comments, earlier today.

14 Regarding hydroponic, bioponic,
15 container, and greenhouse production. I encourage
16 the NOSB to refer this proposal back to the
17 committee for further refinement. I don't think
18 it's ready, fully developed. With that said, we
19 support the allowance of these container and
20 hydroponic greenhouse production, provided that
21 there's guidelines established to ensure the
22 adherence to organic principles.

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1 NOSB should develop a metric that
2 requires a minimum level of biodiversity of soil
3 microorganisms to be present in the production
4 system as a means of verifying compliance.
5 Albert's Organics, our fresh produce division,
6 purchases over \$52 million worth of these kinds of
7 products per year from family farms across America.

8 If these methods are suddenly excluded,
9 all parties along the supply chain are negatively
10 affected, consumers, farmers, and our customers.
11 These methods present a sustainable way to produce
12 food, especially in urban areas or areas where
13 access to land and water is a barrier.

14 Regarding excluded methods. Contrary
15 to what's been thrown across the internet, I want
16 to reiterate that I feel and we feel that new genetic
17 engineering techniques are not and should not be
18 allowed in organic production. I think the
19 definitions and the principles and criteria are
20 strong. I think the terminology chart is a work in
21 progress.

22 Biodiversity and transitioning high

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1 value conservation land. I continue to encourage
2 the NOSB to eliminate this incentive to convert
3 those high value lands into organic production. I
4 need to add that to your work plan.

5 Biodegradable mulch. I would urge the
6 Committee to correct that technical error and allow
7 organic farmers to use that product. I think it's
8 essential that we not take the mulch and take it to
9 the landfill, that we have an alternative.

10 Regarding the proposed rule on organic
11 livestock and poultry practices. Thank you for
12 that. As a next step, slower growing broiler
13 chicken strains should be included. Several
14 companies recently announced, Compass, Bon
15 Appetit, that they're including these through the
16 Global Animal Partnership, and as it now stands,
17 organic regulations and the proposed animal welfare
18 do not cover this critical concern.

19 And it forces organic producers to
20 obtain two certifications, one for organic and one
21 for the animal welfare. UNFI's currently looking
22 at animal welfare standards. And there's more

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1 comments in my written, so thank you.

2 CHAIR FAVRE: Thank you.

3 MS. MEYER: Any questions?

4 CHAIR FAVRE: Questions? Thank you,
5 Melody.

6 MS. MEYER: Thank you very much.

7 CHAIR FAVRE: Next up is Marc Cool, with
8 Brian Filipowich on deck.

9 MR. COOL: My name is Marc Cool. I lead
10 the Global Industry Affairs work at Dupont Pioneer.
11 We are a 90-year-old seed company, and the world's
12 largest developer and supplier of advanced plant
13 genetics, providing high-quality seeds to farmers
14 in more than 90 countries.

15 We offer choices to farmers, and many
16 times the farmers, in many regions across the world,
17 including conventional untreated seeds which may be
18 used by organic farmers in the US.

19 I'm providing comment on the proposal on
20 excluded methods terminology. Thank you for the
21 work done on this topic to-date. However, we
22 believe this work needs further and transparent

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1 discussion, to make sure all aspects of the complex
2 topic are explored, and therefore a vote on the
3 proposal should be delayed.

4 We believe the current proposal will not
5 clarify the appropriate use of modern breeding
6 methods in organic production, but will rather
7 create further uncertainty, confusion, and divide,
8 in the organic community.

9 This is because the proposal has several
10 inconsistencies, inaccuracies, and technical
11 issues, which we are concerned about. Our recent
12 comments reflect a few examples of this. I'm happy
13 to further explain or discuss, as necessary.

14 In addition, we believe the proposal to
15 up-front exclude all technologies in their
16 terminology charts is unnecessary, and
17 artificially removes potential tools for organic
18 breeders, either public or private, large or small.
19 Individual products should rather be assessed to
20 determine if they are consistent with the
21 principles of organic agriculture.

22 There are many examples of ongoing

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1 public and university work on products using modern
2 breeding methods, which would be consistent with
3 organic principles, and which would provide major
4 environmental or consumer benefit.

5 For instance, the few examples,
6 reduction of copper sulfate use in spinach, the same
7 reduction of copper sulfate in grapes, breeding
8 virus resistance in cucumbers, fighting citrus
9 greening in oranges, developing stress tolerance in
10 lettuce, and reduced damage by almond tree
11 nematodes without use of soil fumigants. These are
12 examples of ongoing current, public and university
13 work on these topics.

14 We suggest this topic needs a
15 comprehensive discussion, which includes both
16 public and private sector breeders as technical
17 advisers, as well as producers, consumers, and
18 other stakeholders.

19 It is critical to evaluate modern
20 breeding methods in light of organic principles,
21 using full and factual information, and focused on
22 the product outcomes. We are confident a new

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1 proposal can be developed that is accurate,
2 complete, and which creates the needed clarity
3 around breeding for organic production.

4 As a plant science company with long
5 experience in the application of many breeding
6 methods, we offer to be a constructive partner in
7 that inclusive discussion. And as was mentioned
8 this morning, regardless of the deliberations the
9 Board has tomorrow on this topic, and there likely
10 will be a need for ongoing discussion, and we offer
11 to be a partner -- a constructive partner -- in that
12 discussion. Thank you.

13 CHAIR FAVRE: Questions? Zea?

14 MS. SONNABEND: Thank you, Marc, for
15 your comments. I would like you to elaborate about
16 one of the techniques on the chart that you singled
17 out which has your company's name in it. The Dupont
18 hybrid seed. I don't have the document open, but
19 could you explain why that particular thing should
20 be off the chart?

21 MR. COOL: Well that -- it's called SPT,
22 which is a seed production technology, which is not

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1 a breeding method, and this is a chart showing
2 breeding methods. It's actually a seed production
3 method. It's a way to create a male sterol to a
4 female plant, and then cross that plant and the
5 progeny of that plant has no foreign genes in it.

6 So it doesn't belong on that chart
7 because it's not a breeding method. It's a
8 production method.

9 MS. SONNABEND: Thank you.

10 CHAIR FAVRE: Thank you very much.

11 MR. COOL: Thank you.

12 CHAIR FAVRE: Next up is Brian
13 Filipowich and a follow-up by Nate Lewis on deck.

14 MR. FILIPOWICH: Hello, how are you.
15 My name is Brian Filipowich. I am the Chair of the
16 Aquaponic and Hydroponic Organic Coalition, a group
17 of over 50 aquaponic and hydroponic growers, and
18 other that support these industries.

19 I'm also the Director of Public Policy
20 for the Aquaponics Association. We strongly urge
21 the NOSB to retain our organic eligibility. The
22 organic label is ultimately about the consumer.

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1 It's a signal to the consumer that food has been
2 produced in a specific way so that we all don't have
3 to spend 20 minutes researching every single head
4 of lettuce we buy.

5 So the question is, do aquaponics and
6 hydroponics align with what the consumer expects
7 when they purchase organic, and we believe the
8 answer is a resounding yes. We think there are
9 three main things consumers look for when they see
10 this organic label.

11 One, production without synthetic
12 pesticides, fertilizers and antibiotics. Our
13 industries don't use these, and in fact, they're
14 often detrimental to the biological systems that we
15 foster.

16 Two, sustainable production that foster
17 the recycling of resources, ecological balance, and
18 biodiversity conservation. Our systems are
19 constructed as closed-loop systems with only the
20 minimum amount of resources required put in, and
21 with minimal or no discharge.

22 Also, aquaponics and hydroponics have

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1 proven they could produce more food than soil
2 culture per area, thus saving more of the natural
3 environment from development for agriculture.

4 Three, production that relies on
5 natural biological processes to support plant
6 growth. Organic aquaponic and hydroponic
7 production relies on a robust microflora of the root
8 zone, made of the same type and number of bacteria
9 and fungi that thrive in soil, as my colleague
10 Dr. Sarah Taber discussed earlier.

11 This flora converts nutrients into
12 forms available to plants, and maintains plant
13 health by reinforcing naturally occurring
14 mechanisms of disease resistance, just as in
15 healthy soil.

16 As the NOP's task force noted, there are
17 many benefits of aquaponics and hydroponics,
18 including dramatic water savings, reduced nutrient
19 runoff, shorter supply chains, and greater food
20 safety.

21 Also of extreme importance is this
22 allows organic production in urban areas, or areas

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1 without good soil, like areas that have drought.

2 We live in an era of climate change,
3 drought, resource depletion, antibiotic
4 resistance, polluted waterways, all combined with
5 rapid population growth. Given these issues, our
6 current agricultural system is unsustainable. We
7 need to bring more people into these industries,
8 rather than disincentivizing them. The organic
9 price premium is a critical incentive to draw more
10 entrants into this market.

11 Last week I was at the Aquaponics
12 Association Conference, and several of our growers
13 told me they likely wouldn't be able to succeed if
14 it were not for the organic price premium, and that
15 makes sense. We went into this industry knowing
16 that we align with the spirit of organic.

17 And that when we produce something, that
18 is what the consumers expect when they see the
19 organic label. So revoking organic eligibility
20 for these highly sustainable growing methods would
21 be moving our industries backwards, at a time when
22 we should be pushing them forwards.

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1 CHAIR FAVRE: Harriet?

2 MS. BEHAR: So if this is a highly
3 sustainable production system, why is the organic
4 premium so necessary? And a secondary question
5 would be, could the aquaponic and hydroponic
6 community do the marketing effort to educate
7 consumers about your highly sustainable system, and
8 let them then decide if the organic label or the
9 hydroponic label, whichever they want to buy, if
10 there's two different labels in the marketplace?

11 MR. FILIPOWICH: Thank you. To the
12 first question about why we need the organic label
13 for the organic price premium, the reason is that
14 we don't adequately charge for all the negative
15 externalities of our agricultural system. If we
16 adequately charged for water usage, for fertilizer
17 runoff, for antibiotic resistance, for pesticide
18 usage, for soil erosion, aquaponics and hydroponics
19 would be doing much better. But we don't, so
20 therefore we're incentivizing people to keep
21 growing with industrial agriculture.

22 And I do agree that the ideal may be to

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1 have our own label. However, right now the organic
2 label is the one that commands that price premium,
3 and so because we feel we align with the spirit, we
4 should be eligible for that price premium.

5 CHAIR FAVRE: Thank you very much.
6 Next up is Nate Lewis, followed by Kiki Hubbard on
7 deck.

8 MR. LEWIS: Great, thanks. First, I
9 just want to thank outgoing board members. Zea,
10 it's been a pleasure exchanging Grateful Dead
11 quotes over the last five years. Gene, your
12 generosity with your time and wisdom, tremendously
13 appreciated.

14 Tracy, thanks for opening up a can of
15 Texas whoop ass as chair for the last few meetings.
16 Harold, you've represented Washington State, my
17 home state, really, really well, and Carmela, thank
18 you so much for being the first Latina on the Board
19 to -- and your service, I'm sure you're inspiring
20 a whole new generation of folks to spent countless
21 hours listening to us, getting on conference calls,
22 and learning about things that you didn't even know

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1 existed.

2 So first, I've made aware that a few
3 members of the Aquaponic and Hydroponic Task Force
4 felt the need to respond directly to some of OTA's
5 comments that we put into the Federal Register, and
6 I have no problem with that, but I think it'd be
7 appropriate to have those uploaded to the Federal
8 Register as well. That letter is just so that the
9 public process can be maintained.

10 And so though it seems to be a little bit
11 of confusion about what OTA's position is on the
12 whole hydroponic/aquaponic container production,
13 so I just want to clarify.

14 We supported the 2010 recommendation,
15 which prohibited hydroponics and aeroponics, and
16 that recommendation cited the lack of biological
17 activity as the reason for that prohibition. The
18 2010 recommendation also started to provide clear
19 guidelines for container production.

20 We believe that container and
21 greenhouse production is distinct from hydroponics
22 because container systems rely on biological

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1 activity for their success, and we believe these
2 systems can align with OFDA and USDA regulations.

3 We also believe it is incumbent upon
4 NOSB to develop clear definitions for all of us to
5 use, and to consider the merits of each system
6 separately, and that's why we ask that the proposal
7 be referred back to subcommittee.

8 Lastly, I just want to recognize the
9 passion behind the divergent beliefs presented on
10 this issue, and urge everyone to remain respectful,
11 and to avoid disparaging language and accusations
12 of wrongdoing based on these beliefs. So thank
13 you.

14 CHAIR FAVRE: Questions for Nate?
15 Thank you Nate. Next up is Kiki Hubbard, followed
16 by Amalie Lipstreu.

17 MS. HUBBARD: Good afternoon. My name
18 is Kiki Hubbard and I work with Organic Seed
19 Alliance. We're a non-profit that works
20 nationally to ensure that organic farmers have the
21 seed they need to be successful, through research,
22 education and advocacy.

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1 Our research program currently involves
2 ten university partners, and we have projects in
3 eight states. We teach organic plant breeding to
4 further the scientific field, and we work with
5 breeding partners in the seed industry to make sure
6 that we get new varieties into the hands of organic
7 growers.

8 We're happy to see the seed as a priority
9 this week on the agenda, including a discussion
10 document to strength the organic seed guidance. My
11 coworker will provide more detailed comments on
12 that here shortly, and I'll go into more detail with
13 data and our recommendations in my formal
14 presentation on Friday.

15 My comments now will focus on
16 communicating our full support for the Material
17 Subcommittee Proposal on Excluded Methods. OSA
18 appreciates the NOSB's work to tackle this
19 complicated, yet important, issue. We take
20 seriously policy discussions that demand a deep
21 reflection on our values and principles as a
22 scientific organization.

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1 We know this conversation is especially
2 timely given that some of these methods in question
3 are evolving rapidly, and have outpaced current
4 regulations on biotechnology. In fact, USDA has
5 decided in some cases not to regulate products
6 derived from these newer methods.

7 We support the exclusion of the methods
8 listed in this proposal to ensure that as a
9 community we're clear on where we're drawing the
10 line on certain technologies to protect consumer
11 confidence in the organic label, and to provide
12 clarity to the research community that is breeding
13 for organic agriculture.

14 We consulted a number of our plant
15 breeding partners about this proposal -- partners
16 who hold PhDs in plant breeding and genetics -- to
17 understand their perspectives and any potential
18 impact on their work. And input from the
19 scientific community is essential to this dialogue,
20 but so is the input of non-scientists who are deeply
21 invested and rely on the success of organic
22 agriculture.

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1 Any view that advocates a precautionary
2 approach to new methods that are in conflict with
3 organic principles, as is our position here today,
4 should not be dismissed as scientific ignorance. A
5 consideration of values ethics and justice are an
6 integral part of the public policymaking process.

7 We've heard criticisms of this
8 proposal, including potential limitations
9 regarding detection and enforcement with some of
10 these newer breeding techniques. We believe it's
11 our obligation now, as a community, to move forward
12 with the proposal to protect organic integrity, and
13 keep seeking answers to these and other questions,
14 which is one of the reasons why this proposal is so
15 important.

16 It provides a framework for the first
17 time, and more clarity for what questions we need
18 to be asking when faced with these, and even newer,
19 methods in the future.

20 Another strength of this framework is
21 that it serves as a guidance. It can change and
22 respond, just like our seed, to the evolution of our

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1 own understanding, be it in the field or in the
2 policy arena. Thank you.

3 CHAIR FAVRE: Thank you. Questions?
4 Tom?

5 VICE CHAIR CHAPMAN: Hi Kiki.

6 MS. HUBBARD: Hi Tom.

7 VICE CHAIR CHAPMAN: We received
8 limited comment from organic plant breeders on the
9 excluded methods proposals. I was wondering if, do
10 you -- you noted that your comments incorporated
11 work with organic plant breeders. Would you say --
12 I know you can't speak for all of them -- but would
13 you say your comments were reflective of organic
14 plant breeders?

15 MS. HUBBARD: I would. Like I said, we
16 work with ten universities, and I consulted with our
17 closest partners, who are as committed as any to
18 breeding in and for organic systems. To provide
19 more context to that statement, we actually
20 convened our own little working group of public
21 plant breeders that we work with, to inform our
22 comments for the first proposal, which we then

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1 recommended go back to the subcommittee because we
2 and our public plant breeding partners didn't think
3 it was ready.

4 I then consulted these breeders again
5 with a new proposal, and they agreed that the
6 improvements were sufficient moving forward,
7 especially when considered as, again, a guidance
8 framework. When it comes to some of the
9 controversial techniques, many of them, of course,
10 agree and understand the benefits of some of these
11 methods. However, they were also in agreement that
12 they're in conflict with organic principles, and it
13 is too soon to understand some of the potential
14 impacts of these methods, be they positive or
15 negative, and agreed with our comments for
16 excluding the methods currently in the proposal, at
17 this time.

18 VICE CHAIR CHAPMAN: One more real
19 quick question. We have several items -- DVD and
20 a discussion document. Do you have any suggestions
21 on how we move forward with those?

22 MS. HUBBARD: I think -- first of all,

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1 I think the approach that the NOSB is taking with
2 the excluded methods discussion is the right one,
3 and I think moving forward, each method does warrant
4 careful consideration. Again, as a scientific
5 organization, we don't want to close the door on
6 methods that could be especially useful to
7 advancing organic seed, so method-by-method, the
8 process that you have undergone so far I think has
9 been constructive.

10 VICE CHAIR CHAPMAN: Thank you.

11 CHAIR FAVRE: Thank you very much.
12 Next up is Amalie Lipstreu, with Andrew Thompson on
13 deck.

14 MS. LIPSTREU: Good afternoon. My
15 name is Amalie Lipstreu, and I'm the Policy Program
16 Coordinator for the Ohio Ecological Food and Farm
17 Association.

18 Organic farmers, certification
19 agencies, and other organizations, are making
20 progress in creating tools and recommendations for
21 certified farmers dealing with the encroachment of
22 oil and gas pipelines, fracking, and injection well

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1 activity, in the absence of existing guidance.

2 OEFFA is working with organic farmers
3 who fear the loss of their certification, and the
4 very integrity of their farms. Farmers like James.
5 James is a fourth generation dairy farmer, and he
6 approached us when the energy transfer company
7 wanted to cite the Rover Pipeline diagonally across
8 his grazing fields. With just 40 organic cows,
9 James said that if he cannot be certified organic,
10 he can't make a living as a farmer, and support his
11 wife and two young children.

12 James really isn't asking for much. He
13 wants the company to take precautionary measures so
14 he won't lose his certification. As Christie
15 mentioned earlier, we adapted the organic
16 agriculture impact mitigation plan created by Atina
17 Diffley and her attorney, so that it had provisions
18 for livestock and dairy operations, and we shared
19 that mitigation plan with the Federal Energy
20 Regulatory Commission, and the pipeline company.

21 As a result, FERC included provisions in
22 the final environmental impact statement, that

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1 specific mitigation measures had to be developed
2 for organic farms, and those mitigation measures
3 had to be put in place in consultation with the
4 farmers who were affected.

5 While we understand the reticence to be
6 involved in an issue where there's a dearth of
7 regulatory authority, the NOSB is addressing
8 emerging technologies that also lack proper
9 authority.

10 James, and farmers like him, need our
11 attention and support. While we've made progress
12 in advocating for farmers, your leadership on this
13 topic is urgently needed. The NOSB and the NOP can
14 have a real impact on protecting organic farmers
15 through recommended guidance.

16 Please add a study of the impacts of oil
17 and gas activity on organic farms to the NOSB work
18 plan, and adopt a mitigation plan as a resource, a
19 starting point, for farms that face impending
20 pipeline infrastructure, to be shared with both the
21 Federal Energy Regulatory Commission, and the
22 National Association of State Departments of

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1 Agriculture, to ensure consistency and application
2 of guidance. Is there any information that we can
3 provide to help the NOSB move forward on this issue?

4 CHAIR FAVRE: Thank you. Any
5 questions? Thank you very much. Next up is Andrew
6 Thompson, with Cathleen McCluskey on deck.

7 MR. THOMPSON: Good afternoon. I'm
8 Andrew Thompson, Managing Partner of Assist Natural
9 Products, manufacturer of Relentless Plus.

10 Managing litter requires a commitment
11 that isn't achieved with just one product or
12 practice. Treating a litter as a biomass is
13 impacted by moisture and the presence of
14 disease-causing pathogens. To manage this biomass
15 requires managing a complex set of variables.

16 Competitive exclusion is a plan that
17 states that two species competing for the same
18 resource cannot coexist at a constant population
19 values. Using organic and natural products that
20 promote this scheme provides enormous synergy,
21 allow good bacteria to thrive in an environment that
22 is challenged by disease-causing pathogens.

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1 If not managed more intensely, the
2 buildup of manure on the litter from surface, from
3 multiple flax, accompanied with no clean-out
4 schedule, causes bacterial diseases and excessive
5 ammonia levels during the grow-out period.

6 Conventional litter treatments contain
7 harsh acids to lower the pH of the litter prior to
8 initial placement of birds. Once the pH rises
9 above the treatment capacity, to bind the ammonia
10 the birds are exposed to higher ammonia levels
11 caused by residual bioload in the litter.

12 However, beneficial microbes require a
13 higher pH of growth and are destroyed during the
14 application of these acid-based treatments,
15 opening the door for disease-causing pathogens to
16 populate the house. By using all-natural litter
17 treatments, the growers will not only reduce
18 ammonia in the barn, but also decrease litter
19 moisture, combat pathogens, and reduce
20 environmental stress.

21 Maintaining a balance of moisture is
22 critical to control of ammonia and disease. Too

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1 much moisture in the litter can make it difficult
2 to maintain good quality litter.

3 Two of the products being petitioned,
4 sodium bisulfate and aluminum sulfate, are
5 hygroscopic, meaning they pull water from the air,
6 creating a damp environment, and must have a
7 relatively damp environment in order to be
8 effective. Otherwise, the acid activity of these
9 products is reduced. Acid-activated Bentonite
10 also requires relatively high amounts of water to
11 maintain acidity.

12 Using natural products and new
13 technology provide numerous mechanisms by which
14 microbes operate more efficiently. Introducing
15 specific microbes that are selected for their
16 ability to decompose poultry waste, and to provide
17 a barrier against pathogens like E. coli and
18 Salmonella, through competitive exclusion, along
19 with good management practices, allows not only
20 organic growers, but also commercial growers, to
21 control ammonia, prevent disease, and raise very
22 healthy flocks in the poultry industry.

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1 The livestock subcommittee posed two
2 questions. Are there alternatives available to
3 reduce ammonia in poultry barns? Do the
4 alternatives work in the area of reducing or
5 eliminating salmonella that could be present in the
6 barn?

7 As a developer, manufacturer and
8 distributor of natural products, the answer to both
9 of these questions is yes. And for these reasons,
10 with all due respect, I request NOSB not to approve.
11 Thank you.

12 CHAIR FAVRE: Francis? I'm sorry.
13 Ashley?

14 MS. SWAFFAR: So your product --

15 MR. THOMPSON: Relentless.

16 MS. SWAFFAR: Relentless. Yes, sorry.
17 There's a couple of them. Do you have commercial
18 -- commercial is the emphasis there -- broiler or
19 turkey producers using your product now, and that
20 are effectively controlling ammonia levels in the
21 barns?

22 MR. THOMPSON: Yes.

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1 MS. SWAFFAR: Thank you.

2 CHAIR FAVRE: Thank you very much.

3 MR. THOMPSON: Thank you.

4 CHAIR FAVRE: Next up is Cathleen
5 McCluskey, followed by Keith Kandt on deck.

6 MS. MCCLUSKEY: Good afternoon. My
7 name is Cathleen McCluskey and I work for Organic
8 Seed Alliance. OSA is a non-profit that works
9 nationally on organic seed research, education and
10 advocacy, to ensure organic farmers have the seed
11 they need to be successful. OSA appreciates the
12 NOSB's attention to the issue of organic seed, and
13 the important role that they, the NOP, and the
14 certification community play in building organic
15 seed systems.

16 Building the organic seed supply is
17 important, not only to help certified growers meet
18 a regulatory requirement, but to ensure that we are
19 advancing seed that helps organic farmers stay
20 competitive, and adapts to changing climates and
21 markets.

22 We encourage rapid improvements to the

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1 organic seed guidance document, as described in the
2 Crop Subcommittee discussion document. We hope to
3 see this strengthen guidance, coupled with regular
4 trainings for organic certifiers and inspectors,
5 and a data collection system for analyzing organic
6 seed availability by region and crop type.

7 Our main critique of the current
8 guidance is its failure to provide a framework for
9 what continuous improvement looks like, and how to
10 achieve it in the context of seed. We believe
11 producers who aren't meeting the organic seed
12 requirement should be encouraged by certifiers to
13 demonstrate improvements each year.

14 This is also an issue of consumer
15 confidence, since organic consumers expect organic
16 integrity along the entire production chain,
17 beginning with organic seed.

18 We agree with the key points included in
19 this Crop Subcommittee discussion document, such as
20 encouraging organic growers to go beyond three seed
21 sources, and to conduct on-farm variety trials.
22 Without trialing, many farmers won't take the steps

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1 to move beyond the untreated, non-organic varieties
2 they're accustomed to using.

3 The commercial availability clause
4 states that farmers need to search for an equivalent
5 variety, not the exact variety, when verifying
6 compliance with the organic seed requirement.
7 Certifiers should encourage trials of organic
8 varieties so growers can identify options that may
9 be as good or better than the conventional varieties
10 they already use.

11 We feel strongly that the guidance also
12 should apply to handlers. Handlers that require
13 specific varieties to be grown should be encouraged
14 to work with producers they contract with, to find
15 organic seed in quantities they need -- quantities
16 that they need -- since these contracts, and not the
17 producers, often dictate whether organic or
18 non-organic seed is purchased.

19 Lastly, there's a need for a systematic
20 way to collect data on organic seed availability by
21 region and crop type. We hope the NOSB and NOP will
22 encourage the development of such a system.

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1 Ideally, the system would support a more reliable,
2 searchable database for farmers and certifiers.

3 It is certainly not our intention to
4 promote policies that force organic farmers to use
5 seed that may not be appropriate for their
6 operation. However, more consistent enforcement
7 is necessary if we're going to see significant
8 increase in the availability and sourcing of
9 organic seed. Thank you very much.

10 CHAIR FAVRE: Thank you very much.
11 Sorry. Harriet, go ahead.

12 MS. BEHAR: I totally agree with you on
13 the trialing, but I'm wondering if you've had any
14 interaction with farmer organizations that would be
15 something difficult for farmers to do, or, I mean,
16 would there be some educational activities that we
17 need to do to help those farmers feel more
18 comfortable in doing those equivalency trials so
19 they can really learn which seeds they can grow?

20 MS. MCCLUSKEY: Harriet, Organic Seed
21 Alliance offers -- yes, and we offer many free
22 publications, webinars, educational outreach,

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1 trainings, support tech extension, on-trialing,
2 how to do it. I'd be happy to follow up with NOSB
3 with a list of the many publications and webinars
4 that are available for free to growers.

5 CHAIR FAVRE: Emily.

6 MS. OAKLEY: I was just going to make
7 the comment that I think farmers typically do do
8 trials, and in response to your question, we
9 regularly do organic seed trials on our farm. Some
10 are successful, some aren't, and I don't think it's
11 an onus requirement for any scale farmer to try.

12 CHAIR FAVRE: Thank you very much.

13 MS. MCCLUSKEY: Thank you.

14 CHAIR FAVRE: Next up is Keith Kandt.
15 On deck is David Ross.

16 MR. KANDT: Hi. My name is Keith
17 Kandt. I'm with NatureSweet Tomatoes, and I do
18 want to thank you for your time today.

19 Regarding containerized growing, we've
20 heard many voices over the years on this issue, but
21 there's one crucial voice that has not been clearly
22 heard, and that is the voice of the consumer,

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1 without whom none of us would be here today.

2 So my question is, who are we doing this
3 for? Are we doing this for us, the farmers, or are
4 we doing this for the consumers? So we asked
5 organic consumers through the scientific survey
6 that David Harris presented a little bit earlier,
7 their thoughts on some important organic issues.

8 We didn't lead them. We let them lead
9 us. So it's been five or six hours. Maybe your
10 memory's better than mine, but I'm going to
11 reiterate a couple of those slides.

12 We asked consumers why they buy organic
13 produce. So remember their answer. As you've
14 seen, the consideration for soil and soil growing
15 is far, far down the list. Tenth out of 12 things
16 that they could have chosen.

17 Folks, the method of organic growing
18 chosen by the farmer is not an issue for consumers.
19 It truly is not.

20 So we also asked questions around some
21 organic growing issues too. One of those questions
22 was whether farmers should be allowed to grow

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1 organic products in containers. Note their
2 response on this one. Only ten percent said the
3 rule should be changed. Ten percent.

4 You've also seen this next slide.
5 We've asked consumers what they will think of the
6 USDA if we tell them that hydroponics is not a valid
7 way for growing organics. Here the consumer speaks
8 again.

9 The bottom line is that consumers simply
10 do not want to be told that we are limiting the
11 options that farmers have for growing healthy
12 organic produce. So what would happen if we said
13 soil is the only way? Here's what would happen.

14 One of the concerns the consumers
15 addressed, or had, was affordability. That would
16 go out the window. Limited land in greater demand
17 equals higher prices. It's an irrefutable law of
18 economics. With higher prices, only the rich and
19 the elite would be able to buy organic produce.
20 That means inner-cities, less affluent rural areas,
21 areas with poor soil conditions, would not have
22 access to affordable organic produce.

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1 Disallowing containerized growing will
2 reduce availability of organic produce from 30 to
3 40 percent. High-profile retailers have told me we
4 must not let this happen. Is this what we really
5 want to do? Does this really make sense? There's
6 enough demand for everyone. There really is.

7 My last -- I would just say if you have
8 any doubts about this, please err on the side of
9 listening to the consumer. Thanks.

10 CHAIR FAVRE: Questions? Thank you
11 very much.

12 MR. KANDT: Thanks.

13 CHAIR FAVRE: Next up is David Ross,
14 with Cameron Harsh on deck.

15 MR. ROSS: Good afternoon. My name is
16 David Ross. I'm Operations Manager for Great
17 Harvest Organics. We grow, package and produce
18 certified organic corn, soybean and wheat. I'm
19 here today to represent the American Seed Trade
20 Association, and also I want to thank the hotel for
21 getting me such a great room thinking I hit a home
22 run in this year's seventh game of the World Series.

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1 It's not true. Different name.

2 The National Organics Standards Board
3 is currently reviewing three topics, which could
4 have a profound impact on the organic seed industry.
5 On behalf of the American Seed Trade Association,
6 I'd like to make the following comments. Detailed
7 comments are submitted electronically.

8 To reiterate our written comments, the
9 discussion on the excluded methods is not over. We
10 support excluding genetically modified organisms
11 from organic production. However, at this time
12 more information is needed on these techniques to
13 achieve this goal.

14 As stated in many comments, we need to
15 determine which methods can be used, and why they
16 can be used on an individual basis. Lumping all of
17 them together will limit the tools available for
18 organic breeders, many of which are aligned with our
19 organic principles. Therefore, we continue to
20 urge the Board to take its time and carefully review
21 each case individually.

22 American Seed Trade Association and

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1 NOSB both want to stimulate breeding research
2 investment in the organic seed industry over time.
3 The seed usage document aims to make the regulations
4 around seed usage clearer for seed companies,
5 producers, and certifiers.

6 Since the inception of the national
7 organic program, using non-organic seed in organic
8 production has been debated. In some cases it's
9 necessary, and will likely continue to be
10 necessary.

11 But in cases where seed companies can
12 meet demand, organic producers should be encouraged
13 to produce organic seed. Only this will increase
14 the investment in this sector. The NOSB should
15 focus on educating certifiers, and understanding
16 where exceptions can and should be allowed.

17 Also producers should work with their
18 seed companies to ensure, at planting, the
19 varieties they want are available. Seed companies
20 do not stock large inventories, but can work with
21 their customers 12 to 18 months in advance of
22 planting, to make sure sufficient quantities are

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1 present barring any situations from mother nature.

2 Finally, seed purity continues to be a
3 topic of discussion. American Seed Trade
4 Association applauds NOSB for its focus on crops it
5 deems at high risk. This focused approach allows
6 the NOSB to address the issue without causing
7 unnecessary burden on crops which do not face the
8 same genetic purity challenges as it continues to
9 offer this support and experience in the area, as
10 needed by the NOSB. Thank you.

11 CHAIR FAVRE: Any questions? Thank
12 you very much. Next up is Cameron Harsh, with Terry
13 Shistar on deck.

14 MR. HARSH: Good afternoon, or maybe
15 it's evening at this point. My name is Cameron
16 Harsh. I'm the Senior Manager for Organic and
17 Animal Policy at Center for Food Safety. CFS would
18 like to emphasize the importance of essentiality in
19 protecting organic integrity, and ensuring that the
20 National List only includes synthetics necessary to
21 organics as mandated by OPA and the organic
22 regulations.

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1 Advocates for materials often claim
2 essentiality, but blur the boundaries of what is
3 truly essential. Materials that make a product
4 simpler to manufacture, or more appealing to
5 consumers, address issues of convenience or cost,
6 but are not essential to the product.

7 For carrageenan, while evidence of its
8 significant health impact should be sufficient for
9 the precautionary approach to justify its removal,
10 a lack of essentiality absolutely necessitates its
11 removal.

12 OPA's plain language restricts the
13 National List to only materials without which an
14 organic product could not exist. Many organic
15 handlers have already successfully formulated
16 dairy and dairy alternative products without
17 carrageenan. It is clearly not essential.

18 Further, a vote to sunset carrageenan at
19 this meeting still provides the industry two years
20 to adjust to its prohibition. CFS does not oppose
21 relisting silicon dioxide for the uses not replaced
22 by rice holes at this time. However, NOP's recent

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1 policy memo on nano-materials leaves the door open
2 for petitions to list nano-silicon dioxide, and
3 similar nano materials.

4 Nano-silicon dioxide's significant
5 health concerns make it incompatible with organic.
6 This must be fully prevented by adding
7 nano-technology to the list of prohibited
8 substances and methods at 205.105. CFS
9 appreciates NOSB's intent to review marine plant
10 species used in organic. Seaweeds are integral to
11 marine ecosystems, and there may be significant
12 unintended impacts from their harvest.

13 CFS' written comments provide an
14 initial literature review, including how
15 harvesting rates, techniques, regeneration rates,
16 risk of invasives, and biodiversity concerns may
17 impact a species' compatibility with organic.

18 NOSB should identify whether specific
19 plants are compatible with organic principles, and
20 develop a system for producers to easily identify
21 a species that are allowed or prohibited. Using
22 scientific names is necessary for the greatest

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1 clarity.

2 CFS also supports the research
3 priorities. In particular, research seeking to
4 identify holistic system space strategies for
5 eliminating synthetic methionine from poultry
6 diets.

7 Synthetic methionine is not essential,
8 but provides production benefits that are
9 attractive to the poultry industry. As such, its
10 removal is long overdue. In eliminating synthetic
11 methionine, research suggests that a combination of
12 strategies, including genetics management
13 practices and multiple natural feed inputs, will
14 likely provide the most favorable solution.

15 Moving forward, studies must
16 investigate multiple strategies in combination to
17 add to the existing literature, which primarily
18 studies individual replacements or practices in
19 isolation. And just to end, I want to thank you all
20 for your great work and all your dedication to
21 protecting organic.

22 CHAIR FAVRE: Questions? I actually

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1 have one for you. In your literature review and
2 search on the impact on seaweed harvest, did you
3 formulate any opinion on whether or not carrageenan
4 could actually be harvested and certified organic?

5 MR. HARSH: So our literature review of
6 marine plant species took a general look, and we did
7 name some species, but we weren't specifically
8 focused on the species used for carrageenan. I
9 know it's just an essential -- essentially an effort
10 to put the research on the docket and give you all
11 a chance to read it without taking a position on any
12 particular plant species, as far as the harvest and
13 sustainability.

14 CHAIR FAVRE: All right, thank you.
15 Next up is Terry Shistar, with Tricia Johnson on
16 deck.

17 MR. SHISTAR: Okay, my name is Terry
18 Shistar, and I'm on the Board of Directors of Beyond
19 Pesticides, and that's not --

20 Okay, we have a long history of
21 involvement with organic production. Here you can
22 see some of our current and former Board members.

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1 We submitted comments on all of the issues before
2 the Board at this meeting. My comments today
3 address a few of them, but first I would like to
4 thank you all and express our appreciation for your
5 work on some big issues, including excluded
6 methods, organic seed requirements, hydroponics,
7 phosphates and marine algae, and remind you to
8 demand technical support when you need it. Your
9 work is extremely important, and we all need to
10 reflect on the harm that would be done to organic
11 if the NOSB were to be found to be incapable of
12 performing its job.

13 We are extremely concerned about the
14 proposal to add chlorine dioxide gas to the National
15 List. The petition should be rejected because it
16 fails to meet all of the criteria. There are also
17 several deficiencies in the subcommittee process
18 for evaluating this material.

19 The petition product has a conditional
20 registration from EPA, meaning that not all
21 essential data have been submitted. It's not
22 labeled for this use. The necessary tolerances or

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1 exemptions from tolerances do not exist. It's a
2 hazardous material. It used to take the place of
3 care and handling, and use of less hazardous
4 materials. It is not necessary.

5 The NOSB should not approve more
6 sanitizers, especially chlorine-based sanitizers,
7 until performing a comprehensive review of
8 sanitizers, and their need in organic production.

9 Hydroponics should not be considered
10 eligible for organic certification. Organic
11 production depends on the law of return, which
12 together will feed the soil, not the plant, and
13 promotion of biodiversity, provide the ecological
14 basis for organic systems.

15 Hydroponic systems are not consistent
16 with these principles. Although there is a
17 continuum between in-ground production and
18 bioponics, the line separating production methods
19 that can be certified organic from those that cannot
20 lies between those extremes.

21 Do not allow the fact that NOP has acted
22 contrary to NOSB recommendations by allowing

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1 hydroponics, to prevent you from doing the right
2 thing.

3 Whether or not you accept the results of
4 independent research as showing more serious health
5 impacts, the NOSB must take a precautionary
6 approach in light of the most recent technical
7 review of carrageenan. Even giving equal weight to
8 industry supported and independent research, the
9 NOSB must accept the existence of science pointing
10 to serious health consequences associated with
11 consumption of carrageenan, and to protect organics
12 consumers.

13 Importantly, the industry cannot
14 control the amount of degraded carrageenan in the
15 final product. The production of -- I'm behind.

16 Finally, carrageenan is unnecessary.
17 We support eliminating incentives to convert native
18 ecosystems to organic crop production. Thank you.

19 CHAIR FAVRE: Questions? Thank you
20 Terry. Next up is Tricia Johnson, with Jenny Cruz
21 on deck.

22 MS. JOHNSON: And before I start, the

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1 projectors on this side have not been showing the
2 slides properly. So if you are also having
3 trouble, my slides are included in the handout that
4 just went through.

5 My name is Tricia Johnson. I am a
6 Board-certified poultry veterinarian with 20-plus
7 years of experience. Of the 148 poultry field
8 veterinarians in the US, only about ten of us work
9 with organic broilers. A large portion of my
10 practice is working with antibiotic-free -- there
11 we go, can't get the slides to come up at all -- is
12 working with antibiotic-free and organic broiler
13 chicken farmers, to help them develop healthy
14 litter ecology so they can raise healthy chickens.

15 Healthy litter is analogous to
16 bioactive soils. The exposure of baby chicks to
17 normal flora and reuse litter, is as essential to
18 good gut health as bioactive soil is essential to
19 healthy plants.

20 Many of the same concepts that I apply
21 to building soil in my own organic market garden,
22 apply to building health litter ecology in a chicken

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1 house. New litter is like dead sterile soil.
2 Antibiotic-free organic broilers raised on new
3 litter are 2.6 times more likely to develop necrotic
4 enteritis. Necrotic enteritis affects 30 to 50
5 percent of organic broiler flocks, with mortality
6 as high as ten percent.

7 In infected flocks, bird deaths at 14 to
8 18 days of age, can range from 300 birds per day on
9 used litter, to 1200 birds per day on new litter.
10 In a healthy flock, farmers only pick up two to five
11 dead birds per day.

12 The use of sodium bisulfate is essential
13 to my practice. The combination of acid in sodium
14 and sodium bisulfate, or SBS, promotes the growth
15 of healthy probiotic bacteria in the litter, while
16 killing harmful ones like Clostridium and
17 Salmonella.

18 Acidification alone does not have the
19 same holistic impact on litter ecology. Use of
20 organic litter amendments has not been successful
21 in controlling necrotic enteritis, Salmonella, or
22 even ammonia. Achieving results in real world

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1 conditions in real chicken houses, are very
2 different than achieving results in a laboratory.

3 Sodium bisulfate reduces Clostridium in
4 the litter by 99.99 percent. This environmental
5 control of Clostridium is essential to the
6 prevention of necrotic enteritis in birds raised
7 without antibiotics.

8 SPS is the only litter amendment that is
9 safe enough to apply mid-flock in the presence of
10 birds. This allow me, as a veterinarian, to
11 control bacterial infections, by altering the house
12 environment, without having to treat the chickens
13 with antibiotics.

14 SPS is the only litter amendment that
15 has met the stringent EPA efficacy requirements to
16 be approved for bacterial control on poultry farms.

17 Prior to 2007, veterinarians could use
18 SPS to prevent Clostridium infections on organic
19 farms, because it was on the list four of inert
20 ingredients. When the NOP clarified the use of
21 synthetic inerts, we lost an important veterinary
22 tool. Today I can prevent necrotic enteritis in

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1 ABF flocks by using SBS, but I have no tool at all
2 to use on organic flocks.

3 None of the products approved for
4 organic use are effective in the field. I became
5 a poultry veterinarian because it was the one
6 species where my entire focus was on preventive
7 medicine. It is only with my organic clients that
8 I encounter so many sick flocks, because I have no
9 products available to control necrotic enteritis.

10 Please allow for the use of sodium
11 bisulfate in organic production, so that our birds
12 do not continue to suffer. And I'd be happy to
13 answer questions.

14 CHAIR FAVRE: Francis?

15 MR. THICKE: Thank you. Can you
16 explain how acid and sodium promotes probiotic
17 bacteria, but kills harmful bacteria?

18 MS. JOHNSON: Absolutely. There are
19 three types of pressure that we can put on bacteria.
20 Temperature pressure, like cooking. We can put
21 osmotic pressure, which is sodium, and then we can
22 put pH pressure through hydrogen.

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1 When you look at the lactic
2 acid-producing bacteria that make up the
3 predominant component of normal healthy flora, they
4 prefer a low pH, high sodium environment. That's
5 their preferred growth niche. And so when we use
6 sodium bisulfate, we're giving those normal gut
7 flora their preferred growth niche. That's not the
8 preferred growth niche for pathogens.

9 MR. THICKE: Okay.

10 MS. JOHNSON: And so it actually shifts
11 the litter ecology, and so that's why it's
12 effective.

13 CHAIR FAVRE: Ashley, then back to
14 Francis, and then Gene.

15 MS. SWAFFAR: Okay, so you said in there
16 that the use of the organic litter amendments are
17 not working on the farms that you work with.

18 MS. JOHNSON: That's correct.

19 MS. SWAFFAR: Have you done trials with
20 those, or --

21 MS. JOHNSON: Well it's not -- I mean
22 you had the young lady from Miller who spoke today.

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1 You have Foster Farms that sent in a letter that
2 you'll see later. We've tried everything.
3 Necrotic enteritis is the number one disease issue
4 we deal with in organic poultry. It does not occur
5 in conventional birds.

6 We've tried every sort of probiotic
7 bug-in-a-jug that we can spray on the floor. We've
8 tried humate-based products, we've tried acidified
9 barn fresh, we've tried everything, and the birds
10 simply don't stop breaking with necrotic enteritis.

11 So trialing really isn't the thing. We
12 have birds that are getting infected so often, that
13 we're trying everything we can find. We're using
14 probiotics in the diet, we're using direct-fed
15 microbials, we're using organic acids in the
16 drinking water. We're using everything we have,
17 but because of using a coccidiosis vaccine, that
18 causes that inflammation, and then the Clostridium
19 comes in secondary. So if we cannot control the
20 Clostridium directly in the environment, we've been
21 unable to do it.

22 I'm sorry, you had asked earlier, why

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1 are the veterinarians writing in? Why aren't the
2 companies writing in? The companies are scared to
3 death to admit publicly that their struggling.
4 Because of the backlash and the environment, if
5 someone's organic's not the way you think it should
6 be -- they're just afraid. And so the
7 veterinarians that commented, we're the field
8 veterinarians who are working with these smaller
9 companies, and we're the ones experiencing this
10 firsthand.

11 CHAIR FAVRE: Francis, then Jean, then
12 back to Ashley.

13 MR. THICKE: In the interests of full
14 disclosure, is it true that the company
15 Jones-Hamilton applied for a patent for sodium
16 bisulfate for use -- for ammonia control -- and you
17 were listed as the inventor of that?

18 MS. JOHNSON: I was. We had -- you were
19 asking earlier about how does the sodium and
20 hydrogen impact good bacteria, but not bad. So one
21 of the things that we're struggling with in
22 California, is air quality issues. If any of you

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1 are growers in California, you know that.

2 So VOC production from cattle is a
3 really big issue there, and the reason you get VOC
4 is because the rumen bacteria that pass along with
5 the feces, they continue to digest and act like a
6 rumen, but outside, and both of those species of
7 bacteria that are responsible for that are killed
8 in the presence of high sodium, low pH. And so
9 because that's one of the differentiating tests in
10 the microbiology lab, and so when I served on the
11 USDA AgriQuality Task Force and the California
12 producers were talking about the problems they were
13 having, and the two bacteria that were causing it,
14 my veterinarian brain went wow, we can kill that
15 with sodium bisulfate.

16 And so Frank Mitloehner at UC-Davis -- a
17 lot of you know him from his greenhouse gas
18 work -- is the one that did all of that work after
19 I had figured that out.

20 CHAIR FAVRE: Jean, then Ashley.

21 MS. RICHARDSON: As a veterinarian,
22 you're -- poultry veterinarian -- you're probably

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1 only going to those places where they've got sick
2 animals, or sick birds.

3 MS. JOHNSON: No.

4 MS. RICHARDSON: Okay, so you go to
5 other poultry places. So what I'm trying to find
6 out is do you really need these products? Couldn't
7 you, if you were to have slower growing broilers
8 that had more space per birds, better ventilation,
9 other management practices, do you see farms like
10 that, where you would have a lower level of death
11 rate of the young birds?

12 MS. JOHNSON: When we do have -- wait,
13 first of all, as a poultry veterinarian, I sometimes
14 joke my job's to make sure my patients die on time.
15 I don't want them to get sick and die early, and I
16 don't want the farmer to do a poor job of raising
17 them -- they're too cold, they're not comfortable.

18 But everything we do as poultry
19 veterinarians is prevention-based. Everything.
20 And so we see the full gamut. My customers ask me
21 to come in -- my clients ask me to come in and develop
22 preventive medicine programs for them, so birds

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1 never get sick.

2 So to see a sick flock for us was very,
3 very unusual, and then, so then when organic started
4 becoming more predominant, it was very shocking for
5 us as veterinarians, because we used to be able to
6 prevent everything.

7 And so the Clostridium, it's all about
8 that coccidiosis vaccine, and it's a really
9 delicate balance with those birds. That's why if
10 we clean out, we take the coccidiosis vaccine out
11 of the house, birds don't cycle evenly.

12 If the density's just not right in that
13 sweet spot, if they're too loose, then the vaccine
14 doesn't cycle evenly. So actually, what we see,
15 Dr. Richardson, is that when we give excessive
16 space, that the vaccine doesn't cycle effectively
17 and evenly, and we actually have more necrotic
18 enteritis, because we have more coccidiosis
19 inflammation.

20 CHAIR FAVRE: Ashley.

21 MS. SWAFFAR: So I'm struggling with
22 this one, for sure. But is this really an enteritis

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1 problem, more so than an ammonia problem?

2 MS. JOHNSON: Really, I mean I
3 think -- you know, ammonia's a really big deal.
4 That's true, okay. But when you look at ammonia,
5 ammonia does not kill birds. It causes eye
6 lesions, it causes weight suppression. If we could
7 control ammonia, you wouldn't have to place so many
8 birds, because you wouldn't -- they would perform
9 better. But when it comes to organic, our biggest
10 issue as a veterinarian, yes we're struggling with
11 ammonia, and really we don't really have anything
12 that's all that effective. But at least the bird's
13 not going to die.

14 But when it comes to Clostridium growth
15 in the litter, and that leading to necrotic
16 enteritis, those birds are going to die, and they're
17 going to die a lot.

18 My husband is also a poultry
19 veterinarian. He had a flock last month that he got
20 called out on a Monday morning to go see. Producer
21 in a panic. Brand new farm, first time they'd ever
22 have chickens in the house, without antibiotics,

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1 the birds started breaking with necrotic enteritis
2 on a Friday.

3 By Monday morning when my husband
4 arrived, they were losing 1200 birds per day, per
5 house. That grower had to apply for an emergency
6 burial permit from the state.

7 The second most deadly disease that I
8 deal with as a poultry veterinarian is bronchitis
9 virus. If I get a bronchitis virus, I might lose
10 50 birds. This is something that we are desperate.
11 We use sodium bisulfate in our antibiotic-free
12 non-organic flocks, it's working well. We are
13 desperate as poultry veterinarians. Birds just
14 should not be dying.

15 MS. SWAFFAR: What percentage of the
16 flocks -- organic flocks -- do you have that break
17 with the -- I would -- really high --

18 MS. JOHNSON: With really, really high
19 occurrence, the highest occurrence is when we have
20 to clean out. We're in that balance. We try to
21 clean out sometimes between every one to two years
22 so the Clostridium doesn't get too high, but we'd

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1 have fewer flocks on the new litter.

2 So the highest ones are on new litter.
3 That might be of the 30 -- 50 percent of the flocks
4 that do break, maybe you're -- a mild break again
5 is like 300 birds a day. But the really heavy ones
6 are usually on new litter. A lot of times they're
7 on a first time farm. Those might be more five
8 percent or so of what we see that 1200.

9 MS. SWAFFAR: So five percent of all the
10 flocks that you work with break? That's what I'm
11 asking.

12 MS. JOHNSON: No. How many flocks
13 break? 30 to 50 percent. The higher are going to
14 be in parts of the country that are more humid.
15 Humidity, right at that air litter interface,
16 really plays a lot into how the litter ecology
17 shifts, and the Clostridium blooms, and the
18 coccidiosis blooms, and we struggle because of the
19 outer access that draws the cold air directly across
20 the floor, making it damper.

21 So in climates that are colder, or
22 climates that are more humid, we struggle with it

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1 more. In climates that are more arid, like central
2 coast of California, it's not -- they have it, but
3 they're at that lower end, where my clients --
4 where's it's colder, or where it's more humid,
5 they're at the upper end, closer to half their
6 flocks are breaking.

7 CHAIR FAVRE: Okay, Harriet, and then
8 Dan, and then we're going to need to wrap it up.

9 MS. BEHAR: Okay, so on these organic
10 farms, you mentioned about the access to the
11 outdoors --

12 MS. JOHNSON: Yes ma'am.

13 MS. BEHAR: -- but how many of the birds
14 are actually going outside? I'm very aware that
15 many have a door, or even many doors, that open, but
16 because they don't have enticements outdoors --
17 water and shade -- the birds really don't go out
18 there, making that the indoor environment is at that
19 high concentration of one bird per square foot, or
20 even less, and I'm wondering if some of this problem
21 is not a result of high concentration of birds
22 inside.

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1 MS. JOHNSON: One of the things that we
2 see, I work a lot in Australia, and 100 percent of
3 the Australian production is free range. So even
4 though it's not organic, it's free range. So
5 almost all of the research on what entices a bird
6 to go outside, what behaviors that -- comes out of
7 Australia.

8 I was speaking last year at the
9 Australian Veterinary Poultry Association, when
10 they asked me to come and talk about paw lesions.
11 They really, really struggle with paw lesions,
12 which goes back into litter and humidity, and they
13 asked me to come help them with that.

14 And all of the speakers prior to me were
15 all observing birds in the free range component, how
16 were they responding, and the number one behavior
17 that was being expressed by those birds when they
18 were outside, were fear-based behaviors.

19 And so that's really -- birds are
20 looking for the chicken hawk that's coming to pluck
21 them off. White Oak Pastures in Georgia, where I
22 live, they've become a bald eagle breeding colony,

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1 because the bald eagles have figured out that their
2 chickens outside are easy pickings.

3 So we have reduced the density. In a
4 conventional house I might maybe be at .75 square
5 foot per bird. In my organic, we've gone up to 1,
6 to 12 square foot per bird. If we go any higher,
7 we're not going to get the coccidiosis vaccine to
8 cycle properly. And so how do you make a bird go
9 outside when it's afraid?

10 MS. BEHAR: I'm not going to answer that
11 question.

12 (Laughter.)

13 MS. BEHAR: Though I do know the answer,
14 but for time I'm not going to talk about it.

15 CHAIR FAVRE: Thank you Harriet. I
16 appreciate your forbearance on that. Dan?

17 MR. SEITZ: You mentioned a vaccine
18 that I'm -- what's the relationship between this
19 vaccine, the density, and the ailments that you're
20 talking about?

21 MS. JOHNSON: Okay, so *Clostridium*
22 *perfringens* that causes necrotic enteritis

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1 actually comes in as a secondary infection.
2 Coccidiosis is the most common pathogen, if you will
3 -- it's not really -- it's a protozoa that birds are
4 exposed to, and the only option that we have in
5 poultry is a coccidiosis vaccine. That vaccine
6 gives the birds very slow exposure to that
7 coccidiosis, and it has to cycle usually twice, so
8 it's a 14-day process, and every time that life
9 cycle in that -- it burrows down into the gut of the
10 bird, and at the end of the life cycle it breaks
11 through and it causes a lot of inflammation.

12 So in order to protect that bird against
13 coccidiosis, we have to have them in a certain level
14 of density so that the vaccine cycles. Basically
15 the birds shed the vaccine into the litter, they
16 pick it up from the litter, and that helps it cycle
17 evenly, so you don't have really high exposure.

18 Or if it's too low, if the birds are too
19 spread out, they don't have enough exposure to the
20 vaccine, and therefore they don't develop good
21 immunity. And it's that inflammation -- for the
22 process of developing immunity -- that allows the

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1 clostridium to invade. And so that's why it's a
2 seven-day cycle. That second cycle is at 14 days,
3 and 48 hours later at 16 days, we see the clostridial
4 deaths occurring.

5 MR. SEITZ: And are all flocks given
6 this vaccination, or are some --

7 MS. JOHNSON: No. I would say 100
8 percent of organic broilers are given a coccidiosis
9 vaccine because it's the only tool we have available
10 in organic production. If you didn't give it to
11 them, we would see necrotic enteritis at 100 percent
12 of our flocks. Any other questions?

13 CHAIR FAVRE: Thank you Dr. Johnson --

14 MS. JOHNSON: Thank you so much for your
15 time.

16 CHAIR FAVRE: -- we appreciate your
17 comments. Sorry we kept you up here so long.

18 MS. JOHNSON: That's quite all right.
19 I'm glad to be able to -- I want something so my birds
20 stop dying. Thank you.

21 CHAIR FAVRE: Thank you. Next up is
22 Jenny Cruz, with Charlotte Vallaeys on deck.

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1 MS. CRUZ: Hello. My name is Jenny
2 Cruz, and I'm Coordinator of the Accredited
3 Certifiers Association. We would like to thank the
4 Board for all their work, and also the CACS for its
5 work on the discussion document regarding personnel
6 performance evaluations of inspectors. We did
7 submit more extensive written comments on this
8 topic.

9 As noted in the discussion document, ACA
10 has submitted multiple comments to the NOP
11 regarding NOP 2027 instruction on personnel
12 evaluations. Our main concern with the
13 instruction is the annual field evaluation of every
14 inspector.

15 It should be noted that the ACAs
16 currently evaluate inspectors annually based on
17 reports submitted, feedback from clients, and
18 general review of their work. ACA members do
19 realize the value in, and support, onsite
20 evaluations of inspector performance.

21 We are concerned that the requirement
22 for an annual onsite evaluation of every inspector

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1 is extremely burdensome to the inspection process,
2 and is costly to agencies. Some ACAs have reduced
3 the number of inspections being utilized -- of
4 inspectors being utilized -- in order to reduce the
5 expenses associated with onsite evaluations.

6 Outside of monetary cost, the
7 requirement diverts personnel resources from other
8 essential programs and activities. It creates a
9 race against the clock to get the evaluations done,
10 rather than applying greater scrutiny where greater
11 scrutiny is due, and focusing on a quality end
12 product.

13 We did submit survey results from our
14 members regarding the financial impacts of this
15 requirement in our written comments.

16 The March 2016 revision of NOP 2027 to
17 permit the sharing of evaluations among ACAs was a
18 step forward in permitting additional flexibility
19 in this program. However, additional flexibility,
20 in the form of the allowance for the development of
21 a risk-based approach to conducting onsite
22 evaluations, should be permitted.

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1 We note that this instruction was
2 developed without public comment at the time of the
3 initial publication, and NOP has not solicited
4 public comment on the instruction to date.

5 In addition, NOP has been assessing
6 non-compliances during accreditation audits, for
7 lack of completing onsite evaluations, even though
8 NOP Instruction 2027 indicates that inspectors
9 should be evaluated during an onsite inspection at
10 least annually.

11 This essentially turns a should into a
12 must. We ask that the CACS continue work on this
13 topic in order to provide a recommendation to the
14 NOP for the allowance of additional flexibility in
15 the development of a sound and sensible process for
16 onsite evaluation of inspectors. Again, thank you
17 for all your work.

18 CHAIR FAVRE: Questions? Thank you
19 very much. Next up is Charlotte Vallaeys, with
20 Zareb Herman on deck.

21 MS. VALLAEYS: Good evening. My name
22 is Charlotte Vallaeys, and I'm a Senior Policy

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1 Analyst with Consumer Reports Consumers Union.
2 First, I'd like to thank you for your work. I'd
3 also like to announce that we updated our Consumer
4 Reports Greener Choices website, which now has an
5 entire section devoted to the organic label and our
6 organic policy work.

7 We are in the process of updating our
8 entire food labels database, and we have completed
9 our updated evaluation and rating of the USDA
10 organic and made with organic labels, which can be
11 found on greenerchoices.org.

12 When we review and rate labels, one of
13 the criteria we use is, is the label truthful and
14 not misleading? In other words, does the label
15 mean what it claims it means?

16 For organic, what it claims it means is
17 outlined in the organic law and regulations, where
18 there are strict criteria -- among other things --
19 for determining what can and can't be used in
20 organic food production.

21 The organic label means no substances
22 that pose a risk to human health should be used. We

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1 have analyzed the research on health impacts of
2 carrageenan, and believe it should be removed from
3 the National List.

4 Laboratory research on animals links
5 carrageenan to inflammation, which is a precursor
6 to many diseases. To ulcerative colitis-like
7 disease, intestinal lesions and ulcerations, and
8 the promotion of colon tumors.

9 Research -- including
10 industry-sponsored research -- shows that
11 consuming foods with carrageenan exposes consumers
12 to degraded carrageenan, which is classified as
13 possibly carcinogenic to humans by IARC.

14 Please note our concerns, detailed in
15 our written comments, about the limited scope TR on
16 carrageenan. We are pleased to see the discussion
17 document on phosphate food additives. Research
18 shows that high intake of phosphorus is associated
19 with negative impacts on bone health, kidney health
20 and heart health.

21 The prohibition on all phosphate food
22 additives -- except for monocalcium phosphate as a

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1 leavening agent in other standards -- sheds light
2 on their essentiality. We urge the NOSB to take the
3 next step of putting the sunset review of phosphates
4 back on the agenda.

5 We urge you to take action on the
6 hydroponics issue. Again, is the label truthful
7 and not misleading. Does it mean what it claims it
8 means. One of the founding principles of organic
9 agriculture is the focus on soil health. Healthy
10 soil fosters healthy crops and healthy animals,
11 which in turn fosters the health of people.

12 The organic law and regulations don't
13 just prohibit certain inputs. It clearly requires
14 that farmers foster soil health. Hydroponic
15 systems simply do not fit this model. We are not
16 opposed to hydroponic production, but we are
17 opposed to their products carrying the organic
18 label.

19 Finally, we urge the Livestock
20 Subcommittee to address the last remaining use of
21 antibiotics in organic agriculture, its use in
22 hatcheries and day old chicks. Rather than wait

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1 for the NOP's take on this, we urge you to read our
2 legal analysis in the appendix of our written
3 comments. Thank you.

4 CHAIR FAVRE: Good job. Thank you.
5 Tom.

6 VICE CHAIR CHAPMAN: Hi Charlotte.
7 Some commenters have presented us a study on organic
8 consumer opinions on soil, amongst other things. I
9 know you submitted a bunch of studies to us on your
10 surveying of consumers. Was there anything in
11 those studies related to soil?

12 MS. VALLAEYS: No. We haven't asked
13 that question in our survey, and we do surveys very
14 regularly, so we're definitely open to input on any
15 questions the Board is interested in. So that
16 might be a good one.

17 VICE CHAIR CHAPMAN: Thank you.

18 CHAIR FAVRE: Thank you very much.

19 MS. VALLAEYS: Thanks.

20 CHAIR FAVRE: Next up is Zareb Herman,
21 and we've got Manojit Basu on deck.

22 MR. HERMAN: Good afternoon. My name

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1 is Zareb Herman. I'm a nutritionist with the Hain
2 Celestial Group, one of the largest producers of
3 organic products in the world. I am commenting on
4 the phosphates discussion document.

5 Assessing the possible health effects
6 of dietary phosphorus is a complex issue, and more
7 research is needed to determine if consumption of
8 added phosphates has adverse health effects on the
9 general population.

10 Let's take a look at phosphorus
11 consumption in the United States. The average
12 daily intake for phosphorus is approximately
13 1600 milligrams. Many foods contain substantial
14 amounts of naturally occurring phosphorus. A
15 typical four-ounce serving of fish contains 350
16 milligrams. A four-ounce serving of chicken
17 contains about 300 milligrams, and one cup of milk
18 contains 250 milligrams, and the phosphorus in
19 these foods is highly bioavailable.

20 We calculated that the monocalcium
21 phosphate leavening in an organic muffin mix
22 contributes 19 milligrams of phosphorus per

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1 serving. The sodium acid powder of phosphate
2 leavening in an organic frozen waffle contributes
3 16 milligrams of phosphorus per serving.

4 The added phosphates in each of these
5 products contributes roughly one percent of the
6 average person's daily phosphorus intake, and the
7 other phosphates on the National List are not major
8 contributors to phosphate intake either.

9 Since the phosphates on the National
10 List are regarded safe by the FDA, and because they
11 contribute a small fraction of dietary phosphorus,
12 we do not believe that it is worthwhile for the NOSB
13 to spend time on this issue. The scientists at FDA
14 are better equipped to evaluate this situation and
15 to make recommendations to the public, and this
16 Board can spend all the extra time on other issues,
17 like carrageenan.

18 CHAIR FAVRE: Any questions? Thank
19 you very much. Next up is Manojit Basu. We've got
20 Esteban Macias on deck.

21 MR. BASU: Good evening, and thank you
22 NOSB for the opportunity to comment here. So I'm

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1 Manojit Basu, and I have a PhD in plant molecular
2 biology, with my research focusing on
3 allergenicity, toxicity, and food safety. I
4 represent GMA, the Grocery Manufacturers
5 Association, and not Good Morning America, though
6 I would have been famous with Good Morning America.

7 The Grocery Manufacturers Association
8 is a voice of more than 300 leading food, beverage,
9 and consumer product companies, and our primary
10 focus in on product safety and signs-based public
11 policies. Carrageenan has been used for
12 centuries, and is used globally in a variety of
13 organic and conventional food products, including
14 infant foods, processed dairy, meat, pet foods, and
15 many other categories.

16 Regulatory agencies and research
17 organizations around the world have consistently
18 determined carrageenan to be safe,
19 non-carcinogenic, and lacking any hazard to human
20 health.

21 Some concerns raised on safety of
22 carrageenan were also baseless, and refuted by the

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1 study from Dr. James McKim, Jr. It is also
2 important to note that the NOSB did not base its
3 decision -- or vote -- on the safety of carrageenan,
4 but on the essentiality. So I want to take a moment
5 here and thank NOSB for accepting the safety
6 arguments and the publication on safety by various
7 scientists, GMA, and my other distinguished
8 speakers during the April, as well as this meeting.

9 I would like to highlight some of the
10 technological functions served by carrageenan,
11 which may help NOSB to realize the versatility of
12 carrageenan, and why it is essential for
13 manufacturing organic food products.

14 Some of the key functionalities are
15 producing stable structures with food proteins that
16 can prevent food component separation, enhancing
17 viscosity and mouth feel without the need of
18 additional viscosity enhancers, allowing easier
19 processing, suspending particles within a
20 solution, stabilizing emulsions, inhibiting
21 separation, binding moisture, and substitution for
22 animal-based products -- such as gelatin -- in

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1 specialty food.

2 GMA would like to reiterate to the Board
3 that carrageenan is essential in several food
4 products, and one of the many noteworthy purposes
5 it serves is maintaining the stability of
6 suspension in a variety of food products to ensure
7 that the consumer is getting the right
8 concentration of nutrients.

9 To conclude, two points. GMA would
10 first would like to request NOSB to maintain
11 carrageenan in the National List, for not only is
12 it safe, but also serves multiple technological
13 functions. And the second part, in my
14 interpretation of the Organic Food Production Act,
15 but -- social media-surveyed consumer demand is not
16 recognized as a criteria for sunset review, as per
17 the Organic Production Act. Thank you.

18 CHAIR FAVRE: Questions? Ashley,
19 followed by Harold.

20 MS. SWAFFAR: So my question is -- what
21 I've asked several other folks before, is what
22 products cannot be made currently without -- the

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1 organic products -- without carrageenan? Specific
2 products, not just general statements.

3 MR. BASU: I do not have the list of
4 specific products, but there are categories of
5 products -- which include infant formulas, food for
6 special medical purposes -- where carrageenan helps
7 the stability of the food product, and it allows the
8 consumer to have the proportionate amount of
9 nutrients. Otherwise, what would happen is the
10 nutrients would settle down, so you may be drinking
11 just the fluid or water without getting the right
12 amount of nutrients.

13 CHAIR FAVRE: Harold, followed by Tom.

14 MR. AUSTIN: So with this discussion
15 around carrageenan having taken place over the last
16 five years since we've been on the Board, with your
17 associate members of the GMA, has there been any
18 consumer concerns raised with your associate
19 members that you can share with us regarding the
20 safety of the food products that your association
21 members sell that may have carrageenan in them?

22 MR. BASU: Not that I am aware of. The

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1 discussions that we have had with our membership and
2 the several companies are on the safety and the
3 several publications that are out on carrageenan,
4 and members have agreed on the safety and the
5 publication. But we haven't had a discussion on
6 any of the consumer questions.

7 CHAIR FAVRE: Last question from Tom.

8 VICE CHAIR CHAPMAN: So you cited the
9 infant medical food as a product. Are you aware of
10 an organic infant medical food?

11 MR. BASU: Infant food and medical
12 purpose food, but I'm not aware of any specific
13 brand or specific product. But carrageenan is
14 approved for use in some of those food products as
15 well. Recently -- in 2015 if I'm not wrong -- even
16 JECFA -- the Joint Expert Committee on Food
17 Additives -- has approved use of carrageenan in
18 these food categories.

19 VICE CHAIR CHAPMAN: But you're not
20 aware of an organic infant medical food.

21 MR. BASU: Not of a specific product,
22 no.

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1 VICE CHAIR CHAPMAN: Thank you.

2 CHAIR FAVRE: Thank you very much.
3 Next up is Esteban Macias, followed by Scott Rangus
4 on deck.

5 MR. MACIAS: Good afternoon. Thank
6 you very much, and I really appreciate the time.
7 Before anything else, I would like to express my
8 sense of responsibility of the testimony I want to
9 present, especially because I know there's a lot of
10 oil growers that in my condition probably weren't
11 either -- didn't know that this meeting was being
12 held, or didn't have the chance to be here.

13 What I want to show you is a model for
14 actually a soilless production we're using. We are
15 growing in Central Mexico. Actually, we are one of
16 the most important vegetable growing groups in
17 Central Mexico. Our vegetables are being sold in
18 Mexico, most of them. But we also send vegetables
19 to United States, Canada, and as far as Japan or
20 Taiwan.

21 Anyway, we started growing organic
22 because we always wanted to do something different.

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1 From now on and on, we have been increasing our
2 organic program, and in this moment, actually we are
3 bringing 680 acres of in-soil growing. But in
4 parallel, we started this soilless operation,
5 containerized operation. Why? I call it natural
6 selection.

7 We tried to do it in the open field. We
8 wanted to grow tomatoes open field, and after two
9 years of having problems and losing the whole crop,
10 we decided that we weren't doing things not at the
11 best we could under the conditions we are working,
12 and I want to point out conditions.

13 Every grower everywhere has got
14 particular conditions, so maybe my challenges won't
15 be the same challenges a guy in North Carolina will
16 face. I am working under a semi-desert area, and
17 water conservation is a must for us.

18 Also we have some poor quality water, so
19 also the quality of water limits our way to do
20 growing. So that's what we did, and we started from
21 scratch 12 years ago. And I want also to point out
22 that most of the operations that are right now

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1 working on this system, didn't start yesterday, but
2 10, 12, 13 years ago.

3 That's on the control. We are able to
4 actually -- and what you see there, when you detect
5 a plant for the male or female, you take out the
6 plant and you stop the problem there. So that's
7 very valuable for us. You see a whole row that we
8 pull out. This was taken this year, and we still
9 do that, and we get better at it. And that way, we
10 don't have to use so much materials to control
11 disease.

12 We optimize lutins. We make compost.
13 Last year we made 2000 tons, metric tons, of compost
14 that was used in open field production. So that's
15 the way we close the cycle. Thank you very much.

16 CHAIR FAVRE: Thank you. Questions?
17 Emily?

18 MS. OAKLEY: You have 51 acres, you
19 said, in greenhouse production?

20 MR. MACIAS: Yes.

21 MS. OAKLEY: Have you conducted any
22 tests of the soil underneath those greenhouses?

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1 MR. MACIAS: Yes. Actually, we
2 started on the parallel a project for doing it in
3 the soil, and our yields were a little bit better
4 than actually in the containers, but we did
5 appreciate the safety of the container. Again,
6 after having experience of losing the crop on the
7 open field, that it was because of loss, but being
8 grower, you want to be assured -- you want to be sure
9 that you are going to harvest in three or four
10 months.

11 So we decided to stay in the containers,
12 because it was a logical way for us to assure that
13 disease will be contained. Nematodes, we fight off
14 for a -- there are so many things that can actually
15 attack our crops, and it's very high investment
16 crop. So you want to make sure that you're able to
17 react, and it's a very organic way to actually
18 control disease, because you can just pull the plant
19 and isolate the whole thing.

20 CHAIR FAVRE: Tom?

21 VICE CHAIR CHAPMAN: So we've been told
22 that hydroponics is not allowed under the Mexican

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1 organic standards. Are you certified to the
2 standards? Is it considered hydroponics there?
3 Can you --

4 MR. MACIAS: Yes, sir, and that's
5 correct. Under Mexican definition of hydroponics,
6 what we are doing is not hydroponics. The
7 definition of hydroponics is to grow a plant in an
8 inert substrate, or in water, and what we are using
9 is not inert. And using soluble nutrients, which
10 organic materials ain't really soluble. We are
11 using fish emulsion, fish meal, natural minerals,
12 but they are not really very soluble, and actually
13 Mexican rule saying hydroponics not allowed, is
14 actually recognizing that what we are doing is not
15 actual hydroponics under the definition we have.

16 VICE CHAIR CHAPMAN: So are you
17 certified to the Mexican organic standards as well?

18 MR. MACIAS: Yes.

19 VICE CHAIR CHAPMAN: Thank you.

20 CHAIR FAVRE: Thank you very much.
21 Next up is Scott Rangus, followed by Jackie DeMinter
22 on deck.

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1 MR. RANGUS: Hi. My name's Scott
2 Rangus. I'm the President and CEO of Ingredient
3 Solutions. We are the world's largest independent
4 supplier of carrageenan, along with other specialty
5 hydrocolloids, and I've been in the carrageenan
6 business since 1976, and also commented at the May
7 hearings.

8 The previous speaker before did an
9 excellent job of summarizing, I think, the
10 preponderance of evidence supporting carrageenan
11 safety over the decades, that every major food
12 regulatory body in the world continues to reaffirm
13 carrageenan safety as a food ingredient.

14 There's a lot of isolated studies that
15 have been undertaken. Over the 40 years, I've seen
16 a lot of them. And I would say you can take any food
17 ingredient and put it into an environment where it
18 causes some detrimental effect, either at the
19 cellular level, but to this date, I am not aware of
20 a single documented case of harm to any human
21 through the consumption of carrageenan.

22 And I would add to that, of all the R&D

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1 folks, and teams globally that we've dealt with over
2 the decades, going back to my FMC days and to today,
3 that any food scientist that we deal with at the
4 customer level, whether it's Kraft or General
5 Mills, you ask them about carrageenan safety,
6 they'll say we have no concerns -- and these are food
7 scientists; they know what they're doing -- they say
8 we have no concerns about carrageenan.

9 Even the ones that are charged with
10 reformulating. It's like we're not doing it
11 because we're concerned about carrageenan safety,
12 but we're being pressured by consumers that are
13 being fueled by the bloggers, and it's a marketing
14 decision. But it's not a scientifically based
15 decision. It's pressure. And the difference
16 between now and 30 years ago, is that now you've got
17 social media being fueled by special interest
18 groups with an agenda that just perpetuate the
19 safety issue that really doesn't exist.

20 You go to any food agency in the world
21 and they will reaffirm that there isn't any evidence
22 that significantly supports removing carrageenan

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1 as a safe food additive. Never mind the hundreds
2 of thousands of farmers that depend on seaweed as
3 a livelihood, and the fact that if you look at the
4 production of carrageenan and growth of seaweed,
5 it's as green and sustainable and natural as you can
6 get. It would be the poster child of food
7 ingredients, if it weren't for the recent flap.

8 So I would propose that it remain on the
9 organic allowed list, let the market and the food
10 formulator and the consumers decide if they feel
11 it's safe. But at least don't remove it as a tool.
12 That's it.

13 CHAIR FAVRE: Ashley, followed by Zea,
14 and then Harriet.

15 MS. SWAFFAR: I'll ask you my question
16 that I have asked everyone. What products --
17 specific products, not brand names -- but what
18 products are you aware of that cannot be formulated
19 without carrageenan?

20 MR. RANGUS: I'll be honest with you.
21 I think that if you took any product and said we
22 can't have carrageenan in it. Can you make a

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1 similar product? You can make a product that would
2 be similar, whether it's chocolate milk or infant
3 formula. It's probably doable. But it is going to
4 perhaps not have the same textural properties and,
5 for example, gellan is often used as a potential
6 substitute for carrageenan in beverages. That's
7 probably the most common use. Soy milk, even
8 chocolate dairy milk.

9 But it requires additional additives
10 for body, and the cost is several times what it would
11 be with -- carrageenan has a unique protein
12 interaction and a functionality that is not
13 duplicated by any other food ingredient or
14 additive, and that's what makes it unique. Could
15 you do it? Yes, you know, you said, hey, I can't
16 have any salt in my product. You got to find
17 something else. There's a way to do it. We get
18 these questions, and actually we supply gellan. So
19 we're covered at both ends.

20 But it's interesting, when the dairy
21 guys come to us and say, we'll, you know, can we take
22 carrageenan out of our chocolate milk? We say oh

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1 yes, we can show you a system to make chocolate milk
2 without carrageenan. And then they find out what
3 the cost is and they go, oh, well we didn't know it
4 was going to cost more. Never mind. We're not
5 interested anymore.

6 And I say, even the folks that have
7 reformulated, for example, with gellan, soy,
8 almond, they say hey, we're just doing this because
9 we're being pressured to do it. We get the consumer
10 complaints, but yes, the carrageenan is much more
11 effective, it's easier to work with, and it's much
12 less expensive.

13 But we're being driven by social media,
14 primarily, but not science. So we have no concerns
15 about carrageenan's safety. But we have to do what
16 we're being pressured to do. And the real issue
17 here, and I think it's been stated -- I think
18 Marshall stated it as well -- is the organic market
19 for carrageenan huge? No. Not in itself. It's a
20 precedent.

21 CHAIR FAVRE: Let me have you wrap up
22 there. We've got two more people that have asked

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1 questions.

2 MR. RANGUS: Sorry.

3 CHAIR FAVRE: Zea, go ahead.

4 MS. SONNABEND: You made a rather
5 sweeping statement that no case of human health
6 problems have been attributed to carrageenan, and
7 yet we received several dozen comments from people
8 who have had really severe effects, and trace those
9 health effects to products that have that in it. So
10 could you comment upon that?

11 MR. RANGUS: Okay. I would say -- I
12 mean carrageenan, for example, is not considered an
13 allergen, in general. It's not widely seen in any
14 circles as having digestive problems -- now I would
15 say that, let's say you found 200 people that said,
16 you know, carrageenan gives me an upset stomach. I
17 would say that you could take -- again, any food
18 ingredient. Corn, corn starch, which is not
19 considered -- corn's typically not considered an
20 allergen either. But I guarantee you if you went
21 out and looked hard enough, you'd find people who
22 would say I can't eat things with corn in them,

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1 because it gives me an upset stomach.

2 You can't dispute that. I think every
3 person on the planet is probably going to have some
4 negative reaction to any ingredient you put out
5 there. So to say there isn't somebody on the planet
6 who has some reaction to carrageenan, I can't say
7 that that's absolutely false. I think it's very
8 unlikely. I think it's more likely somebody has an
9 ocean in their head, and they say, we'll, you know,
10 I had soy milk with carrageenan in it, and I had a
11 bellyache.

12 Well, maybe you have a reaction to the
13 soy, and not the carrageenan. The carrageenan is
14 in there. You're blaming the carrageenan, when
15 your real issue is something else.

16 CHAIR FAVRE: Okay, let me interject
17 there please.

18 MR. RANGUS: Sorry.

19 CHAIR FAVRE: Harriet, it's got to be a
20 brief question, and it has to be a brief response.

21 MR. RANGUS: Sorry. Thank you.

22 MS. BEHAR: So you did just talk about

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1 that some of the manufacturers that you work with
2 are moving away from carrageenan due to pressure
3 they're receiving from their consumers, right?

4 MR. RANGUS: Right.

5 MS. BEHAR: They're trying to market a
6 product in the marketplace. So would you say that
7 there is a value to a label that maybe wouldn't have
8 carrageenan as an ingredient? Or are you saying
9 that this is a very small amount of consumers that
10 maybe would judge that?

11 MR. RANGUS: I think you've got a
12 relatively small segment of the consumer population
13 that is concerned about that. Our mainstream
14 customers -- dairy, meat, whatever -- are
15 continuing to formulate and use carrageenan because
16 they realize there's no real food safety issue
17 there. Now you're going to have that segment, and
18 this is why we're here, where the organic consumer's
19 probably more sensitive to that, and if there was
20 some study -- I mean the McKim Report was very
21 significant that was released after the May
22 meeting, that refuted most of the negative

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1 carrageenan data that's been flogged around the
2 industry for quite a while now.

3 MS. BEHAR: Thank you.

4 MR. RANGUS: And that was important.

5 MS. BEHAR: Thank you. Sorry. I was
6 just going to say --

7 MR. RANGUS: No, that's all right. I
8 tend to -- sorry.

9 CHAIR FAVRE: That's all right. We
10 appreciate your passion on the topic. Thank you
11 very much.

12 MR. RANGUS: Are we good?

13 CHAIR FAVRE: Yes, I think we're good.

14 MR. RANGUS: Thank you.

15 CHAIR FAVRE: You're released. Thank
16 you. Next up is Jackie DeMinter, and we've got Jay
17 Feldman on deck.

18 MS. DEMINTER: Good evening. My name
19 is Jackie DeMinter. I am the Certification Policy
20 Manager at MOSA. We now certify approximately
21 2,000 operations. I'll be speaking on the
22 container and greenhouse discussion document, and

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1 the proposal for listing synthetic soy wax.

2 We have extensive experience with
3 greenhouse and vegetable production, and with
4 reviewing inputs. Thank you all for the time you
5 spent discussing topics for this meeting, and for
6 your endurance during this meeting.

7 The NOSB is positioned to encourage and
8 embrace the growth of the organic industry in many
9 areas, and to strengthen the organic seal. We
10 support the general direction of the NOSB to further
11 define greenhouse and container-based production
12 methods. We appreciate the clear definitions
13 provided. Our written comments offer some
14 suggestions for areas where further clarification
15 would be helpful.

16 We agree that land considerations,
17 natural resources and strategies to meet the goals
18 of crop rotation should be described in the OSB, and
19 we encourage the NOSB to develop a comprehensive set
20 of criteria specific to greenhouse and container
21 production for certifiers and farmers to use.

22 We believe that soil used in an organic

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1 container-based operation must be free of
2 prohibited materials for 36 months prior to the
3 harvest of the crop, and that any other ingredients
4 in the media also be allowed.

5 We feel this should be true as well for
6 non-organic planting stock brought on to the
7 organic operation. Yet, we've been advised that
8 any media used as part of the non-organic production
9 system does not require review. This presents a
10 dilemma. If non-organic planting stock is brought
11 onto the organic operation, any unacceptable media
12 should be replaced.

13 We agree with the requirement suggested
14 in this new discussion document, and would like to
15 see the exception addressed. The intent of the
16 proposal for listing synthetic soy wax, for the wax
17 to be produced from organic soybeans, supports our
18 overall goals for growth of the organic industry.

19 Our written comments offer suggestions
20 for clarity and appropriate emphasis for the
21 annotation, which should be on the requirement for
22 organic soybeans. We suggest the complete

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1 production of soy wax be considered, and encourage
2 the NOSB to require that soy oil be organic as well.
3 That would seem more in line with organic
4 principles.

5 If we exclude the production of soy oil
6 through the wax, then it seems the intent to require
7 organic seed is negated. Would a soy wax
8 manufacturer be motivated to search out soy oil
9 produced from organic soybeans? Lack of
10 commercial availability seems as if it would be the
11 standard.

12 We're not concerned regarding
13 verification when organic soybeans are used, but we
14 do have questions about oversight and appropriate
15 verification when non-organic soybeans are used.

16 Finally, we emphasize the need for
17 clarity in labeling on all fronts. It's a little
18 perplexing to see the petition materials calling
19 the soy wax all-natural, yet the NOSB is
20 recommending it be listed on 601, synthetic
21 substances allowed for use on organic operations.
22 Thank you for your work on all these challenging

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1 topics and precedent-setting issues.

2 CHAIR FAVRE: Questions?

3 MS. DEMINTER: Thank you.

4 CHAIR FAVRE: Thank you, Jackie. Next
5 up is Jay Feldman, and we've got Thomas Harding on
6 deck. Hi, Jay.

7 MR. FELDMAN: Hi. I am Jay Feldman,
8 Executive Director of Beyond Pesticides. Served
9 on the NOSB from 2010 to 2015, and I wanted to thank
10 the outgoing Board members for all their work, as
11 well as all the Board members. Thematic questions
12 emerged for me when I was on the NOSB, and I think
13 for you, the go-to questions, such as what does the
14 law say, what are the legal standards and principles
15 behind the law, what have past boards decided, and
16 what is the history?

17 And then quickly you come up against
18 different interpretations of the law. As a Board
19 member you may bring your understanding -- your best
20 understanding of the law -- and previous decisions.
21 Certainly USDA may have an opinion, and you may
22 ultimately disagree with that opinion. The point

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1 is that the key functioning under the law and the
2 integrity of the label requires that we have strong
3 independence on the part of the Board.

4 We need to maintain and exercise that
5 independence. The court decision in the recent
6 compost case I think indicates that NOP's approach
7 may not always be in compliance with the law.
8 That's why we have you on the NOSB as a check, and
9 that's why we have a public process built into the
10 law.

11 Regulations and recommendations of this
12 Board may lead to economic dislocation. At the
13 same time the Board, in protecting organic
14 integrity, protects the economic health of the
15 organic sector, the organic market and facilitates
16 its growth.

17 Hydroponics is a good example of this,
18 and the importance of the NOSB's role. We need the
19 Board at this meeting, before the start of the new
20 administration, to take action and fulfill its
21 role, reaffirm the 2010 decision of the NOSB, which
22 can only be interpreted as rejecting soil as

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1 agriculture.

2 As the APA states, an organic plan that
3 contains provisions designed to foster fertility,
4 primarily through the management of organic content
5 of the soil through proper tillage rotation, et
6 cetera.

7 If USDA does not follow the law, whether
8 it is processed, like in the case -- processed, like
9 in the case of the contaminant case, or it's a
10 substantive matter, integrity suffers and economic
11 harm will follow.

12 Under the PPM, the PDS -- the Policy
13 Development Subcommittee, given the PPM changes,
14 really needs to incorporate background,
15 understanding, history of its proposals, whether
16 it's an Appendix 2 or anything else.

17 We need to capture the minority views of
18 the subcommittee. The subcommittee's
19 deliberations are a cornerstone to this Board.
20 These views, like the majority, the minority views
21 in the subcommittee become a part of the public
22 discourse.

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1 We need to use the checklist approach to
2 maintain compliance with the criteria of APA. And
3 we need an open docket. The open docket that has
4 been put in place for the part of the expansion is
5 appropriate, but we need to embrace the 2013
6 decision of the NOSB to create a year-long open
7 docket. This will help with the problem we're
8 having with FOIA, I think, in bringing more decision
9 information to you throughout the year. Thank you
10 very much.

11 CHAIR FAVRE: Thank you, Jay.
12 Questions? Thank you very much. Next up is Thomas
13 Harding, followed by Robert Rankin on deck.

14 MR. HARDING: Well good afternoon, and
15 thank you all very much for not only the work you've
16 been doing. The five of you who are leaving, thank
17 you for your hard work. The five that are coming,
18 they have no idea what they're in for. But I want
19 to say also for the NOP, I appreciate very much the
20 work that all of you collectively are doing.

21 I'm here to speak on behalf of the
22 support for sodium bisulfate. But before I do

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1 that, I just want to give you a quick history. Some
2 35 or so years ago, when material review was
3 something that most certifiers did, we laid out a
4 criteria, and that criteria was rigid. That
5 material had to be really important to us. That had
6 to be a management tool for the farmers or their
7 processors, and that it had to meet the criteria
8 that environmental, humane, whatever it might be.

9 And that once we found a better tool,
10 that tool would be removed, and we'd put a better
11 tool on the list. I encourage you to reconsider
12 what's happened from the standpoint of the
13 subcommittee vote. I encourage the NOSB members
14 to, in fact, vote to support sodium bisulfate. I
15 think you've heard an awful lot already.

16 I just passed around -- or I should say
17 Michelle has -- two papers, mine, as well as Foster
18 Farms. I think they will be self-evident from the
19 standpoint of how important this material is.

20 You've heard already from the Miller
21 Farm. Tomorrow you'll hear from the Heller Farm,
22 and you will hear from people of what I would call

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1 hands-on experience. I think it's really
2 important that you all value their important work.
3 They live on those farms every day, they work in
4 those houses every day, and they know those chickens
5 really well.

6 I would encourage you to respect their
7 opinion, and respect the opinion of the scientists
8 that have already spoken, and those that will speak
9 after me, and longer.

10 I want to remind us that this is really
11 not just about a material we're putting on a list.
12 About the way we treat our animals. You talk about
13 prevention, you talk about humane treatment. I
14 think it's really important to know that the right
15 material that does the job throughout the system is
16 a humane material, is a responsible material, is a
17 material that works for the farmer and that provides
18 a product at the end to the consumer that they can
19 be proud of and that has the qualitative values that
20 we all want to represent.

21 I think it's really important that we
22 represent a material that says, and is

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1 verified -- when we put the petition together, we
2 put a huge amount of data in that document. We
3 subsequently have supplied a lot of data, and it's
4 not just one or two years. It's not in the
5 marketplace. It's in the field. It works every
6 day. I think it's really important to listen to
7 that data and to respect that data.

8 I would encourage you very much to
9 reconsider this. It's really important that we
10 look at this thing in the long-term. We want to
11 increase the market. We want to do it in the right
12 manner. We want to be transparent, and I think if
13 you vote to put sodium bisulfate on the list, you'll
14 have done that. And I thank you very much.

15 CHAIR FAVRE: Emily, and then Zea.

16 MS. OAKLEY: Do you think that this is
17 a material that's needed to combat a condition
18 situation -- and you spoke about humane
19 treatment -- and rather than maybe something that
20 wouldn't be necessary if the conditions were
21 different?

22 MR. FELDMAN: If we're talking about

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1 scale, the one thing I'd remind us of is, scale is
2 not part of this issue. But most of the small and
3 medium-sized producers that we've worked with, and
4 that are represented in our testimony in the next
5 two days, all of those people need this tool.

6 It's not because they have poor
7 conditions. It's not because they're not good
8 farmers. It's because they have conditions that
9 have been forced upon them in the way the standards
10 are written. What do you think's going to happen
11 when we finally get this proposed rule, or the final
12 rule, approved about humane treatment for
13 livestock. This will even put a greater burden on
14 farmers.

15 So no, I think this is an important
16 material. It's an essential management tool.
17 It's just not about another material. It's about
18 something that's really going to improve the whole
19 of the system.

20 CHAIR FAVRE: Zea?

21 MS. SONNABEND: Thank you, Tom. I
22 apologize in advance for having an incomplete

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1 knowledge of all the data in your petition, and I'm
2 no livestock expert. But of course anything that
3 is added to the litter will eventually end up in the
4 soil as litter is recycled, and so I'm wondering,
5 the thought of adding something with sodium in it
6 to the soil would cause pause for many organic
7 producers, and so I'm wondering what happens to it
8 when it gets to the soil.

9 MR. FELDMAN: Well I can't answer that
10 from a technical standpoint, but one of the things
11 I do know is that these materials break down in such
12 a way, and they're spread out throughout the whole
13 system in a biodiverse way, and they work very
14 heavily with the microorganisms. I think we're not
15 adding more sodium to the soil, because what we will
16 do is, in many cases, compost this material, or
17 handle it in such a way that we're responsibly
18 putting things on a field that's not going to add
19 more nutrient, or, for that matter, more sodium.

20 I think in the broad sense -- and we can
21 get a technical review on that if you'd like -- I
22 think we're not going to have a problem from that

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1 standpoint. At least I haven't been made aware of
2 any.

3 MS. SONNABEND: Did the petition cover
4 that at all?

5 MR. FELDMAN: It did cover that in a
6 couple of technical places, yes.

7 CHAIR FAVRE: Last question from
8 Ashley.

9 MS. SWAFFAR: Okay, so it's been a while
10 since I've read the entire petition, and it's 300
11 and some-odd pages --

12 MR. FELDMAN: I understand.

13 MS. SWAFFAR: -- that it was, but just
14 glazing through this, so the primary focus was on
15 ammonia control. But it now seems like enteritis
16 is the bigger issue that's brought up in the
17 forefront, while there are some people talking
18 about ammonia. I think you see that.

19 Why wasn't enteritis brought up in the
20 petition?

21 MR. FELDMAN: Oh I think it was brought
22 up in the petition. And it's been brought up in a

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1 number of the papers we supplied, and certainly in
2 the testimony again today.

3 I think if you look deeply in there, you
4 will find those documents where we have addressed
5 that issue. I have the petition. I can show you
6 if you'd like that. All right.

7 CHAIR FAVRE: Thank you very much. We
8 appreciate your comments.

9 MR. FELDMAN: You're very welcome, and
10 thank you.

11 CHAIR FAVRE: Next up is Robert Rankin.
12 We've got Lori Klopff on deck. Before you get
13 started, Robert, just for those of you that are
14 tracking things, we are actually running not quite
15 an hour behind, and we were scheduled to finish
16 right before 6:00, so Board members, if we will try
17 to keep our questions to a minimum, we'll try to get
18 through the rest of these as quickly as possible.
19 Thank you. Go ahead.

20 MR. RANKIN: Okay, thanks. Good
21 afternoon. My name is Robert Rankin, and I'm
22 Executive Director of the International Food

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1 Additives Council. IFAC is a global association
2 representing manufacturers of food ingredients,
3 including a number of substances allowed in organic
4 foods and beverages.

5 IFAC supports the subcommittee's
6 recommendations to relist agar agar, cellulose, and
7 silicon dioxide on the National List. IFAC
8 strongly opposes the subcommittee's recommendation
9 to delist carrageenan. Carrageenan has been
10 determined to be safe by regulatory authorities,
11 scientists and expert reviewers from around the
12 world, and is approved for use in food by all major
13 regulatory and standard-setting bodies.

14 Delisting carrageenan would force
15 organic formulators to use inferior alternatives or
16 consider removing their products from the market.

17 I'd also like to call attention to the
18 slide from the FMC representative earlier, that
19 listed 254 products for which the replacement of
20 carrageenan was not an option in those products.

21 I'll spend the rest of my time
22 commenting on phosphates. Phosphates are safe

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1 food additives and represent one of the most
2 important functional segments of the food
3 ingredient industry. Phosphates have been
4 determined to be safe by regulatory authorities in
5 the US, Europe and around the world. In addition,
6 CODEX Alimentarius has adopted numerous provisions
7 for phosphates in various food categories.

8 Phosphates are used in multiple
9 applications, including improving the texture and
10 nutritive value of baked goods, preventing fat and
11 protein separation and milk products, and
12 supporting nutrient delivery in beverages. The
13 use of alternative substances in these applications
14 will not provide the desired effects as compared to
15 phosphates.

16 Our written comments raise concerns
17 with a number of the responses in the technical
18 report on phosphates. Most importantly, we do not
19 agree that, one, phosphate additives increase serum
20 phosphorus more so than naturally occurring
21 phosphorus, and two, elevated serum phosphorus is
22 correlated with renal and vascular disease.

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1 IFAC also objected to the allegations in
2 the discussion document of adverse health effects
3 from the cumulative consumption of phosphates.
4 None of these assertions are supported by the
5 majority of the scientific literature that exists
6 on this topic.

7 Many of the studies that lead to these
8 allegations involved animals that were fed large
9 amounts of phosphates -- far more than are regularly
10 consumed by humans, and therefore not
11 representative of typical intake levels, and/or
12 focused on specific populations, such as those
13 genetically predisposed to certain poor health
14 outcomes, which cannot be generalized to the
15 majority of consumers.

16 In anticipation of the NOSB's
17 consideration of phosphates, IFAC commissioned
18 Cato research to conduct a literature review, and
19 develop a white paper on phosphates and human
20 health. Cato reviewed 110 primary research
21 articles on the potential health effects of
22 phosphorus and phosphates, as compared to

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1 approximately 30 papers reviewed for the TR.

2 We provided with our written comments
3 the executive summary of the white paper, the list
4 of studies reviewed and a comparison of the
5 references to the TR. Cato found that the
6 scientific evidence does not support a definitive
7 conclusion that consumption of phosphates result in
8 negative health effects to the general population.

9 In addition, the Cato report confirms
10 phosphate additives do not have a cumulative effect
11 on healthy populations, and do not contribute to a
12 higher phosphorus load. Any phosphorus that is not
13 needed in the body, whether naturally occurring or
14 added through phosphates, is excreted in urine.

15 Based on the Cato white paper, there is
16 no conclusive scientific evidence to support the
17 reduction or removal of phosphates from organic
18 foods. Cato's review of 110 primary research
19 articles supports the safety of phosphates, and
20 therefore the continued use of phosphates, in
21 organic foods and beverages. Thank you.

22 CHAIR FAVRE: Right towards the end you

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1 sounded like one of those commercials where
2 there --

3 MR. RANKIN: I know, I know. Had to
4 kick into high gear there.

5 (Laughter.)

6 CHAIR FAVRE: But good job, ending
7 right on the button. Are there any questions?
8 Jean.

9 MS. RICHARDSON: Mine is really just a
10 comment. I just wanted to thank you very much.
11 I'm the lead person on this phosphate topic, and I
12 really appreciated that detailed analysis, and I'll
13 be discussing more about that and the TR when I give
14 the presentation. We do that tomorrow. Thank
15 you.

16 MR. RANKIN: Thank you.

17 CHAIR FAVRE: Thank you very much.

18 MR. RANKIN: Thank you.

19 CHAIR FAVRE: Next up is Lori Klopff,
20 with Michael Lacy on deck.

21 MS. KLOPF: Good afternoon. My name is
22 Lori Klopff and I'm in Regulatory Affairs for ICL

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1 Food Specialties, a St. Louis-based company that
2 produces phosphates and other food ingredients for
3 the entire food industry.

4 Our company is also a member of the
5 International Food Additives Council, and we
6 support the comments from this trade association,
7 on behalf of continued listing of different
8 phosphates on the National List.

9 Today I will provide some information on
10 why phosphates are essential in providing a variety
11 of different foods based on organic products.

12 Each of the phosphates allowed in
13 organic foods has a specific technical function
14 that is required, either for the production of the
15 food, or for the properties of the food product, and
16 there are no alternatives currently on the allowed
17 list.

18 Calcium phosphates are essential for
19 use as leavening components for organic baked goods
20 that cannot be made using yeast. The calcium
21 content also provides nutrient fortification to
22 foods, and whitening to non-dairy protein milks.

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1 Tricalcium phosphate is also an effective flow
2 agent for organic dry mix products.

3 Potassium phosphates are required in
4 certain foods and beverages as a buffer,
5 emulsifier, and/or stabilizer, to prevent phase
6 separation of other ingredients. They also
7 provide potassium as a nutrient.

8 Sodium phosphates are allowed only in
9 dairy foods. In very low levels will interact with
10 the protein fat in water, to provide the
11 stabilization required for smooth and creamy dairy
12 products.

13 Sodium acid pyrophosphate is essential
14 in certain organic baked goods, such as cakes,
15 muffins and waffles, as a slow-acting leavening
16 agent.

17 Monocalcium phosphate is a fast-acting
18 leavening agent, so cannot be used in these systems.

19 Sodium acid pyrophosphate is also
20 essential as a component in double-acting organic
21 baking powder.

22 I would also like to make a few comments

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1 on the three discussion questions included in the
2 technical report on phosphates.

3 Number one, all food products,
4 including dairy foods, are carefully formulated by
5 the food manufacturers to have good stability and
6 taste. Sodium phosphates are used only when they
7 are essential, due to the formulation, or to
8 processing requirements.

9 Number two, phosphates are included in
10 equivalency organic agreements with several other
11 countries. While monocalcium phosphate is an
12 essential ingredient in certain organic food
13 applications, it is likely that cultural
14 differences in food choices in other countries have
15 not made allowances to include a larger variety of
16 foods for organic consumers, as compared with the
17 US.

18 Number three, phosphates should not be
19 phased out of organic foods because of their unique
20 functional properties. The current allowances of
21 phosphates meet all of the OFA requirements,
22 including essentiality and no-adverse-effects on

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1 human health.

2 In conclusion, current reviews continue
3 to support the safety of phosphates in foods. The
4 phosphates on the National List meet the
5 requirements of OFA, and should continue to be
6 evaluated individually through the sunset review
7 process. Thank you.

8 CHAIR FAVRE: Thank you. Questions?
9 Harriet?

10 MS. BEHAR: Approximately how many
11 phosphates are in use in food products in the United
12 States? Different phosphates?

13 MS. KLOPF: Okay, and not organic. You
14 mean --

15 MS. BEHAR: Not -- just, is it 20? Is
16 it 200? What --

17 MS. KLOPF: Oh no -- oh goodness no. It
18 would be more on the order of 20 to 30.

19 MS. BEHAR: Thank you very much.

20 MS. KLOPF: Mm hmm. Thank you.

21 CHAIR FAVRE: Next up is Michael Lacy,
22 with John Bobbe on deck.

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1 DR. LACY: Good afternoon. I'm Mike
2 Lacy, Professor Emeritus in the Department of
3 Poultry Science at the University of Georgia. I
4 served on the NOSB from 2002 to 2007, and chaired
5 the Livestock Committee the last year of my sentence
6 -- excuse me, I mean term.

7 I'm here today to speak in favor of
8 adding sodium bisulfate to the list of synthetic
9 substances approved for use in organic livestock
10 production. I won't go into the safety. You've
11 heard several people talk about the safety of the
12 product already, and the fact that it has a long and
13 successful history of use in poultry production.

14 I fully understand that these
15 characteristics alone don't qualify substance for
16 inclusion. However, the contribution sodium
17 bisulfate would make to improving animal welfare,
18 food safety, soil, water, and air quality,
19 decidedly swing the balance in favor of an approval,
20 in my opinion.

21 Most important to me is the animal
22 welfare issue. Among your production in litter is

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1 a concern to every poultry producer, large and
2 small. Depending on weather, time of year, it is
3 difficult, if not impossible, to keep ammonia
4 levels below those detrimental to the health and
5 welfare of chicks.

6 Ammonia levels of just 25 parts per
7 million have been demonstrated to negatively impact
8 the function of the protective cilia and the trachea
9 of young poultry. Organic poultry producers need
10 tools to control ammonia, and sodium bisulfate is
11 one of the most effective and environmentally sound
12 tools available.

13 I say this with all the passion I have.
14 Organic producers need sodium bisulfate. More
15 importantly, their birds need sodium bisulfate.
16 Approval would be significantly beneficial to the
17 welfare of organic poultry, and welfare is a
18 structural pillar of organic production.

19 When you're making your decision, I ask
20 you to heavily weigh the welfare of organic poultry
21 against the natural inclination to sometimes just
22 look for reasons not to approve any synthetics.

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1 To be frank, I fear that putting organic
2 producers in the position where they cannot use a
3 proven, effective, safe product to provide their
4 flocks a positive environment, will ultimately
5 damage the integrity of organic livestock
6 production.

7 Consumers won't understand, nor should
8 they, why their organic poultry are produced in
9 environments less animal friendly than in
10 conventional systems. Thank you for what you do.
11 I know firsthand, and appreciate and respect, the
12 incredible time, effort that you invest in helping
13 organic producers, and organic poultry. Thank
14 you.

15 CHAIR FAVRE: Our problem child over
16 here has a question. Ashley?

17 MS. SWAFFAR: I'm sorry. So Dr. Lacy,
18 I know you do a ton of work on poultry ventilation,
19 and are well respected in the industry for that.

20 DR. LACY: Thank you.

21 MS. SWAFFAR: Have you done any
22 research comparing these armory approved and armory

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1 listed products, compared to sodium bisulfate, and
2 what'd you find?

3 DR. LACY: Colleagues of mine at the
4 University of Georgia have tested virtually every
5 litter treatment known to man. The University of
6 Georgia is where people come to try out new litter
7 treatment. So yes, I may not have directly done it,
8 but colleagues of mine -- Brian Fairchild, Casey
9 Ritz -- are sort of the gurus of litter treatments.

10 MS. SWAFFAR: So did they do work with
11 those armory approved products --

12 DR. LACY: Yes.

13 MS. SWAFFAR: -- and do you know the
14 results of them?

15 DR. LACY: The results -- I can't say
16 that the products are non-effective. But I
17 wouldn't be here pushing for sodium bisulfate if I
18 didn't think that it was the most effective.

19 CHAIR FAVRE: Francis, last question.

20 MR. THICKE: Okay. You say the mode of
21 action is simple. It simply reduces pH. And so I
22 guess you're implying that if you have a product

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1 that reduces the pH similar to sodium bisulfate, it
2 should be similar in action. Is that correct?

3 DR. LACY: Well, you know, in a
4 three-minute comment you can't put -- or at least
5 I couldn't figure out a way to put all of the
6 information in there. I think the effect of sodium
7 has already been discussed thoroughly, and that's
8 another part of the mode of action in terms of
9 necrotic enteritis. But in terms of ammonia,
10 primarily the effect is the reduction in pH.

11 CHAIR FAVRE: Thank you very much.

12 DR. LACY: Thank you.

13 CHAIR FAVRE: And thank you for your
14 service on the Board.

15 DR. LACY: Thank you.

16 CHAIR FAVRE: Next up is John Bobbe,
17 with Richard Mathews on deck.

18 MR. BOBBE: I'm John Bobbe. I'm the
19 Executive Director of the Organic Farmers Agency
20 for Relationship Marketing. We are a cooperative,
21 incorporated in the State of Minnesota. We work
22 with commercial organics, grain farmers, and

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1 livestock farmers, from 100 to 7000 acres.

2 What I want to talk about today is
3 organic imports, which Michael Sligh mentioned.
4 In July and August of this year, imports from a very
5 questionable region of the world -- Turkey -- have
6 reached one million bushels a month. That amounts
7 to displacing 8000 acres of organic grain in this
8 country every month, or 100,000 acres a year.

9 In last September and December,
10 anti-fraud workshops were held in Turkey and the
11 Ukraine by IOAS. On January 16, the USDA's Foreign
12 Agricultural Service published a report of an
13 overview of Turkey organics that was rife with
14 fraud, including the manufacture of certificates.

15 Edco, which was certified by USDA, is
16 still on the approved-certified list after having
17 been decertified by both the EU and Canada.

18 In December 2015, the European
19 Commission issued a document with warnings about
20 countries in the former Soviet Russian Federation,
21 that they were at high risk if they were to import
22 grain into the European Union.

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1 There were no -- the NOP has no warning
2 lists or warning system. Edco is still on the
3 approved system. Now it's not that the imports are
4 coming in. We recognize that as a fact that 40
5 percent of the corn and 70 percent of the soybeans,
6 possibly 90 percent that we use, is going to come
7 in in imports.

8 However, Canada and the EU do require
9 importers to be certified. The NOP is
10 Johnny-come-lately to it, and you're to be
11 commended for finally talking about it. But where
12 the argument about the -- that we have found
13 nothing, and we filed two complaints with NOP about
14 shiploads -- bulk shiploads -- coming into this
15 country from Turkey, is the audit trail falls of the
16 back end of the boat. Why? Because I have 16 years
17 of experience in the Transcaucasus Region, having
18 been there in September and October, and an
19 NOP-certified -- accredited certifier --
20 personally told me that they were looking at other
21 countries for certification, like the Ukraine, but
22 it was too dangerous for them to go in.

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1 The bottom line is, that our farmers are
2 incurring \$300 an acre in losses, and last time
3 conventional prices went up, 50,000 acres left
4 organic, and it's going to --

5 CHAIR FAVRE: I'm sorry.

6 MR. BOBBE: -- flatline organic grain
7 production in this country.

8 CHAIR FAVRE: I need you to stop there
9 please. Appreciate it. Questions? Jean.

10 MS. RICHARDSON: Did you hear
11 Mr. McEvoy's comments this morning on that issue?

12 MR. BOBBE: Yes.

13 MS. RICHARDSON: Yes. Okay, good.
14 Thanks.

15 MR. BOBBE: We have also filed a letter
16 of complaint with the Office of Inspector General,
17 because the NOP, we don't -- our farmers don't feel,
18 along with food and water watch -- need some
19 additional oversight, because our farmers are
20 expected to have an on-farm inspection every year,
21 and my guess would be that just equivalency
22 agreements and hiding behind those, you cannot go

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1 out in an audit trail and find those farms in the
2 exact fields. We're asking for equal treatment.

3 CHAIR FAVRE: We appreciate your
4 passion on the issue. Thank you for bringing us
5 your comments.

6 MR. BOBBE: Thank you.

7 CHAIR FAVRE: Next up is Richard
8 Mathews, with Rhodes Yepsen on deck.

9 MR. MATHEWS: Richard Mathews,
10 Executive Director of the Western Organic Dairy
11 Producers Alliance. I want to start with
12 parasiticides. WODPA finds it incongruous that
13 the NOSB would expand the use of parasiticides,
14 while pushing to remove substances, and prevent the
15 addition of substances, to the National List,
16 especially when you recommended parasiticide use
17 allowance removes all incentives for proper farm
18 management intended to prevent the occurrence of
19 parasites in the first place.

20 The regulations clearly show that
21 producers are responsible for minimizing the
22 occurrence of parasite infestations. They also

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1 clearly show that certifiers are responsible for
2 assuring that producers have taken the steps
3 necessary to minimize the occurrence of parasite
4 infestation.

5 When both producers and certifiers are
6 in compliance with the regulations, the emergency
7 use of parasiticides should be uncommon. Further,
8 the regulations specifically prohibit a producer
9 from withholding necessary medical treatments to
10 preserve the animal's organic status.

11 WODPA argues that by extension,
12 producers are prohibited from withholding
13 necessary medical treatment allowed by regulation.
14 Thus, any argument that the changes are in the
15 animal welfare issue, is a specious argument.

16 Accordingly, rather than reducing
17 withdrawal periods and expanding use, which weakens
18 the standards, encourages use, WODPA strongly
19 recommends that the NOSB withdraw its parasiticide
20 recommendation of last April. Further, WODPA
21 strongly recommends that the April 2016 recommended
22 be replaced with a recommendation that limits

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1 parasiticide use to, one, use only for dairy and
2 breeder stock, not breeding age. Two, on-label use
3 only, and three, use only by and on the lawful
4 written order of a licensed veterinarian.

5 With a regard to hydroponics, I was
6 heartened to hear Zea yesterday say that fodder
7 sprouting systems are not a part of the hydroponic
8 discussions. We just ask that you make that real
9 clear in your recommendation.

10 CHAIR FAVRE: Thank you very much.
11 Questions? Thank you very much. We appreciate
12 it. Next up is Rhodes Yepsen, with Steve Peirce on
13 deck.

14 MR. YEPSEN: Thank you for the
15 opportunity to speak. My name is Rhodes Yepsen and
16 I'm Executive Director of the BPI.

17 After listening this morning about the
18 objectives of NOP and the projects underway for
19 accreditations, tracking compliance, increasing
20 staff to keep up with the program, I couldn't help
21 but think about some parallels to our own
22 organization.

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1 While we're much smaller, BPI is also a
2 mission-driven organization, with a voluntary
3 certification program, and we're chronically
4 understaffed, with a volunteer board, and are also
5 working on a continual process improvement dealing
6 with threats about fraudulent certifications, and
7 defending the value of our certification.

8 With that in mind, I'm wondering why
9 CROPS is revisiting the topic of biodegradable
10 mulch film before sunset review. The policy memo
11 blocking these items from organic farms simply asks
12 for clarification about whether the intent was to
13 limit it to 100 percent biobased film or not.

14 To my knowledge, NOP hasn't received a
15 response from NOSB. So I would ask if NOSB can take
16 a moment to vote, perhaps at this meeting, to
17 respond to that policy memo.

18 As new Board members come online, there
19 are only going to be more questions if a decision
20 isn't made soon, as they won't be familiar with the
21 original decision. That has already happened this
22 year.

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1 Our petition never stated that these
2 products were 100 percent biobased. It focused on
3 the biodegradability as a better alternative to the
4 environmental mess of polyethylene mulch film.
5 Diadem is already on the National List, and I would
6 ask that you give farmers the ability to benefit
7 from the original decision.

8 CHAIR FAVRE: Thank you. Any
9 questions? Thank you very much. Okay, we've got
10 Steve Peirce up next, with Ryan Costello on deck.

11 MR. PEIRCE: Good afternoon, or good
12 evening, and thank you. My name is Steve Peirce,
13 President of Ribis Incorporated. We are the
14 company that produces the organic rice hulls, which
15 are the alternative to silicon dioxide.

16 I've read the comments that were
17 submitted on the sunset on silicon dioxide. I
18 agree with those comments. I'm here to kind of let
19 you know that today about 95 percent of those
20 applications that would have historically used
21 synthetic silicon dioxide, today they are
22 successfully using organic rice hulls.

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1 The comments submitted about those
2 special applications that demonstrate the real need
3 for silicon dioxide, the significant reliance on
4 SiO₂ in these unique applications, either extreme
5 hygroscopicity or high oil situations, is very much
6 in keeping with what we've seen over the last
7 several years.

8 So here to kind of give you a report back
9 that the organic handlers have accepted and
10 embraced the organic rice hulls very strongly as a
11 clean-label alternative to silicon dioxide.

12 I'm here to compliment both the NOSB and
13 the NOP. You guys got it right three years ago when
14 you made the annotation on silicon dioxide. Work
15 is being done by our company today to enhance the
16 functionality of the rice hulls, so that they will
17 work better in those challenging situations.

18 Over the last three years, we've seen
19 sales go up significantly, both on organic, as well
20 as on natural. We've seen it work in spices. Some
21 of the largest spice houses in the world are using
22 the new flow -- the organic rice hulls -- either

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1 organic or natural.

2 Same thing in dietary supplements. It
3 was a press release that came out by a company a few
4 weeks ago that they've got over 500 different
5 vitamins or minerals that are on the market today
6 using the organic alternatives, or using the
7 natural rice hulls.

8 So where you guys were the leaders in
9 setting kind of the trend on this, it is working both
10 in the natural world, as well as the organic world.

11 Again, compliments to the NOP and the
12 NOSB. You guys got it right. You probably don't
13 hear that too often. The OFBA says when there is
14 a -- you replace the synthetic when there's a wholly
15 natural alternative.

16 Our company, being an entrepreneurial
17 company, just released an uncertified organic
18 replacement for magnesium stearate, for tablets and
19 capsule production, just in the last few weeks.
20 We're looking at more items that are on the National
21 List, to be able to replace them with organic
22 alternatives, or natural products. So thank you

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1 for giving organic preference, or giving preference
2 to organic ingredients for organic products.
3 Thank you. Any questions?

4 CHAIR FAVRE: Lisa?

5 MS. DE LIMA: Can you talk -- can you
6 give me some specifics about what the challenging
7 situations are, where the rice hulls still don't
8 work?

9 MR. PEIRCE: Sure, and we'll go back to
10 the two that I referenced. It's something that is
11 very sugary, and extremely hygroscopic. I know
12 rice syrup solids are one that I've talked about.
13 It's a pain to work with. Glad to have an
14 alternative.

15 The other one that is something is a high
16 oil situation. Those are the two extremes, but yet
17 I'm going to say approximately 95 percent of the
18 stuff in between were working very well.

19 CHAIR FAVRE: Thank you very much.

20 MR. PEIRCE: Okay, thank you.

21 CHAIR FAVRE: Next up is Ryan Costello,
22 followed by our last commenter today, Cori

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1 Skolaski.

2 MR. COSTELLO: Hi, good afternoon. My
3 name is Ryan Costello, and I'm a Farm Certification
4 Officer, speaking on behalf of Oregon Tilth
5 Certified Organic.

6 We'd like to thank the subcommittee for
7 allowing community input on greenhouse and
8 container production. Many of our OTCO-certified
9 producers grow crops both in containers and in soil,
10 side by side, and see these as complementary methods
11 of organic production.

12 Container-growing allows producers
13 with limited access to fertile soil and water, to
14 extend the capacity to provide fresh produce for
15 local communities, rather than importing
16 soil-grown product from long distances away.

17 Greenhouses also help producers extend
18 their growing season in harsh climates. We would
19 encourage the subcommittee to ask the question,
20 what is the goal of placing additional restrictions
21 on container production.

22 Last week I had a chance to talk with

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1 Jason from Yep Yep Organic Farms, and Dexter Oregon.
2 They farm on heavy clay, hillside soils, and
3 although they're working hard to improve their
4 soil, the productivity is low. So in addition,
5 they have a greenhouse vegetable production system.

6 Jason said that without the
7 supplemental income from the greenhouse, the farm
8 could not be financially sustainable.

9 Additional restrictions on container
10 production methods could easily overburden organic
11 operations, particularly small-scale producers,
12 and OTCO would encourage the subcommittee to
13 consider the detailed recordkeeping requirements
14 in the rule for compost production. Although that
15 was well-intentioned for some producers, it became
16 apparent that the outcome of the compost rule was
17 to pile red tape onto those trying to recycle local
18 manures.

19 Eventually, additional guidance was
20 needed to reduce the paperwork burden, and make it
21 easier to produce NOP-compliant compost. The
22 discussion document proposes requiring a minimum

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1 bulk density for growing media. However, bulk
2 density does not necessarily correlate with
3 fertility, or with biological activity.

4 A planning media composed of bark would
5 have a higher bulk incident than peat moss, but be
6 less fertile, and potentially less biologically
7 active.

8 In addition, mandating a minimum
9 percentage of total plant nutrients to come from the
10 media would require producers to track their total
11 plant nutrient requirement, and also the media
12 mineralization rate.

13 So these additional restrictions would
14 place burdens on the small producers who are already
15 finding it difficult to meet the recordkeeping
16 requirements, and additional evaluation
17 requirements for us certifiers.

18 OTCO would encourage the subcommittee
19 to consider economic impact analysis before
20 recommendations are made to the NOP. We do agree
21 with the subcommittee's concerns about the
22 degradation of natural resources by paving over

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1 fertile soil, or through effluent runoff, although
2 we feel that these risks also present themselves in
3 more traditional farming systems.

4 We would support additional guidance to
5 clarify how container operations should maintain or
6 improve their natural resources, as well as how
7 these systems can meet the -- maybe crop rotation
8 standard, or implement alternative practices.
9 Thank you very much.

10 CHAIR FAVRE: Thank you. Questions?
11 Harold?

12 MR. AUSTIN: I'll be brief. Ryan,
13 could you just briefly discuss your concerns
14 and -- with your written comments for the full Board
15 on phosphates?

16 MR. COSTELLO: Oh. I did not write
17 those comments on phosphates. I'm sorry.

18 MR. AUSTIN: Okay, well then let's not
19 talk about it.

20 (Laughter.)

21 MR. COSTELLO: I would be poorly
22 informed on that. Sorry.

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1 CHAIR FAVRE: Harriet?

2 MS. BEHAR: I'm not sure if you could
3 answer this one either, but we heard so much about
4 the poultry, and the kind of dire situation that
5 some producers are having without the use of sodium
6 bisulfate, and I'm just wondering, at Oregon Tilth
7 I know you do certify many poultry operations. Are
8 you finding high mortalities, and/or can you get
9 someone else, maybe you -- I don't know if they're
10 going to speak tomorrow -- who could answer if
11 you're seeing a lot of high mortalities on organic
12 farms because that product is not currently
13 allowed.

14 MR. COSTELLO: Okay. I probably won't
15 be the best to answer that. We do have a technical
16 specialist here that might be able to address it
17 later. I'm kind of more of a crop guy.

18 CHAIR FAVRE: Well okay crop guy, thank
19 you.

20 MR. COSTELLO: Thank you. Appreciate
21 it.

22 CHAIR FAVRE: Thank you very much. All

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1 right. Last up today is Cori Skolaski. Welcome
2 Cori.

3 MS. SKOLASKI: Hi. Hi, my name is Cori
4 Skolaski, and I'm the Executive Director at MOSA
5 Certified Organic, and I apologize in advance for
6 a cough that I have.

7 Thank you very much for the opportunity
8 to provide comments today. I'm here to speak to you
9 about NOP 2027, personal performance evaluations of
10 inspectors. MOSA also has submitted detailed
11 comments, written in written comments.

12 MOSA certifies approximately 2000
13 operations in more than 20 states. We employ 15
14 staff certification specialists who inspect, and we
15 contract with approximately 50 independent
16 inspectors annually.

17 We have been in compliance with NOP 2027
18 for two years. During that time, we have performed
19 onsite evaluations of 100 percent of our
20 inspectors, and we feel we are well-qualified to
21 provide comments and feedback on 2027.

22 We firmly believe that any inspector

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1 qualification issues about which the NOP is
2 concerned could be addressed with a sound and
3 sensible approach to evaluations. Our objection
4 to NOP 2027 is with Section 3.2.b., which requires
5 an annual onsite evaluation of all inspectors.

6 MOSA supports a continuous improvement
7 system that includes onsite evaluation. MOSA's
8 recommended solution is to perform onsite
9 evaluations on a three-year cycle, combined with a
10 risk-based approach. In the current year, when a
11 new inspector is hired, when a new scope is added,
12 and/or when a concern is noted by an operator, or
13 review your feedback.

14 Our goal for personal performance
15 evaluations is to promote the professional
16 development and continuous quality improvement of
17 inspectors. Unfortunately, complying with NOP
18 2027 has almost completely erased our ability to be
19 thoughtful and strategic. In our commitment to
20 remain 100 percent compliant, we find it difficult
21 to match the onsite visit with what would actually
22 be, in our opinion, the best evaluation for the

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1 inspector.

2 For example, MOSA wants to perform an
3 onsite evaluation when an inspector is adding a new
4 scope. However, when our focus is directed towards
5 ensuring that all inspectors get an annual
6 evaluation, logistics can be so difficult and
7 convoluted, we can't guarantee that's the one that
8 we'll be able to evaluate.

9 Onsite evaluations are very helpful for
10 training, and for upholding performance criteria of
11 inspectors. However, it is not the only tool we
12 have. Robust evaluation also includes evaluating
13 the feedback from inspected operations, and from
14 certification specialists who review the
15 inspectors' work product from every inspection
16 performed.

17 It is in all of our best interests to
18 ensure that the inspector pool is well-trained,
19 competent, and capable. We ask the CACS to
20 recommend the NOP that we be allowed greater
21 flexibility. Thank you very much for your time and
22 attention.

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1 CHAIR FAVRE: Questions? Scott?

2 MR. RANGUS: Cori, I was struck with
3 your comments regarding turning potential growers
4 away.

5 MS. SKOLASKI: Mm hmm.

6 MR. RANGUS: Could you speak to that a
7 little bit?

8 MS. SKOLASKI: Yes. So the organic
9 industry is booming, and we're seeing clients
10 coming at us rapidly, and we don't have enough
11 inspectors on the field that have been -- in the
12 field that have been evaluated, in order to take on
13 new inspections at this time, so we
14 actually -- we're in the position this year of
15 turning away crop clients because we did not have
16 inspectors that we had evaluated available to do it
17 in a timely manner, and we had no capacity to do an
18 evaluation before they did the inspection.

19 CHAIR FAVRE: Okay, thank you very
20 much.

21 MS. SKOLASKI: Thank you.

22 CHAIR FAVRE: Folks, this concludes

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1 public comment for the day, but before we all get
2 up and leave, I just want to make a quick
3 announcement for tomorrow.

4 We are starting at 8:30 in the morning,
5 and we have a very aggressive agenda for public
6 comments again, as we did today. For those of you
7 that have looked at your agenda, you may notice that
8 we only have allocated 60 minutes -- one hour -- for
9 lunch tomorrow. So those of you that think that
10 might be an issue, you can bring your sack lunch to
11 us and we'll all have lunch here together.

12 We appreciate you diehards that stuck
13 through the bitter end tonight, and we will see you
14 tomorrow at 8:30 in the morning. Thank you.

15 (Whereupon the above-entitled matter
16 went off the record at 6:48 p.m.)

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UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

FALL 2016 MEETING

+ + + + +

THURSDAY
NOVEMBER 17, 2016

+ + + + +

The Board met in the Chase Park Plaza,
212-232 Kingshighway Boulevard, St. Louis,
Missouri, at 8:30 a.m., Tracy Favre, Chair,
presiding.

PRESENT

TRACY FAVRE, Chair
TOM CHAPMAN, Vice Chair
HAROLD AUSTIN
CARMELA BECK
HARRIET BEHAR
JESSE BUIE
LISA DE LIMA
EMILY OAKLEY
SCOTT RICE
JEAN RICHARDSON
DAN SEITZ
ZEA SONNABEND
ASHLEY SWAFFAR
FRANCIS THICKE

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ALSO PRESENT

MILES McEVOY, Designated Federal Officer, Deputy
Administrator, National Organic Program

MICHELLE ARSENAULT, Advisory Board Specialist,
National Organic Program

LISA BRINES, Ph.D., National List Manager,
National Organic Program

SAM JONES, Public Affairs Office, Agricultural
Marketing Service

PAUL LEWIS, Ph.D., Director, Standards Division,
National Organic Program, USDA

JESSICA WALDEN, Materials Specialist, National
Organic Program

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

2 8:30 a.m.

3 CHAIR FAVRE: Thank you for joining us
4 on the second day of the National Organic Standards
5 Board. We're going to go ahead and get started
6 back with public comments. First up this morning
7 is Zen Honeycutt with Dana Perls on deck.

8 Is Zen here? Zen? Last call for Zen.

9 Okay. Dana Perls, are you here?

10 MR. PERLS: Yes.

11 CHAIR FAVRE: And then we have Marty
12 Mesh on deck.

13 MS. PERLS: Hi. Good morning. I'm
14 Dana Perls, senior food and technology campaigner
15 with Friends of the Earth. I've been tracking and
16 working on the issues of new technologies and
17 synthetic biology for the past four years
18 nationally and internationally, and was honored to
19 be part of the Materials Subcommittee's ad hoc
20 working group on the issue of excluded methods.

21 Friends of the Earth would like to
22 strongly support the NOSB's proposed updates to the

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1 definitions, process and criteria, and the
2 terminology chart. And we recommend that the NOSB
3 adopt all three sections.

4 We want to ensure that we have an
5 organic certification which addresses emerging
6 biotechnologies and new techniques being applied
7 to agriculture.

8 As the NOSB knows, the techniques and
9 field of genetic engineering are changing very
10 quickly. We've got cibus canola oil, synthetic
11 biology stevia and vanilla, Dupont's CRISPR waxy
12 corn, as just a few examples of the new generation
13 of GMOs making their way already into food and
14 consumer products.

15 These new genetic engineering
16 techniques are incompatible with organic and
17 sustainable agriculture. They involve
18 artificially creating new DNA, engineering new
19 life forms and genetically reprogramming existing
20 organisms and they represent and present
21 environmental and safety concerns that go far and
22 beyond existing, traditional GMOs.

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1 The proposed updated definitions of
2 genetic engineering, genetic modified organisms,
3 modern biotechnology, synthetic biology and
4 non-GMO effectively include new genetic
5 engineering and gene-editing techniques and should
6 be adopted.

7 The alignment with the CODEX definition
8 creates consistency across definitions and is a
9 globally accepted standard.

10 This will also help with equivalent
11 definitions of genetic engineering with country
12 partners.

13 We support the recommendation -- the
14 recommended principles and criteria and ask that
15 they be combined with existing NOSB evaluation
16 criteria.

17 The updated criteria and processes, the
18 process section clarifies the organic regulations
19 processed-based system. Because this approach is
20 distinct from other USDA programs, it's critical
21 to outline how to evaluate new genetic engineering
22 techniques as they come up.

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1 Lastly, we support the adoption of the
2 terminology chart, which shows the list of excluded
3 methods.

4 We ask that the NOSB use the established
5 process for updating its terminology chart after
6 adoption to include several techniques that fall
7 within the proposed updated NOSB definition of
8 genetic engineering and modern biotechnology.

9 We support the NOSB's adoption of these
10 proposals to exclude new gene editing and synthetic
11 biology techniques from organic by adopting the
12 proposed definitions, criteria and processes, and
13 the list of excluded techniques.

14 Friends of the Earth urges immediate
15 adoption of these recommendations as guidance.
16 Thank you.

17 CHAIR FAVRE: Thank you.

18 Questions?

19 (No audible response.)

20 CHAIR FAVRE: Thank you very much.

21 MS. PERLS: Okay. Thank you.

22 CHAIR FAVRE: Next up is Marty Mesh,

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1 with Michael Hansen on deck.

2 Marty, are you here?

3 Okay. All right. Sorry we're going
4 to miss Marty this year.

5 Michael Hansen, are you here?

6 Next up is Michael Hansen, with Justin
7 Dautoff on deck.

8 MR. HANSEN: Good morning. My name is
9 Michael Hansen. I'm a senior scientist with
10 Consumers Union, the policy and advocacy arm of
11 Consumer Reports.

12 We're here to speak in strong support
13 of the proposal for guidance on the excluded
14 methods terminology.

15 I also was part of the Materials
16 Subcommittee ad hoc working group that developed
17 this document.

18 We strongly support all three sections,
19 definitions, principles and criteria, and the
20 terminology chart of excluded and allowed methods.

21 In terms of the definitions, we believe
22 that the overarching term, quote, modern

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1 biotechnology developed by the CODEX Alimentarius
2 Commission, is the most important definition since
3 documents and standards developed by CODEX are
4 referenced by the World Trade Organization in trade
5 disputes and so constitute a globally accepted
6 standard.

7 I would also point out that the
8 executive -- the July 2000 and second 2015
9 Executive Office of the President memo modernizing
10 the regulatory system for biotechnology products
11 which was sent to the heads of USDA, EPA and FDA,
12 states very clearly, quote, biotechnology products
13 refer to products developed through genetic
14 engineering or the targeted or in vitro
15 manipulation of genetic information of organisms,
16 including plants, animals and microbes.

17 And this definition that the White
18 House says is the appropriate one, does cover all
19 the new second generation of techniques of GE such
20 as the gene silencing RNAi, the gene-editing
21 techniques such as CRISPR-Cas 9 and others.

22 I'd also point out that with CRISPR-Cas

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1 9 and the other gene-editing techniques, the
2 language makes you think they're very precise when
3 they're actually not.

4 The way CRISPR works is there's
5 actually a pair -- there's an enzyme which cuts the
6 DNA, and then there's a guidance RNA which
7 recognizes specific sequences, but it turns out
8 it's not exact.

9 It can actually recognize other
10 sequences so there will always be off-target
11 effects. That's why that they're products of
12 modern biotechnology.

13 We also believe the principles and
14 criteria section is appropriate, because it makes
15 clear that, since the organic regulations
16 themselves are process-based systems, it's
17 appropriate that the excluded technique should be
18 process-based as well.

19 We also support the terminology chart,
20 because it makes very clear which products are
21 included and which are excluded.

22 And we'd also point that there are terms

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1 in the discussion document terminology chart,
2 particularly cisgenesis, intragenesis and
3 agroinfiltration, we feel, should be considered
4 excluded methods as well, because they clearly meet
5 the definitions and the process and criteria for
6 excluded methods.

7 So, in sum, we recommend that the
8 National Organic -- that the NOSB recommend that
9 this proposal be fully accepted as is. Thank you.

10 CHAIR FAVRE: Thank you.

11 Questions? Zea.

12 MS. SONNABEND: Thank you, Michael.

13 How long have these CRISPR-developed
14 products been tested in the field or produced
15 commercially in the field for?

16 MR. HANSEN: There are actually none
17 that are on the market. And the work that's been
18 done is just stuff that's in the lab whether it's
19 this mushroom or the waxy corn, but there's no data
20 that's yet come back from the field on any of this.

21 And they would really have to look to
22 look for these off-target effects, because there

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1 is -- there's studies in the scientific literature
2 that talk about coming up with new, more precise
3 sort of enzymes to guide where the cutting happens.

4 And just the fact that they're saying
5 they're more precise, you know, says that they're
6 not.

7 And so, particularly when you're doing
8 this with mammalian systems, it's so imprecise that
9 you can have lots of off-target effects. And
10 that's why when they went to synthesize an entire
11 E. coli, they didn't use any of the CRISPR
12 techniques explicitly because of all these
13 off-target effects. They actually manufactured
14 it completely synthetically.

15 CHAIR FAVRE: Francis.

16 MR. THICKE: Thank you.

17 Are we going to be able to test for all
18 these new technologies that test the crops and know
19 what's in them?

20 MR. HANSEN: Yes, you should be able
21 to, the simplest ones such as the Cibus Canola,
22 which makes a single nucleotide change.

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1 Most of the technologies, these are
2 intellectual property for companies. And so, they
3 have to have a way to actually be able to detect
4 that so that they can make sure that others aren't
5 stealing their technology.

6 So, for all these there are, almost
7 invariably, yes, will be a way to detect that these
8 are products of -- that a company has done something
9 with rather than something that just happened in
10 nature.

11 Otherwise, it's not in the interest of
12 the company to put that out, because then some other
13 company could just take their research and say,
14 hey, this product was just found in nature. So,
15 there will always be a way.

16 Given our present free-market system,
17 since everyone wants to protect their intellectual
18 property, there has to be ways to determine that.

19 And even with that rapid trait canola
20 even though it's a one-nucleotide change, there is
21 a way to tell because you look at the patent and
22 you see they always have to have a way to detect

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1 the stuff so that they can protect their
2 intellectual property.

3 CHAIR FAVRE: Tom and then Dan.

4 VICE CHAIR CHAPMAN: Just to clarify
5 that last question, there's a way to test today,
6 or you think there's going to be a way to test in
7 the future for all of these methods?

8 MR. HANDSEN: So far, the ones that
9 have been developed, there are ways to test today.
10 You can look at, for example, the patent for the
11 Cibus and -- that's actually the simplest one. And
12 there is a way to detect it if you look at that
13 patent application.

14 So -- and technology gets better and
15 better and more precise. So, we're now even able
16 to tell -- some of these epigenetic changes,
17 they're able to tell even more subtle changes to
18 RNA than was previously believed. So, technology
19 and research is moving rapidly in this area.

20 CHAIR FAVRE: Dan.

21 MR. SEITZ: I'm glad you brought up the
22 metaphor around engineering and technology and the

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1 implication that it's very precise and that in
2 actuality, at least, the technology you're talking
3 about has these off-target effects.

4 And what I'm curious to know is whether
5 in the world of biology, you can ever be assured
6 that you wouldn't have off-target effects either
7 on human health or even with the more, quote, well
8 established biotechnology techniques, you could be
9 assured that there was the complete precision that
10 is implied by the terms engineering and certainly
11 in marketing materials around --

12 MR. HANDSEN: Yes. That's actually an
13 excellent question and something that I've been
14 concerned about with decades that all this language
15 makes it sound like this stuff is very precise, and
16 it's not.

17 The more we work on this, the more
18 complicated we realize how these genetic systems
19 work.

20 And so, you really are -- whenever they
21 try to do something, they always find that there
22 is a way that an organism can fight back.

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1 A perfect example is with CRISPR. They
2 thought that they had solved how to basically
3 protect against HIV. They engineered T cells so
4 that whenever the virus came in, HIV, it would chop
5 it up and that was going to be the wonder.

6 Well, what happened is when they went
7 in the lab, those T cells worked, but within two
8 weeks the HIV virus was actually able to hijack the
9 CRISPR system and create mutations so that it could
10 go around that.

11 So, I don't think there is any -- at
12 present, any way for us to be able to precisely
13 target stuff because whenever they try to do that,
14 they always find that there's something else that's
15 going on.

16 And I think the reason for that is this
17 system of how genetics works is so complicated that
18 trying to look at it in this reductionist way that
19 GE does is really where the problem is.

20 And that's where I think organic and
21 agro-ecological approaches which look at the whole
22 systems, they're more holistic. Those work much

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1 better in the long term. All these little targeted
2 approaches really haven't worked.

3 We were told 30 years ago that we would
4 have crops with all these different traits in them
5 and they've only been able to just do a couple of
6 traits because when they try anything that's more
7 complicated, it always ends up failing in the
8 field.

9 CHAIR FAVRE: Thank you very much.

10 Next up is Justin Dautoff, with Pierre
11 Sleiman on deck.

12 MR. DAUTOFF: Hi. I'm Justin Dautoff.
13 I'm president of Rocket Farms.

14 Rocket Farms is located in northern
15 California. We're a producer of living herbs. We
16 grow millions of living herbs in grow pots each
17 year.

18 At Rocket Farms, we do not believe that
19 organics must mean that all plants are grown
20 exclusively in the outer crust of the earth. We
21 grow our living herbs in small pots where they
22 create biologically active soil.

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1 We're selling pots and containers where
2 they grow and mature and there are no consumer
3 confusion with our product and field-grown
4 product. We are clearly meeting the expectations
5 for organic product.

6 Our herbs are started from organic,
7 non-GMO germinated seeds, seeds germinated in plug
8 trays and then transplanted into the final pot.

9 We grow organic peat -- we grow an
10 organic peat moss-based media and irrigate them
11 with organic fertilizer.

12 Environmental control, release of
13 biological insects and scouting are all part of our
14 integrated pest management program.

15 When needed, organically-certified
16 pesticides are used to control disease and pests.
17 We grow organic because we believe it's sustainable
18 for the environment, there's strong consumer
19 demand and it's better for our employees.

20 Potted plant production should not be
21 singled out for not fostering soil fertility when
22 it is irrelevant to the commodity. Potted plants

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1 can never be grown in the earth's soil, because they
2 are sold as a living plant for the consumer.

3 Potted plant production is a separate
4 category than produce itself. It needs to be
5 clarified in terms of organic certification.
6 Transplant seedlings, mushrooms, sprouts are all
7 able to be certified organic, and so should potted
8 plants.

9 Organic production consumes more than
10 just the earth's crust. The benefits that come
11 from organic growing practices should be applied
12 and included in potted plant-growing systems.

13 We fulfill the original intent of
14 organic movement despite not growing in the earth.

15 Our organic definition calls for
16 production -- calls for a production system that
17 responds to onsite conditions and integrated
18 cultural, biological and mechanical practices that
19 foster cycling of resources, promote ecological
20 balance and conserve biological diversity.

21 Through our use of organic fertilizer,
22 biological controls of insects, organic

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1 pesticides, organic-certified non-GMO seeds and
2 organic-growing media, we meet the goals of organic
3 certification.

4 Having access to living herbs grown in
5 pots with organic pesticides, organic fertilizers,
6 organic seeds is something that is important to
7 consumers and meets the requirements of organic
8 farming.

9 By removing this option, you are taking
10 away the consumer's ability to choose organic.

11 There is no alternative option for
12 living plants. If organic is no longer an option
13 for potted plants, consumers will be introducing
14 chemical fertilization, pesticide residues into
15 their home and environment.

16 We believe consumers deserve the option
17 of purchasing organic, sustainably grown living
18 herbs in pots. So, in closing --

19 CHAIR FAVRE: I'm sorry, we've got to
20 stop you there.

21 MR. DAUTOFF: Sure.

22 CHAIR FAVRE: Emily, and then Harriet.

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1 MS. ROSEN: Good morning.

2 Do you not consider your living pots to
3 be transplants to fall under that category?

4 MR. DAUTOFF: Well, that's where the
5 clarification is needed is that our plants are sold
6 for consumers to either use or transplant into the
7 garden, but most consumers on a -- I'll say a basil
8 plant, will bring it home and eat it, grow, you
9 know, finish growing it and eat it directly from
10 the pot itself most often placed in the kitchen.

11 CHAIR FAVRE: Harriet.

12 MS. BEHAR: And so, you're unaware of
13 people selling transplants in a compost or
14 soil-based mix for other people, that the only way
15 to do this is in a soilless mix where you tell
16 consumers to then use liquid fertilizers?

17 MR. DAUTOFF: We actually -- there's no
18 fertilization required for the consumer. It's a
19 finished good. So, they buy it and it's consumed.

20 So, it's -- there's no growing practice
21 required from the consumer. It's something that's
22 consumed normally within days of purchase from the

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1 grocery store.

2 MS. BEHAR: So, are there other people
3 out there selling? You're unaware of that,
4 because you said --

5 MR. DAUTOFF: I'm unaware of that
6 myself.

7 MS. BEHAR: Okay.

8 MR. DAUTOFF: I mean, the other people
9 in the marketplace do similar to what we do.

10 MS. BEHAR: Well, I am aware that there
11 are people selling in compost-based mixes, just to
12 put it on the record.

13 MR. DAUTOFF: Are you talking about the
14 mix, or the vehicle? I'm sorry, I --

15 MS. BEHAR: That there are potted
16 plants being sold for consumers to take and leave
17 in the pot that are not in a soilless mix.

18 MR. DAUTOFF: Yes, certainly there
19 could be alternate mixes. I'm sorry, I thought you
20 meant the finished good.

21 CHAIR FAVRE: Thank you very much.

22 MR. DAUTOFF: Thank you.

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1 CHAIR FAVRE: Next up is Pierre
2 Sleiman, with Richard Wallick on deck.

3 Pierre, are you with us this morning?

4 Okay. Moving on, Richard Wallick.
5 Are you here, Richard? Okay. And then we've got
6 Dani Neifeld on deck.

7 MR. WALLICK: I'm Rich Wallick.

8 In December 2011 and again in May 2012,
9 the NOSB made recommendations regarding MRO's role
10 within the national organic program.

11 This includes the recommendation, and
12 I quote, material decisions should only be made by
13 NOP-authorized entities.

14 The Organic Food Production Act of
15 1990, as amended, does not grant authority to NOP
16 to create or authorize, nor to delegate the
17 responsibility to create or authorize entities
18 other than accredited certifiers.

19 There is nothing in the OFPA to prevent
20 NOP authorizing an MRO as an accredited certifier,
21 nor to prevent an MRO to seek to be a NOP-accredited
22 certifier.

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1 The NOSB clearly stated that material
2 decisions should only be made by NOP-authorized
3 entities, and the only entities NOP can authorize
4 are accredited certifiers.

5 I am therefore respectfully requesting
6 the NOSB to immediately clarify to NOP their
7 recommendation by replacing NOP-authorized
8 entities with NOP-accredited certifiers as in
9 material decisions should only be made by
10 NOP-accredited certifiers. Thank you.

11 CHAIR FAVRE: Thank you.

12 Any questions?

13 (No audible response.)

14 CHAIR FAVRE: Thank you very much.

15 All right. We've got Dani Neifeld
16 here, and Peter Aylen on deck.

17 MR. NEIFELD: Hi. My name is Dani
18 Neifeld and I'm coming all the way from Israel,
19 flying 10,000 miles out and back just to talk to
20 you for three minutes.

21 And I'm going to talk about a subject
22 that is not on the agenda, and that's why I'm

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1 talking, because it should be.

2 I'm working as a developer in research
3 in a company called Stockton Israel. We develop
4 biopesticides for the organic market around the
5 globe.

6 And I'm involved in the movement of the
7 organic world movement for many years. Some
8 people know me from there, some people from here.

9 And I'm going to talk to you about the
10 public comment that we made, and there's copies
11 here as well, about the -- sorry -- of the list of
12 inerts.

13 I want to start with a short story,
14 because you going to hear so much data later on.
15 So, about eight years ago on the bus on the way to
16 iPhone conference in Modena, I was sitting next to
17 a young, enthusiastic guy called Miles. I don't
18 know if he remember.

19 And I was talking to him back then in
20 2008 about the story of the inerts and the NOSB and
21 how the NOSB don't deal with inerts issues. Later
22 on, we raised our hope in 2010 when the Inerts World

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1 Group was established.

2 Later on, we got a letter from Dr. Lisa
3 Burns saying they're stating that from 2003, the
4 inerts they never issue and allow a new inert to
5 the inert list and that we shouldn't even petition,
6 because, at the moment, nobody is going to look at
7 it.

8 Last year I was sitting on the floor
9 with Zea, I don't know if she remember, eating lunch
10 and we were hoping together that finally the new
11 Safe Chemical Ingredient List will become
12 available to developers. And nothing happened
13 since. So, if things happen, the public don't know
14 about.

15 Now, I know it's a very small corner in
16 the big picture of the organic world, but you have
17 to understand we, as developers, we're going on a
18 journey of ten years to develop a new product.

19 We cannot start doing it on shifting
20 sands coming to the end of the road after ten years
21 and \$10 million and somebody tell us, hey, it's not
22 organic, because we didn't approve this inert or

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1 this inert is obsolete.

2 The EPA in 2006 don't deal with the
3 inerts list anymore. There's new lists. All in
4 all, people like us trying to develop tools that
5 will give a competitive edge to the farmers in the
6 United States cannot do that. So, please, we
7 encourage you to finalize the story.

8 CHAIR FAVRE: I'm sorry. I know three
9 minutes goes really fast.

10 Any questions?

11 (No audible response.)

12 CHAIR FAVRE: Thank you. Thank you
13 for coming.

14 Next up is Peter Aylen, followed by
15 Robin Hadlock Seeley on deck.

16 MR. AYLEN: My name is Peter Aylen.
17 I'm president of Absorbent Products. We've been
18 operating for about 25 years. We've developed 11
19 unique products that are listed with OMRI.

20 We developed a liquid litter acidifier,
21 Activated Barn Fresh, to fill the organic boiler
22 producer's need to control ammonia and bacteria.

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1 It is OMRI-listed and it's approved for use in
2 organic production.

3 Sodium bisulfate uses synthetic
4 sulphuric acid in its production. We of course use
5 a non-GMO citric acid. ABF serves the same purpose
6 as sodium bisulfate.

7 The acidification controls ammonia
8 formation. Our product can reduce the pH in the
9 litter down to two to three. Dr. Lacy yesterday
10 said low pH controls bacteria.

11 Our sales are increasing throughout the
12 US and over two million birds per week are being
13 placed on litter treated with Activated Barn Fresh.

14 We are not surprised that
15 Jones-Hamilton is trying to discredit our
16 products. Jones-Hamilton is the world's largest
17 manufacturer of sodium bisulfate.

18 Dr. Trisha Morris Johnson has
19 represented Jones-Hamilton for many years. She
20 co-wrote an article to promote sodium bisulfate
21 along with the president of Jones-Hamilton. She
22 applied for a patent along with Jones-Hamilton and

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1 is often referred to in publications as being from
2 Jones-Hamilton.

3 That is not all that's involved here.
4 The Livestock Committee asked us to discuss
5 alternatives to sodium bisulfate. Conventional
6 producers are sodium bisulfate when they have deep
7 litter -- I'm sorry, they use sodium bisulfate when
8 they use deep litter.

9 There are many options available to
10 organic producers. You heard from Relentless
11 yesterday and the speaker discussed litter
12 management as going hand in hand with his product.

13 All poultry management practices
14 should be a combination of management practices and
15 use the other products as required.

16 In a written submission, we described
17 many management practices that are alternatives.
18 Auburn University Research has found that in-house
19 wind drawing can kill up to 99.99 percent of
20 *Clostridium perfringens*, the pathogen that causes
21 necrotic enteritis. Dr. Morris Johnson says this
22 is the pathogen that absolutely needs sodium

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1 bisulfate.

2 The OTA represents the leaders in the
3 industry, companies like Fosters, Perdue,
4 Petaluma, Cal Main, Organic Valley. Many of these
5 are our customers.

6 The OTA's position is that synthetic
7 bedding amendments are not necessary to organic
8 production because there are so many alternatives.
9 The organic poultry industry is thriving without
10 sodium bisulfate.

11 CHAIR FAVRE: Thank you.

12 Questions? Francis.

13 MR. THICKE: Did you say there are two
14 million birds per week on the Barn Fresh material?

15 MR. AYLEN: Yes.

16 MR. THICKE: Is that Barn Fresh or
17 Activated Barn Fresh?

18 MR. AYLEN: That's Activated Barn
19 Fresh.

20 MR. THICKE: And where are they? What
21 size buildings?

22 MR. AYLEN: Well, they're fairly

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1 large. They're major producers. They're major
2 producers. I'm not sure exact size of buildings,
3 but they are large.

4 CHAIR FAVRE: Ashley.

5 MS. SWAFFAR: So, of those two million
6 birds per week that are on the Activated Barn Fresh,
7 are you hearing back from your clients that they're
8 having disease challenges or ammonia challenges or
9 --

10 MR. AYLEN: We have not heard anything
11 to that effect. What we are also finding, though,
12 is that they're buying more all the time.

13 MS. SWAFFAR: That's the thing with
14 litter amendments.

15 CHAIR FAVRE: I have a question.

16 So, I'm a little confused. We received
17 information yesterday that indicated that the
18 ingredients in the Activated Barn Fresh don't
19 really get utilized if the humidity levels don't
20 rise to a certain level. And that's the reason why
21 the other treatment is required.

22 Can you speak to that?

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1 MR. AYLEN: Well, that's -- that's very
2 interesting. We noticed that as well. One fellow
3 said that it had to be above 73 percent. Later on,
4 another person said it only -- it worked in
5 California because it was so dry. Can't have it
6 both ways.

7 It did -- we find it works everywhere.
8 And the moisture also comes from the litter itself.

9 CHAIR FAVRE: So, you're basically
10 refuting that statement, you don't feel it has to
11 get to that level of --

12 MR. AYLEN: No, absolutely not.

13 CHAIR FAVRE: Okay. Thank you.

14 Dan.

15 MR. SEITZ: In the materials we have,
16 there's some discussion about the dangers to farm
17 workers of sodium bisulfate.

18 Are you aware of any of these and can
19 you elaborate on that?

20 MR. AYLEN: We've had people decide
21 that they did not want to use sodium bisulfate
22 because of the effect on clothes and things like

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1 that, and then they switched over to our products.
2 I can't tell you anything more.

3 CHAIR FAVRE: Harriet, and then
4 Francis.

5 MS. BEHAR: Are you seeing high
6 mortality rates in the barns where there's Barn
7 Fresh?

8 MR. AYLEN: We have not been told of
9 any. And we, of course, don't have the data,
10 though, ourselves.

11 CHAIR FAVRE: Francis.

12 MR. THICKE: On that issue of the need
13 for high humidity in the barn to make it dissolve,
14 I was wondering -- I should have asked the last
15 speaker who said that, but I was under the whip with
16 Tracy here, but I wanted to ask that question, but
17 I wonder if that was -- maybe a comment.

18 It sounds to me like laboratory data
19 that -- because you're putting it in litter which
20 would have variability amount of moisture and you
21 couldn't get a precise from that kind of
22 variability, but in a laboratory you could, and I'm

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1 wondering -- maybe you could comment on that.

2 MR. AYLEN: That's quite possible of
3 where it was done. We don't -- we were not privy
4 to the tests. We don't know anything about their
5 testing. What we heard yesterday is the first
6 we've heard of it as well.

7 CHAIR FAVRE: Thank you very much.

8 MR. AYLEN: Okay.

9 CHAIR FAVRE: Next up is Robin Hadlock
10 Seeley, with Ian Justus on deck.

11 MS. HADLOCK SEELEY: Good morning.
12 I'm Dr. Robin Hadlock Seeley, a senior research
13 associate at Cornell University and the Shoals
14 Marine Laboratory and a faculty fellow with the
15 Atkinson Center for a Sustainable Future at
16 Cornell.

17 Thank you for taking on issues
18 concerning marine plants, and special thanks for
19 the comprehensive discussion document.

20 As you may have seen in the recent
21 technical reports, screening and development for
22 commercial products in wild and cultured algal

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1 species has often been disconnected from
2 environmental and physiological data and concerns
3 associated with marine habitats and their
4 inhabitants.

5 Seaweed processors, as we heard
6 yesterday in oral comment, look at a rockweed or
7 Ascophyllum bed, for example, and see biomass worth
8 about four cents a pound. But a marine ecologist
9 looking at that rockweed bed sees something else
10 entirely: a critical three-dimensional marine
11 forest, a habitat-forming seaweed used by 150 other
12 species -- Michelle, thank you -- including sea
13 birds and shore birds of conservation concern in
14 the northern hemisphere, juvenile cod, flounder,
15 pollack and herring and many other species.

16 And in these clips, I show how
17 Ascophyllum and Laminaria, habitat-forming
18 seaweeds of the north Atlantic, are machine
19 harvested.

20 A single Laminaria trawl boat in Norway
21 can take 150 tons a day and the annual landings are
22 150,000 tons.

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1 We can't just have our single-species
2 glasses on when we talk about seaweeds. It's about
3 the ecosystem.

4 Our oceans are at risk from multiple
5 stressors: ocean acidification, invasive species,
6 rising sea temperatures, disease, pollution and,
7 yes, habitat degradation.

8 So, to answer the three questions
9 raised in the discussion document for
10 nomenclature, definitely Latin names should be
11 used on this National List.

12 For annotations, seaweed harvested by
13 machine or from conservation areas should not be
14 allowed.

15 And is further NOP guidance needed?
16 Yes, definitely, to deal with issues of coastal
17 pollution on wild harvest and seaweed farming, and
18 to figure out how Section 205.207 for wild crop
19 harvest rules should apply, including degradation
20 of environment.

21 The NOP guidance requires that the
22 substance satisfy expectations of organic

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1 consumers regarding authenticity and integrity and
2 that the use of the substance has a positive impact
3 on biodiversity.

4 By these standards, substances derived
5 from wild harvested habitat-forming seaweeds don't
6 meet these criteria. And I'm happy to answer
7 questions.

8 CHAIR FAVRE: Jean.

9 MS. RICHARDON: Thank you, Dr.
10 Hadlock.

11 Yesterday we heard one of the speakers
12 from industry said that the situation with regard
13 to harvesting that you have sent us a lot of written
14 comments on -- made on rockweed is changed now and
15 already it's getting under control and that there
16 are regulations which are, in fact, controlling
17 over-harvesting and excessive harvesting, et
18 cetera.

19 Have you -- is that your experience?
20 Is that what you're seeing in Maine and up into the
21 Maritimes, or not?

22 MS. HADLOCK SEELEY: No, I believe the

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1 speaker was talking specifically about two
2 maritime provinces, Nova Scotia and New Brunswick.

3 In Maine, it's completely unregulated
4 except for one small area of Maine on the border
5 of Canada. And except for regulation that
6 establishes cutting height, the amount of take of
7 the seaweed is completely open. It's not
8 regulated.

9 And, also, I should say that's the same
10 in Norway. And I'm not sure about Iceland, but
11 Norway also has no regulations on the take of
12 *Ascophyllum*.

13 CHAIR FAVRE: Thank you very much.

14 Next up is Ian Justus, with Federica Del
15 Toro on deck.

16 MR. JUSTUS: Hello, and thank you for
17 the opportunity to provide public comment on the
18 container production discussion document.

19 I am Ian Justus. I work for Driscoll's
20 and I've been the principal scientist working in
21 the research, extension and development of organic
22 soil and organic container production systems in

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1 California.

2 I know that the organic container
3 system is not well-studied. This is why we chose
4 to include data from a study we conducted on
5 microbial populations in the Driscoll's public
6 comment letter.

7 This study demonstrated that organic
8 container production requires healthy microbial
9 populations to allow for adequate plant growth.

10 This study changed the way our growers
11 thought about the production system and began the
12 framework for making the organic production system
13 a commercially viable system.

14 Since then, many growers have changed
15 their soil mixes, their volumes, their forms of
16 organic matter and microbial inoculations to
17 further nurture these microbial populations.

18 We are coming to the same conclusions
19 for containers that organic soil growers found
20 years ago.

21 The health of the plant in organics is
22 contingent on this plant-micro relationship in the

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1 root zone.

2 The study also showed that when mineral
3 nutrition is applied in conventional substrate,
4 these microbial populations are not required for
5 healthy plant, showing a distinct differentiation
6 for organic container production from conventional
7 production practices.

8 It is important to note that Driscoll's
9 is not the fruit producer. We have a network of
10 independent growers that manage their own business
11 to produce the fruit.

12 Their growing methods and the improved
13 inputs they use are based on their preference,
14 experience, economics and site-specific
15 conditions.

16 The majority of our organic container
17 growers also have organic soil production. They
18 use similar inputs in both production systems.

19 A governing body providing overly
20 prescriptive regulation and input requirements by
21 crop is going to be very difficult to determine,
22 regulate and audit.

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1 Our concern with the questions and
2 discussion document is that much of this
3 conversation is about increasing inputs to justify
4 that production is organic, but these inputs are
5 just additional and not truly changing any of the
6 biological processes, which is the core of what
7 makes agriculture organic.

8 We do not believe that increasing input
9 such as substrate volume, fertility and water
10 beyond plant requirements is in the spirit of
11 organic principles.

12 As good stewards of the land, we should
13 all be striving to decrease inputs, especially the
14 farming, as all inputs have an environmental cost.

15 Container production has all the
16 elements of organic soil production. The main
17 differences are the percentage of the soil
18 fractions.

19 Most soil types have a significantly
20 larger mineral fraction percentage which is
21 driving the noted difference in bulk density.

22 A clear definition that is feasible to

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1 regulate around is that the majority of available
2 nitrogen should come from processes involving
3 microbial breakdown. We think the best regulation
4 that maintains the integrity of the organic
5 standards will come from a place where the plant's
6 health and the environment are the top
7 considerations.

8 We encourage the Board to take more time
9 on this matter and continue to learn. We believe
10 we should issue a second discussion document and
11 delay any vote until fall 2017.

12 On behalf of Driscoll's, I am happy to
13 answer any questions and offer any support in the
14 future on these issues. Thank you for your
15 consideration, and your service on this board.

16 CHAIR FAVRE: Zea.

17 MS. SONNABEND: Thank you. I
18 appreciate your comments on the discussion
19 document and am interested in the suggestion that
20 we try to quantify the mineralization of nutrients
21 based on microbial activities and wondering how you
22 would suggest that we measure that and what amount

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1 is okay for organic compared to what amount is not
2 okay for organic.

3 MR. JUSTUS: That's a very interesting
4 question. Thank you.

5 In many cases when you do a sampling,
6 you can sample for the ionic forms of nutrition.
7 The organic forms are actually much more
8 challenging to find, but in general I think the
9 tenets around why organics are created in the first
10 place was about not applying those ionic forms of
11 nitrogen.

12 So, when we, for example, if, you know,
13 if you're applying a liquid fertility application
14 to a substrate container, you measure zero nitrate
15 in the input water, but you will measure nitrate
16 within the media and in the drain water to a small
17 amount.

18 And so, in that case, you know that that
19 actually came through a microbial cycling, but you
20 didn't apply that as an element. It was actually
21 broken down and mineralized, metabolized by a
22 microbe to become available for the plant, which

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1 is the fundamental basis of how -- and the fate of
2 all organic matter that becomes nutrition, because
3 the soil doesn't produce nutrition.

4 The microbes actually digest what's in
5 the soil to make it available to the plant and puts
6 those forms into solution, which then the plant
7 takes up.

8 So, in that case, you can just basically
9 measure what you're applying, the rate of nitrate
10 in there, and then the delta difference minus the
11 plant uptake. It's not a simple thing to do, but
12 those tests are fairly standard.

13 CHAIR FAVRE: Emily.

14 MS. OAKLEY: Thank you.

15 What's the frequency of application for
16 liquid fertilizer solutions?

17 MR. JUSTUS: So, as I mentioned,
18 Driscoll's is not the fruit producers. So, we
19 represent a lot of different growers.

20 And if you know from dealing with
21 growers, that every grower does something
22 differently.

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1 Pretty similar to our soil growers,
2 most of them are applying liquid fertility on a
3 weekly basis.

4 It doesn't necessarily mean every day.
5 Some choose to do it every day in a very small
6 amount, some do water and then a liquid
7 application. It's heavily grower preference and
8 also around the site-specific condition.

9 So, what kind of soil type or media are
10 you feeding to will greatly affect the amount of
11 nutrition and also, have they added compost or some
12 sort of solid nutrition form that they have to
13 account for in that case.

14 CHAIR FAVRE: Thank you very much.

15 MR. JUSTUS: Thank you.

16 CHAIR FAVRE: Next up is Federica Del
17 Toro, with David Martinez on deck.

18 MR. DEL TORO: Good morning to all.
19 Thanks to NOSB to allow us this time to speak in
20 front of you. I'm Federica Del Toro and I'm a
21 blueberry producer for Driscoll's in Mexico.

22 So, the regulations, NOP guidelines

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1 dictate us that we need to comply with three
2 fundamental points: the continued release of
3 nutrients at the root zone, microbiology fostering
4 and the organic matter content in the media.

5 Within the substrate mixes that we use,
6 we can find ergonomic conditions for this to
7 happen.

8 Air and water ratios in substrate plus
9 the uniformity of a media allow us to be way more
10 effective in the use of resources like water and
11 fertilizers.

12 At the same time, it allows for rational
13 use and sustainable use of these resources, which
14 have lead us to increased productivity in our
15 systems, which is related to our reduction on the
16 carbon footprint and the raise ability we have in
17 our production sites.

18 This system allows to all the farmers
19 to farm in lands where it wouldn't be possible to
20 have these, also, where water conditions are not
21 ideal for the crops.

22 THE INTERPRETER: May I translate the

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1 last part?

2 CHAIR FAVRE: Yes, please do.

3 THE INTERPRETER: Thank you.

4 MR. DEL TORO: So in the zone where
5 we're at, we have ideal conditions for blueberry
6 growth. We have great water, but the soil wouldn't
7 allow us to have such crops in that region. Thank
8 you.

9 CHAIR FAVRE: Thank you very much.

10 Questions?

11 (No audible response.)

12 CHAIR FAVRE: Thank you very much. We
13 appreciate you coming.

14 MR. DEL TORO: Thank you.

15 CHAIR FAVRE: Next up is David
16 Martinez, with Gerry Robertson on deck.

17 MR. MARTINEZ: Good morning. My name
18 is David Martinez. I'm one of five brothers and
19 four sisters who farms both organic in-soil crops
20 and container crops in southern California.

21 I'd like to share a quick story with you
22 to personalize who I am as a fellow farmer. My

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1 older brothers immigrated to the United States
2 three decades ago. They were farm workers,
3 primarily harvested berries.

4 Twenty-four years ago my brothers
5 managed to start a small, two-acre plot of land.
6 I was 14 at the time, and that two-acre plot was
7 my playground where I would go every week and to
8 help the family pick berries.

9 At the risk of sounding pretentious, I
10 humbly share that today we produce close to 20
11 percent of the organic raspberries consumed in the
12 United States.

13 Some years ago we started to see
14 significant decreases in the production per acre
15 due to soil diseases. This was very discouraging
16 because we thought that maybe our days as organic
17 farmers were numbered.

18 In 2011, we started experimenting with
19 container production. In the beginning, the
20 system was very challenging. There's no room for
21 mistakes in this practice. It is highly a complex
22 system in which the connectivity of all parts makes

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1 the system susceptible to failure.

2 After many failed attempts and after
3 almost five years of trial and error, we finally
4 figured out how to grow in the system and were able
5 to produce organic berries in a very efficient
6 manner.

7 We assure that our substrate media
8 meets the following three criterias: here's
9 organic matter present in the substrate, nutrition
10 is available from the substrate on an ongoing
11 basis, and there's biological activity taking
12 place in our substrate.

13 Organic soil -- or organic -- soil
14 organic crops and container substrate organic
15 crops are NOP-compliant and certified by an
16 NOP-accredited organic certification agent.

17 The growing method -- this growing
18 method is and will be again changing for many
19 farmers. For example, we only use 60 percent of
20 the water as compared to what we use in soil. We
21 also minimize the use of fertilizer due to the
22 precision in our applications.

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1 Many things have changed in farming
2 since we started 24 years ago. All farming was
3 only in the ground. Now, we have these new systems
4 in -- taking off in the face of land, water and labor
5 constraints.

6 The decision that you will make will not
7 only impact our family farm or many other farmers,
8 but the spirit of entrepreneurship and innovation
9 that keep us ahead.

10 Furthermore, your decision will impact
11 the increase or decrease of organic supply and to
12 move -- to move forward away from efficient use of
13 resources.

14 I thank you for your support in favor
15 of container production. We stand ready to
16 provide clarification, additional information of
17 interest to the Board in order to assist you to have
18 a better understanding of our systems.

19 CHAIR FAVRE: Thank you.

20 Any questions?

21 (No audible response.)

22 MR. MARTINEZ: Thank you.

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1 CHAIR FAVRE: Thank you very much.

2 Next up is Gerry Robertson, with Sergio
3 Zubieta on deck.

4 MR. ROBERTSON: Good morning. My name
5 is Gerry Robertson, and I'm the director of supply
6 at Reiter Affiliated Companies in Oxnard,
7 California where we grow organic and conventional
8 strawberries, raspberries, blackberries and
9 blueberries.

10 I'm here to speak in support of
11 continued organic certification of container
12 growing methods.

13 First of all, I want to state our full
14 support for the principles of organic production
15 systems which have been at the core of OFPA and NOP
16 from the beginning and that have always guided our
17 organic practices.

18 These principles include the
19 cultivation of an active biological process in the
20 root zone without the use of prohibited materials
21 in order to build a healthy plant and to create a
22 more sustainable growing environment.

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1 I wish to address some aspects of the
2 continued certification of these practices that
3 are important to our business from a sustainability
4 point of view.

5 Container-based systems allows us to
6 better address the increasing challenges that we
7 face in California agriculture: in particular, the
8 availability of a reliable workforce, the lack of
9 water and the cost and availability of land.

10 Container-based systems allow us to
11 achieve a much more reliable supply of organic
12 berries. With the careful selection of substrate
13 materials, protected tone culture, year-round
14 favorable climate in southern California and over
15 container-specific production practices, we have
16 substantially increased the health of our plants
17 and their root zone biology.

18 These efforts have resulted in a much
19 more environmentally and economically sustainable
20 organic supply than we would otherwise be able to
21 accomplish.

22 For the Reiter companies, the men and

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1 women who tend the crops and harvest the fruit are
2 the single-most important part of the very complex
3 production equation. Our container organic
4 systems allow for a more stable and reliable labor
5 curve. Today -- or, I'm sorry, which includes
6 long-term employment, better picking conditions
7 and higher individual earnings.

8 Today, these labor conditions are of
9 the highest priority for us. Increasingly, we are
10 designing our mix of plantings and production
11 systems around developing the flattest,
12 year-round, high-earning labor curve possible.
13 Organic container systems significantly
14 contribute to this objective.

15 Going into our fifth year of drought in
16 California, we must employ every means to reduce
17 and conserve water use.

18 Our container organic systems
19 consistently use 30 to 40 percent less water than
20 our soil systems.

21 Finally, we want to thank the Board for
22 your service and for thoughtfully tackling this

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1 issue. I know you've got your work cut out for you.

2 Two points I want to leave you with is
3 that container production is compliant with
4 current OFPA and NOP regulation and we support
5 that. And that considerations around this issue
6 should be based on the clear and available science
7 that defines the same biological processes in soil
8 and in containers. Thank you.

9 CHAIR FAVRE: Thank you.

10 Questions?

11 (No audible response.)

12 CHAIR FAVRE: Thank you, Gerry.

13 MR. ROBERTSON: Thank you.

14 CHAIR FAVRE: Next up is Sergio
15 Zubieta, and we've got Roberto Ramirez on deck.

16 MR. ZUBIETA: Good morning.

17 We would like to give a special thanks
18 and recognition to the USDA and the NOSB to grant
19 us this opportunity. We feel honored and greatly
20 appreciate it.

21 Somos Mexico was founded in 2011 by two
22 brothers and one close friend. The mission,

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1 values and goals of Somos Mexico commit us to be
2 sustainable, to be environmentally friendly, to
3 have a great respect for our employees, to achieve
4 the highest standards in food safety and security
5 in order to obtain the premium quality and taste
6 demanded by the top markets. With this mindset,
7 the only logical outcome was to become organic.

8 We started with one hectare of cluster
9 cherry tomatoes and we grew also a few species
10 differently.

11 The greenhouses tomato and the other
12 tomatoes. We just think there weren't any organic
13 seeds with their resistance so we have to face to
14 let the soil to rest or cultivate grains.

15 We were unable to relocate the
16 greenhouses due to high cost of transportation and
17 we don't have extra land to use. The situation
18 was, to say the least, difficult.

19 We grow blackberries. We have ten
20 hectares of blackberries organic in soil. The
21 deep knowledge that we acquired over the years
22 enabled us to understand the necessities of the

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1 organic pollution in the soil.

2 We care deeply about the soil and we try
3 to improve it at -- the conditions by adding
4 compost, bacteria, fungus and some others to create
5 the microbiology that give us the best opportunity
6 to provide the nutrients to the crops.

7 We optimize the use of the water and the
8 soils by using instrumentation that allow us to
9 irrigate when is needed through our grid system.

10 But what about the greenhouses? The
11 soil needed to rest and we needed to produce.
12 Being able to use the soil -- the use of pots gave
13 us the opportunity to grow and to excel what we do.

14 Driscoll proposed to cultivate us
15 organic blueberries in the containers. With this
16 solution, we were able to let our soil heal and
17 sparing the investment of the new land and
18 relocation and still produce good quality.

19 Somos Mexico, we are proud to be
20 organic. We are organic growers. We are proud to
21 be pioneers in growing organically in pots and we
22 promise to keep our model and integrity intact to

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1 ourself, our customers, the consumer, the
2 employees and the environment. Thank you.

3 CHAIR FAVRE: Questions?

4 Emily.

5 MS. OAKLEY: After starting the
6 blueberry production, have you returned to
7 vegetable production, or have you stayed strictly
8 with blueberries?

9 MR. ZUBIETA: Sorry, again?

10 MS. OAKLEY: After moving from
11 vegetable production to blueberry production in
12 containers, have you returned to vegetable
13 production in the ground in some of those
14 greenhouses, or have you stayed strictly with
15 blueberries in containers?

16 MR. ZUBIETA: I believe so, because we
17 will recover our soil and then I can move the pots
18 and be more efficient.

19 MS. OAKLEY: So, just to clarify,
20 you're rotating blueberries in pots with
21 vegetables in the ground?

22 MR. ZUBIETA: No. No, no, no. The

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1 blueberries will be in the pots, and the vegetables
2 will be again in the greenhouse and I will relocate
3 the pots in the other part.

4 MS. OAKLEY: Okay.

5 CHAIR FAVRE: Thank you very much.

6 MR. ZUBIETA: Thank you.

7 CHAIR FAVRE: Next up is Roberto
8 Ramirez, with Erick Ask on deck.

9 MR. RAMIREZ: Good morning. My name
10 is Roberto Ramirez. I am substrate director of
11 Reiter Affiliated Companies, a four-generation,
12 family-owned company that grows organic berries
13 and conventional.

14 I'm here to speak in support of
15 continued organic certification of container
16 growing methods.

17 In our culture, as in other industries,
18 there is a constant need for improvement in our
19 processes and use of our resources. Our culture
20 is an ever-evolving production system.

21 Organic growing is and should continue
22 to be defined by how plants are nourished and

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1 protected from pest and diseases.

2 For me, that means that the core of
3 organics is producing a high-quality food while
4 being a steward of environment. Container
5 production is a great example of organic principles
6 in many ways.

7 At Reiter Affiliated Companies, we have
8 identified our key resources to be water, land and
9 labor. Through the more precise systems we use in
10 containers growing, we have achieved greater
11 efficiency improvements by delivering water to
12 plants only when it's needed and in the amount that
13 it's needed.

14 This has resulted in healthier
15 microbiology collectivity in the substrate,
16 stronger crops, less plant stress-related problems
17 and improved fruit quality.

18 In growing areas like southern
19 California, we now reliably supply fresh organic
20 produce in more than one season and maintain jobs
21 associated to these production that otherwise
22 would be lost.

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1 Successful management of soil seeks to
2 improve soil conditions for the microorganisms to
3 thrive and create ideal conditions.

4 While some in the organic movement
5 state that we should feed the soil, not the crop,
6 we have found that what we really need to do is to
7 feed and care for the biology in the root zone
8 regardless if we are in substrate or directly in
9 the soil.

10 In our container systems, we can
11 carefully add just the right amount of organic
12 nutrients at the right time to stimulate and manage
13 the biology, to reduce unwanted nitrogen runoff and
14 conserve resources compared to alternative growing
15 techniques.

16 So, while inputs in our organic soil
17 crops and our organic container crops are exactly
18 the same, results are not.

19 In the geologically active zones where
20 we -- where our farms are located, soil
21 characteristics can vary tremendously within each
22 field. Growing media provides consistency

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1 through our crops allowing us to reduce inputs,
2 increase our sustainability and produce a
3 consistently high quality product that consumers
4 demand and deserve.

5 Efficient use of scarce resources like
6 water, reducing our carbon footprint by growing our
7 berries closer to our consumers and consistently
8 providing pesticide chemical-free produce to more
9 people are fundamental to organic ideals.

10 Efficiencies of container growing
11 system have reduced our use of land and other
12 resources to allow us to better contribute to
13 earth's ecological balance and to conserve native
14 habitants to bolster biodiversity.

15 We respectfully encourage the Board and
16 the pertinent authorities to continue to be
17 inclusive of methods that allow farmers to keep on
18 innovating with sustainable biology-based methods
19 that preserve and enhance the principles and spirit
20 of the organic movement, a decision that should be
21 backed up by science and facts instead of magic.

22 CHAIR FAVRE: Thank you.

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1 Questions?

2 (No audible response.)

3 CHAIR FAVRE: Thank you. And thank
4 you for your translation services earlier.

5 MR. RAMIREZ: And thank you for your
6 service.

7 CHAIR FAVRE: Next up is Erick Ask,
8 with Bob Verloop on deck.

9 MR. ASK: Okay. All right. So, hi.
10 So, I'm Erick Ask. I'm the seaweed development
11 manager at FMC Corporation.

12 Earlier this year I provided you my
13 history with the seaweed industry and spoke before
14 you regarding the social, environmental and
15 economic benefits of seaweed cultivation and
16 harvesting for the carrageenan industry.

17 Today, I'd like to respond to the three
18 questions posed on page 62 of the National Organic
19 Standards Board Livestock Subcommittee discussion
20 document marine algae listings on National List
21 dated September 6, 2016.

22 Question 1 regarding naming in Latin

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1 binomials, my suggestion is that we would -- it
2 would be helpful to organize the marine plants
3 algae by use. For example, human food,
4 agriculture inputs and extracts ingredients.

5 In addition, I would only name algae to
6 the order level. Naming at the order level
7 provides information about the general life cycle
8 necessary for resource management plants while
9 assuring taxonomy medias at a level suitable for
10 the organic standards.

11 Question 2 regarding annotations to
12 clarify specific uses of harvesting guidelines for
13 any of the marine algae listings, my suggestion
14 would be there is no need to add annotations. The
15 organic standards provide criteria for organic,
16 wild crafting, wild harvesting and cultivation.

17 And as pointed out in the TR and the
18 discussion document, there are science-based
19 government management plans for seaweed harvesting
20 and cultivation in most countries that meet the
21 organic criteria to assure sustainability.

22 Organic certifiers are qualified to

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1 determine whether the harvested or cultivated
2 source meets those criteria.

3 I studied fisheries management as an
4 undergraduate student and have been involved with
5 developing sustainable seaweed cultivation and
6 wild harvest plans for nearly three decades.

7 My experience is that plans are based
8 on an understanding of the biology and life cycle
9 of the algae and the ecosystems in which they live.
10 These plans have an excellent track record and
11 continue to improve.

12 Question 3 regarding a need for further
13 NOP guidance on marine plants algae, my answer
14 would be, no, the current system is working.
15 Though, again, it would be good to create three
16 categories of use, as I suggested in my response
17 to Question 1.

18 I provided written comment, which goes
19 into far more detail with citations and also covers
20 a few more concerns I had with the discussion
21 document and TR.

22 I thank you for considering my comments

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1 and would be happy to answer any questions you may
2 have.

3 In addition, if we refer to the slide
4 that's up now, my colleagues and I provide this
5 slide. For the record, this is a summary of
6 written and oral commentary already provided by
7 producers of organic products regarding the
8 essentiality of carrageenan. Thank you very much.

9 CHAIR FAVRE: Thank you. I like how
10 you slid that in right at the end.

11 Zea, you had a question?

12 MS. SONNABEND: You mentioned that the
13 seaweed production met organic criteria of
14 sustainability.

15 So, what are the obstacles to having the
16 seaweed production, specifically the species for
17 carrageenan, being certified organic?

18 MR. ASK: Right. So, as the technical
19 review showed, there are few seaweed harvests that
20 are currently organically certified. And the --
21 I would say the problem -- or not the problem, the
22 challenge for the carrageenan seaweeds is that, as

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1 you've heard, you're talking about tens and tens
2 of thousands of smallholder farmers and it's a
3 challenge.

4 I'm not saying it's impossible, but
5 it's something we have to really look at. We, all
6 of us, because how do you do that? How do you go
7 to people with just a small plot who might only have
8 a sixth grade education, and tell them they need
9 to do all this record keeping? Okay?

10 MS. SONNABEND: Well, it is being done
11 in other crops with smallholders under the grower
12 group provisions, but then how about the processing
13 of the carrageenan?

14 Would that be able to be adapted to meet
15 organic regulations; do you think?

16 MR. ASK: So, that's probably not my
17 expertise, you know. I'm -- like, yesterday you
18 had the crop guy, today I'm the seaweed guy, and
19 you would have to really talk to the process people
20 about that, but I think it's a challenge, something
21 that needs to be looked at.

22 CHAIR FAVRE: Dan.

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1 MR. SEITZ: So, does your company buy
2 seaweed from lots of small producers? Is that the
3 -- and then process it?

4 I just want to understand your --

5 MR. ASK: Sure.

6 MR. SEITZ: -- place in the --

7 MR. ASK: Okay. So, the supply chain
8 would be, you know, for the farmed carrageenan and
9 seaweeds, smallholder farmers, tens and tens of
10 thousands. So, they'll sell on to a local buyer,
11 who sells on to a person who will be bailing and
12 shipping to our factory. So, usually there's
13 three to four steps in the supply chain.

14 MR. SEITZ: Uh-huh.

15 MR. ASK: My -- our -- my personal role
16 is we work on, you know, improved farm systems,
17 trying to, you know, promote better farm practices
18 and developing new areas of cultivation.

19 So, I'm working with farmers, I'm
20 working with governments, I'm working with
21 suppliers.

22 CHAIR FAVRE: Emily.

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1 MS. OAKLEY: Have you considered
2 encouraging your suppliers to work with Fair Trade
3 certification for the products?

4 MR. ASK: I -- no. It just hasn't --
5 it hasn't come up yet.

6 CHAIR FAVRE: Thank you very much.

7 MR. ASK: Okay. Thank you.

8 CHAIR FAVRE: It's my understanding
9 that Bob Verloop is not here. So, next up is Manuel
10 Mercado, with Clarence Wagner on deck.

11 Manuel, are you here?

12 MR. MERCADO: Good morning. My name
13 is Manuel Mercado. I'm a farmer -- a very nervous
14 farmer right now.

15 So, I've been growing berries. I'm an
16 independent grower, so Driscoll independent
17 grower. So, I've been in the growing business for
18 harvesting organic berries. We started here in
19 the 1900s and our first certification was around
20 2002. So, we have been growing for a long, long
21 time.

22 First of all, thanks to the Board for

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1 to let us come and talk to you regarding the
2 container and greenhouse production.

3 Why is it important for me? Right now
4 we're facing challenges. Climate change is very
5 real for us. Water -- I have neighbors that wells
6 are going with no water. So, water is real, real
7 important, a resource that we need to protect.

8 Land rotation for myself and for a lot
9 of growers have been another challenge. And the
10 ability to find clean ground free of disease have
11 been very difficult. And that's one of the reason
12 why we're trying this new technology growing in
13 substrate.

14 I'm already growing conventional
15 substrate and there is a lot of benefits and less
16 use of water, less use of fertilization.

17 We are very committed to the
18 fundamentals of growing organic. We want to
19 follow all the recommendation or the rules, but
20 also I'm coming to ask you for to let us innovate.
21 Innovation is very important for us, try new ways
22 to produce.

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1 California -- especially California,
2 our farmers are facing a labor issue. It's really
3 hard from increasing minimum wages to overtime.
4 We need to be more productive. We have to produce
5 better crops so we can have labor and to have these
6 berries.

7 I want everybody really, ourselves, to
8 understand what the consumer wants. And it's
9 pretty clear that we want to offer fruit without
10 fertilizer or pesticide, free of synthetics.

11 And so, I really want to understand what
12 the consumer want, but also what the growers need,
13 what the farmers need.

14 At the end of the day, let's work
15 together. So, please help us out. Thank you.

16 CHAIR FAVRE: Thank you. See, that
17 wasn't so bad, huh?

18 (Laughter.)

19 CHAIR FAVRE: Any questions?

20 (No audible response.)

21 CHAIR FAVRE: Thank you for coming.

22 Next up is Clarence Wagner, with Megan

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1 Klein on deck.

2 MR. WAGNER: My name is Clarence Wagner,
3 CEO of GSSI Consulting in Tulsa, Oklahoma.

4 Good morning and thank you for this
5 opportunity to speak on behalf of continuing the
6 organic certification of soilless methods which
7 allow for the cycling of nutrients through a
8 biological process and only use organic inputs.

9 Everyone deserves quality organic
10 food. More than 50 percent of all American
11 households are now purchasing organic produce. 63
12 percent of Americans are trying to eat healthier.

13 Nielsen reports that sales from fresh
14 organic fruits and vegetables have increased 31.9
15 percent in the past two years.

16 The UN states by 2050 the world's
17 population will reach 9.1 billion and require a 70
18 percent increase in agricultural production. The
19 demand seems insatiable and where will all this
20 food come from?

21 21st century technology gives us the
22 possibility in our lifetime for multiple methods

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1 of organic farming to produce more quality,
2 healthy, organic produce for the consumer
3 expanding the organic sector.

4 Outdoor and indoor organic farming both
5 in the crust of the earth as well as organic
6 soilless methods, should not be an opposition, but
7 complementary.

8 This is a critical time for the food
9 supply and food security of our nation and the world
10 and all organic growers should be embracing and
11 supporting each other.

12 A variety of outdoor and indoor organic
13 growing methods can meet the demand and assure
14 this, as well as provide many more full-time,
15 quality agricultural jobs because the indoor
16 methods harvest 24/7 365.

17 After all, organic soil and soilless
18 methods both use certified organic media to sprout
19 our plants, use non-GMO and organic seeds and
20 organic nutrients, avoid synthetic substances,
21 chemicals, herbicides, pesticides, fungicides, use
22 natural sunlight, are sustainable,

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1 environmentally friendly, conserve our natural
2 resources and, most importantly, cycle nutrients
3 through a biological process in a soluble vehicle
4 called water.

5 Our two groups seem to be splitting
6 hairs. How much water is too much water? And how
7 much soil is too little soil? We don't have that
8 answer today, do we? There's still too many
9 unanswered questions and demonstrate the vigorous
10 debate we've heard over the last two days.

11 For this reason, I'm calling upon you,
12 the NOSB, to refer this critical decision back to
13 the Crops Committee for further scientific review.

14 Emotions and passion are powerful, but
15 they should not be the basis for such an important
16 decision that affects so many people.

17 This decision must be impartially based
18 on facts and science that will show that while the
19 methods are different, the dynamics are the same
20 -- are not and leave no doubt as to conclusion we're
21 on the same team and we all need to work together
22 in both the letter and spirit of the OFPA and NOP

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1 regulations. We all want the same thing.

2 It's time for us to come together so as
3 to reinforce and maintain strict organic standards
4 for the various styles of organic growing and give
5 our nation an abundance of the best and healthiest
6 food available.

7 CHAIR FAVRE: Good job.

8 Questions?

9 (No audible response.)

10 CHAIR FAVRE: I have one.

11 Can you tell me what GSSI stands for?

12 MR. WAGNER: Genesis Strategic
13 Solutions International. It was founded in Israel
14 with the hydroponic industry over there. And in
15 the United States, they're doing similar things in
16 this country.

17 CHAIR FAVRE: Great. Thank you.

18 Thank you very much.

19 MR. WAGNER: Thank you.

20 CHAIR FAVRE: Next up is Megan Klein,
21 with Angel Reyes on deck.

22 MS. KLEIN: Hello. My name is Megan

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1 Klein. I am the president of FarmedHere.
2 FarmedHere is an organic hydroponic indoor farm
3 just 15 miles southwest of Chicago in Bedford Park.

4 I'd like to thank the Board for the
5 opportunity to present comments and also to let you
6 know that I'm proud to be here with my team. We
7 took a bus from Chicago at four o'clock this
8 morning.

9 I have five team members from
10 FarmedHere, and I'm also here with Nick Greens who
11 is another urban farmer at the plant in Chicago and
12 he trains another generation of urban farmers in
13 our area.

14 While I have deep respect for the work
15 that the task force and the NOSB have done on this
16 issue, I don't believe that the mandate has been
17 met to understand organic hydroponics and moreover
18 to visit and see the people that are doing organic
19 hydroponic farming on a daily basis.

20 So, to that end, I have created some
21 slides to help give a picture to what we're talking
22 about here.

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1 So, here is where FarmedHere is
2 located. We are located in an industrial park in
3 Bedford Park, which is about five minutes south of
4 Midway Airport. We are located in a
5 90,000-square-foot warehouse in which we farm
6 about 20,000 square feet.

7 What we love about FarmedHere is that
8 it was an abandoned box factory before we made life
9 into it. So, by the process of our organic
10 hydroponic methods, we can produce over 2,000
11 pounds of healthy and organic produce a week
12 somewhere where no life was being created before.

13 That's the outside of our farm. Here
14 is the inside of our farm. These are -- so, we grow
15 organic basil. We grow organic microgreens. We
16 grow broccoli, kale, radish and peas and we make
17 salad dressings out of our ugly organic basil that
18 we can't sell.

19 We're dedicated to zero food waste and
20 we do the dressings to use our basil stems. And
21 we compost all the other organic waste that we
22 produce.

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1 I'm just going to show you some more
2 pictures of our farm. So, we were certified
3 organic in January of 2012 by Ecocert Ico. At that
4 time, we were aquaponic farmers.

5 Being an organic farm was always the
6 main tenet of what FarmedHere is. We believe in
7 the organic program, we believe in the organic
8 label, and we believe that it's something that both
9 keeps us honest and it's something the customers
10 really trust. So, we started out as aquaponic
11 farmers in 2012.

12 And in 2015, we converted to organic
13 hydroponics because it's a more consistent way of
14 growing and a better business model for us. Those
15 are our organic pea shoots. This is -- these are
16 rows and rows of organic basil.

17 So, our farm consists of grow systems
18 that are 150 feet long and 20 feet high. And we
19 have estimated that our entire 18,000 square feet
20 of floor space with the stacked beds is the
21 equivalent of 22 acres of outdoor farmland if you
22 calculated on an annual basis.

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1 What I'm most proud of is our team at
2 FarmedHere. We have a very diverse team. We are
3 -- over 60 percent of us identify as black or
4 Hispanic. 15 percent of us have some sort of an
5 employment barrier.

6 We work with two programs you may have
7 heard of from -- and, also, Steve Denenberg is not
8 here and I'm speaking on his behalf, if I could have
9 a few more minutes.

10 CHAIR FAVRE: I'm sorry, we can't allow
11 that. The way our process works --

12 MS. KLEIN: Can I say one thing in
13 closing?

14 CHAIR FAVRE: Please finish, yes.

15 MS. KLEIN: Okay. I'd really like the
16 task force and the Board to consider the impact that
17 the task force's recommendations would have on
18 minority and urban farmers.

19 We believe that they'd have a
20 disproportionate impact on a whole generation of
21 people that want to be organic farmers and would
22 not have the opportunity to do so unless we allow

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1 organic hydroponics to continue to be certified
2 organic.

3 CHAIR FAVRE: Thank you.

4 MS. KLEIN: Our team will speak more
5 about that.

6 CHAIR FAVRE: Great. Thank you.

7 MS. KLEIN: Thank you.

8 CHAIR FAVRE: Oh, a whole host of
9 questions. All right. We'll start here at the
10 end. This way. Go. Jean first, then Harriet.

11 MS. RICHARDON: What about the idea of
12 labeling? Let's -- I mean, I don't know what's
13 going to happen. This is my last meeting of the
14 Board, so who knows what they'll do next year, but
15 what if they were to come up with the idea that there
16 would be an organic hydroponic label and then
17 there'd be an organic label?

18 Do you feel that that's an important
19 thing or would you be supportive of it or not?

20 MS. KLEIN: Um --

21 MS. RICHARDON: In other words, there'd
22 be organic tomatoes, and there'd be -- or basil,

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1 and then there'd be organic hydroponic basil.

2 MS. KLEIN: I'd certainly be more
3 supportive of that than disallowing it entirely,
4 but I think that creates a divide that's not
5 necessary, you know.

6 I think that our -- we have to use the
7 same organic inputs. We need to follow the exact
8 same standards that outdoor farmers do right now
9 and I don't think that splitting the label up, you
10 know, would accurately reflect both what we do and
11 also the food that people are getting.

12 CHAIR FAVRE: Harriet.

13 MS. BEHAR: So, what is the carbon
14 footprint? This seems fairly energy intensive and
15 do you heat your warehouse as well?

16 MS. KLEIN: No, we don't need to heat
17 the warehouse. The plants and the water create a
18 lot of heat themselves.

19 I can tell you that, you know -- I'm
20 going to read something, if I can, from the people
21 that know more about energy than I do.

22 So, you know, we're looking at running

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1 our own methane generator, which we could use to
2 offset our energy use right now.

3 The -- we have -- half of our grow
4 systems are LED lights, half of our grow systems
5 are fluorescent lights. We would have only the LED
6 lights except for the expense.

7 The expense of LED lights is going down
8 by 50 percent every few years and their energy
9 efficiency is going up.

10 In -- let's see. It's -- I mean, it's
11 a win on every front. We use 95 percent less water
12 than outdoor farming. The energy efficiencies
13 will improve drastically over the next five years
14 as the efficiencies of LED lights improve and, you
15 know, we're not using any outdoor land and we're
16 freeing up outdoor land to be used to do more
17 organic farming.

18 Of course we're not against outdoor
19 farmland and we believe that we need more acres of
20 farmland to feed the nine billion people organic
21 food.

22 And we think that using warehouses in

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1 the most sustainable way possible is a good way to
2 provide some of that food source.

3 CHAIR FAVRE: Zea.

4 MS. SONNABEND: Thank you.

5 Do you let your customers know that the
6 crops are grown in artificial light. And parallel
7 with that, have you ever done any testing of the
8 nutritional profile to see if the artificial light
9 produces a different nutritional profile than
10 crops grown outdoors?

11 MS. KLEIN: Number one, yes. On all of
12 our packagings, we say "sustainable indoor
13 farming." Our website has pictures of -- that
14 you're seeing all over it. So, yes, our customers
15 are aware that we use artificial light.

16 And the second question was about
17 nutritional analysis. Actually, when we did
18 nutritional analysis of our basil, the nutrient
19 content was higher than the basil that we tested
20 that had been harvested from Mexico.

21 CHAIR FAVRE: Emily -- was it Emily or
22 Francis?

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1 MS. OAKLEY: I made this point in the
2 spring when issues of water conservation have
3 continually come up. Many of us who farm outdoors
4 need very little irrigation particularly in terms
5 of the spring crops and it depends on where you are
6 in the country.

7 I just want to make a point of
8 clarification that the 95 percent efficiency over
9 land-based farming is not necessarily accurate and
10 certainly not in all cases.

11 CHAIR FAVRE: Francis.

12 MR. THICKE: What are the roots in?

13 MS. KLEIN: What are the roots in?

14 MR. THICKE: What are the roots -- what
15 media are they in?

16 MS. KLEIN: It's the -- it's the jiffy
17 plug that's approved for -- on the OMRI list. It's
18 the -- it's peat.

19 MR. THICKE: Peat?

20 MS. KLEIN: Uh-huh.

21 MR. THICKE: Okay.

22 MS. KLEIN: It's peat and netting.

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1 CHAIR FAVRE: Thank you very much.

2 MS. KLEIN: Thank you.

3 CHAIR FAVRE: Next up is Angel Reyes,
4 with Rob Davis on deck.

5 MR. REYES: Hi. My name is Angel Reyes
6 and I'm part of FarmedHere. I'm a worker. I
7 started working three years ago.

8 I really don't know much about growing.
9 I started growing microbeans two years ago, but the
10 only thing I can say is that I support organic.

11 And then we also need it in the city,
12 because as you guys can see, the farms are getting
13 smaller, smaller. They're getting further,
14 further away from the cities. So, I guess that we
15 just need to keep going with what we've got now.

16 CHAIR FAVRE: Any questions for Angel?
17 Harold.

18 MR. AUSTIN: So, the facility that you
19 guys have this process in, do you think that this
20 is a viable, efficient use, an improvement to that
21 area compared to how it was before you guys started
22 to work into it and develop this?

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1 MR. REYES: Yes. We have improved it
2 in many ways, because that's -- when I started, we
3 only had probably like three systems. Now, we have
4 like seven. We got seven systems producing.

5 CHAIR FAVRE: I have a question for
6 you.

7 Do you know where your crops are sold?
8 Are they sold in the city?

9 MR. REYES: Yes. They're sold in
10 Whole Foods and Pete's Market.

11 CHAIR FAVRE: Okay. Thank you.
12 Thank you for coming.

13 Next up is Rob Davis, with Stephen
14 Walker on deck.

15 MR. DAVIS: Hi. My name is Robert
16 Davis. I work for FarmedHere. I started out in
17 organic farming at a place called Growing Homes,
18 which is an outdoor farm. And so, like, I had
19 experience working outdoors and indoors.

20 As far as FarmedHere, it's a little
21 different and, like, I feel like it's a lot better
22 because it gives us an opportunity to work all year

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1 round and it gives us the opportunity to be local
2 instead of have to wait for the product to come from
3 California, which may take time.

4 And we can process it and the next day
5 it can be in the store and it can last longer in
6 the store and be better. So, I -- that's what I
7 think of organic processing.

8 Any questions?

9 (No audible response.)

10 CHAIR FAVRE: Thank you.

11 Next up is Stephen Walker, with Beth
12 Walker Stephenson on deck.

13 MR. WALKER: Good morning. I'm Steve
14 Walker, MOSA's operations manager. Welcome to the
15 Midwestern GMO hot zone. Let's talk about organic
16 seed guidance and GMO incursion into organic.

17 We see GMO contamination prevention
18 plans that seem sound, but sometimes their test
19 results show alarming GMO contamination levels.
20 Then it's extremely challenging to find
21 appropriate regulatory responses and it's
22 frustrating when we promote the expectation that

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1 organic is non-GMO and more.

2 So, we applaud strengthened guidance to
3 aid organic seed supply usage and enforcement, but
4 we also question the overall efficacy of
5 enforcement in the face of ongoing GMO incursion.

6 The report to Secretary Vilsack needs
7 ears. Clearly, the public expects organic to be
8 GMO free. Organic operators are doing their part.
9 But without meaningful shared responsibility,
10 coexistence cannot work and our organic label is
11 harmed. USDA leadership must promote fairness.

12 Our written comment gives more specific
13 feedback on key points to strengthen the NOP 5029
14 seed guidance, including what constitutes a
15 diligent organic seed search, continuous
16 improvement, guidance from certifiers without
17 being overly prescriptive and addressing non-GMO
18 expectations.

19 When contamination sources are unclear
20 and supplier non-GMO claims are inconsistent and
21 thresholds of concern are not established, then
22 issuing noncompliances is not appropriate.

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1 All organic stakeholders urgently need
2 more valid control data for GMO test results to be
3 a reliable enforcement tool and we must not
4 unfairly burden organic operators.

5 A tough threshold may improve GMO
6 incursion, but could also affect organic seed
7 supply.

8 Several organic seed suppliers report
9 that almost all at-risk organic seed has some level
10 of contamination from less than one percent to much
11 higher levels.

12 A threshold could cause some organic
13 seed suppliers to drop certification. Our
14 process-based standards conflict with
15 outcome-based market expectations.

16 Unfortunately, today, planting organic
17 seed may not stop further GMO incursion. Until we
18 get our organic seed house in order, it will be
19 nearly impossible for an organic farmer to produce
20 truly non-GMO at-risk crops.

21 So, this gets at a moral question of who
22 should be responsible for controlling GMO

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1 incursion?

2 We won't meet consumers' organic purity
3 expectations unless we have USDA support beyond the
4 NOP.

5 We continue this good fight, but it
6 can't just be our organic community making the
7 effort. Otherwise, coexistence is a fantasy
8 especially right here in your breadbasket.

9 CHAIR FAVRE: Questions?

10 Harriet.

11 MS. BEHAR: Does MOSA work with
12 producers and encourage them to trial equivalent
13 organic seed varieties on that, or are they only
14 requiring that they search for three sources of the
15 organic seed they want to plant?

16 MR. WALKER: We, yes, definitely
17 encourage trialing.

18 CHAIR FAVRE: Thank you.

19 MR. WALKER: Okay. Thanks.

20 CHAIR FAVRE: Next up is Beth Walker
21 Stephenson, with Martha Vega on deck.

22 MS. WALKER STEPHENSON: Good morning.

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1 I'm Beth Walker Stephenson. I'm a wife, mama,
2 environmental fiction author and organic consumer
3 and I love soil. The smell of newly-turned soil
4 in the springtime is intoxicating.

5 As a child, I spent my days outdoors
6 digging in the earth under a canopy of fir trees.
7 It was a magical world of bugs, earthworms, soil.
8 I helped my dad plant a vegetable garden and watched
9 tiny seeds turn into tasty, ripe tomatoes eaten
10 with supper and in his morning grits.

11 Years later my husband and I planted
12 bio-intensive vegetable gardens, food for our
13 family. For us, soil is the foundation where much
14 of life begins.

15 We eat from our garden through the
16 growing season, and we purchase certified organic
17 produce and meat often locally raised.

18 I think a lot about my family's food.
19 I never thought I'd be debating raising our food
20 other than in the soil. But as I looked at this
21 meeting's agenda, the bioponic debate peeked my
22 interest.

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1 I read the task force report. I am
2 making comment today because of a feeling in my
3 bones that we must carefully consider implications
4 of closing the door on organic alternatives to
5 growing in soil.

6 Key concerns for me are food safety and
7 security in our uncertain world. I admit my
8 concern has grown deeply after the election. What
9 kind of future are we leaving our children?

10 I've taught my two children to stand up
11 for what is right, do their best, make wise choices
12 and to think outside the box. This is especially
13 important right now.

14 The morning after the election, the
15 first words out of my 15-year-old daughter's mouth
16 was "We're all screwed."

17 I hugged her close, put my hand over her
18 heart and said, "Honey, don't you ever forget that
19 you were born right now for this reason."

20 In my 53 years, I've learned that life
21 presents many shades of gray. There are fewer
22 absolutes. I see both sides. An open mind can

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1 make decisions difficult.

2 At the National Organic Coalition
3 meeting, I heard elders' deep concern about
4 impacting economics and principles if we open
5 organic production beyond soil, but now more than
6 ever we must consider new ideas and ways.

7 I believe we must not close the door to
8 organically raised and symbiotic systems outside
9 the soil. Let us be agricultural innovators in
10 this changing world. Perhaps consider requiring
11 an added statement on the organic label and
12 specific organic bioponic standards.

13 Beyond all, be careful. Listen to your
14 inner voice. Thank you so much.

15 CHAIR FAVRE: Questions?

16 (No audible response.)

17 CHAIR FAVRE: Thank you for coming.

18 MS. WALKER STEPHENSON: Thank you.

19 CHAIR FAVRE: Next up is Martha Vega.
20 And then after Martha's comments, we will be taking
21 about a 20-minute break.

22 MS. VEGA: (Foreign language spoken).

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1 CHAIR FAVRE: Do we have someone that
2 can translate that for us?

3 THE INTERPRETER: Am I --

4 CHAIR FAVRE: Sure. Go ahead.

5 THE INTERPRETER: Martha is saying
6 that she's been a farmer with us since May of 2015.
7 She's really proud of her organic work for
8 FarmedHere.

9 She believes it's important to farm
10 organically in cities --

11 MS. VEGA: Seeding.

12 THE INTERPRETER: Oh, she does the
13 basil seeding for us. So, she seeds our organic
14 basil seeds into our peat plugs and she takes great
15 care to make sure that we're following the organic
16 regulations that she's trained on.

17 And she thanked you for the opportunity
18 to speak here.

19 CHAIR FAVRE: Thank you.

20 Any questions?

21 (No audible response.)

22 CHAIR FAVRE: I would like to

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1 personally thank you for taking the time to get on
2 a bus at 4:00 in the morning to drive here to speak
3 to us. I appreciate that. Thank you.

4 (Applause.)

5 CHAIR FAVRE: Okay. With that, we are
6 going to take a 20-minute break. That brings us
7 back here at 10:25. Thank you.

8 (Whereupon, the above-entitled matter
9 went off the record at 10:05 a.m. and resumed at
10 10:25 a.m.)

11 CHAIR FAVRE: Okay. Our next speaker
12 is going to be Eric Roth, with Steve Rodriguez on
13 deck.

14 Eric Roth, are you here? Eric Roth.

15 (Pause.)

16 CHAIR FAVRE: Eric Roth, are you here?

17 (Off record comments.)

18 CHAIR FAVRE: Eric Roth, you're about
19 to lose your spot. You better be running up here
20 to the podium.

21 (Off record comments.)

22 CHAIR FAVRE: Thank you very much, but

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1 that does remind me of something before you get
2 started, Eric. I'm talking to each of you. Mute
3 your phones and mute your computers, too, please.
4 There are people that are being distracted by
5 chimes and alarms.

6 Okay. Thank you, Eric. Please, go
7 ahead.

8 MR. ROTH: Good morning, everyone. My
9 name is Eric Roth. I'm the director of agriculture
10 at FarmedHere.

11 And in preparing for coming down here
12 today and reading through, you know, both sides of
13 the story, I think one thing that's commonly
14 misconstrued with organic hydroponics is the
15 complexity of our water, right?

16 People talk about soil being a vast and
17 beautiful array like a, you know, a microbiome.
18 You have bacteria there that are working in concert
19 with micronutrients and macronutrients to supply
20 plants with the -- I mean, really the backbone of
21 life, right?

22 In conventional hydroponics, you have

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1 what's known as bio-available nutrients. You
2 deliver them into a mix and then the plants take
3 them up immediately.

4 So, you have nitrogen that the plants
5 can take up in the form that you're delivering it
6 to the water, you have calcium, all in ionic form.

7 With organic hydroponics, we have to
8 maintain a steady buffer using nitrifying
9 bacteria, which is the same type of bacteria that
10 you'll find in soil that's converting ammonium and
11 -- more specifically in our case, ammonium into
12 nitrites, and then into nitrates that the plants
13 take up.

14 So, it's not as easy as pouring a beaker
15 of solution into our water and saying, "Okay,
16 plant, grow." Like, there's constant system
17 maintenance that's required to cultivate, you
18 know, the thousands upon thousands of plants that
19 we grow in our space.

20 It's not easy. It's actually a lot
21 harder. And to tie back to a point that Megan had
22 made earlier, we are subject to all the same

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1 standards that outdoor growers are and we take a
2 tremendous amount of pride in following those
3 standards.

4 We're not looking to cut any corners.
5 We -- it means a lot to us to be organic. And I
6 feel that we're at an operational disadvantage and
7 we work really hard to make it work.

8 And the last point I want to make is that
9 I think you guys would certainly know better than
10 me, there's only 30 or 35 certified organic
11 hydroponic operations in the US versus 14 or 15,000
12 or so farms. I really have a hard time
13 understanding why there's not space for us.
14 That's it.

15 CHAIR FAVRE: Thank you.

16 Any questions?

17 Ashley.

18 MS. SWAFFAR: So, do you guys just have
19 the Chicago location, or do you have other
20 locations?

21 MR. ROTH: Just Chicago.

22 CHAIR FAVRE: Francis.

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1 MR. THICKE: So, what do you think
2 would happen in ten years? How many -- what
3 percentage would become hydroponic in ten, 20 years
4 if it were allowed?

5 MR. ROTH: So, let's say it followed --
6 even if it was increasing at a rate of ten percent
7 per year, all right, which I think would be a pretty
8 high estimate because, I mean, the amount of work
9 that went into building this facility is
10 tremendous.

11 You know, we started, as Megan also
12 mentioned, we started as an aquaponic operation.
13 We invested a tremendous amount of capital to
14 convert it into organic hydroponics.

15 These aren't things that can just
16 spring up overnight. Millions upon millions of
17 dollars have gone into this building and it's not
18 something that people can just wake up and say, "I'm
19 going to start an organic hydroponic farm."

20 So, ten years from now would I be
21 surprised if there was 300 in this country? Yes,
22 I would be.

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1 You know, Gotham Greens, they're a --
2 they're not organic, but just to use them as an
3 example, they started, I believe, building in New
4 York in late 2007-2008.

5 We're ten years after. They have Dutch
6 investment partners and they still only have five
7 facilities in this country. They have tremendous
8 backing and they're a conventional operation.

9 So, given the barriers that it would
10 take to open an organic facility, I -- yes, I mean,
11 we're not -- it's not going to take over the
12 industry. Not in this country, at least.

13 CHAIR FAVRE: Jesse.

14 MR. BUIE: Are the operational
15 procedures the same from one operation to the next?
16 Because it --

17 MR. ROTH: Are you speaking --

18 MR. BUIE: Hydro -- yes.

19 MR. ROTH: -- like across the country?

20 MR. BUIE: Correct.

21 MR. ROTH: There's different
22 methodologies. There's someone who's going to

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1 speak later today who came with us who does things
2 a little bit differently than we do, but you have
3 a number of choices just like you do with
4 conventional farming, based on what sort of media
5 you're going to use, what sort of organic nutrients
6 you're going to use.

7 But at the end of the day, yes, I mean,
8 we -- everybody is working within the framework of
9 the organic standards.

10 MR. BUIE: Yes. And that's kind of my
11 concern, the consistency of procedures here.

12 MR. ROTH: Well, I mean, do you think
13 that, you know, an organic carrot farm in
14 California is operating in the exact same
15 methodology as an organic cranberry farm in, you
16 know, Wisconsin?

17 MR. BUIE: Those are the answers I
18 think we want to find out.

19 MR. ROTH: Well, no. I mean, I'm
20 asking from a conventional sense, not from a
21 hydroponic sense.

22 MR. BUIE: I'm sure it's not.

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1 MR. ROTH: So, yes. I mean, what's --
2 I guess I just fail to see the difference so long
3 as everybody is operating within the same standards
4 and they're being enforced, you know, evenly across
5 the Board.

6 CHAIR FAVRE: Thank you, Eric.

7 MR. ROTH: Yes.

8 CHAIR FAVRE: Next up is Steve
9 Rodriguez, with Alexis Randolph on deck.

10 MR. RODRIGUEZ: Good morning. My name
11 is Steve Rodriguez. I'm a manager at FarmedHere,
12 a sustainable organic hydroponic farm just outside
13 of Chicago.

14 I grew up in Chicago, a place that is
15 not known for farmland. And probably I spent the
16 last five years of my life working in the organic
17 industry.

18 In that time, I learned a lot about --
19 well, as much as I can about plants, deficiencies,
20 if there's pests, you know, and it's been very hard,
21 you know, and very rewarding. And the experience
22 will not be, you know, this experience would not

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1 be possible if organic is to exclude hydroponics.

2 This is an industry that I have grown
3 to love and that I believe -- that I believe that,
4 you know -- I don't know. I just, you know, this
5 -- I mean, like, this is for me and I never imagined
6 I would do this type, you know, this job.

7 I turned down higher paying jobs for
8 this, you know. I go in there and I see plants and,
9 you know, I'm changing my mood. My mood, I mean
10 -- I'm sorry. And I don't want the hard work that
11 myself and so many people put into this just to go
12 to waste.

13 There's more than enough space for both
14 soil and hydroponic growers to exist in harmony.
15 Thank you.

16 CHAIR FAVRE: Thank you.

17 Questions?

18 Harriet.

19 MS. BEHAR: Do you think in the
20 marketplace that if you did not have the organic
21 label, but you did express how the crop is grown,
22 that you could retain your market?

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1 MR. RODRIGUEZ: I mean, I think organic
2 means a lot, you know. Like, with that label, I
3 mean, I want -- I'm a father, you know. So, I would
4 rather choose the organic for my kids than the
5 non-organic. So, I feel, you know, like the
6 organic is just important to me.

7 CHAIR FAVRE: Thank you.

8 Next up is Alexis Randolph, with
9 Colehour Bondera on deck.

10 MS. RANDOLPH: Hi.

11 CHAIR FAVRE: Hi, Alexis.

12 MS. RANDOLPH: Hi. Good morning.
13 I'm Alexis Randolph. I'm the technical manager at
14 Quality Assurance International, an organic
15 certifier in San Diego.

16 My comments today are on the greenhouse
17 container discussion document. QAI appreciates
18 the work of the subcommittee to fill in the gaps
19 of the 2010 NOSB recommendation so that container
20 farming may continue in a consistent and
21 enforceable framework.

22 We certify 16 farmers growing in

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1 container systems. A variety of products,
2 including mixed vegetables, cucumbers, tomatoes,
3 peppers, zucchini, endive, and four of the 16
4 farmers grow transplants.

5 The subcommittee asked which of the
6 suggestions in the document should move forward to
7 standards such as container size or a stipulation
8 about liquid versus other nutritional sources.

9 We feel that the discussion document
10 requires a great deal more work before we can
11 support any recommendation.

12 Regarding container size, there is
13 already a cautionary tale coming out of Canada.
14 They are currently changing the standards again to
15 reduce soil volume per square foot of growing area.

16 Furthermore, they are defining the
17 growing area not only as the surface of containers,
18 but also the surface of alleys between rows of
19 plants.

20 The soil volume requirement is
21 expressed this way, and I quote, "So that growers
22 have a certain freedom depending on the staked

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1 crops they grow, the varieties they grow, the
2 planting density they choose and the alley width
3 they prefer."

4 We feel that NOSB should be looking more
5 closely at the NOP definition of "organic
6 production," which is a system that responds to
7 site-specific conditions that foster cycling of
8 resources.

9 Furthermore, mushroom standards have
10 been set aside in these NOSB deliberations and, as
11 a certifier, this is concerning.

12 Organic mushrooms are certified to the
13 crop scope and are predominantly grown indoors in
14 what could be considered a containment system of
15 its own design.

16 Many of the issues being raised by the
17 NOSB such as biodiversity and nutrients and crop
18 rotation are part of the crop standard and should
19 be addressed for all products grown under the crop
20 scope.

21 It is inconsistent for a regulation to
22 allow a mushroom producer to have artificial light

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1 or nutrients added to the substrate, but not be
2 allowed for greenhouse container production.

3 Therefore, we see this discussion
4 around container growing as having significant
5 impact on the overarching crop scope of the
6 regulation and should be approached by the Board
7 accordingly.

8 We've submitted many written comments
9 on other topics and during the April meeting, on
10 a multitude of sunset materials.

11 My only additional comment on these
12 topics is regarding carrageenan. We previously
13 reported 15 of our certified operators are using
14 carrageenan in a variety of beverages and other
15 products.

16 While the NOSB deliberates, it is
17 important to recognize that this is not one simple
18 material.

19 Our 15 certified operators are using
20 ten different formulations of carrageenan from
21 several material manufacturers. Thank you.

22 CHAIR FAVRE: Thank you, Alexis.

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1 Questions?

2 Tom, and then Zea -- or, no, Zea first.
3 Go ahead.

4 MS. SONNABEND: Do you know any
5 specifics of which types of formulations are used
6 in which types of products or even what the exact
7 types of products -- not brand names, but what types
8 of products it seems to be essential for?

9 MS. RANDOLPH: So, I do have
10 information I can't share because it's
11 confidential business information. I -- there is
12 a variety of beverages being produced. They're
13 not all soy or milk-based beverages. I can say
14 that to you as well.

15 There's also different gels being
16 created for carrying spice into meat products.
17 And so, these are all different formulations of
18 carrageenan being used.

19 MS. SONNABEND: But can you say besides
20 soy, that it might include dairy products or nut
21 milks or --

22 MS. RANDOLPH: Yes.

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1 MS. SONNABEND: -- like those type of
2 characterizations?

3 MS. RANDOLPH: Yes.

4 MS. SONNABEND: Okay.

5 CHAIR FAVRE: Tom.

6 VICE CHAIR CHAPMAN: I wanted to ask
7 you about a written comment that you spoke to. You
8 submitted comments about inspector evaluations and
9 I know NSF operates in several different
10 certification schemes.

11 Can you speak a little bit about the
12 in-field requirements for other certification
13 schemes?

14 MS. RANDOLPH: Sure. So, like the
15 food safety schemes?

16 VICE CHAIR CHAPMAN: Yes.

17 MS. RANDOLPH: Okay. Yes. So, NSF,
18 our parent company, does offer food safety
19 certifications. And let me just see. So, we
20 looked into what those programs required. And so,
21 for example, most of the schemes average about an
22 every-four-year witness requirement. That's true

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1 for GFSI and GlobalGAP.

2 BRC and SQF require an every-two-year
3 witness audit, but they recognize each other's
4 witness inspection. So, once an inspector is
5 qualified through BRC, it could be another three
6 or four years before they have to be -- re-witness
7 if they move from the BRC program to the SQF
8 program. So, it is averaging around every four
9 years.

10 CHAIR FAVRE: Zea, I thought you had a
11 follow-up. No? Okay.

12 Carmela.

13 MS. BECK: Alexis, I was interested in
14 hearing about the Canadian standard with regards
15 to container production.

16 MS. RANDOLPH: Uh-huh.

17 MS. BECK: So, I know of many growers
18 who have been asked to look to that standard and
19 mimic what they're doing considering that it's the
20 most kind of old regulation on it.

21 At what point do they -- will the -- can
22 the Canadian standard be finalized and what kind

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1 of problems were you seeing as a certifier looking
2 to their standard?

3 MS. RANDOLPH: Sure. So, they did put
4 out their new standard. I think it was September
5 of this year. And that had some specific soil
6 requirements in terms of container size and the
7 amount of soil density required.

8 However, there were challenges with
9 operators meeting that and the site-specific
10 conditions that they had. And so, now, they're
11 doing a revision already to that proposed -- to that
12 standard and that's currently open for public
13 comment. Should close within a week or two for
14 public comment as well.

15 And so, you know, I guess the other
16 thing that we're seeing is just they have a
17 different definition of soil in Canada, which is
18 a mixture of minerals, organic matter and living
19 organisms.

20 And so, I think that the operators up
21 there are trying to come to terms with meeting what
22 the standard was that was put out and the CFI has

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1 recognized that they can't do that in all cases.
2 And so, they're trying to be more flexible in
3 working with the operators.

4 I don't know if that -- I'm sorry if
5 that's a little bit too general, but that's my
6 understanding of it.

7 CHAIR FAVRE: Thank you.

8 MS. RANDOLPH: Thanks.

9 CHAIR FAVRE: Next up is Colehour
10 Bondera, followed by Ib Hagsten.

11 Hi, Colehour. How are you?

12 MR. BONDERA: Okay. So, I'll try to be
13 fast. Aloha from Kanalani Ohana Farm in Honaunau,
14 Hawaii and thank you all for your attention.

15 I want to mention as a not so local
16 farmer, I really want to thank the National Organic
17 Coalition who sponsored my being at their pre-NOSB
18 meeting, and more so thank Beyond Pesticides with
19 whom I now serve as a board member as my primary
20 enabler to be here.

21 Really, nonetheless, I want to make
22 sure you understand I'm speaking to you as a

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1 small-scale farmer sharing my self-identified
2 integrity.

3 Ending in January of 2016, I spent five
4 years as a producer with the NOSB and now I speak
5 to you from the other side of the table and to all
6 present NOSB members. Many of you I've worked for
7 many years. I thank you for your work and thank
8 you for using your due diligence to seriously
9 consider and make decisions about topics that can
10 and should be decided at this meeting rather than
11 postponed under both the new administration and
12 with new NOSB members, which means that things
13 cannot be smooth.

14 As organic grows, it is vital to
15 recognize that we cannot grow if we are not building
16 upon a strong foundation.

17 I have three points. Before I get to
18 those, let me mention several priority
19 observations.

20 The Crop Subcommittee must be sure to
21 include in its work plan for the future, both the
22 topics of contaminated farm inputs and the -- of

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1 inerts reviews perhaps beginning with NPEs, since
2 they were both worked on in the recent past and are
3 due continued attention.

4 These subjects should not have to go
5 through the processes again. Instead, this is
6 work which has already been done with inerts, with
7 EPA Safer Choice, Inerts Working Group with the now
8 retired Emily, by NOSB finishing up Zea by Jay
9 Feldman and others and on contaminated farm inputs
10 by myself and Jay Feldman before him. Please keep
11 these active.

12 My first point is about carrageenan
13 sunsetting in November of 2018 as it is yet again
14 being considered for a new sun cycle process.
15 Considering both past reviews and the present
16 recommendation, removal is logical at this time
17 since alternatives including simple elimination
18 have resulted in products that are just as well
19 without so much unneeded and uncertain materials
20 in terms of essentiality and more so human health
21 questions, both strong yellow flags. So, please
22 apply the precautionary principle to this

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1 decision.

2 Second, as former chair of the PDS, some
3 PDS comments. In April 2013, the NOSB unanimously
4 supported a PDS recommendation under my leadership
5 to enable effective and open means of organic
6 communication between the public, the NOSB and the
7 NOP in transparent manners year round and not only
8 in association with two public meeting per year at
9 the discretion of NOP.

10 Well, more than an ability of the public
11 to provide comments to the NOSB, the efforts to
12 implement are focused on comments -- on meeting
13 topics from the public to NOSB and not really the
14 two-way and full disclosure aspects as
15 recommended.

16 And so, my request is this be revisited
17 by the PDS and, therefore, be added to the PDS work
18 plan for the near -- the coming year.

19 And in terms of internal procedure, the
20 PPM, I really want to point out that in my opinion
21 still to this point, the whole sunset process as
22 put forth by the NOP now incorporated into the PPM

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1 is misleading and I really encourage and suggest
2 that since this is not -- this is the NOSB bible,
3 it's not an NOP employee handbook we really need
4 to make sure we're not following. And I will not
5 do my third point.

6 CHAIR FAVRE: I have to say I think
7 that's the fastest I've ever heard you talk.

8 (Laughter.)

9 CHAIR FAVRE: Good job.
10 Francis.

11 MR. THICKE: Yes. Colehour, I've got
12 a question.

13 What is your third point?

14 (Laughter.)

15 MR. BONDERA: I mean, I'm happy to
16 share it. It's pretty fast and simple. And it's
17 really while listening and working with producers
18 over many years around the world, it's really
19 important for us to recognize that we have
20 important topics. But if the NOP is allowing
21 certifiers to determine their own implementation
22 of rules like with hydroponics, it's right now that

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1 we need to take action and correct the errors of
2 the past and vote to not permit past, present or
3 future hydroponics operations to be certified
4 organic against the recommendation of the Crops
5 Subcommittee, but I think this needs to take effect
6 immediately and we need to stand up for the whole
7 ecosystem and whole picture, not a container
8 decisions, in terms of what is organic. And that's
9 all of us.

10 CHAIR FAVRE: Any other questions?

11 Harriet.

12 MS. BEHAR: So, in your marketplace in
13 Hawaii, are there hydroponic operations and is it
14 -- do you think that they would be able to still
15 sell products by advertising their system of
16 production rather than actually using the word
17 "organic"?

18 MR. BONDERA: Yes. Thank you. I
19 mean, I think it's a reasonable question.

20 I -- my personal involvement isn't that
21 strong with people doing those things, but there
22 are hydroponic and aquaponic operations happening.

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1 And my response and commentary to those
2 people when I interact with them or people talk
3 about them is, that's great, it's not organic, it's
4 local, so sell it locally. We are in a unique
5 situation in Hawaii, but I think that applies
6 across the Board, in my opinion, is sell it as
7 hydroponic.

8 That's, you know, not a contest of will
9 from my perspective. If people want to buy it
10 because it's local, they should. So, I think that
11 doesn't exactly address your question, because I
12 don't have the statistics on, you know how much
13 there is, but I know there is some and I know people
14 do talk about it and they say that should
15 automatically be considered organic.

16 And it's like, no, that's -- you're
17 using a different set of principles and you're
18 using a different strategy.

19 CHAIR FAVRE: Thank you. Thank you
20 for coming.

21 MR. BONDERA: Thank you.

22 CHAIR FAVRE: Next up is Ib Hagsten

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1 with Nick Greens on deck.

2 MR. HAGSTEN: Ladies and gentlemen of
3 the NOSB, thank you for what you so tirelessly do
4 on our behalf, on behalf of the entire organic
5 community, on behalf of the national organic
6 program. We appreciate your style, your
7 cooperative attitude and your willingness to
8 disagree with a smile.

9 My name is Dr. Ib Hagsten. I serve as
10 vice chair of the International Organic Inspector
11 Association and am an IOIA-accredited inspector.

12 I wish on behalf of organic inspectors
13 everywhere to briefly address the personnel
14 performance evaluations of inspectors, NOP
15 instructions number 27.

16 In 2013, it took certifiers by surprise
17 and dismay that observation of inspectors in the
18 field was an essential part.

19 An annual field evaluation is viewed
20 differently by organic inspectors where they are
21 successfully inspected for multiple certifiers for
22 two decades or in three years have not completed

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1 100 inspections.

2 Seasoned inspectors find it
3 unnecessary to be evaluated every year as they will
4 not be really hired year after year by several
5 certifiers.

6 New inspectors realize that it is to
7 their advantage to be a third party evaluated to
8 prove to potential certifiers that they have been
9 trained to perform organic inspections in a
10 meaningful and professional manner.

11 When 2027 came out, IOIA stepped up to
12 the plate to facilitate a requested evaluation by
13 working with certifiers to create a peer evaluation
14 program by 2015. It was more sensible to have one
15 peer evaluation versus one evaluation by each of
16 the multiple certifiers.

17 IOIA developed a template to the
18 certifiers to receive a uniform evaluation for even
19 an inspector halfway across the country at a
20 uniform price. IOIA is likely to have an
21 accredited inspector nearby or by pre-scheduled
22 travel.

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1 In 2016 at the request of several
2 certifiers, 100 inspectors uniformed evaluator by
3 IOIA. This service benefits the participating
4 certifiers and the inspectors who, once evaluated,
5 are marketable and verified for the next season.

6 We at IOIA feel that it's a strong
7 selling point to have accredited inspectors
8 perform the so-called peer evaluation as these
9 seasoned and verified professional inspectors
10 daily are in the shoes of the people they evaluate.

11 During the conference two weeks ago,
12 Margaret Scoles, executive secretary of IOIA,
13 shared with NOSB the new IOIA inspector training
14 format that is greater encouragement, development
15 towards growing accredited inspectors to further
16 enhance in competency and professionalism of
17 future organic inspectors.

18 As the NOP continues to add more
19 detailed requirements to the inspection process,
20 the need for additional training and experience is
21 paramount. IOIA continues to expand the basic
22 training to include mentoring and provide

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1 continued education at 100, 200 and the advanced
2 300 level.

3 Just this week we launched our new field
4 training model, we struck an apprenticeship
5 working with MOSA in Wisconsin.

6 A more reasonable not just
7 one-size-fits-all approach to verifying and
8 gaining inspector competency should be encouraged.
9 We encourage a flexible risk-based approach.
10 Thank you.

11 CHAIR FAVRE: Questions?

12 Zea.

13 MS. SONNABEND: Thank you. Sorry.
14 I'm going to ask you a question that's way out in
15 left field.

16 MR. HAGSTEN: Okay.

17 MS. SONNABEND: In IOIA, do you think
18 there would be an inspector available should the
19 carrageenan farmers of Indonesia or the
20 Philippines decide to become certified organic?

21 MR. HAGSTEN: That is out in left
22 field.

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1 (Laughter.)

2 MR. HAGSTEN: I don't know how we would
3 do that. We're having a hard time figuring out how
4 to do it in even Mexico.

5 MS. SONNABEND: Do you have members,
6 though, in those countries or in that region of the
7 world from Indonesia, Philippines, probably even
8 Japan, Taiwan, et cetera?

9 MR. HAGSTEN: At the annual meeting in
10 South Korea earlier this year, we had inspectors
11 from nine different countries show up there. So,
12 yes, we do have inspectors around the world.

13 MS. SONNABEND: Thank you.

14 MR. HAGSTEN: Thank you.

15 CHAIR FAVRE: Can you tell me how you
16 feel as though the peer evaluation inspections have
17 been going this year so far?

18 MR. HAGSTEN: So far the evaluations
19 have been going well. We have had a hard time
20 meeting them. We started late and certifiers
21 arrived late with some of the requests and the
22 system was overwhelmed trying to stay with

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1 certified -- accredited inspectors was difficult.
2 And I didn't carry my part of the load, because I
3 broke my back this summer. And so, the Midwest was
4 suffering because I should have picked some of that
5 up.

6 So, I'm still struggling. I have three
7 of them still to do in December to get -- to finish
8 up. So, it's a challenge.

9 I could also say that we are not going
10 to make this year like we did last year, because
11 we are getting a lot more singles and outliers.

12 People like myself, it's good for IOIA
13 because -- I had one evaluation that eight
14 different certifiers paid \$500 for. So, I'm good
15 for the budget, but others are not. And sometimes
16 you pay a thousand dollars to get some of the
17 outliers, but that's how we agree to do that.

18 CHAIR FAVRE: Thank you very much.

19 MR. HAGSTEN: You're welcome.

20 CHAIR FAVRE: Next up is Nick Greens
21 with Greg Butler on deck.

22 MR. GREENS: first off, I want to thank

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1 the Board for having me here and thank you for your
2 time.

3 I'm Nick Greens. I've been farming
4 indoors for about nine to ten years already. I'm
5 also -- I started off as a volunteer over at the
6 plant in Chicago. It's a business incubator, an
7 old meat packing company turned into urban farms
8 and stuff.

9 I started off there was a volunteer, was
10 given a program -- a microgreen program to start
11 up and then it became successful. So, then I ended
12 up -- started the business up. I was dealing with
13 a bunch of Michelin Star chefs doing hydroponic
14 growing. And then it turned in to working with the
15 schools.

16 I worked with Schurrs High School.
17 It's on the north side of Chicago. I built a food
18 science laboratory in the high school where the
19 kids for the first time were feeding the food pantry
20 in the neighborhood. And also, they got to eat
21 hydroponic -- organic hydroponic inside the
22 cafeteria. So, a lot of the kids are very

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1 interested in growing.

2 I'm constantly getting emails almost at
3 least two times a week from kids that are very
4 excited about me, what I'm doing, and want
5 apprenticeships with me and stuff.

6 I also started working on an organic
7 vegan-based fertilizer. The name of the
8 fertilizer is called Nature Source. They also
9 have a vegan-based probiotics also.

10 So, what I do with that is I take it and
11 I use it in a vortex brewer before I even put it
12 in my system and I'm spinning it counterclockwise
13 as well.

14 So, what I'm doing is I'm treating my
15 water before I'm using it so I can have the highest
16 quality of water before it even goes in my system.

17 When I put it in the system, my pH stays
18 at about 6.2, about what you want hydroponics to
19 be at, and it never leaves there. I never have to
20 add any pH down or anything else.

21 I've been working on this type of
22 formula for nine years already and it's completely

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1 been balanced. It's a continuous feeding program
2 where I'm always continuously feeding the program.
3 I don't have to change out my reservoirs or anything
4 because everything is plants-based. I'm not
5 introducing no unknown bacterias or anything to my
6 growing operations.

7 Is there any questions?

8 CHAIR FAVRE: Carmela.

9 MS. BECK: So, a comment first, Nick.

10 MR. GREENS: Yes.

11 MS. BECK: So, just one thing that's
12 really important to me is access, access of organic
13 food to a wide, diverse population. And also,
14 access to these meetings to individuals that aren't
15 usually represented. And yourself and the
16 individuals that spoke earlier, it's really a
17 pleasure to see folks here being engaged that
18 aren't usually engaged.

19 I want to know with your programs, are
20 you able to impact an access populations that don't
21 necessarily have access to organic food?

22 MR. GREENS: That's where the plant is

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1 in the Back of the Yards Neighborhood, which is a
2 food desert. I also partnered up with several
3 programs in the neighborhood bringing high school
4 kids inside my grow room and kind of like a work
5 ethic program where we just work really, really
6 hard and then we sit down and I teach them about
7 the growing stuff.

8 So, yes, I'm really, really impacting
9 neighborhoods that are food deserts.

10 CHAIR FAVRE: I'm going to channel
11 Harriet here and ask a question that she's been
12 asking.

13 Do you believe that if you weren't able
14 to use the designation of "organic," that you would
15 still have a viable market if you explained your
16 production system and your methods that you used?

17 MR. GREENS: I don't think I would have
18 a problem. I mean, basically I'm growing
19 conscious food for conscious people.

20 There's a lot of vegans out there that
21 are very aware of how their plants are grown.
22 Because I use a vegan-based fertilizer, that is

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1 another selling point to it. So, I do see another
2 selling point besides the organic certification.

3 CHAIR FAVRE: Thank you very much.

4 MR. GREENS: You're welcome.

5 CHAIR FAVRE: Next up is Greg Butler
6 with Susana Herdia on deck. Greg Butler, are you
7 here? Going once. Okay.

8 Susana Herdia also with Nick Greens.
9 Okay. That just helps us stay on schedule.
10 Terrance Glenn, as you here? Terrance Glenn. No?
11 Okay. All right. No Terrance Glenn.

12 Daniel Heller. Daniel, are you with
13 us? Okay. come on down, Daniel. Next up is
14 Jennifer Heller on deck.

15 MR. HELLER: good morning. My name is
16 Dan Heller and thank you for the opportunity to
17 provide comments to you today.

18 I've had the privilege of growing up on
19 a small dairy farm in Lancaster County,
20 Pennsylvania.

21 My grandfather, Park Heller, purchased
22 the home farm in 1948. Her personified all that

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1 is good about instilling values in a family farm
2 and the values of those were hard work, caring well
3 for animals, stewarding land for future
4 generations and, most of all, valuing others.

5 These stewardship values are ones that
6 we feel passionate about. I wake up every day
7 looking out over the same farmland that my
8 grandfather and father cared for.

9 Although we started as a dairy farm, we
10 now have evolved into a diversified farm with
11 horses and poultry.

12 We have horse boarding stables and we
13 have chicken houses where we raise organic
14 chickens.

15 I started raising conventional
16 chickens about 20 years ago while in college and
17 I have enjoyed working with poultry and we have
18 grown the farm over the years.

19 We have been honored to receive
20 numerous regional and national environmental
21 awards for proactive work we have done on our farms
22 including the National US Poultry and Egg

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1 Association Family Farm Environmental Excellence
2 Award.

3 But to jump directly to my point for the
4 comments today when we moved from conventional
5 chicken raising to organic chicken raising, we were
6 met with some challenges.

7 One of those challenges was increased
8 ammonia being generated due to the organic feeding
9 rations and increased water consumption.

10 We enjoy finding creative solutions to
11 -- environmentally-friendly solutions to the
12 challenges on our farm, but this one already has
13 a solution.

14 Prior to going organic, we used sodium
15 bisulfate, SBS, in our chicken houses. This has
16 had numerous benefits of lowering pH in the reuse
17 litter, controlling bacterias and eliminating the
18 ammonia in the air.

19 Today, we are struggling to find an
20 effective tool to manage the ammonia without using
21 SBS. We have tried numerous alternatives to
22 manage this challenge and cleaning out after each

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1 flock has a profound, negative impact on using lots
2 more resources to raise the birds.

3 Additionally, the birds are healthier
4 when raised on reused litter where they can pick
5 up natural immunities.

6 Increasing ventilation for ammonia
7 control is difficult with swings in temperature and
8 humidity causing the litter to get wetter and the
9 birds to be more uncomfortable.

10 We have seen and experienced the
11 effectiveness of SBS and were one of the first to
12 use it in our region many years ago.

13 Another significant challenge we have
14 encountered is necrotic enteritis in the chickens.
15 This has caused losses of thousands of chickens.

16 We did not experience this while using
17 SBS as part of our flock management. We have tried
18 alternatives such as the OMRI-approved activated
19 Barn Fresh, but unfortunately have not had
20 successful control of ammonia or disease such as
21 the SBS has performed in the past when we were able
22 to use it.

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1 The use of SBS will greatly reduce
2 ammonia in the chicken houses and will be an
3 important tool that we need in order to meet the
4 proposed animal welfare standards. We really need
5 this tool.

6 And if I can finish just one sentence,
7 we desire to provide a great environment for the
8 health and welfare of the chickens for us and our
9 children that are helping to raise our chickens in
10 the chicken houses.

11 We really need to be able to provide
12 the consumers with a chicken that has been raised
13 by high standards of health and welfare and we
14 strongly encourage SBS as a product for use in the
15 organic process of raising chickens.

16 CHAIR FAVRE: Thank you.

17 MR. HELLER: Thank you.

18 CHAIR FAVRE: Ashley.

19 MS. SWAFFAR: So, I want to talk about
20 your experiences. You said you tried alternatives
21 --

22 MR. HELLER: Yes.

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1 MS. SWAFFAR: -- the Activated Barn
2 Fresh and things like that.

3 What did you see when you were using
4 those alternative products that are OMRI listed?

5 MR. HELLER: Unfortunately, we did not
6 see the results that we saw with SBS in the past.
7 We had used SBS for a number of years in
8 conventional poultry raising and saw significant
9 ammonia reductions and significant improvements in
10 the litter conditions for reducing necrotic
11 enteritis. We did not have that challenge when we
12 were using SBS.

13 When we used the other products, the
14 alternatives, unfortunately we did not see the
15 ammonia control that we did with SBS.

16 MS. SWAFFAR: Right. But did you see
17 some ammonia control, it's just not at the great
18 level that you wanted and you saw --

19 MR. HELLER: It was almost nonexistent
20 that we could detain. Again, I'm talking
21 practically from the field standpoint on our farm.

22 CHAIR FAVRE: Dan.

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1 MR. SEITZ: How big is your operation?
2 How many houses do you have? How many birds and
3 --

4 MR. HELLER: We have 12 chicken houses
5 there in Lancaster County. We have about 300,000
6 chickens.

7 MR. SEITZ: And just roughly, what is
8 the square footage per bird?

9 MR. HELLER: We're ranging one to one
10 and a half square foot per bird.

11 CHAIR FAVRE: Francis.

12 MR. THICKE: Just to clarify, in your
13 paper you said "Barn Fresh" and now you said
14 "Activated Barn Fresh."

15 Which one were you using?

16 MR. HELLER: The Activated Barn Fresh.

17 MR. THICKE: With the citric acid --

18 MR. HELLER: Yes.

19 MR. THICKE: -- and the pH down to
20 three. Okay.

21 MR. HELLER: Right.

22 MR. THICKE: By the way, I want to make

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1 a comment that somebody in the audience asked me
2 during break if I used Barn Fresh. And the cows
3 that are in pasture, they don't need Barn Fresh.

4 CHAIR FAVRE: Thank you very much.

5 MR. HELLER: Thank you.

6 CHAIR FAVRE: We're running just a tad
7 bit ahead of schedule. I'm not quite sure how to
8 react to that. We haven't done that before.

9 We're just going to keep going, but I'm
10 going to announce a few names in advance since we're
11 running a little ahead of schedule.

12 So, we've got Jennifer Heller up next.
13 We've got Patrick Kerrigan after that and then
14 Albert Straus after that. So, come on down,
15 Jennifer.

16 MS. HELLER: Hi. I'm Jennifer Heller
17 from Flint Rock and Heller Farms. Thank you for
18 the opportunity to provide comments to you today.

19 Growing up in a suburban neighborhood,
20 I did not grow up on a farm. I have been immersed
21 in farming, though, since marrying my husband who
22 took over managing his family farm while we were

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1 both still in college.

2 Farming has now become woven into our
3 family as an integral part of who we are producing
4 health food in an environmentally friendly manner
5 is what we are passionate about.

6 My first priority role is that of a
7 mother. We've been blessed with four sons who
8 provide unending energy and vibrant life to our
9 family. We feel so fortunate to be able to raise
10 four boys on a farm where they can connect with
11 nature and farming in a way that many cannot.

12 Teaching them what it means to care for
13 our land and resources is very important to us.
14 This year, our stone barn celebrates its 200th
15 birthday. We can only hope that we will steward
16 our time on this farm to preserve the opportunity
17 for someone else to be able to do so in the future.

18 We also have a horse boarding stable on
19 our farm and we care for 40 horses. I lead a team
20 that provides young people with an opportunity to
21 learn about horse riding in our lesson program and
22 experience life on a farm.

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1 Our family also have poultry houses
2 where we grow organic chickens. We've enjoyed the
3 opportunity to partner with an organic company
4 that's passionate about what it's doing and raises
5 market healthy organic chickens.

6 A few years ago I fought a battle with
7 Lyme Disease and a few members of our family have
8 fought this challenge as well. This has led to
9 more vigilant -- us being more vigilant about
10 nutrition and what we eat.

11 Our four boys love to help with the
12 chicken farm and even our youngest, Chandler, begs
13 to go in the chicken houses. Our farm is truly a
14 family affair.

15 One of our challenges in moving our
16 chicken raising from conventional to organic just
17 a few years ago is controlling the atmosphere in
18 the chicken houses. Hence, the reason for my
19 comments today.

20 The organic system has many great
21 attributes like the windows and open doors outside
22 which makes chicken tending more enjoyable.

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1 However, a challenge of organic chicken raising is
2 the ammonia generated in our houses. The organic
3 diet contributes to the challenge of higher ammonia
4 in the houses.

5 Previously we used sodium bisulfate or
6 SBS to control ammonia in the chicken houses. This
7 was a very effective tool and worked well.

8 Our desire is to raise chickens in an
9 environmentally friendly and sustainable manner
10 that does a good job of providing for the health
11 and welfare of the chickens.

12 The house environment is more
13 challenging without having ammonia-controlled
14 product. Having SBS as an approved organic
15 product would provide for a healthier environment
16 in our chicken houses.

17 This is very important for the
18 chickens, but also for my children who are working
19 in there. Ammonia levels can be harmful for them.

20 So, I respectfully ask you to consider
21 adding SBS to the approved list of products so that
22 we can do a good job of providing organic chicken

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1 to this environment.

2 Thank you for the opportunity to
3 provide comments today. It's rewarding to be able
4 to provide farm-fresh, healthy, organic chicken in
5 an environmentally friendly manner for families to
6 enjoy.

7 I hope your consideration will increase
8 the quality and substantially of organic chicken
9 raising.

10 I want to allow my children to work in
11 the houses as much as they used to and see healthy
12 birds thriving. I think this can happen with the
13 use of SBS.

14 CHAIR FAVRE: Ashley.

15 MS. SWAFFAR: So, maybe I should have
16 asked your husband this, but I'll ask you this.

17 MS. HELLER: Probably.

18 MS. SWAFFAR: Do you think that the
19 diet is a lot of the concern because we, in the
20 poultry industry, do not have the opportunity to
21 feed essential amino acids at the level that the
22 bird requires and that's why we might be generating

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1 excess ammonia?

2 MS. HELLER: All that I know is I'm
3 going from our past experience and we're coming
4 from conventional growth and we've been in organic,
5 you know, chicken farming and we're seeing much
6 higher ammonia levels and to the point that I
7 seriously honestly have to control the amount of
8 time that I let our children spend in the chicken
9 houses.

10 And when they go in there,
11 unfortunately they're seeing more deaths in
12 chickens as well.

13 In fact, just the other day our son said
14 to somebody when they asked what he had done for
15 the day, he said, "I was picking up dead chickens."

16 And of course that comes along with the
17 territory. However, chicken tending didn't used
18 to be -- that wasn't the prime focus. And I feel
19 more and more that we're having more deaths in our
20 chicken houses because of these high ammonia levels
21 that are very hard to control.

22 CHAIR FAVRE: Harriet.

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1 MS. BEHAR: So, if I drove by your
2 chicken houses on a 70-degree day, you know, a
3 couple hours after sunrise, would I see chickens
4 outside?

5 MS. HELLER: You would see some.

6 And I will just add on that is that we
7 are in a part of the country that has a lot of cold
8 air coming into our chicken houses. So, that makes
9 it increasingly difficult as well.

10 As we have the windows open, we're
11 pulling more cold air into our houses. So, that's
12 generating into the -- we have to heat up that cold
13 air which is making the floors more wet, which is
14 only increasing the ammonia.

15 CHAIR FAVRE: Thank you very much.

16 MS. HELLER: Thank you as well.

17 CHAIR FAVRE: Okay. Next up is
18 Patrick Kerrigan. We've got Albert Straus and
19 then Christian Schlect on deck.

20 MR. KERRIGAN: Good morning. Organic
21 Consumers Association has already submitted our
22 written comments along with our petition which

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1 37,502 of our members signed.

2 Keeping GMOs out of organic food is of
3 paramount importance to organic consumers. Those
4 with compromised immune systems, allergies, food
5 sensitivities count on the NOSB to remain vigilant
6 on this issue and assisting them in protecting
7 their health.

8 Preventing GMO contamination of
9 organic foods is already a difficult process and
10 will become even more challenging as complex and
11 new genetic engineering techniques come on line.

12 As the excluded methods terminology
13 proposal states, the biotech community is rapidly
14 outpacing any regulatory structure. It's more
15 imperative than ever that the organic community be
16 very clear about where the line is drawn regarding
17 genetic engineering.

18 As the Material Subcommittee moves
19 forward in creating a process for reviewing
20 existing and new genetic engineering technologies
21 and in order for the organic standards to maintain
22 their integrity, all methods of genetic

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1 engineering, including new synthetic biology and
2 gene netting techniques must be excluded.

3 The proposed updated GMO genetic
4 engineering definitions effectively address this
5 new genetic engineering and gene netting
6 techniques should be adopted.

7 The AMS genetically engineered policy
8 memorandum requires that no proposed rules for
9 bioengineered food disclosure will require that
10 modifications be made to the USDA organic
11 regulations. It is imperative that the NOSB
12 steadfastly hold the AMS to this commitment.

13 Finally, the NOSB and our organic
14 community as a whole must not gloss over the
15 potentially disastrous effects that the passage of
16 the National Bioengineer Food Safety Law may have
17 in preventing GMOs from being excluded from
18 organics in the future.

19 The new law directs the Agriculture
20 Secretary to consider establishing consistency
21 between the National Bioengineer Food Disclosure
22 Law and the Organic Food Production Act of 1990 and

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1 any rules/regulations implementing that act.

2 The fact that the passage of this law
3 would have been -- would not have been possible
4 without the aggressive lobbying of the Organic
5 Trade Association, Whole Foods, Smucker's,
6 Stonyfield, Organic Valley, UNFI and other
7 industry-leading organic companies that were
8 largely responsible for passage of this law
9 outrages the organic community across the country
10 and further erodes organic consumer's confidence
11 in the organic seal.

12 It's appalling that brands and
13 businesses supported by organic consumers would
14 conspire to keep consumers in the dark about GMOs,
15 replace Vermont's ground-breaking GMO labeling law
16 with a toothless scam that won't label most GMOs
17 and will let companies use anonymous QR codes
18 instead of words on packaging.

19 It is essential that the NOSB makes
20 clear to the NOP that it has explicit authority to
21 define genetic engineering in all its forms as
22 excluded methods and that the authority must not

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1 be compromised in any way under the guise of
2 consistency with the DARK Act.

3 Protecting the integrity of the organic
4 seal is critically -- is a critical duty of the
5 NOSB. The OTA betrayal is painful and divisive,
6 but impacts of their action of eroding consumers
7 must be addressed to protect organic integrity.

8 Thank you for your service, everyone.
9 Thanks for your time -- oh, and then I've got copies
10 of the DARK Act, too, for all of the NOSB members
11 so that you can familiarize yourself with what you
12 have to steadfastly oppose with all your abilities.
13 Thanks for your time.

14 CHAIR FAVRE: Questions?

15 (No audible response.)

16 CHAIR FAVRE: Okay. Thank you very
17 much.

18 Next up is Albert Straus with Christian
19 Schlect and Lynn Coody on deck.

20 MR. STRAUS: Hi. I'm Albert Straus.
21 For you who don't know who I am, we start -- we were
22 the first certified organic dairy and creamery west

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1 of the Mississippi River in the beginning of 1994.
2 We now have close to 90 percent of the dairies in
3 Marin-Sonoma County are certified organic and we'd
4 like to call a convention niche market.

5 The one problem we're having -- well,
6 one of the problems we're having is that the date
7 we're getting from the USDA about sales, organic
8 milk sales, is inaccurate.

9 It's not based on anything that really
10 helps us as an industry really to manage our volume
11 and our sales.

12 In California, we have the milk pooling
13 that I sued California for recognizing organic milk
14 production. The only thing we got out of it was
15 them tracking organic milk sales, fluid milk sales
16 in California, which showed a 13-and-a-half
17 percent decline in January, and now -- it's just
18 recovered now --- still a negative two-and-a-half
19 percent year to date.

20 So, when we're talking about policy --
21 making policy for dairy or for organic, it really
22 helps to have real information as to what

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1 production of organic milk is in the United States
2 and what are the sales.

3 And then on organic integrity, look --
4 I'm finding problems with consistency between
5 certifiers on what they inspect and how they -- that
6 they're not consistent across certifiers.

7 One example would be how they determine
8 if an operation meets the pasture rule . So,
9 there's opportunities to try to really get more
10 uniformity and consistent across the certifiers.

11 And along that line, my opinion is if
12 a certifier is a USDA agent, that they should be
13 able to take complaints from the community and
14 elevate it to the NOP rather than having to have
15 neighbors go all the way through to the NOP to make
16 complaints about different organic operations.

17 On ivermectin --- yes, on ivermectin I
18 think it should be removed as a de-wormer. And I
19 object to the withdraw, to lowering the withdraw
20 on milk to two days.

21 De-wormers don't have a place in
22 milking cows and it has to be documented, for one.

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1 And then it's just going to cause abuse that people
2 think they can use de-wormers in milking cows.

3 And then on a positive note is that
4 we've been involved in the true cost of food
5 movement and we've had four of our dairies involved
6 in -- I'll just finish up this slide --- involved
7 in getting metrics about the externalities in
8 farming and equating to milk production, as well
9 as across the Board for different farming methods.
10 And also ---

11 CHAIR FAVRE: I'm sorry. I'm sorry,
12 I've got to stop you there. We've got to be fair.

13 MR. STRAUS: Just ---

14 CHAIR FAVRE: We've got to be ---

15 MR. STRAUS: Okay. Forget it.

16 CHAIR FAVRE: We've got to be fair.
17 Maybe someone will ask you a question and ---

18 MR. STRAUS: Okay.

19 CHAIR FAVRE: -- you can finish that
20 comment.

21 MR. STRAUS: Thank you.

22 CHAIR FAVRE: Any questions?

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1 Harriet.

2 MR. BEHAR: Sorry, it's a different
3 question. Well, first, I want to say that we are
4 working on a discussion document for the definition
5 of "emergency treatment" to try to have consistency
6 between certifiers and to help producers
7 understand what the word "emergency treatment"
8 would actually mean and that it would be absolutely
9 last resort. So, but that will be for spring.

10 But I wanted to also ask you about the
11 data collection. I know that the new organic
12 survey did have kind of some incomplete and not,
13 I mean, the number of organic operations in
14 Wisconsin on the NOP website was about 15 percent
15 higher than what they said in the survey.

16 So, I guess it would be more to the NOP
17 and to try to encourage within the USDA that the
18 data that's being collected really be vetted before
19 it's put out in the survey, because if somebody like
20 me can just go on the NOP website and see a
21 difference in the number of operations than what
22 the NASS comes out with, then there's a problem.

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1 MR. STRAUS: I can just talk to the
2 point of there's the Milk Marketing Board, there's
3 the National Milk Marketing Board that tracks all
4 milk production and milk sales in the United
5 States, except for California. So, that's one
6 avenue, but so there're different avenues within
7 the USDA that you could probably get more accurate
8 information, more timely and accurate information.

9 CHAIR FAVRE: Miles, do you want to
10 respond to that?

11 MR. McEVOY: Yes. The survey, the
12 NASS survey, uses a different methodology for
13 gathering information on statistics in organic
14 agriculture and has different numbers because they
15 use a different methodology. It's a survey
16 methodology that's established through the way
17 that the Ag Statistics Service does those
18 particular surveys whereas the integrity database
19 is based on information that's provided by
20 certifiers.

21 So, they're different data sources.
22 They're both important in terms of providing

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1 information on the organic sector.

2 And, Albert, what you were talking
3 about was probably the AMS market news data, is that
4 ---

5 MR. STRAUS: Yes, I think so, where
6 they show like a five percent increase in organic
7 dairy sales or something like that.

8 MR. McEVOY: Yes. So, if you have
9 specific comments on that, if you could get that
10 to me and I could get that to the market news folks,
11 and we can get them to understand what the issue
12 is and make changes as appropriate.

13 MR. STRAUS: Appreciate that.

14 CHAIR FAVRE: Dan, you had a question?

15 MR. SEITZ: A couple questions.

16 First, could you finish your thought on
17 the true cost of food data that you're developing
18 and how that may affect the work that we do, what
19 the relevance is of that to us. And keep it fairly
20 brief, please.

21 MR. STRAUS: Right. So, the other
22 part of that is we have a 20-year plan for carbon

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1 farming to sequester a 2,000 metric tons of carbon
2 dioxide equivalent on our farm per year.

3 What I'm looking at is how can you
4 relate that to organic farming benchmarking and
5 showing that you're actually improving soil and
6 also being a positive part of climate change.

7 MR. SEITZ: And then the question on
8 the remaining two parasiticides where the
9 withholding time was substantially dropped, my
10 understanding was that that still wouldn't affect
11 the quality of milk even though it was a
12 substantially shorter time, but I'm wondering if
13 you maybe have a different point of view on that.

14 MR. STRAUS: So, in the 23 years or 24
15 years that I've been organic, we haven't used a
16 parasiticide on a milking cow in that whole time.
17 And I don't think there's a need for it.

18 It was a marketing ploy by the
19 pharmaceutical companies to say that you could get
20 more milk production.

21 So, allowing for a short withdraw time
22 sends a mixed message to farmers that you're

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1 allowing this even though there's no real use for
2 it or it's going to cause more problems for
3 processors to say, you know, how are we going to
4 test for this stuff if it's allowed, you know, it
5 gets complicated and I think it just leads to a
6 broken system.

7 MR. SEITZ: Thanks.

8 CHAIR FAVRE: Thank you very much.

9 MR. STRAUS: Thank you.

10 CHAIR FAVRE: Next up is Christian
11 Schlect with Lynn Coody on deck followed by Andrea
12 Ferrenz.

13 MR. SCHLECT: My name is Christian
14 Schlect and I serve as president of Northwest
15 Horticultural Council which is located in Yakima,
16 Washington. And we were founded in 1948.

17 The Northwest Horticultural Council
18 represents growers, packers and shippers of
19 apples, pears and cherries, both conventional and
20 organic, in Idaho, Oregon and Washington on
21 regulatory issues of federal and international
22 policy.

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1 While the NHC submitted written
2 comments on a number of issues before you today,
3 I am focusing my oral arguments or comments to
4 support for allowing the continued use of EPA list
5 3 inerts in the National Organic Program.

6 Of particular interest to our growers,
7 this list includes materials used in the
8 construction of passive pheromone dispensers.

9 I might add that these dispensers do not
10 touch the fruit nor the soil, which is, I think,
11 from yesterday's conversations, fairly important
12 to a lot of people.

13 In many ways, the Pacific Northwest is
14 the center for organic palm fruit and cherry
15 production in the United States. Part of this is
16 because of the climate.

17 Washington state is the national leader
18 in the production of organic apples, pears and
19 cherries. Over seven million boxes of organic
20 apples are now harvested from more than 14,000
21 acres amounting to over 70 percent of the entire
22 organic apple crop in the United States.

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1 There is also a significant amount of
2 organic pears and cherries with more than 4,000
3 acres planted across the Pacific Northwest.

4 Organic tree fruit production is
5 increasing and we have more acres being
6 transitioned to organic each year.

7 Passive pheromone dispensers are an
8 essential tool for controlling Codling Moth, which
9 is one of the most damaging pests of apples and
10 pears in the Pacific Northwest and elsewhere.

11 Codling Moth larvae feed directly on
12 the fruit penetrating it. As it tunnels to the
13 core, the larvae leaves behind reddish brown
14 dropping called "frass," rendering the fruit
15 unmarketable.

16 If left uncontrolled, Codling Moth can
17 cause considerable crop damage often infesting 20
18 to 90 percent of the fruit and costing growers
19 millions of dollars annually.

20 I could add also that, and most of you
21 know this, but trees only have one crop per year.
22 So, if you lose that crop because of insect problems

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1 like Codling Moth, that grower has lost the ability
2 to have any income for 12 months, unlike some
3 vegetable crops that could be rotated.

4 Codling Moth can be hard to control
5 especially if the population has been allowed to
6 build up.

7 In the Pacific Northwest, there can be
8 two to three generations of Codling Moth per year.

9 Passive pheromone dispensers are used
10 for mating disruption of Codling Moth is a very
11 specific control tactic that does not harm natural
12 enemies or other pests. There are no other
13 alternatives to control Codling Moth.

14 CHAIR FAVRE: Thank you.

15 Questions? Harold.

16 MR. AUSTIN: Chris, I've got two
17 questions for you.

18 First one is if we didn't have the
19 ability to utilize mating disruption in organic
20 production in the northwest, would we have organic
21 tree fruit production in the northwest?

22 MR. SCHLECT: You might have some, but

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1 it would not be commercially viable. Apples can
2 grow, as you well know, and have grown throughout
3 history. But to be a commercially viable
4 industry, it would be impossible, in my opinion,
5 to have our organic industry and growers growing
6 organic crops without this particular product.

7 MR. AUSTIN: Second question. With
8 the recent implementation of FSMA, what impact does
9 that have on our organic crop production, as well
10 as our organic handling from a food safety
11 perspective as that pertains to the sanitizers and
12 disinfectants that are currently allowed for use
13 in organic production?

14 MR. SCHLECT: Well, that's an
15 important question that I think this group is going
16 to have to wrestle with into the future is FSMA,
17 the Food Safety Modernization Act, as many of you
18 know, sets new federal standards for production of
19 food and specifically in the produce industry.

20 Those regulations that are coming out
21 now and or becoming finalized require a great deal
22 of attention and require obviously that the food

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1 be supplied, be safe. And that requires
2 sanitizers and warehouses. It requires other
3 materials and, you know, and it would be our hope
4 and expectation that those kinds of products would
5 be allowed to meet the public need as required by
6 FSMA and by the consuming public.

7 CHAIR FAVRE: Harriet.

8 MS. BEHAR: Since the actual List 3
9 list of inerts no longer exists or it's not being
10 maintained by the EPA, are you finding that --
11 because you're probably just -- the items would be
12 what had been on the old List 3. So, I'm just
13 wondering if that is stifling the possibility of
14 new materials being used, because we can't go
15 beyond what had been there.

16 MR. SCHLECT: You know, I don't know
17 the answer to that. I'm not a scientist or a
18 technical person on that subject, but we can get
19 you an answer.

20 Obviously, the more of these materials
21 that are available --- all we're concerned with is
22 having the pheromone trap in the orchard, and I

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1 don't know how you get there other than, you know,
2 keeping the present materials available.

3 If there's materials, we're open to it,
4 but I'm not an expert enough to answer your
5 question.

6 CHAIR FAVRE: Thank you very much.

7 MR. SCHLECT: Uh-huh.

8 CHAIR FAVRE: Okay. Next up is Lynn
9 Coody with Andrea Ferrenz and Marni Karlin on deck.

10 MR. COODY: Hi. My name is Lynn Coody,
11 and I'm presenting comments for the Organic Produce
12 Wholesalers Coalition which is comprised of seven
13 businesses that distributes fresh organic produce
14 to customers located across the US and
15 internationally.

16 In our comments to the NOSB, we work to
17 express our own ideas, as well as to provide a
18 channel for the voices of the many certified
19 growers who supply our businesses.

20 OPWC agrees with the Crop Subcommittee
21 about all the petitioned materials being
22 considered at this meeting. None should be added

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1 to the National List except for soy wax for which
2 we provided a suggestion about a change in its
3 annotation.

4 We do support relisting of all of the
5 2018 crop sunset materials, particularly peracetic
6 acid, as a sanitizer and disinfectant and for
7 controlling phytopathogens.

8 In our internal polling process, both
9 growers and handlers specifically mentioned the
10 need for using peracetic acid against fire blight
11 now that antibiotics are prohibited for that
12 purpose.

13 Our comments mainly focused on the
14 bigger issues of bioponic and container growing.
15 After a lengthy discussion, we asked that the four
16 defined classes of ponics be considered
17 individually to determine specifically which of
18 their practices meet organic standards and which
19 do not.

20 To respond to the discussion document
21 on container growing, we took a slightly different
22 approach than did many other commenters.

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1 We looked for points of commonality
2 between all types of growers who have been working
3 in good faith to comply with organic standards and
4 we presented an example of a middle ground
5 principle approach for regulating container
6 systems that reflects organic principles.

7 We think that at this juncture, the
8 decisions on containers and hydroponics are likely
9 to have a negative impact on both bioponic and
10 field-based growers because so many ponics
11 operations have already been certified.

12 This situation is troubling to us. We
13 see it as a direct outcome of the NOP's
14 accreditation program allowing certification of
15 operations for which standards are insufficient to
16 address the needs, conditions and concerns related
17 to specialty production practices.

18 This is a failure at the top of the
19 regulatory system, not at its foundation.
20 However, until this problem is addressed, we fully
21 expect this same dynamic to occur with regard to
22 other scopes of certification as well;

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1 unfortunately, with operators bearing the brunt of
2 the functioning in an uneven environment.

3 We urge the Board to send the
4 hydroponics issue back to the Crop Subcommittee to
5 be considered in light of the information submitted
6 by the container and greenhouse discussion
7 document, which is part of a continuum of practices
8 with hydroponics.

9 In addition, we ask the CACS to
10 reexamined implementation of a continuous
11 oversight system for NOP's accreditation program
12 as a way to identify and correct systemic
13 accreditation problems before they result in the
14 organic version of too big to fail.

15 CHAIR FAVRE: Thanks, Lynn.

16 Harriet.

17 MS. BEHAR: So, I'm wondering if you're
18 suggesting that it's maybe somewhat similar to
19 aquaculture when we did have, started to have, some
20 organic aquaculture operations in the US and then
21 we decided there really was not good standards.
22 And so, the USDA seal was no longer allowed and

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1 certifiers were no longer allowed to certify.

2 And we went back and did that sort of
3 reassessing and developed a, well, we're in process
4 of developing a scope for organic aquaculture
5 products.

6 Do you think hydroponic, bioponic and
7 all the ponics should go through a similar process?

8 MS. COODY: I think there's a
9 significant difference in those two situations,
10 because there has already been a signal from the
11 USDA that it's okay to certify hydroponic
12 operations and there are some already certified as
13 organic whereas under aquaponics, that was not the
14 case.

15 There was a little bit of a difference
16 in that we were experiencing threats or incursions
17 from other certification systems about aquaponics.

18 So, I do not think that there should be
19 a moratorium on certification at this time until
20 -- I think we need to think about each of the
21 individual types of ponics operations, decide which
22 ones --- if there are inherent differences or

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1 problems with some, or some individual practices,
2 and actually write standards that tell whether or
3 not certain types of container and hydroponic
4 operations are within principles of organic.

5 And I think we need to take a look at
6 all of the information that's come in from growers
7 that have been using these systems in this lovely
8 process of public comment that the NOSB has
9 provided.

10 The hydroponics paper that the NOSB put
11 out was proposed before this information was
12 available from the public. So, I think it's good
13 to go back and rethink it.

14 CHAIR FAVRE: Harold.

15 MR. AUSTIN: Hi, Lynn. Thanks for the
16 comments that you submitted. They were great.

17 If we were to refer this back to the
18 subcommittee for review and further work, should
19 we leave it as it exists and have all of the various
20 processes lumped under bioponics, or would we be
21 better served to break that up into individual
22 categories?

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1 MS. COODY: Well, in our written
2 comments, we did express that we were thankful for
3 the definitions of the four types of ponc
4 operations that you provided. And we feel that
5 that is a better starting point than having them
6 lumped together, because they're significantly
7 different in the way that they use different media
8 and the way that they are actually managed.

9 Some, in our view, are more aligned with
10 organic principles than others. So, we think that
11 there should be more differentiation and a more
12 careful approach.

13 CHAIR FAVRE: Dan.

14 MR. SEITZ: Just a clarifying question
15 based on Harriet's question.

16 Are you saying that there should be a
17 moratorium on more certifications? No. Okay.

18 MS. COODY: No. I think that since the
19 NOP had given a signal to certifiers at least that
20 some of the certifiers understood that it was okay
21 to do certification at this time until there is
22 clarity about exactly which types of operations

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1 should be, can be considered to be organic, that
2 certification should proceed as it is right now.

3 Although, I think that certifiers need
4 to understand that this is a fluid situation and
5 fully explain that to operators before they are
6 putting these millions of dollars of investment
7 into ponic-type operations.

8 I think there needs to be a lot more open
9 and transparent discussion about this at every
10 single level, because the problem is we moved
11 forward without having standards. You cannot run
12 a regulatory system without clear standards, and
13 that's where we went wrong, in my opinion. Thanks.

14 CHAIR FAVRE: Francis --- wait. Hang
15 on, Lynn. Francis hiding behind the pillar over
16 here.

17 MR. THICKE: Well, based upon what you
18 said, though, my concern is, though, do you have
19 that concern that if we put it off for another year,
20 that there will be more certified hydroponic
21 operations that may have to then be taken away
22 later? Would that make it more difficult?

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1 MS. COODY: I do have that concern, and
2 that's why in my comments I expressed that it would
3 hurt --- that the situation that we're in now will
4 hurt both ponc growers, current ponc growers, and
5 current field-based growers.

6 I think we're in a really tough
7 situation and I'm not worried that there would be
8 more ponc-type operations. What I'm worried
9 about is that there would be more that would end
10 up being noncompliant with the eventual standards
11 that will promulgate so that a subset of them will
12 probably be deemed to be noncompliant.

13 And so, yes, I am concerned about that.
14 That is the damage that I feel will occur to the
15 growers that have put in good faith, have proceeded
16 with organic certification as explained to them by
17 both their certifiers and the NOP.

18 CHAIR FAVRE: Okay.

19 MS. COODY: Okay.

20 CHAIR FAVRE: Now, You're free to go.

21 MS. COODY: Thank you.

22 CHAIR FAVRE: Thank you, Lynn.

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1 Okay. Next up is Andrea Ferrenz and
2 then we've got Marni Karlin and David Colson on
3 deck.

4 MS. FERRENZ: Good morning. My name
5 is Andrea Ferrenz. I'm regulatory director and
6 associate general counsel with Innophos.

7 Innophos is a US company that
8 manufactures ingredients for foods, dietary
9 supplements, pharmaceuticals and other markets.

10 Our ingredient products include
11 botanicals, enzymes, minerals and, if you haven't
12 already guessed from our name, phosphates.

13 Through various corporate owners,
14 names, acquisitions, the company I work for has
15 manufactured phosphates in different compound
16 forms for over a hundred years.

17 We know phosphates. We know how they
18 work in foods, because we have spent decades
19 perfecting our phosphate products by making in our
20 food testing lab thousands of muffins, cakes and
21 cookies, thousands of pounds of meats and cheese
22 products and thousands of liters of drinks.

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1 Phosphorus combined with sodium has a
2 different food chemistry than phosphorus combined
3 with calcium even though both compounds are
4 phosphates. That is why there are multiple
5 phosphate compounds on the allowed list.

6 Simply stated, they do different things
7 in different types of foods for a diverse US food
8 culture.

9 We know how phosphates taste in foods.
10 If you use too much or too little, phosphates change
11 a food for the worst because of flavor and/or mouth
12 feel.

13 We know this, because we have run
14 hundreds of food taste tests. Our staff is
15 well-versed in how too much or too little
16 phosphates could make a food unappealing,
17 unappetizing or plain awful.

18 The National Organic Program has a
19 philosophical goal of organically-labeled
20 products being made of wholly organic agricultural
21 ingredients. That is not achievable right now.

22 Phosphates are needed for organically

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1 labeled foods that need non-yeast leavening, foods
2 that need to keep insoluble ingredients in
3 suspension and foods that need to retain moisture
4 and texture of the shelf life of the product. I'm
5 talking about prepared organically-labeled foods,
6 not raw organic foods.

7 Right now, there are no organic
8 alternatives or even non-organic agricultural
9 alternatives that can do what phosphates can do for
10 prepared organically labeled foods.

11 Phosphates make it possible for
12 consumers to access the convenience of prepared
13 foods with organic ingredients. That would not be
14 an option if it were not for the phosphates in the
15 allowed list today.

16 USFDA --- oh, sorry. Here we go.
17 USFDA has found the phosphates on the allowed list
18 to be safe when used at typical levels in the US
19 daily diet, a diet that relies heavily on prepared
20 foods.

21 The Handling Subcommittee's conclusion
22 that there is a cumulative impact of phosphates and

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1 that high levels of phosphates can result in a range
2 of human health problems is not supported by the
3 weight of scientific evidence as that fact found
4 in CATO research review of 110 peer-reviewed
5 articles is impossible to make those conclusions
6 based on that unbiased analysis of the science.

7 The notion that phosphates are hidden
8 described in Technical Report Question 7 is that
9 they are present in significant amounts in
10 processed foods without appearing on the products
11 ingredient list is simply not the case.

12 The US insignificant food ingredients
13 labeling exception is narrow. It does not apply
14 when phosphates are used for the functional effects
15 I have described. Thank you.

16 CHAIR FAVRE: Good job .

17 Harriet, followed by Harold.

18 MS. BEHAR: So, I have two questions.

19 One is, how many different phosphates
20 are there in use in foods? And the second is, my
21 understanding is especially in dairy products,
22 that at times the phosphate binds with the calcium

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1 making it unavailable to the consumer of the
2 product and that some people then move to like a
3 sodium citrate for the emulsification in, like,
4 dried cheese, for instance.

5 MS. FERRENZ: As to your second
6 question, I'm going to have to say I'm a regulatory
7 attorney, so I can't answer that piece. But if
8 you'd like more information, I'm sure we can get
9 you some.

10 As to your first question, another IFAC
11 member, Dr. Korff, spoke yesterday. I think you
12 asked her the same question and she said about 20
13 to 30. I think that's about right.

14 CHAIR FAVRE: Harold.

15 MR. AUSTIN: So, in the different
16 studies that were reviewed and the information that
17 was gathered, did you guys happen to stumble across
18 any information that would show is there a
19 difference in the level of phosphates used in
20 conventional-produced food versus that of
21 organic-produced food, consumer ready?

22 MS. FERRENZ: I don't recall seeing

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1 that in the literature.

2 CHAIR FAVRE: Thank you very much.

3 Next up is Marni Karlin with David
4 Colson and Marco De Leonardis on deck.

5 MS. KARLIN: Good morning and thank you
6 for the opportunity to testify before you today.
7 It feels kind of like a family reunion to be back.

8 My name is Marni Karlin from Karlin
9 Strategic Consulting, and I am here today on behalf
10 of Munger Farms, a multi-generation, family-owned,
11 certified organic blueberry farm located near
12 Bakersfield, California.

13 I am here today to testify in support
14 of your continued work clarifying what is necessary
15 for container operations to be certified organic.

16 Munger Farms is dedicated to
17 responsible organic farming, including organic
18 container production.

19 We support your continued work to
20 create transparent and enforceable regulations
21 regarding organic container production so growers
22 can confidently continue to invest in clearly

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1 defined practices that certifiers can consistently
2 certify.

3 As you know, the OFPA requires organic
4 production to respond to site-specific conditions
5 by integrating cultural, biological and mechanical
6 practices that foster cycling of resources,
7 promote ecological balance and conserve
8 biodiversity.

9 As you continue your important work on
10 this issue, we urge you to approach it from this
11 perspective, not with arbitrary and overly
12 prescriptive rules about the size of the container
13 or the quantity of compost, but by considering the
14 merits of each system and its adherence to the
15 organic principles.

16 Organic is about this set of principles
17 that farmers meet by having a clear understanding
18 of the specifics of their location, their plants,
19 their needs.

20 This, of course, makes the work of
21 organic farming and organic certification
22 difficult, because there's no one-size-fits-all

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1 answer, but it also makes organic meaningful
2 because it adheres to a set of principles rather
3 than just meeting an arbitrary list of numbers.

4 My colleague, Robert, will speak later
5 today about specific practices used by Munger Farms
6 and its partners to foster cycling of resources,
7 promote ecological balance and conserve
8 biodiversity.

9 For now, I'll just note that their
10 practices create biological activity in the
11 containers, use borders to attract beneficial
12 insects, conserve irrigation water, conserve the
13 use of organic fertilizer, use less land, maintain
14 or improve soil organic matter content, provide
15 erosion control and reduce runoff into our
16 waterways.

17 Container production relies on
18 biological activity for its success and we urge you
19 to continue your important work to draft a clear
20 recommendation for guidelines for organic
21 container production based on the principles
22 underlining the OFPA and the USDA organic

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1 regulations. And I'd also encourage you to
2 convene a panel of scientific experts to inform
3 your work along those lines.

4 Thank you all, again, and particularly
5 those of you whose terms are ending this meeting,
6 for your volunteer service to the organic sector
7 as a whole. We appreciate your time and your
8 dedication to ensuring a vibrant future for the
9 organic community. Thank you.

10 CHAIR FAVRE: Thanks, Marni.

11 Questions?

12 (No audible response.)

13 CHAIR FAVRE: Thank you very much.

14 MS. KARLIN: Thanks.

15 CHAIR FAVRE: And next up is David
16 Colson. We've got Marco De Leonardis and Suren
17 Mishra on deck.

18 MR. COLSON: Good morning and thank you
19 for your work on behalf of organic agriculture and
20 the National Organic Program.

21 My name is David Colson. I'm the
22 agricultural services director for the Maine

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1 Organic Farmers and Gardeners Association, but I'm
2 speaking to you today as an organic farmer growing
3 and marketing in Portland, Maine for over 30 years.

4 When I became interested in agriculture
5 in the early 1970s, I chose a path of work and school
6 to prepare for a potential future in farming.

7 During my first year at Ag school, the
8 soil science teacher declared soil was necessary
9 on the farm in order to hold up the plant while we
10 fed it chemical fertilizer.

11 It seemed to me and a small group of
12 friends, that the soil was much more than that.
13 And we formed a study group to investigate that
14 idea.

15 Organic farming, at the time, was a
16 threatening subject to many of my fellow classmates
17 and I ended up leaving Ag school to pursue other
18 alternative learning situations, including
19 working on both conventional and organic farms.

20 Fast forward five years and I was
21 fortunate enough to purchase a worn out farm north
22 of Portland, Maine. While the soil was relatively

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1 deep and stone-free for Maine, the earliest soil
2 tests showed a depleted soil mined of its nutrients
3 and in need of serious restoration.

4 Over the next three decades, my wife and
5 I worked to rebuild our soil not just by adding some
6 needed nutrients at specific times, but by
7 utilizing cover crops, crop rotation and farm-made
8 compost to build soil nutrient reservoirs and
9 microbial life within our soil.

10 Our goal in this regeneration was not
11 just to add nutrients to grow that year's crop, but
12 to build the soil so that it provided a resilient
13 buffer against climate and nutrient availability
14 factors that helped maintain the resiliency and
15 success of our farm.

16 No soil, no damage? This argument
17 misses the point. Producing crops indoors in
18 naturally-degraded environments or covering the
19 soil with landscape fabric for container
20 production may not cause soil loss through erosion,
21 but does nothing to regenerate the soil for food
22 production for future generations.

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1 A cousin of mine once characterized
2 farmers as dirt charmers. While a humorous
3 phrase, this also characterized the true nature of
4 agriculture based on the soil.

5 While I have no issue with hydroponic
6 production in its many forms, I believe that to
7 characterize it as organic goes against the true
8 nature of organic agriculture.

9 CHAIR FAVRE: Thank you.

10 Questions?

11 Harriet.

12 MS. BEHAR: Do you think that organic
13 consumers, your customers, buy your crops because
14 they see you as a solution to some of the problems,
15 or only because you're not using toxic materials
16 on your crops?

17 MR. COLSON: Well, I think to
18 characterize the consumer as any one thing is
19 difficult, but I think, in general, consumers
20 recognize that there are a myriad of reasons why
21 they buy organic and why farmers choose to buy
22 organic and the environmental piece of that is

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1 certainly one.

2 CHAIR FAVRE: Thank you very much.

3 MR. COLSON: Thank you.

4 CHAIR FAVRE: Next up is Marco De
5 Leonardis. And on deck is Suren Mishra and Gregory
6 Cunningham.

7 MR. DE LEONARDIS: Good morning. My
8 name is Marco De Leonardis and I have a Master's
9 degree in Agriculture. I am research and
10 development manager at Freeman Herbs in Ontario,
11 Canada.

12 I am here to support the concept that
13 organic container-grown plants are legitimately
14 organic.

15 Firstly, what is organic agriculture?
16 Organic agriculture is a sustainable, holistic,
17 production management system which promotes and
18 enhances agro-system health, including
19 biodiversity, soil biological activity and
20 recycling of material and resources to the greatest
21 extent possible with the intent of protecting the
22 environment, decreasing pollution and promoting a

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1 sound state of health.

2 At Freeman Herbs, we grow plants in
3 compostable, certified organic rice-husk pots,
4 using the soil substrate composed of peat moss,
5 turkey litter compost rich in microbes, which are
6 responsible for the release of the nutrients to the
7 plants.

8 Therefore, I can confidently assert our
9 plants are grown in a healthy, biological active
10 soil not different at all from the soil found in
11 the crust of the earth.

12 Water conservation due to global
13 warming is a matter of concern. By recycling our
14 water, we follow the principle of sustainability.
15 We need much less water to grow our plants than if
16 we were growing in the crust of the earth.

17 Furthermore, nutrients do not leach
18 away and pollute the natural water system as it
19 often happens, if not, in open fields.

20 Using a compost soil media and an
21 integrated pest management program based on the
22 release of beneficial insect, we prevent problems

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1 rather than react to them creating an ecologically
2 sound environment where there is a balance between
3 predators and pests. Thus, promoting and
4 conserving biodiversity.

5 Secondly, why consumers buy organic
6 food? Nowadays as we are experiencing a
7 continuous increase in allergies and cancers,
8 consumers are becoming more and more health
9 conscious and organic food is, in the majority of
10 the case, chosen because it's pesticide free and
11 a healthier choice.

12 Being able to buy a certified organic
13 potted plant gives them the opportunity of planting
14 it in their garden, if they have one, during the
15 spring and summer.

16 Alternatively, it can be kept in a pot
17 and harvested whenever needed during fall and
18 winter.

19 The demand for organic food is, for this
20 reason constantly increasing, and only through
21 organic certification the consumer can be certain
22 that they truly buy organic food as certified

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1 growers are inspected on a yearly base.

2 Our recultivable land, however, is
3 becoming scarce and more expensive. And if you
4 consider it, already over 40 percent of the organic
5 production is come from greenhouse -- greenhouses,
6 I believe it's impossible for the field-grown
7 organic product to meet the increasing demand.

8 I believe it's unfair to deprive the end
9 consumer of sustainably-grown, potted, organic
10 certified, live plants.

11 I would like to thank the members of the
12 National Organic Standards Board Committee for the
13 opportunity for me to talk such an important
14 matter.

15 CHAIR FAVRE: Thank you.

16 Questions?

17 (No audible response.)

18 CHAIR FAVRE: Thank you. Thank you
19 for coming.

20 Next up is Suren Mishra, followed by
21 Gregory Cunningham and Reza Pahlevi.

22 MR. MISHRA: Good morning, all of you.

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1 I represent Tetra Technologies and I manage
2 business development for them. I have but a very
3 simple question to the Board.

4 We have been allowed calcium chloride
5 application for full year, but not for soil and I
6 would like to just visit the subject. Our petition
7 is pending for soil application.

8 If you look at calcium chloride, how it
9 has been allowed, if you read it--- if you look at
10 that, what does it say?

11 It allowed, calcium chloride was
12 allowed, with provision. The provision was
13 calcium chloride brine process is natural and
14 prohibited for use except as Ufolia spray to treat
15 physiological disorder associated with calcium
16 uptake.

17 What does that mean? It is only
18 allowed for soil application, and that's what I
19 read.

20 I would like you to go back, look at how
21 potassium chloride has been allowed. And if you
22 look at potassium chloride, the provision is unless

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1 derived from a mine source, as a matter of fact,
2 both of these products, calcium chloride and
3 potassium chloride, which have been allowed, they
4 are all mined products. Of course, both can be
5 manufactured, too. And applied in a manner that
6 minimizes chloride accumulation in the soil, yes.
7 Applied in a manner, right? That means it can be
8 applied to soil.

9 I would like to compare these two
10 products. Both are essential, the fact potassium
11 chloride is allowed and calcium chloride is not.
12 That's the question.

13 Both high electrolytes, both are highly
14 soluble, water soluble. Calcium, potassium,
15 chloride, all are known to be nutrients.

16 As a matter of fact, potassium chloride
17 -- potassium is a primary, calcium is secondary,
18 and chloride is well-established as a minor
19 nutrient as well.

20 If you look at calcium chloride,
21 usually we do not use anything around --- it can
22 go only up to 350 pounds per acre. But if you look

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1 at potassium chloride, it can go a thousand pounds
2 per acre.

3 So, what does that mean? It means if
4 you are looking at the chloride problem/issue, then
5 you have more a problem with potassium.

6 And I would, I will request the Board
7 ---

8 CHAIR FAVRE: I'm sorry, we ---

9 MR. MISHRA: -- to review it again.
10 Petition is pending and that's all my -- I have
11 made submission and you like to look through that,
12 please.

13 CHAIR FAVRE: Thank you.

14 MR. MISHRA: Thank you.

15 CHAIR FAVRE: Zea, you had a question,
16 followed by Francis?

17 MS. SONNABEND: Yes. Are you aware
18 that we have a petition process that you could use
19 if you would like to have it changed? And all you
20 have to do is file a petition.

21 You can talk to either Lisa Brines back
22 in the corner there, or Jessica Walden when she gets

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1 back, and maybe Lisa wants to say something about
2 it.

3 DR. BRINES: Yes. Thank you, Zea.
4 Yes. Just a clarification for the Board in terms
5 of what the status is of the petition.

6 So, Mr. Mishra did submit a petition in
7 2015 that the NOP had evaluated and sent to the
8 Board for review. And a determination was made by
9 the Crops Committee at that time, that that
10 petition was ineligible based on the lack of new
11 information from the previous review for this
12 material.

13 Since then, there has been another
14 petition that was submitted, I believe it was
15 sometime in the summer of 2016, which is still under
16 NOP review for eligibility.

17 So, we're still going through all of the
18 background information to determine whether
19 there's adequate, new information to have the Board
20 take another look at this material, but it has been
21 submitted and is under review by NOP. Thank you.

22 MR. MISHRA: Thank you.

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1 CHAIR FAVRE: Francis, did you have a
2 question?

3 MR. THICKE: Yes. I'm just curious
4 where you got the number, a thousand pounds per acre
5 is allowed of potassium chloride? Where did you
6 get that number from?

7 MR. MISHRA: Yes. Potassium is a
8 primary nutrient ---

9 MR. THICKE: I understand, but you said
10 ---

11 MR. MISHRA: -- and it can go up to a
12 thousand parts per million, a thousand pounds per
13 acre.

14 MR. THICKE: In organic?

15 MR. MISHRA: Yes. That's---
16 potassium chloride can go up to that.

17 MR. THICKE: I'm not familiar with
18 that.

19 M R. MISHRA: If you're looking for
20 potassium nutrient ---

21 MR. THICKE: I understand that.

22 MR. MISHRA: -- you can go higher.

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1 MR. THICKE: I guess I would also say
2 as a side comment, perhaps one of the reasons why
3 originally it was this way is that calcium is
4 available readily through other sources in organic
5 like calcium carbonate and calcium sulfate,
6 whereas potassium has more limited options, I
7 think.

8 MR. MISHRA: With due respect, they are
9 there, but they are not available. And soil
10 conditions are not always, you know, good for that
11 availability. It has to be acidic. You have to
12 acidify them to get those carbonate into calcium
13 form. But in case of calcium chloride is soluble,
14 it will be available.

15 And it can be available at the PHA
16 level. And I don't think we're farming up to that
17 level.

18 MR. THICKE: Well, actually calcium
19 sulfate is more soluble in --- non high-pH
20 condition sulfate.

21 MR. MISHRA: Well, calcium sulfate is
22 comparatively very, extremely solid.

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1 MR. THICKE: Exactly. And that's why
2 organic does not go for highly-soluble nutrients.

3 CHAIR FAVRE: Okay.

4 MR. MISHRA: As a matter of fact, I
5 would love to talk to you on that subject. Thank
6 you.

7 (Laughter.)

8 CHAIR FAVRE: Yes. Maybe take that
9 one off line. Okay.

10 MR. MISHRA: Thank you.

11 CHAIR FAVRE: Thank you very much.

12 All right. Next up is Gregory
13 Cunningham, followed by Reza Pahlevi. And then
14 we've got ---I can't read your writing, Michelle.
15 I think it's Ani Hurtado. Thank you.

16 MR. CUNNINGHAM: Good morning. I am
17 Greg Cunningham, manager of regulatory affairs
18 representing the Scotts Miracle Gro Company.

19 Established in 1868, Scotts is the
20 world's leading supplier of consumer lawn and
21 garden products.

22 We provide conventional, organic and

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1 hydroponic fertilizer in growing media products to
2 consumer gardeners.

3 The requirements for organic
4 certification under the NOP are established in the
5 Organic Food Production Act.

6 The OFPA prohibits use of certain
7 synthetic substances and establishes a framework
8 for NOP regulations governing processing and
9 handling requirements to prevent synthetic residue
10 on certified organic products.

11 The OFPA has, however, never required
12 predetermined inputs or mandated any type of
13 growing media and was never conditioned on consumer
14 expectations.

15 Interpreting the regulations as
16 prohibiting hydroponic and aquaponic operations
17 from being organically certified is inconsistent
18 with the clear statutory framework and purpose of
19 the NOP.

20 Specifically, the OFPA never limited
21 organic certification to any of those operations
22 using soil as growing media.

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1 The mention of soil in the statute merely
2 references a factor to be considered as part of the
3 organic plan, not as a prereq for certification.
4 Likewise, while producers must ensure soil
5 fertility is not depleted during production, this
6 does not require soil to be present in the organic
7 operation.

8 In fact, hydroponic systems meet these
9 provisions by preventing exposure to prohibited
10 synthetic substances while also ensuring products
11 are grown in a sustainable and
12 environmental-friendly way.

13 Further, consumer expectations are not
14 a determining factor in organic certification
15 under the OFPA or NOP. There are numerous examples
16 where consumer expectations do not align with the
17 regulatory framework.

18 This was apparent in the recent
19 discussion at the USDA FDC roundtable which
20 highlighted the varying consumer expectations of
21 what organic means in a non-ag context.

22 In summary, the NOP should continue to

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1 allow the USDA-accredited certifying agents to
2 evaluate hydroponics and container growing
3 operations to ensure that they meet all
4 requirements of the NOP and OFPA.

5 If it is deemed that hydroponics should
6 not be allowed, we look forward to participating
7 in the rulemaking process with the USDA to
8 specifically add regulations specific to
9 hydroponics and aquaponic operations.

10 We also look forward to the discussion
11 regarding container growing requirements in any
12 rulemaking process in the future. Thank you for
13 your time and consideration of our comments.

14 CHAIR FAVRE: Emily.

15 MS. OAKLEY: Hi. Thank you.

16 Could you tell me what your hydroponic
17 fertilizers are composed of, what materials in
18 particular?

19 MR. CUNNINGHAM: So, hydroponic
20 fertilizers that we have for the hydro market, we
21 don't have a lot of hydro fertilizer. We do have,
22 you know, the coco coir, some of the growing medias

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1 that are used in the hydromarket. I'm trying to
2 think here real quick.

3 I believe we have a soy protein, but we
4 don't have extensive hydro line of working
5 fertilizers.

6 MS. OAKLEY: It seemed in your comments
7 that you were saying that you do provide
8 fertilizers for the hydroponic industry.

9 MR. CUNNINGHAM: We do supply
10 fertilizers. It's not a significant amount of
11 different types, but we also on the container side,
12 we provide a lot of organic potting mixes and
13 substrates. So, that is where the bulk of our
14 providing to the home gardener is.

15 MS. OAKLEY: So, you would say that
16 your hydroponic fertilizers are limited to coco
17 coir and soy protein?

18 MR. CUNNINGHAM: I can get you a better
19 list.

20 MS. OAKLEY: That would be great.

21 MR. CUNNINGHAM: Okay.

22 MS. OAKLEY: Thank you.

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1 MR. CUNNINGHAM: Yes.

2 CHAIR FAVRE: Thank you very much.

3 MR. CUNNINGHAM: Thank you.

4 CHAIR FAVRE: Next up is Reza Pahlevi,
5 followed by Ani Hurtado and James McKim.

6 MR. PAHLEVI: Board chair and board
7 member, good afternoon. My name is Reza Pahlevi
8 Chairul. I am the trade attache in the Indonesian
9 Embassy in Washington, D.C.

10 First and foremost, I would like to
11 thank you for the opportunity to speak to you today
12 and Indonesia looks forward to strengthening
13 bilateral cooperations with the United States
14 government and work with members, including in
15 relation to carrageenan.

16 In my comment, I just would like to note
17 a number of matters that need to be prudently
18 considered as the Board makes recommendations on
19 carrageenan.

20 Carrageenan is a matter of important
21 for Indonesia, because my country is a major
22 producer of this product and some of which are used

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1 as raw material to produce carrageenan.

2 Indonesia is also home to hundreds of
3 thousands of small seaweed farmer who rely on the
4 economic opportunities presented by seaweed
5 farming.

6 The seaweed industry provide seaweed
7 farmers who are living in coastal area, an
8 opportunity to harvest and live off marine
9 resources.

10 This is one of drivers of Indonesian
11 economy growth and rural development. This has
12 led Indonesia to identify seaweed as one of the
13 strategy communities because it has a high economic
14 value for our citizens while its production support
15 the livelihood and development of coastal
16 communities.

17 Having noted this point, I want the
18 Board to be mindful that de-listing carrageenan
19 would likely substantially affect demand for
20 carrageenan around the world and will impact
21 seaweed farmer livelihood in Indonesia.

22 A reduction in demand for seaweed will

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1 lead to job loss for these farmers. So, the
2 Indonesian government is concerned about these
3 consequences of the National Organic Standards
4 Board decisions, and hopes the Board will consider
5 them when making decision about carrageenan.

6 As such, we respectfully request the
7 Board to re-list carrageenan on the National List
8 as permitted ingredients in processed organic food
9 in the United States.

10 I thank you for your cooperation and am
11 looking forward to the positive result of your wise
12 decision. Thank you.

13 CHAIR FAVRE: Jean, and then Emily.

14 MS. RICHARDON: The question I have for
15 you is that of all of the carrageenan that's
16 produced in Indonesia, what percentage of that goes
17 to organic uses?

18 MR. PAHLEVI: I think, thank you. I
19 think this is a very good question. We don't have
20 exact data, actually. But based on the data from
21 US Custom, Department of Commerce, Indonesia
22 export seaweed to United States just 1.5 million

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1 last year in 2015. And for carrageenan, almost
2 five million.

3 So, I don't know exactly from this data
4 exactly to the processed organic food in United
5 States. Just assume all, I think is not too big.
6 I don't know. This is just the data for export.

7 Smaller amount, probably, but this has
8 potential and economic and social demands/effects
9 for Indonesia.

10 CHAIR FAVRE: Emily.

11 MS. OAKLEY: I think my question should
12 have been a precursor.

13 So, what percentage of Indonesian
14 seaweed farmers are harvesting carrageenan?

15 MR. PAHLEVI: In 2015, the production
16 around 11 million tons. And 50 percent going to
17 China. 20 percent we manufacture locally. And 30
18 percent we send to others, like Philippines and the
19 other countries.

20 So, I think now we try to develop this
21 industry because is not only about food product,
22 but also like the other industry like cosmetic and

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1 --- cosmetic and medication.

2 So, that's why we welcome international
3 collaboration on this and we believe that we will
4 have, for example, like joint international
5 certification program for USDA. It will be good
6 to have cooperation between the two countries.

7 MS. OAKLEY: So, is a hundred percent
8 of the Indonesian seaweed farming from
9 carrageenan, or is it from other seaweed sources?

10 MR. PAHLEVI: Sorry, what do you mean?

11 MS. OAKLEY: I mean what percentage of
12 the seaweed that is farmed in Indonesia is from
13 carrageenan versus other seaweed?

14 MR. PAHLEVI: Based on the data so far,
15 I need to double-check, but as long as I know, it's
16 around 70,000 farmers. And carrageenan will
17 benefit them, you know, to support their life. And
18 then we'll have multiplier effect to benefit the
19 entire communities.

20 CHAIR FAVRE: Okay. Dan, followed by
21 Harold.

22 MR. SEITZ: Can you tell us about the

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1 Indonesian laws and regulations that promote
2 sustainable and ecologically sound harvesting of
3 seaweed?

4 MR. PAHLEVI: Yes. I think right now
5 what the recent precedent by Joko said that we will
6 like to become American country because if you see,
7 we have 17,000 islands in Indonesia. Almost a total
8 third of our area is sea.

9 And we now try to create a roadmap right
10 now to develop this industry. And of course the
11 issue of sustainability, we need to focus on this.

12 But because we are developing country,
13 we have so many problem, but of course the issue
14 of sustainability issue, but environment we are
15 taking seriously on this issue.

16 And even for the global climate change
17 we are a member of global climate change
18 conference. So, I think we've put seriously
19 consideration on the issue of sustainability.

20 CHAIR FAVRE: Harold.

21 MR. AUSTIN: So, based on the fact that
22 we've had this conversation as a board, those of

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1 us that are on it, two times now in the last five
2 years, if we were to consider relisting carrageenan
3 for one more session, one more sunset cycle, would
4 the Indonesian government be willing to work with
5 the grower population and the manufacturers that
6 produce the end product, the carrageenan that's
7 ultimately used, to try to work with those growers
8 to establish a process to where they could look in
9 and take an approach to consider trying to help
10 those growers become organically certified seaweed
11 farmers in this process?

12 Would that be an option? Otherwise, we
13 could either choose to de-list it, which does those
14 people no benefit, or we could say what if we gave
15 you an additional five years, but now we're
16 throwing the onus back to you to begin to look at
17 a way to help those guys try to achieve organic
18 certification.

19 MR. PAHLEVI: Yes. Thank you. And,
20 like I said, we welcome international
21 collaboration especially under the new
22 administration for President Trump.

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1 And if I may say that actually for
2 Indonesia, there are two aspects. The first
3 aspect is about the potential of this industry, you
4 know, because seaweed is to meet the increasing
5 demand for increasing populations. And so, like
6 I said, seaweed is our future.

7 And the second aspect is about the
8 social and economic dimension for Indonesia.
9 First, this is lucrative cash crop and benefit,
10 again, 17,000 farmers for Indonesia. And cost to
11 of environment Indonesia is viable and
12 commercially meaningful to develop seaweed
13 cultivation farming.

14 So, like I said, so that's why it-- I
15 mean, we welcome international collaboration and
16 we need support on this, your suggestion to have
17 certification program with Indonesia.

18 CHAIR FAVRE: Okay. Last question
19 from Harriet.

20 MS. BEHAR: So, is your concern about
21 the loss of, you know, the economic impact if
22 carrageenan came off, is it from the loss of the

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1 use in organic, or the perception by the
2 non-organic food processing community that since
3 organic has chosen not to use it, that perhaps they
4 may choose to remove it from their label and their
5 process as well?

6 MR. PAHLEVI: Well, here, I bring the
7 petition from almost 17,000 Indonesian farmer who
8 said -- who expressed their concern about this
9 because it will impact -- it will impact their life.
10 They have a chance to get better life. They have
11 a chance to send their children going to school to
12 get better education. So, I don't know. And I
13 believe even still small number, but it will have
14 a big impact. Immediately impact them.

15 More importantly, we will impact
16 globally. And also probably, in my point of view,
17 it will make food companies upset about -- who use
18 carrageenan upset about this issue, because they
19 listing -- or relisting.

20 So, I mean, there are two perception.
21 First one in perception with carrageenan because
22 now if you see on the social media negative impact,

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1 I think we need to respond. If proof -- if proven
2 carrageenan is not good, okay. But if not, is not
3 fair for us.

4 And the second one about the president,
5 if the Board take a decision to de-listing
6 carrageenan, other companies, for example, EU will
7 follow and it's not -- it's not good for Indonesia.
8 I mean, it's not fair.

9 CHAIR FAVRE: Thank you very much.

10 Next up is Ani Hurtado, followed by
11 James McKim and Peggy Miars.

12 MS. HURTADO: Good afternoon. I am a
13 recently retired scientist with more than 30 years
14 of experience advising seaweed farmers of crop
15 science and management.

16 I'm here at the request to speak on the
17 importance of carrageenan, being able to retain its
18 organic status in the upcoming sunset review.

19 The Philippines seaweed carrageenan
20 industry is a 45-year-old industry which involves
21 1.2 million seaweed farmers, 16 carrageenan
22 processors and production of 1.5 million in 2015

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1 second largest export commodity worth \$264 million
2 US dollar with USA, China and EU as the major
3 buyers. The Philippines is the top producer of
4 carrageenan.

5 After 45 to 60 days of growing, the
6 carrageenan are harvested and brought to the drying
7 platform using a boat or a canoe.

8 These are dried for three to five days
9 after desired moisture content is obtained using
10 the method described in the slide. No reported
11 post-harvest activities negatively impact the
12 environment.

13 A science-based seaweed farm that is
14 managed and operated correctly and properly will
15 ultimately provide more advantages to the marine
16 aqua system especially in biodiversity.

17 This is the case of farming and
18 carrageenan processing in the Philippines.

19 Integrated aquaculture of organisms
20 like combined with the culture of inorganic
21 nutrients like seaweeds or organic matter
22 shellfish it is slowly gaining acceptance in the

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1 aquaculture industry of the Philippines. Both
2 commercial and experimental activities are present
3 respectively.

4 Seaweed has nutrient biofilter and role
5 in the aqua system which primarily increases
6 environmental sustainability, provides economic
7 diversification and reduces economic risk.

8 The economic efficiency of farming
9 seaweed in the Philippines is attested by this.
10 The capital cost per unit production has this
11 method showed relatively high economic efficiency
12 vis-a-vis other countries.

13 Experiences were handed down from
14 generation to generation is a manifestation of its
15 economic stability for 45 years.

16 Economic benefits derived from seaweed
17 farming of only access through education, but also
18 to other basic needs of the family like modest and
19 decent shelter, regular food, clothing, health
20 services, communication, and recognition as
21 community leaders. Seaweed farming serves as an
22 alternative to poverty.

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1 Without seaweed farming, life would be
2 devastated. No health services. In short, life
3 is hopeless. Thank you.

4 CHAIR FAVRE: That's a tough way to end
5 the comment.

6 Zea.

7 MS. SONNABEND: Thank you. I'll ask
8 you the same question I've asked several others.

9 What would be the challenges to having
10 the seaweed certified organic? Why is it not
11 certified organic right now if it's sustainable?

12 MS. HURTADO: Yes, it will be a big
13 challenge on the part of the Filipino farmers. But
14 meanwhile, there is still organic certification.
15 We are having the best aquaculture practices in
16 terms of farming seaweeds.

17 MS. SONNABEND: To put it another way,
18 if we removed carrageenan from the list, it would
19 still be able to be used in products if it were
20 certified organic, is that something you could
21 achieve?

22 MS. HURTADO: Yes, it can be used, but

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1 mostly the majority or the bulk of carrageenan
2 issues. If it is used for pharmaceutical or
3 medical purposes, it's only a small amount. But
4 for food ingredients, it is a big bulk.

5 MS. SONNABEND: Thank you very much.

6 MS. HURTADO: Oh, by the way, I have
7 also the petition of the seaweed farmers all over
8 the Philippines.

9 CHAIR FAVRE: Okay. Thank you.

10 You have it? Okay.

11 Next up is -- okay. Michelle has it.

12 Next up is James McKim, followed by
13 Peggy Miars and Linley Dixon on deck.

14 MR. McKIM: Good afternoon. My name
15 is Dr. James McKim. I am currently the president
16 of IONTOX Laboratories. I'm a biochemical and
17 molecular toxicologist. I'm board certified in
18 the general area of toxicology and I've spent the
19 last 15 years working on the development and
20 validation of in vitro or cell-based models for
21 understanding chemical toxicity.

22 I'm here today to talk to you about a

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1 body of literature that tested carrageenan in in
2 vitro or cell-based models and reported that it
3 induced inflammation by very specific pathways.

4 The problem with this information is
5 that the reports don't match the dietary feeding
6 studies in which carrageenan was used and reported
7 as safe.

8 In addition, the proposed effects are
9 not consistent with known physical and chemical
10 properties of carrageenan itself.

11 So, as a result, I was asked -- my
12 laboratory was asked to evaluate these in vitro
13 findings, these cell-based findings to determine
14 the relevance.

15 We did this in the slide that I'm
16 showing you now, by comparing exactly and very
17 meticulously the work that was done at the Chicago
18 Group. And the studies were designed to repeat and
19 extend the work that was done in those studies.

20 So, on the left, you can see their work.
21 On the right, you can see the work done in my
22 laboratories. We use the same cell lines, the same

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1 doses. We extended our dose ranges above and
2 below. We used the same exposure times and we have
3 the same key markers. In this case, IL8 and
4 reactive oxygen species.

5 In addition, in our laboratory we use
6 key positive controls that show that these
7 intercellular pathways are present and functioning
8 -- the other laboratories did not -- and we could
9 not find one reproducible event.

10 So, here's where we get down to it.
11 These are the mechanisms that are proposed or have
12 been hypothesized from the University of Chicago
13 Group.

14 The key is that carrageenan has to bind
15 to a receptor on the cell membrane in the liver or
16 in the intestine. And that cell receptor is TLR4.

17 Once it binds to TLR4, it's proposed
18 that it activates a signaling pathway, which is
19 shown here, that causes the genes to be over
20 expressed and produce pro-inflammatory cytokines,
21 IL8.

22 In addition, they're proposing that the

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1 pathway crosstalks with insulin signaling
2 pathways, that's the pathway shown on the right,
3 and as a result, you inhibit insulin signaling
4 pathways.

5 While our work has shown in multiple
6 cell lines that we can't bind carrageenan to TLR4,
7 we can't see any induction in IL8, and if those
8 pathways aren't functioning, there can't be
9 effects on the insulin signaling pathway. It's
10 that simple. And this work has all been published
11 in peer review journals. The citations are listed
12 and I'd be happy to answer any questions.

13 CHAIR FAVRE: Zea.

14 MS. SONNABEND: Thank you, Dr. McKim,
15 for your work on this and for coming here to talk
16 to us twice. I have two-part question.

17 So, I think most of at least the
18 Handling Subcommittee has pretty much accepted
19 your study as verifying that these results achieved
20 by other people have not been able to be replicated.
21 And, yet, we are -- have gotten dozens and dozens
22 of reports from people who experience severe

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1 intestinal distress and other health problems from
2 consuming foods with carrageenan in them.

3 Some of the carrageenan proponents have
4 flatly stated that the people are making it up and
5 that this is invalid, but -- so, the two parts of
6 this question are, are you aware of any sort of
7 population studies that are done to explore the
8 issue of the food sensitivity there, or do you think
9 it is possible that some people just have a genetic
10 makeup that would lead them to have the food
11 sensitivity to carrageenan? Because no studies
12 have come in to us on this subject.

13 MR. McKIM: Right. So, I think we'd
14 all be speculating, but I can say that, first, just
15 as a scientist, that anecdotal stories, you know,
16 are tough to deal with. They don't follow a
17 scientific process.

18 And while I can definitely empathize
19 with people's discomfort, it's really difficult to
20 draw any evaluation from the data.

21 For example, how do you know that other
22 things in the food weren't involved? How do you

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1 know that they don't have other predetermining
2 conditions that would cause an event? We don't
3 know these things. And so, I don't put much
4 credence in anecdotal stories.

5 I don't know of any regional or
6 geographic studies that have been done. And you
7 ask is it possible that people could have
8 sensitivities. Well, I suppose just like people
9 are sensitive to peanuts, yes, it's possible. I
10 don't have any data about that.

11 CHAIR FAVRE: Thank you very much.

12 MR. McKIM: You're welcome.

13 CHAIR FAVRE: Next up is Peggy Miars,
14 followed by Linley Dixon with Sam Welsch on deck.

15 MS. MIARS: Good afternoon. I'm Peggy
16 Miars, executive director of OMRI, the Organic
17 Materials Review Institute.

18 Today, I'm commenting on something
19 that's not on this week's agenda, but was discussed
20 years ago by the NOSB and was recently addressed
21 by the NOP. I'm talking about NOP 3012 interim
22 instruction on material review.

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1 OMRI appreciates the efforts of the NOP
2 to provide instructions for certifiers when
3 approving inputs for use in organic production and
4 handling.

5 For two decades, certifiers have relied
6 on the OMRI products list for compliance decisions
7 on input products.

8 The ability for certifiers to accept
9 decisions from material review organizations, or
10 MROs such as OMRI, is a vital part of sound and
11 sensible certification programs.

12 NOP accreditation of material review
13 organizations must be pursued. In 2011, the NOSB
14 unanimously recommended that the NOP regulate MROs
15 by creating a new accreditation scope for material
16 review.

17 OMRI supports this NOSB recommendation
18 and has requested that the NOP create a new material
19 review accreditation scope.

20 Accreditation of MROs by the NOP is the
21 only solution that will achieve the four following
22 goals identified by OMRI. One, provide

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1 consistency among MRO criteria and decisions which
2 would benefit consumers, organic operators and
3 input manufacturers.

4 Two, support organic producers and
5 handlers who use MRO decisions in production
6 planning.

7 Three, provide the NOP with legal
8 authority over MROs including the ability to
9 suspend accreditation issued on conformances, et
10 cetera.

11 And four, provide protection for MROs
12 and product listing decisions.

13 NOP 3012 is not effective to accomplish
14 these goals for the following reasons. It's
15 directed at certifiers and lacks instructions for
16 MROs to conduct technical review of materials and
17 communicate the compliance status and restrictions
18 to the certifiers who accept their decisions.

19 It does not require MROs to make their
20 material review policies and procedures
21 transparent to all stakeholders.

22 It does not give the NOP authority to

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1 oversee and enforce compliance of MROs and does not
2 provide MROs with due process for appeals.

3 OMRI understands that it will take time
4 and resources to develop and implement a new
5 accreditation scope, including, possibly,
6 amending OFPA.

7 In the meantime, NOP 3012 can be a
8 temporary tool for ensuring consistency among
9 certifiers and MROs.

10 NOP guidance and classification of
11 materials must be finalized. I was happy to learn
12 yesterday that the guidance on classification of
13 materials is almost ready to publish. This
14 guidance is critical for material classification
15 policies to be consistently applied and enforced
16 and should reduce the instances of materials with
17 different review decisions.

18 OMRI supports the 2012 NOSB
19 recommendation which asks the NOP to provide
20 detailed guidance to MROs and certifiers to ensure
21 the consistency and integrity of material review
22 decisions, including clear expectations about the

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1 depths of review.

2 Thank you for the opportunity to
3 comment. We appreciate the NOP's and NOSB's work
4 on these important matters.

5 CHAIR FAVRE: Jean.

6 MS. RICHARDON: Thank you, Peggy.

7 I'm glad you brought up the MRO issue
8 again. It's a few years since we've thought about
9 it and I'm hoping that we can perhaps bring this
10 issue to the Material Subcommittee at least as
11 perhaps something that we should put back on the
12 work agenda in order to take it up again.

13 CHAIR FAVRE: Harriet.

14 MS. BEHAR: I know this to be a very
15 important issue as well, because many producers do
16 talk to me about, "Why does that certifier allow
17 this and the other one doesn't and how do they make
18 that decision?"

19 And so, that transparency just builds
20 more confidence at the producer and consumer level.

21 CHAIR FAVRE: Miles.

22 MR. McEVOY: Yes. We've gone about as

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1 far as we can go in terms of the recommendations
2 on that 2011 and 2012 NOSB recommendations.

3 We don't have the authority under the
4 Organic Food Production Act, to accredit or develop
5 an accreditation program for material review
6 organizations.

7 So, we would need that authority to
8 enable us to move forward with an accreditation
9 program for MROs.

10 The authority would come from Congress.
11 You don't have that authority under OFPA at the
12 current time.

13 CHAIR FAVRE: Thank you, Peggy.

14 MS. MIARS: Thank you.

15 CHAIR FAVRE: Next up is Linley Dixon,
16 followed by Sam Welsch. And our final speaker
17 before lunch will be Kelly Damewood.

18 MS. DIXON: I'm Linley Dixon, a Ph.D.
19 scientist at Cornucopia. A few years ago I
20 abandoned my USDA research latex gloves for farming
21 gloves to produce vegetables in Colorado.

22 I had a speech for you. But after

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1 yesterday, I was uninspired. So, I figured I'd
2 tell you to please read our
3 well-researched-written comments and instead,
4 unlike some of the others that have come before me,
5 tell you about who is paying me to be here.

6 The answer is thousands of organic
7 farmers around the country who believe the
8 well-conceived organic standards are being
9 interpreted wrong.

10 They are frustrated that monoculture
11 has certified that organic poultry isn't going
12 outside, that organic cows aren't getting enough
13 pasture. The hydroponic systems are now called
14 container systems and certified. They're
15 frustrated that the lights have gone out in the
16 barns in their communities and they see us as the
17 people that are fighting for the economic justice
18 and can help turn those lights back on.

19 There are few of these farmers who are
20 here to remind you what organic farming really is,
21 but the majority of them tell me to go get them so
22 they can keep farming. They pat me on the back and

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1 tell me to give hell to the folks that are ruining
2 their label.

3 Just as hydroponic folks should be
4 proud to label their products hydroponic, I'm
5 really proud of who I represent.

6 Cornucopia's farmer members, our board
7 and our policy advisors are organic farmers
8 inspiring the next generation to farm sustainably
9 to follow their example in working towards a
10 locally-based truly sustainable food system that
11 is labeled organic. This is what consumers are
12 looking for.

13 I have also found the language used in
14 this room to be intentionally misleading. United
15 for food science is the carrageenan lobby. They
16 are the reason why the science isn't united on this
17 one.

18 I'm submitting over 40,000 signatures
19 from people asking for carrageenan to be removed
20 from food. Don't belittle their intelligence by
21 thinking they're blindly taking our word for it.
22 No one does that.

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1 They look at the published studies and
2 decide for themselves. We have an ongoing dialog,
3 email communications with them and I just give them
4 the studies. That's misleading language.

5 Container systems using inert media
6 like coco coir and peat moss have always been
7 described in the scientific literature as
8 hydroponic. Now, suddenly those container
9 systems aren't hydroponic systems anymore. They
10 are sustainable systems.

11 The Coalition for Sustainable Organics
12 is mostly the big hydroponic growers, container
13 growers that distribute produce from the desert to
14 the entire country.

15 Contrast that with out firm's low-input
16 high tunnels that are also in the arid southwest.
17 We grow on a scale that provides for our family and
18 helps feed our community.

19 True sustainability includes the
20 techniques that we've come up with as farmers and
21 those that have been passed down to us from our
22 farmer heroes, some of which you've heard from

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1 yesterday, developed with truly sustainable
2 morals.

3 That's real organic farming.
4 Continuing to strive for perfection, not only doing
5 what's most profitable. And that's what will grow
6 organics, inspiring that next generation of
7 farmers who will turn the lights back on in the
8 barns of their communities, because they're
9 inspired by the wisdom that came before them.

10 CHAIR FAVRE: Questions?

11 (Applause.)

12 CHAIR FAVRE: Dan.

13 MS. SEITZ: So, one of the things that
14 people have said in support of the container or
15 hydroponic approaches is that there are places
16 where you couldn't grow in soil because it's too
17 arid or the soil composition is not -- it's wrong
18 for that type of approach.

19 And here, you have a picture of a
20 growing tunnel in -- you said this is in the arid
21 southwest. So, can you just clarify where it is
22 that you can still do in-ground, but with, say, a

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1 different technology versus where you would
2 actually have to have a container or something like
3 that?

4 MS. DIXON: Yes. I would argue that I
5 shouldn't be feeding in the arid, dry southwest the
6 entire nation, but I am sustainably feeding my
7 community.

8 And the soil is very high in organic
9 matter. I have all the, you know, companies that
10 collect leaves in the fall, drop them off at my
11 farm. So, I water about twice a week in these
12 tunnels, drip irrigation for a half an hour.

13 There's a lot of organic matter there
14 holding moisture and it's because of the work that
15 I've done.

16 MR. SEITZ: Where is that?

17 MS. DIXON: In Durango, Colorado.
18 Semi-arid desert.

19 CHAIR FAVRE: Ashley.

20 MS. SWAFFAR: So, I want to talk about
21 what you just talked about a little bit,
22 carrageenan. So, there's been a lot of work done

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1 in the organic industry to remove carrageenan from
2 a lot of products, consumer demand.

3 What is your stance on all of the
4 alternatives that they're using, all the gums, you
5 know? Is it you want rid of those also, or where
6 do you -- where do you stand on the gums?

7 MS. DIXON: The research doesn't show
8 that those gums are harmful right now. So, I have
9 spoken with her quite a bit. She feels, first of
10 all, that her conditions weren't replicated in the
11 McKim study. So, I would hope that McKim would
12 talk to her about what's going on there. I don't
13 have the details.

14 As far as the other gums, degraded
15 carrageenan is used, you know, to study
16 anti-inflammatory drugs. There's evidence that
17 degraded carrageenan is in food grade carrageenan
18 from the industry. That's not happening with the
19 other gums. This is unique.

20 MS. SWAFFAR: So, a thumbs up to the
21 other gums?

22 MS. DIXON: Not necessarily, but a

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1 thumbs down to carrageenan for sure.

2 CHAIR FAVRE: Thank you very much.

3 Next up is Same Welsch. Our final
4 speaker will be Kelly Damewood.

5 MR. WELSCH: Hello again. I'm Sam
6 Welsch with OneCert.

7 I want to remind you that the
8 requirement for soil and organic is not simply a
9 matter of opinion, belief or philosophy, it's a
10 matter of law.

11 OFPA states an organic plan shall
12 contain provisions designed to foster soil
13 fertility primarily through the management of the
14 organic content of the soil.

15 It also requires -- the OFPA says an
16 organic plan shall not include any production or
17 handling practices that are inconsistent with this
18 chapter. You have to look at the whole thing if
19 you're going to be certifying organic.

20 This section is perfectly clear and it
21 is mandatory. Certifiers cannot and should not be
22 ignoring this part of the law. Neither should the

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1 NOP.

2 We must inform hydroponic operations
3 that they do not comply. There are many
4 conventional inputs, methods and systems that
5 people would like to be allowed in organics, but
6 the more of those things that we allow, the less
7 distinction there is between conventional and
8 organic.

9 Allowing conventional practices in
10 organic production is not innovation or progress,
11 it's fraud.

12 Certification of hydroponics must be
13 stopped now. Otherwise, we destroy the
14 fundamental core of what it means to be organic.

15 Organic gets its name from organic
16 matter. When you -- in the soil. When you get rid
17 of that, you lose the core basis of it.

18 I'm a certifier. I refuse to certify
19 crops that are not grown in soil. I've lost a lot
20 of business by not doing so, but I cannot certify
21 a system that does not comply with OFPA. It's a
22 matter of personal organic integrity.

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1 When Mils came to our office in Nebraska
2 a few years ago, we took him to task on why the NOP
3 was not enforcing this part of OFPA.

4 He finally answered somewhat candidly,
5 it was because the USDA wanted to encourage urban
6 agriculture. You know, that is not -- the NOP, you
7 know, this is supposed to be in the age of
8 enforcement. It should have been an age of
9 compliance on the part of the NOP.

10 Proponents of so-called bioponics
11 claim their systems use soil biology. At best,
12 they can only mimic a tiny fraction of the complex
13 biology in soil usually in an artificial
14 environment, as we've seen pictures of today, that
15 excludes the natural biodiversity found on true
16 organic farms.

17 You've seen pictures of container
18 systems in the desert. The crops in those
19 containers are fed with soluble fertilizers.

20 OneCert has certified growers in desert
21 areas who use cover crops, compost and crop
22 rotation to build organic matter in the soil and

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1 provide fertility to crops.

2 When one of those growers wanted to use
3 an unapproved liquid nitrogen product to feed their
4 crops instead, we told them no. They -- well,
5 you'll have to ask if you want to know the rest of
6 that story.

7 (Laughter.)

8 CHAIR FAVRE: Questions?

9 Emily.

10 MS. OAKLEY: I'm just going to go ahead
11 and ask so I can hear the rest of that story.

12 MR. WELSCH: It's not that long. So,
13 they used it anyway. We proposed suspension.
14 Another certifier approved that product and
15 granted them certification.

16 The operator appealed our proposed
17 suspension to the NOP. The NOP told us to
18 negotiate a settlement with them, because the other
19 certifier allowed that even though the product was
20 not an approved product.

21 The person who approved that product
22 now works for the USDA.

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1 CHAIR FAVRE: Tom.

2 VICE CHAIR CHAPMAN: So, the remaining
3 fragment of the sentence you cited earlier in the
4 law speaks to that maintaining of our organic
5 content through the proper tillage, crop rotation
6 and manuring.

7 So, would you then contend that all
8 organic operations need tillage, crop oration and
9 manuring?

10 MR. WELSCH: I would.

11 VICE CHAIR CHAPMAN: Thank you.

12 CHAIR FAVRE: Harriet.

13 MS. BEHAR: So, if someone is growing
14 in a container, but using soil for half the year,
15 then they pour -- and it's an annual crop and they
16 then compost that soil, would that be acceptable
17 to you?

18 MR. WELSCH: Well, there are some areas
19 that could be allowed. We do allow because the
20 regulations discuss the certification that need to
21 have organic transplants, you know. So, that
22 clearly -- that's, you know, clearly allowable.

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1 There are some other areas that are
2 somewhat in a gray area that are -- they're not
3 sprouts, but they're -- microgreens are sometimes
4 grown in trays of compost. We have certified that
5 type of operation.

6 At this point, we have not certified
7 people who are purely growing containers -- or
8 crops to maturity in containers like tomatoes and
9 berries and that sort of thing. So, all of our
10 growers grow it in the soil.

11 We may be missing opportunities, but we
12 think that's the way organic was conceived of.
13 When the rule was written, I don't think anybody
14 ever thought that people would be certifying
15 hydroponics. And so, they weren't as explicit about
16 hydroponics being prohibited. It was an oxymoron,
17 the whole idea of organic hydroponics.

18 CHAIR FAVRE: Last question. Ashley.

19 MS. SWAFFAR: So, do you consider
20 container production, hydroponic production?

21 MR. WELSCH: Well, not all container
22 growing is hydroponic, but there's container

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1 growing that is hydroponic.

2 MS. SWAFFAR: Okay.

3 MR. WELSCH: It depends on the
4 fertility -- source of fertility. If they're
5 getting it from liquid nutrients, it's hydroponic
6 regardless of the substrate.

7 You know, this -- the whole thing about
8 substrates and biological activity is a
9 smokescreen to confuse people to make it sound like
10 they're organic when they're not. If there's no
11 soil, there's no organic involved.

12 CHAIR FAVRE: Thank you.

13 Our final speaker before lunch will be
14 Kelly Damewood.

15 MS. DAMEWOOD: Thank you for the
16 opportunity to address the Board. My name is Kelly
17 Damewood, policy director for CCOF, California
18 Certified Organic Farmers.

19 We appreciate the work of the Board to
20 update excluded methods terminology and to
21 strengthen the use of organic seed. We also
22 encourage the Board to consider establishing a seed

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1 purity standard.

2 As for hydroponics in containers,
3 CCOF has never had a formal position on whether
4 these systems should bear the organic label.

5 Rather, absent a clear prohibition on
6 these types of systems, CCOF certifies a range of
7 operations that meet the requirements of organic
8 standards.

9 We see producers who are facing six plus
10 years of drought looking at their site-specific
11 conditions and asking how they can maintain and
12 improve their natural resources.

13 We see them planting beneficials among
14 their containers using the trimmings and cuttings
15 and leftover media in their in-field production or
16 in their composting. We see them putting more land
17 into wildlife habitat. It's clear they are taking
18 a whole systems approach to food production.

19 Now, I completely understand that the
20 origins of organic were all about the soil and I
21 have deep respect for the farmers. I've had
22 one-on-one conversations here and the public

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1 testimony expressing a clear desire to keep organic
2 soil-based in the strictest sense of the term.

3 And CCOF certainly has members who
4 agree with that sentiment. We have members who
5 disagree as well.

6 Knowing -- of course not a founder, I
7 was not there to help write the organic standards,
8 but I am committed to carrying organic advocacy
9 well into the future, but I am concerned.

10 I am concerned about our inability to
11 move this issue forward to look up and see the big
12 picture and face the realities of producing food
13 in the world we live in today.

14 With climate change, severe labor
15 shortages, rising cost of compliance there is a
16 number of challenges that we are seeking to
17 collaborate and innovate and evolve to meet the
18 demand for organic.

19 CCOF's vision is a world where organic
20 is the norm. It's lofty, but it resonates with me.
21 We believe in uplifting and supporting producers
22 to achieve the highest level of integrity they can

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1 in producing food.

2 And we are looking to the NOSB to
3 provide guidance and clarity to these producers who
4 have embraced organic and who hope to continue to
5 produce food well into the future. Thank you.

6 CHAIR FAVRE: Thanks, Kelly.

7 Any questions for Kelly?

8 (No audible response.)

9 CHAIR FAVRE: Thank you very much.

10 MS. DAMEWOOD: Thank you.

11 CHAIR FAVRE: Okay, folks. By my
12 official clock, I have at 12:45. We're taking 60
13 minutes for lunch today. So, everybody back here
14 at 13:45. Thank you.

15 (Whereupon, the above-entitled matter
16 went off the record at 12:46 p.m. and resumed at
17 1:46 p.m.)

18 CHAIR FAVRE: Okay. We're going to
19 get started back with public comment. I hope our
20 presenters are keeping a sharp eye on the time
21 because we may pass them by if they're not here.
22 Okay, first up for public comment is Kyla Smith.

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1 Kyla, are you here? And then on deck is Mabell
2 Rivas.

3 MS. SMITH: Good afternoon, my name is
4 Kyla Smith I'm the certification director of
5 Pennsylvania Certified Organic. I also serve as
6 the vice chair of the Accredited Certifiers
7 Association board of directors. PCO certifies
8 approximately 1,200 operations in the mid-Atlantic
9 region of the U.S. We employ nine certification
10 specialists, four of whom conduct inspections, and
11 we contract with 30 independent inspectors. I'm
12 commenting on the CACS document regarding NOP 2027
13 personnel performance evaluations.

14 I wanted to reiterate a few points from
15 PCS written comments. One, performing field
16 evaluation of inspectors is important. Two, PCO
17 is and has been evaluating inspectors by reviewing
18 all inspection reports, as well as by evaluations
19 submitted by certified operations. While the
20 regulations require ACAs to conduct annual
21 evaluations of inspectors, the field evaluation is
22 just one piece of that evaluation process. Three,

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1 prior to the issuance of NOP 2027, PCO was
2 conducting field evaluations of a portion of our
3 inspectors based on risk.

4 Over the years, we have been able to
5 catch the minor mistakes that might have been
6 evident based upon our other evaluation
7 tools -- such as open meetings not being as detailed
8 as expected. Four, conducting field evaluations
9 of all of our inspectors has come with several
10 logistical and financial challenges, which are
11 provided in detail in PCO's written comments.
12 Five, increasing the number of field evaluations
13 to include all of our inspectors has not increased
14 the number or type of findings as compared to our
15 risk based approach.

16 So what do we do? What --- sorry, do what
17 do we do as a community to ensure high quality,
18 confident inspectors without overburdening
19 certifiers and certified operations. As many
20 certifiers have suggested, a risk based approach
21 could serve this role. PCO welcomes the
22 opportunity to work with other ACA's to develop a

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1 consistent set of criteria that all certifiers
2 could use to assess inspectors to aid in
3 determining whether an inspector is deemed as high
4 risk. High risk inspectors would be field
5 evaluated annually, while low risk inspectors
6 would be field evaluated every two to three years.

7 We are also willing to collaborate on
8 additional resources, such as best practices and
9 a uniform evaluation form, perhaps through the work
10 of the Accredited Certifiers Association.
11 Yesterday, Tracy shared the quote, "Don't let the
12 perfect be the enemy of the good."

13 I love this quote and find it applicable
14 in this situation. Again, our experience in
15 evaluating every inspector every year hasn't
16 increased the number or type of findings from our
17 previous risk based approach. We've heard a lot
18 over the past couple of days of the other challenges
19 our industry is facing, such as increased
20 complaints.

21 Just as the NOP has had to divert
22 resources to handle the increased number of FOIA

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1 requests, PCO is diverting resources to fully
2 implement NOP 2027 that could be used elsewhere,
3 such as to investigate complaints in a more timely
4 manner. We look forward to the continued dialogue
5 and thank you all for your service. Thank you.

6 CHAIR FAVRE: Thank you. Questions?
7 Harriet and then Scott.

8 MS. BEHAR: So this has nothing to do
9 with inspectors, except I know the PCO does review
10 many chicken houses. Have you noticed high
11 mortality rates in your chicken facilities with,
12 you know, for -- from ammonia? Or necrotic
13 enteritis?

14 MS. SMITH: I -- we have -- I don't, you
15 know, define high. We have noticed mortality
16 rates, for sure. I'm not able to provide a really
17 great comment for you, but I can get some
18 information if that would helpful.

19 CHAIR FAVRE: Scott?

20 SCOTT: I wonder if you could just
21 briefly describe that --- you mentioned about a
22 review of the inspections in other ways besides the

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1 witness on it, if it's looking at the inspection
2 report and how you guys did that.

3 MS. SCOTT: Yes, so all of our file
4 reviewers complete an evaluation form for every
5 inspection report that is reviewed. So all 1,200
6 operations plus the unannounced inspections. So,
7 you know, there's more than just the 1,200
8 inspections that occur, and so all of those
9 inspection reports get followed up by a reviewer
10 filling out an evaluation form.

11 We also ask that inspectors leave an
12 evaluation form with a certified operation, some
13 of which get returned and some don't. And then we
14 compile all of that into an evaluation that is
15 provided annually to the inspector.

16 MR. RICE: Thanks.

17 CHAIR FAVRE: Thank you.

18 MS. SMITH: Thanks.

19 CHAIR FAVRE: Next up is Mabell Rivas,
20 with Julia Barton on deck.

21 MS. RIVMS. SWAFFAR: Good afternoon,
22 I'm Mabell Rivas, Senior Reviewer of Quality

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1 Assurance International, QAI. Thank you for the
2 opportunity to comment on behalf QAI, the USDA
3 accredited certifying agent and one of the leading
4 providers of organic certification services
5 worldwide.

6 My main comment today is about research
7 priorities, but first let me briefly comment on
8 phosphate. There are currently over 50 QAI
9 certified clients using calcium phosphate -- mono,
10 di, but primarily tri-calcium phosphate. We also
11 do have at least several clients using sodium and
12 potassium phosphates.

13 We have additional clients that are
14 --- that use tri-calcium phosphate in salt as an
15 anti-caking agent. Also, sodium phosphate might
16 be used in many stabilizers used by our clients.

17 On priority research -- on research
18 priorities, here is the primary message that we
19 want to share with today, organic research is vital
20 to the success of organic, of the organic movement.
21 We commend the board for putting together a
22 comprehensive list of research priorities.

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1 The organic movement must continually
2 strengthen organic practices in support of
3 environmental stewardship and consumer trust in
4 the organic seal. And the best way to strengthen
5 organic practices is to deepen the scientific
6 knowledge about those organic issues that are
7 persistent, challenging, controversial, and lack
8 primary research.

9 We feel that our clients would
10 particularly benefit from further research in the
11 following priorities. First, preventing GMO
12 contamination in organic crops, developing
13 alternative methionine sources for organic poultry
14 production, developing sources of organic celery
15 powder and finding alternatives to the source
16 of -- to the use of chlorine

17 In addition, although this is not a
18 topic that directly relates to QAI-certified
19 operations, we would like to suggest that the NOSB
20 should research an, should include a -- research
21 an alternative to the use of ethylene gas in
22 pineapple production in this list of priorities.

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1 This material created some heated
2 debate during the last fall meeting. In light of
3 NSOB's deciding to encourage cooperation among the
4 stakeholders in developing solutions to these
5 present issues, QAI would like to offer some
6 possible collaboration on chlorine research
7 through our parent organization, NSF
8 International, a non-profit, scientific
9 organization with extensive toxicology and foods
10 experience -- food safety experience.

11 NSF has developed more than 90 public
12 health and safety standards, including food,
13 equipment, water, and waste water standards. All
14 of us in the organic community need to work together
15 to support the further strengthening of the
16 scientific basis of organic agriculture so that the
17 public will continue to reap the benefit of that
18 science, including a rich environmental
19 stewardship, well-deserved consumer trust, and the
20 economic stability of the seal of loyalty. Thank
21 you.

22 CHIEF FAVRE: Good timing. Questions

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1 anyone? Thanks Mabell.

2 MS. RIVMS. SWAFFAR: Thank you.

3 CHIEF FAVRE: Next up is Julia Barton
4 with Bob Verloop on deck.

5 MS. BARTON: Good afternoon. My name
6 is Julia Barton and I'll be presenting comments
7 today on behalf of the Ohio Ecological Food and Farm
8 Association. There are three items I'd like to
9 discuss with you. The first has to do with the
10 hydroponic proposal and was not part of our written
11 comments.

12 Organic production systems must
13 promote ecological balance and conserve
14 biodiversity, as recognized by the creators of
15 OEFFA and clearly stated in the organic rule.
16 OEFFA believes the maintenance and management of
17 organic matter in the soil, along with the diverse
18 populations of organisms that are essential to soil
19 ecosystems, are the foundation of organic farming.

20 In the absence of clear, applicable
21 standards OFFEA has chosen not to certify
22 hydroponic operations up to this point. We thank

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1 the crop subcommittee for the work you all have done
2 and we appreciate the three-part plan to address
3 this topic in phases.

4 Further, OEFFA supports the
5 subcommittee's preliminary vote that biaponics,
6 including hydroponics, aeroponics and aquaponics,
7 are not consistent with organic production.

8 The second item has to do with GE
9 impacts on organic farmers. OEFFA is working to
10 collect information from our certified operators
11 and members who are investing extra time, money,
12 and productive growing space to try to protect
13 their organic land and animals from GE
14 contamination. And contamination from inputs
15 that are typically used in GE and other
16 conventional production systems.

17 It is our hope that I -- that by
18 collecting this information we can demonstrate the
19 harm that's being done to organic producers and we
20 can begin to build a case for accountability on the
21 GE side of the fence.

22 We know we're not alone in this and that

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1 the organic community has largely unified around
2 issues related to GE contamination and
3 accountability. We'd like to ask you, NOSB
4 members, to build upon the leadership you've
5 already taken on this issue. In your report to the
6 Secretary, please prioritize the development of
7 policies around shared responsibility.
8 Prevention and contamination costs should not be
9 borne by organic farmers.

10 Finally, we too have been hearing from
11 our organic green growers regarding the sharp rise
12 in grain imports coming from Eastern Europe. We
13 understand that the NOP is working on this issue,
14 and we thank you, Miles, for your presentation
15 yesterday. In our opinion, the NOP cannot work
16 quickly enough to address this issue.

17 NOSB, within your means, please make
18 sure that NOP is taking swift and deliberate action
19 to insure that organic imports are indeed organic.
20 Thank you for your time and your work.

21 CHIEF FAVRE: Thank you. Questions?
22 Harriet?

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1 MS. BEHAR: What led OEFFA to decide to
2 not certify hydroponic operations?

3 MS. BARTON: That was -- decision was
4 made prior to my time at OEFFA. But my
5 understanding of that decision was that, in the
6 absence of clear standards, we didn't feel that
7 that was something within our purview. It's
8 hard --- yes, our job is to work from the regs and
9 we don't have applicable standards in the regs, in
10 our opinion.

11 CHIEF FAVRE: Thank you.

12 MS. BARTON: Thank you.

13 CHIEF FAVRE: Next up is Bill --- Bob
14 Verloop with Bill Wolf on deck.

15 MR. VERLOOP: Thank you and good
16 afternoon. My name is Robert Verloop, I yield from
17 Monterey, California. It's the first time I've
18 been to St. Louis. It's warmer here than it is back
19 home, kind of a surprise. I have a BS in Fruit
20 Industries, which is an agronomics degree.

21 I also have a master's degree in
22 marketing, or agricultural sciences, ten years'

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1 production experience in a variety of crops, and
2 28 years as the DP in marketing at the California
3 Avocado Commission, Sunkist Growers, the Citrus
4 Co-op, and Nature Right Farms -- the second largest
5 berry company.

6 I'm here today as a representative of
7 Munger Farms. But Nature Right Farms, who I worked
8 with just recently, is a partnership consisting of
9 750 family farms throughout the United States and
10 Latin America, and we have 1,200 individual farms,
11 both organic and conventional.

12 So as I said, I'm here today on behalf
13 of Munger Farms, which is one of the owners and is
14 a -- of Nature Right Farms -- and is a vertically
15 integrated, third-generation family farm that's
16 based out of California.

17 We grow organic blueberries, 250 acres
18 are field grown, 300 acres are field container
19 grown. We farm significantly more conventional
20 blueberries, but the focus today is on the
21 organics. A lot of the organic practices though
22 are being perfected in our organic fields and being

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1 used in our conventional fields. So there is
2 actually some really good symbiosis there.

3 We started growing in field containers
4 because, frankly, we had 160 acres of blueberries
5 that were not growing well due to the soil
6 conditions. They had very high salinity, sodium,
7 and then lime that were not allowing our plants to
8 thrive.

9 The container soil is -- and I had a list
10 of ten things I wanted to talk about. But since
11 over the last day and a half you've heard so many
12 things, I really wanted to narrow it down to a
13 couple of areas. Actually, on the screen you see
14 a picture of what our container fields look like.
15 It's drastically different than, I think, some of
16 the things you might have seen or have a perception
17 of.

18 Our container soil is coco coir, peat
19 moss, vermiculite, and perlite. We introduce
20 natural soil organisms into the substrate, monitor
21 soil biological activities on a constant basis,
22 look at the carbon/nitrogen ratio, and then manage

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1 accordingly. So we're constantly looking at
2 what's going on below the soil, as well as above
3 the soil where we do a lot of tissue analysis.

4 Our fertilizer regime includes organic
5 compost, fish emulsions, plant-based proteins, and
6 foliar applications -- again, on an as needed
7 basis.

8 I know some of you had questions about
9 how often we fertigate. It really depends on the
10 time of the year, the status of the crop, where we
11 are in the cropping season, but typically we'll
12 irrigate anywhere from two to three times a week.
13 There are times when we irrigate without
14 fertilizer. Again, we let the plants and the soil
15 conditions dictate that.

16 At the time of startup, container
17 production allows us to get into production that
18 much quicker, especially when you take a look at
19 the transplant and the stress period that's
20 involved with that.

21 The picture that you see here is
22 actually a brand new planted field in April of this

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1 year and that will be in production next year. In
2 a typical organic field, that would take three
3 years to get to that point. So the economic
4 viability certainly starts to come in our favor.

5 The other aspect that hasn't been
6 talked about very much is this a complete, a
7 complete system that is a systems approach. And
8 as you can see can in here, we have a tremendous
9 amount of open land that we actually incorporate
10 our organic materials into.

11 CHAIR FAVRE: Thank you. I know it's
12 hard to stop at three minutes. Jean?

13 MS. RICHARDON: So is this picture that
14 we see, is this certified hydroponic?

15 MR. VERLOOP: No, this is certified
16 organic. It's not hydroponic.

17 MS. RICHARDON: Okay.

18 MR. VERLOOP: This is container soil.

19 MS. RICHARDON: So in the, so in your
20 containers, which are a substrate mix -- you
21 described what's in it -- how long will that be
22 utilized for growing the blueberries? And what

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1 happens to it after that?

2 MR. VERLOOP: You know, typically a
3 blueberry bush will last anywhere up to 25 and 30
4 years. With the new varieties that we're
5 breeding, we actually anticipate replanting
6 anywhere from seven to 15 years. But the containers
7 will stay in the same place. We'll just remove the
8 plants and then put the new ones, the new varieties
9 in there. It allows us a lot more flexibility that
10 way. The land actually stays much more productive
11 as a result of it.

12 CHAIR FAVRE: Harold?

13 MR. AUSTIN: So rather than faking it
14 and putting this substrate into the
15 containers -- and I'm going to compare this -- I
16 want you to try to explain to me why you would go
17 to this methodology rather than to take, like -- we
18 farm blueberries in the Pacific Northwest -- and
19 we would take and use the soil itself.

20 We would use a compost mix, plus maybe
21 a mulch mix, blend that, build our berms, and then
22 plant into that. What's the advantage of doing it

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1 this way rather than doing like we would be doing
2 in our operations?

3 MR. VERLOOP: Yes, that's a good
4 question and we do exactly what you say in the other
5 300 acres that are organic produced. The
6 advantage to this one really was quicker -- or the
7 ability to get through production quicker.

8 This land also was not conducive to
9 exactly what you were talking about. Even though
10 you would be berming and blending in all of these
11 organic materials, it's still going to take a while
12 for that carbon nitrogen to start kicking in and
13 really make more of the nutrition available.

14 So this gets us into that whole cycle
15 quicker. This also happens to be in a very early
16 season, and if you're a producer you understand the
17 importance of getting in early.

18 This type of a system also allows us to
19 use the rainwater down the center of the rows
20 where -- when you have rainwater and you have moist
21 conditions in the center, you actually attract more
22 solar radiation, which helps you get into bloom

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1 much quicker because the soil temperatures are
2 higher.

3 Later in the season, the same
4 thing -- you have -- the higher moisture content
5 helps you to cool the fields down. So this is where
6 this is much more of an integrated system, and we
7 see the same things in our traditional organic as
8 what you were describing with the berms, but this
9 gives us four times as many plants per acre. So
10 it's that much more intense with a lot more water
11 savings.

12 CHAIR FAVRE: Thank you very much.

13 MR. VERLOOP: Thank you.

14 CHAIR FAVRE: Next up is Bill Wolf,
15 followed by Johanna Mirenda on deck.

16 MR. WOLF: Thank you. I'm going to ask
17 for a pause, for a moment of silence to thank all
18 of you for your dedication and hard work and
19 especially to express appreciation to the retiring
20 members for your five long years of service.

21 I'm Bill Wolf of Wolf, DiMatteo &
22 Associates. Incidentally, I've also been

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1 harvesting and researching seaweed for 45 years and
2 am the founder of Thorvin, a NOP certified organic
3 kelp company.

4 I'm going to go up to 30,000 feet for
5 a moment and talk about the NOSB. The NOSB has a
6 very challenging job, making decisions based on
7 converting a philosophy into regulation.

8 Add to that that organic is the only
9 production standard that covers all crops,
10 animals, and climates from seed to table, plus the
11 NOP is the most public and transparent rule and
12 process ever attempted so we should all stand
13 proud.

14 Organic can be the shining model for
15 transforming agriculture or it could become known
16 as the luddites of the 21st century. You have to
17 decide what tools are really necessary and useful
18 in organic systems.

19 So I ask you to consider the following
20 during your deliberations. One, the National List
21 is a toolbox. Don't make shrinking this list a
22 goal. Be open to innovation and creativity that

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1 fits the organic philosophy, the precautionary
2 principle can cut both ways. Will your vote help
3 increase organic acreage and earthworms?

4 Finally, I encourage you to carefully
5 select what the NOSB takes on as topics. The NOSB
6 can't continue to be the lightning rod for every
7 contentious issue someone wants to find a forum to
8 discuss. It's becoming overwhelming, there are
9 solutions to that.

10 NOSB needs to focus on certain
11 nationalist decisions. Don't get me wrong -- do
12 everything you can to encourage organic farming,
13 which is leading away from -- getting back to the
14 nationalists, some of our written and oral comments
15 including asking that you fix the biodegradable
16 mulch film problem now, quickly implement the EPA
17 safer choice program, implement the guidance
18 document on materials, approve OMRI's decision
19 tree on GMO, require organic field seed over
20 non-GMOs, and apply commercial available to the
21 entire National List. These would all be good
22 steps. I welcome questions, thank you.

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1 CHAIR FAVRE: Good job. Questions?
2 Zea?

3 MS. SONNABEND: Bill, how exactly do
4 you suggest are the solutions to us being
5 overwhelmed?

6 MR. WOLF: Well, let's go back to the
7 basic terminology of FACA. You are an advise --
8 you are a federal advisory group. And what's
9 happening now is that the volunteers are having to
10 address and prepare documents on a voluminous
11 number of issues, and selecting those issues.

12 Perhaps some of that work should be
13 returned to paid staff, to draft proposed guidance
14 work on these issues and then bring them forward
15 for comment by the Board. That's one step that
16 would change the work plan strategy.

17 There are other things that could be
18 done, one of them is to take a look at what some
19 of these issues are that come forward. And perhaps
20 monitor and manage how much time is spent on them.
21 Some of the single issue materials that have come
22 up and been beaten on meeting after meeting could

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1 have been, kind of, put into a box where okay, we're
2 only going to talk about that for a certain amount
3 of time.

4 I mean, I'm, frankly I, one thing I've
5 learned about carrageenan is now I know how to
6 pronounce it. But in the last three meetings I've
7 heard way more than I ever could have imagined
8 hearing, and I think it's only one small material
9 in one issue.

10 I don't downgrade the seriousness of
11 the concept, but it got overwhelming. And there's
12 a way to, kind of, put it in a box and say we're
13 only going to allow 15 minutes of public comments
14 or get the written comments in in a certain way.
15 I'm not picking out on that one issue alone, but
16 there's ways to do this so that the Board has a
17 chance to deliberate in front of the public.

18 CHAIR FAVRE: Thank you very much.
19 Thank you, Bill.

20 MR. WOLF: Sure. No other questions?
21 Okay. Thanks.

22 CHAIR FAVRE: It's hard to believe, I

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1 know.

2 MR. WOLF: Thank you.

3 CHAIR FAVRE: Next up is Johanna
4 Mirenda with Lisa Stokey on deck.

5 MS. MIRENDA: Hi, I'm Johanna Mirenda,
6 Technical Director of OMRI, the Organic Materials
7 Review Institute. I'll be speaking on the general
8 theme of needing increased transparency and
9 consistency of materials on the National List.

10 OMRI does not take a position whether
11 substances should be added or removed from the
12 list, rather we provide these comments to insure
13 a clear understanding of the NOSB's intent so that
14 their recommendations, if enacted, can be
15 consistently enforced by all certifiers and
16 material review organizations.

17 First is the issue of chlorine. The
18 Handling subcommittee is considering a petition to
19 add sodium chlorite for the production of chlorine
20 oxide gas to the National List. The choice to list
21 the sodium chlorite precursor instead of the final
22 chlorine oxide gas substance is inconsistent with

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1 listing of other chlorine materials, which lists
2 the final substance as used by the operator with
3 limitations on precursors identified in the
4 annotation.

5 The choice to list only the sodium
6 chlorite precursor also raises questions about the
7 allowance of other materials, other than sodium
8 chlorite, that are used to generate the final
9 substance.

10 We encourage the NOSB to provide
11 transparency regarding their expectations for
12 reviewing these other materials, and also to
13 consider the petition's substance within the
14 context of other issues regarding chlorine
15 materials that we identified in our written
16 comments.

17 That being said, the approach of
18 listing individual precursors, with annotations
19 that specify the intended end use, could improve
20 the transparency of reviewing substances that are
21 ultimately made by the operator onsite since the
22 precursors reflect the products actually purchased

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1 and used by the operator, and therefore reflect the
2 products that are reviewed by the certifier or the
3 material review organization.

4 This sort of approach, however, if
5 pursued should only be implemented as part of the
6 comprehensive review of all onsite-generated
7 chlorine materials on the National List to insure
8 consistency across all of these related materials.

9 Second, is the issue of allowed
10 synthetic substances that appear on 205.605(b)
11 that may be available in non-synthetic form, but
12 do not have a companion listing on 605(a).

13 A literal interpretation would imply
14 that non-synthetic forms are prohibited because
15 the substance doesn't specifically appear at
16 605(a) as an allowed non-synthetic, but it goes
17 against the generally accepted convention that
18 non-synthetics are preferred over synthetics.

19 The handling subcommittee's latest
20 work on tocopherols and Xanthan gum at this
21 meeting's agenda muddy the water on what's expected
22 of non-synthetic forms of 605(b) substances.

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1 The subcommittee added, moved to add a
2 listing for tocopherols at 605(a) to indicate that
3 non-synthetic forms are allowed, but did not do so
4 with the Xanthan gum, which is also available in
5 non-synthetic forms.

6 We encourage the NOSB to provide
7 transparency regarding your expectations for the
8 allowance of non-synthetic forms of Xanthan gum and
9 other allowed synthetic substances that may exist
10 in non-synthetic, non-agricultural forms, but do
11 not have a separate listing at 605(a). Thank you.

12 CHAIR FAVRE: Questions? No
13 questions. Thank you very much. Next up is Lisa
14 Stokey with Melinda Hemmelgarn on deck.

15 MS. STOKEY: Okay. Hi, my name is Lisa
16 Stokey and I am a co-founder and co-director of Food
17 Democracy Now, which is an Iowa based, grassroots
18 organization. We represent about 650,000 people.
19 They're citizens and farmers, and I'm here to
20 represent them today primarily.

21 I didn't prepare any comments
22 officially, I just feel like I need to be a

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1 representative from the community of the people
2 that rely upon, you know, organic, you know, for
3 their diet and for their health.

4 I'm also a board member, a third year
5 board member, of Organic Seed Growers and Trade
6 Association, which is based in Maine. And it's a
7 farmer-run organization, you know, of organic
8 farmers obviously, and our goal with OSGATA is to
9 maintain seed integrity in our organics, organic
10 seed integrity.

11 So I also want to tell you that we had
12 14,000 people in 24 hours, from our membership,
13 tell us that they do not want hydroponics in
14 organic. It's my feeling, you know, from our
15 membership and also from being out there in the
16 world, you know, as a mom and as a consumer -- I
17 have four kids that I've fed organic for 25
18 years -- that people are not really aware that there
19 is hydroponic allowed in organic.

20 And as we are moving forward -- our
21 organization, Food Democracy Now -- I know there's
22 other organizations here that also represent the

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1 consumers. There's a few of us here represented
2 today.

3 You know, as well, we have been the
4 biggest advocates for organic and maintaining the
5 integrity of organic. You know, it's also our role
6 to be the biggest critic of organic, should that
7 be called for. So when people, I think, look to
8 these meetings and look to the composition of the
9 National Organic Standards Board, you know -- I'm
10 sure that you all take this into consideration.

11 But I would just also like to remind
12 you -- in light of a lot of the comments we've
13 received here today, that I've witnessed, that
14 people see you as the guardians. You know, that
15 you're here to watch over the details and make sure
16 that we stay on the principle, the foundation of
17 organic, which is -- what we're discussing
18 today -- is by all means soil and it's organic
19 farmers.

20 And as we have done our policy work, we
21 see that without organic farmers, farming the land
22 and the soil and tending to the soil and creating

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1 carbon sequestration, for example, and highly
2 nutritious food--if we are not doing that, and if
3 organic does not maintain itself as that haven for
4 that, then we will be in much more trouble in our
5 future. And so we are looking to you to be the
6 guardians of that, to hold the integrity, to not
7 allow genetic engineering, to be guardians and not
8 allow synthetic chemicals and make sure that we
9 have, you know, healthy food for our children and
10 our future. Thank you.

11 CHAIR FAVRE: Jean?

12 MS. RICHARDON: Thank you for your
13 comments.

14 MS. STOKEY: Yes.

15 MS. RICHARDON: So as a consumer and
16 thinking of all the people that you represent, when
17 you think of hydroponics what do you think? What
18 does it look like to you? You've been in the room
19 I assume, at least for part of the last couple of
20 days, so which of the pictures, to you, are
21 hydroponic?

22 MS. STOKEY: Well, I guess, you know,

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1 I mean we have this here as an example. And, you
2 know, when I have visited farms -- I know so many
3 amazing organic farmers across the country, you
4 know. And someone who I'm really proud to call my
5 friend, for example, is Fred Kircshenmann, you
6 know, who was instrumental in drafting the organic
7 standards.

8 And so when I look to what it is, I think
9 more -- I guess maybe to answer your question I
10 think about more of what organic is as opposed to
11 what it is not. And so when I talk to farmers I
12 think -- and I visit farms and I buy food for my
13 children, I'm thinking about the soil and I'm
14 grateful that the farmers are tending to the soil.
15 And hydroponics contains very little soil, right?

16 MS. RICHARDON: So let me interrupt you
17 then because you saw the last gentleman, he had a
18 picture of the blueberries and they were growing
19 in containers.

20 MS. STOKEY: Right.

21 MS. RICHARDON: And they're not
22 certified hydroponic, they're certified organic.

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1 But they're not growing in the ground so how -- is
2 that okay?

3 MS. STOKEY: Well, if you're asking me
4 my thought and my opinion, which obviously you are,
5 I find that to be a complete turn-off. That's -- if
6 I were to go there, and to get food for my children,
7 I honestly wouldn't do it. It's not a place where
8 I would go to, like a berry patch, and have food
9 for my kids, you know.

10 I think that, I think that the micro
11 vitamin in the soil is very important and the
12 nutrient quality that we get from that. And
13 there's so much that we don't even understand yet,
14 right, about soil?

15 You know, there's a magic and a beauty
16 and a quality to it that lends itself to the food,
17 and then that is then translated to us. And that's
18 how, like when I'm thinking about my children for
19 example -- and I know there's a lot of women out
20 there like myself, and parents -- that that's what
21 we want to give our children. We want to give them
22 the vitality, not something that's really grown in,

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1 you know, plastic or coconut hulls.

2 CHAIR FAVRE: Dan, you had a question?

3 MR. SEITZ: So you mentioned that you
4 heard from 14,000 of your members who weighed in
5 on hydroponic.

6 MS. STOKEY: Yes.

7 MR. SEITZ: How did you solicit that,
8 was there a question that you sent out to them?
9 What was the prompt from your organization that
10 brought you that feedback?

11 MS. STOKEY: Our -- we do a lot of
12 policy work, so our membership relies upon us to
13 educate them about policy. You know, whether it's
14 the Food Safety Modification Act or the farm bill
15 or, you know, issues in organic, you know.

16 So we have a, you know, a list of people
17 that we regularly email about these issues, and so
18 we will educate them on the issue and provide links
19 and so forth. And so this was a petition and people
20 agreed with the petition to not allow hydroponics
21 in organic.

22 And also we included in that petition

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1 synthetic biology, and so if people agree with that
2 petition that we wrote, they will sign their name
3 and then we submitted that to the NOP.

4 CHAIR FAVRE: Thank you very much.

5 MS. STOKEY: Yes, thank you.

6 CHAIR FAVRE: Next up is Melinda
7 Hemmelgarn with John Shope on deck.

8 MS. HEMMELGARN: Good afternoon,
9 welcome to Missouri. My name is Melinda
10 Hemmelgarn, and I am an independent consulting
11 registered dietician based in Columbia, Missouri.

12 And I support and promote organic food
13 and farming for two major reasons, one to protect
14 our environment and two to protect public
15 health -- especially reducing the risk of cancers
16 and gastrointestinal diseases.

17 And I most often work with consumer
18 audiences explaining the benefits of organic food
19 and trying to convince them that it's worth their
20 extra money to invest in organic foods and why they
21 should feel confident in the organic label and pay
22 more.

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1 I spend a lot of time defining what
2 organic is and defending the label, and that's why
3 I really need your help here in protecting in the
4 integrity of organic.

5 I answer a lot of questions that
6 consumers have about organic and one of them is
7 about carrageenan. And I didn't know anything
8 about carrageenan, so I did some research, and
9 mostly I contacted my colleagues who worked with
10 patients with gastrointestinal disorders.

11 And I said what do you tell your
12 patients, do you tell them to avoid carrageenan?
13 And they said yes, absolutely.

14 So when there is an ingredient with
15 known or questionable safety, and that ingredient
16 is included in an organic product, the consumer
17 loses faith in the integrity of the organic label.
18 And they say to me, well why should pay more for
19 it then?

20 So mostly, I want to protect that
21 organic label. And when I talk to consumers about
22 promoting organic, I want to make sure that I can

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1 answer their questions about well what is this
2 doing in a product if it's not safe. So my ask is
3 that carrageenan not be allowed in organic foods
4 based on my colleagues' assertions not to use it.

5 Second, I am asking that we expand our
6 discussion of contaminated inputs to manure from
7 animals fed antibiotics, as well as irrigation
8 water. I am especially concerned about antibiotic
9 residues and antibiotic resistant organisms.

10 November 14th through 20th is actually
11 the World Antibiotic Awareness week, and there was
12 a report that came out yesterday from the Food and
13 Agriculture Organization warning that this is one
14 of the biggest global health threats to our nation
15 and world.

16 So while we need more research in this
17 area, there is concerning evidence that crops can
18 absorb antibiotics when soil is fertilized with
19 manure, even after composting. And a colleague of
20 mine, who's a doctor of veterinary medicine, said
21 that even if antibiotic resistant organisms are
22 dead, live bacteria have the ability and are known

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1 to pick up genetic elements from dead bacteria and
2 incorporate it into their genome -- including
3 antibiotic resistance.

4 So I would ask that manure from animals
5 that have been fed antibiotics not be permitted to
6 be used on organic farming systems. I have one
7 more ask if I might, and I ask that recycled water
8 from fracking waste water not be allowed on organic
9 farms due to chemical residues which are known
10 endocrine disrupters. Thank you.

11 CHAIR FAVRE: Questions? Thank you
12 very much.

13 MS. HEMMELGARN: Thank you.

14 CHAIR FAVRE: Okay, good job. Next up
15 is John Shope with Barry Baker on deck.

16 MR. SHOPE: I am John Shope and I am an
17 organic farmer. Falling Waters Farm was formed to
18 produce organic, locally grown food in a
19 controlled, indoor environment utilizing
20 recirculating aquaponics and the associated
21 nutrient rich and biologically active water.

22 We are a year-round urban food

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1 producer. To our customers, USDA Organic
2 represents food that is independently certified as
3 free of synthetic chemicals and non-GMO.

4 Aquaponics in our facility is a
5 symbiotic cultivation of fish and vegetables in a
6 closed recirculating system, realizing the benefit
7 of strong yet well-balanced natural nutrients.

8 Our current fish inventory is about
9 420,000, we add no fertilizer, and we recover and
10 reuse about 98 percent of our source water.
11 Primary crops include leafy green vegetables such
12 as lettuce, chard, basil, and kale, as well as
13 peppers.

14 Falling Waters also cultivates micro
15 greens and wheat grass. Controlled environment
16 agriculture and LED lighting create an ideal
17 growing condition for year-round availability of
18 locally grown produce, even during harsh winter
19 months. Demand in our area for organic, fresh
20 produce far exceeds that which we can produce.

21 We are planning to expand. Our monthly
22 output can increase from roughly \$100,000 to over

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1 \$2 million in the same facility. Higher output
2 will begin to address the need for healthy organic
3 local produce.

4 I have read and understand the
5 recommendations facing this panel. As a
6 relatively new entry in this conversation, allow
7 me an opportunity to pose a basic question of asking
8 why.

9 Why would the NOSB disqualify our
10 containerized, indoor method as per the committee
11 recommendations? Our commercial method of
12 growing was not contemplated by the original
13 authors, as noted by the absence of specific
14 exclusions.

15 Why make the determination that my
16 method does not produce food rich in some
17 particular nutrient without such data, or despite
18 data to the contrary? There are crops that grow
19 equally well, if not better, in heavily irrigated
20 environments -- rice, watercress, real wasabi,
21 herbs, leafy greens.

22 Why focus exclusively on how produce is

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1 grown rather than how well produce is grown? Why
2 should the NOSB approve?

3 We produce organic food that is
4 symbiotically grown with our ecosystem, our
5 environment, our precious limited resources in
6 mind. Because we produce organic food that is
7 grown close to consumers -- we are in a food
8 desert -- through the commercial wholesale
9 distribution system our organic food is consumed
10 at restaurants or in homes within 36 hours of
11 harvest, deeply embedded with its natural
12 nutrients and crisp, vegetative goodness because
13 we produce food that is equally healthy for human
14 consumption -- non-toxic in every way that citizen
15 consumers expect when selecting the USDA 100
16 percent Organic Produce.

17 If my comments resonate with allowing
18 the expansion of organic methods, please take the
19 time to re-design the language and use this to
20 continue to assure our consumers that 100 percent
21 label Organic is everything that matters, methods
22 aside.

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1 CHAIR FAVRE: Thank you. Questions?
2 Dan, and then Harriet.

3 MR. SEITZ: Where is your facility
4 located?

5 MR. SHOPE: We're in Indianapolis in an
6 urban setting in a 1960s facility, about five miles
7 from the center of town.

8 CHAIR HAVRE: Harriet?

9 MS. BEHAR: So looking at the pictures,
10 for me, I see organic as somewhat of a natural
11 system and working within nature. And this does
12 not look like a natural environment to me, so how
13 would you respond to that?

14 MR SHOPE: It's a good question. We are
15 utilizing an older building, 1960s construction
16 building, that otherwise is surrounded by homes.
17 And the facility itself, even if torn down,
18 represents a piece of property, a piece of ground
19 which could not be used for production.

20 Yet we're surrounded by over a million,
21 a million and a half people within a small radius
22 of our facility. So we are using that environment

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1 and we are trying to maximize those same natural
2 cycles, the biological activity from our fish. We
3 feed our fish and our fish feed our plants. That
4 water is extraordinarily active and the plants come
5 out vivacious.

6 CHAIR FAVRE: Thank you very much.

7 MR. SHOPE: Enjoy your day.

8 CHAIR FAVRE: Next up is Barry Baker,
9 followed by Gwendolyn Wyard on deck.

10 MR. BAKER: Thank you very much. My
11 name is Barry Baker, I'm from Kanalts B.C. I'm
12 here to represent absorbent products and speak
13 about sodium bisulfate.

14 Now, since the goings-on yesterday I
15 know we heard a lot of fire and brimstone. And I
16 think what this discussion has turned into is this
17 false dichotomy between whether we should be using
18 sodium bisulfate or whether we should be using
19 activated Barn Fresh. But in fact, that isn't the
20 discussion we should be having.

21 We should be looking at whether or not
22 sodium bisulfate, which is a very harsh acid -- and

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1 it's a legacy chemical that has been used in
2 conventional for 20, 30 years -- whether that
3 should be used or whether an entire host of
4 management practices could be used instead.

5 So taking a look at the list here,
6 there's so many different ways that we can increase
7 bird health. Reducing stress, first of all, will
8 help with gut health, providing access to sunlight
9 outdoors, dust baths, pecking blocks. We have a
10 familiarity with that because we also provide some
11 of these mechanisms.

12 More frequent bedding changes,
13 ventilation, controlling moisture, wind-rowing.
14 I think that Peter, earlier and in his written
15 submission, showed that in-house wind-rowing can
16 kill off more than 99 percent of the Clostridium
17 perfringens that lead to necrotic enteritis.

18 Species selection, we work with some
19 producers who have actually selected species of
20 birds because they are heartier. And so they don't
21 experience the same kind of challenges or mortality
22 that other conventional species might.

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1 Bird density, that's definitely a big
2 one, diet and gut health, and a shift from deep
3 litter because really, deep litter has really been
4 able to continue over time because there have been
5 products, these really heavy acids, like sodium
6 bisulfate, that make it a growing medium that
7 actually works quite well, before you ever even
8 look at another kind of a product.

9 And I know it sounds like maybe I'm
10 trying to talk myself out of a job here, but there
11 are so many different management practices that can
12 help producers, organic producers, manage not only
13 ammonia, but some of the horrible bacteria that
14 we've been hearing about today before you look at
15 activated Barn Fresh or relentless plus like Andre
16 brought in yesterday or even Penergetic K.

17 I think that we've been targeting the
18 wrong products. There was a young lady who showed
19 that she'd done an in-house study from Miller
20 Poultry that showed that Barn Fresh didn't
21 provide -- or it didn't control ammonia very well.

22 I can tell you straight right now that

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1 that -- that those -- that activated Barn Fresh has
2 never made it to her area through our distribution
3 network. There -- we have over six, we are working
4 on a seventh -- different Barn Fresh products, and
5 some things -- sometimes these get mixed up.

6 It could've been, and I expect that it
7 was, Barn Fresh, which is straight diatomaceous
8 earth so no acidifying whatsoever. And Barn Fresh
9 Plus, which does have an antimicrobial, but is
10 actually focused on the dairy space, which has a
11 completely different kind of microbial burden than
12 you would find in poultry.

13 So I would really advise the board here
14 to just discount that report completely because I
15 don't think it's valid in any way, shape, or form
16 because it doesn't look at an acidified product.

17 Also, one -- I'll just finish off with
18 one thing. There was a paper presented at the end
19 of the day, yesterday, showing a letter from a large
20 producer in the West Coast supporting sodium
21 bisulfate. This chart here shows you an outbreak
22 of salmonella that that same producer experienced

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1 in 2013 and 2014 while they were using PLT in their
2 birds.

3 CHAIR FAVRE: Okay, all right we need
4 to have you stop there. Thank you. Questions?
5 Francis?

6 MR. THICKE: Thank you, a question
7 about the acidity. When you have the acidified
8 product put on the litter at the recommended rate,
9 what would be the pH of the litter on the surface?
10 Would you -- do you update on that?

11 MR. BAKMS. ROSEN: Yes, although it's
12 really going to -- it really varies so much. I've
13 spoken to producers who have, and we heard you here
14 yesterday from Miller, that they had -- I think that
15 they were looking at bedding that had been in the
16 house for four or five years.

17 Sometimes it's in there for one year.
18 The oldest litter I have ever heard of in place is
19 15 years old, so you can imagine what kind of
20 ammonia and microbial burden is going to be living
21 within that.

22 So it's really just a -- it's a shot in

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1 the dark to say exactly what that is going to be
2 because so many different factors play into it,
3 whether it be moisture, ventilation, the age of the
4 litter, whether its rice hulls, whether it's going
5 to be sawed up shavings or what have you.

6 MR. THICKE: Okay, thank you.

7 CHAIR FAVRE: Harriet?

8 MS. BEHAR: Have you had any of your
9 customers be frustrated by not being able to
10 control the ammonia or having large mortalities in
11 their houses?

12 MR. BAKMS. ROSEN: I have never heard
13 about problems with large mortalities, that kind
14 of feedback has never come back.

15 What I have heard is that it doesn't
16 work as well as Poultry Guard or PLT, okay? But
17 my response to that is, typically -- and you can
18 find it right on the PLT bag, right, if there -- if
19 different kind of things have happened.

20 If you've recently wind-rowed, okay, if
21 you've turned over the litter -- different
22 situations like that -- or if it's old litter, you

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1 need to apply more. So what I tell my customers
2 is that, well apply more and that's really it.

3 But until today I have never heard any
4 kinds of concerns. I know that necritis is an
5 issue throughout the industry. It is not an issue
6 just with organic. Conventional barns are
7 struggling with this too.

8 I really don't believe that there is a
9 single silver bullet. And one of the things that
10 Dr. Johnson mentioned yesterday is that heat -- she
11 mentioned three things that can handle the
12 *Clostridium perfringens*, and one of them being
13 heat.

14 In-house wind-rowing has been proven to
15 kill that very effectively. So it really comes
16 down to management practices and, as somebody said
17 the other day, the best fertilizer is the shadow
18 of the farmer. And I really think that a more
19 hands-on approach and a more long term approach to
20 building aviaries is the solution that is going to
21 help these birds thrive.

22 CHAIR FAVRE: Ashley?

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1 MS. SWAFFMS. ROSEN: Okay, so the other
2 guy from Barn Fresh talked, you have 2 million birds
3 a week, currently down on the ground, where you're
4 using activated Barn Fresh or all types of Barn
5 Fresh?

6 MR. BAKMS. ROSEN: That would be
7 activated Barn Fresh. Barn Fresh is typically
8 used only in situations where you want to dry out.
9 So activated Barn Fresh is a combination of food
10 grade diatomaceous earth and food grade citric
11 acid.

12 Barn Fresh, for the most part, the
13 market for us there is in Canada. We don't get the
14 big accumulations of ammonia and so on, so it'll
15 be used to help dry out litter if wetness does
16 occur.

17 MS. SWAFFMS. ROSEN: And -- sorry,
18 Tracy, some follow up -- so do you know typical
19 parts per million ammonia ranges that those
20 producers are seeing using your product?

21 MR. BAKER. Yes, so in the commercial
22 organic spaces it is typically well below 20 parts

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1 per million. Now, that's a -- and I've got to
2 say -- that is a very significant change from when
3 they moved to using our product initially.

4 And I've certainly been in barns,
5 whether on the east coast on the west coast, I've
6 been in some barns where it makes your eyes burn,
7 right? Up here, I can't imagine what the ammonia
8 is going to be at down here. But we're very
9 confident that applying an appropriate amount of
10 activated Barn Fresh will bring it down where it
11 needs to be.

12 MS. SWAFFMS. ROSEN: As an inspector
13 you're supposed to take ammonia readings at bird
14 height.

15 MR. BAKMS. ROSEN: Yes, I know, I know.
16 It makes a lot of sense. So are there any other
17 questions? Just one thing I'd like to add, there
18 is such a rich tool kit at your disposal, at the
19 disposal of the producers, organic producers. I
20 really think that we need to leave the tools from
21 the 80s alone, right?

22 My kids, like, I watch Netflix. I can

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1 watch an entire series over the weekend and that
2 kind of thing, instead of waiting once a week to
3 watch Happy Days. So we can leave a lot of
4 different things back in the 80s that were
5 appropriate for the 80s because organic shouldn't
6 be about maintaining the conventional status quo.

7 CHAIR FAVRE: All right, that's fine.

8 MR. BAKMS. ROSEN: Thank you very much.

9 CHAIR FAVRE: Thank you. Next up is
10 Gwendolyn Wyard with Ann Marie Hourigan on deck.

11 MS. WYARD: All right. Well, good
12 afternoon, my name is Gwendolyn Wyard. I'm the
13 vice president of Regulatory and Technical Affairs
14 for the Organic Trade Association.

15 First, I also want to extend my
16 gratitude to the outgoing board members, Zea,
17 Tracy, Carmella, Harold, Jean -- where'd you go,
18 you're in the dark back there. Thank you so much,
19 you are all amazing and your work has just been
20 absolutely spectacular so thank you so much.

21 Okay, you have our written comments and
22 you also have our resource booklet featuring the

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1 National List criteria and the three -- balancing
2 the three-legged stool.

3 And I really encourage everybody in the
4 room to take a look at the introduction and read
5 that so that you can really understand the
6 challenging consideration that the board must go
7 through, and must give, by law, to each material
8 that goes on or off the National List.

9 With respect to our comments, you have
10 them, I'm not going to belabor them, but I do want
11 to just highlight a few to inspire any questions
12 that you might have. Strengthen the requirements
13 to use organic seed, yes. Organic seed is a
14 critical foundation to the success of organic
15 agriculture. Please continue your work on this
16 topic and we have several suggestions.

17 Tocopherols, yes, list non-synthetic
18 but revise the annotation on both listings to
19 require organic preference. Work on
20 classification of Xanthan gum, yes. Please give
21 non-synthetic forms a chance, excluded methods not
22 allowed. Our existing definition in the

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1 regulations is most important, guidance however is
2 needed.

3 We believe the definitions and
4 principles in the proposal also matter the most and
5 will carry the water for the long haul. We also
6 think that the definition of principles support the
7 chart. If you're certain that the chart is
8 correct, pass the proposal, all of it.

9 Sunset reorganization, yes -- every
10 input, every five years, according to National List
11 criteria -- 2018 sunset, does three-legged stool
12 stand on one leg? No. Does a three-legged stool
13 stand on two? Not when I sit on it. It takes all
14 three. So I admire your work, you have a tough job,
15 and here's to a sturdy three-legged stool. Thank
16 you.

17 CHAIR FAVRE: Harold?

18 MR. AUSTIN: Thanks Gwen, thanks for
19 all the work that you guys do too and understanding
20 all the effort that the five of us are about to
21 sunset off it, and trying to put into our efforts
22 on the board. Could you elaborate a little bit on

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1 your comments on Xanthan gum for us, please? Got
2 you.

3 MS. WYARD: Sure, you know, Xanthan
4 gum -- I haven't given it a lot of thought in the
5 last couple weeks, but I certainly did prior that.
6 So I think Xanthan gum, from reading through the
7 technical review, it sounds like there are in fact
8 non-synthetic forms. And the common
9 manufacturing processes that are being used to make
10 Xanthan gum are non-synthetic.

11 So I think it's important that if, in
12 fact, non-synthetic forms are being made, that that
13 be taken into consideration and non-synthetic
14 forms be placed on the National List.

15 And I would also go as far to say that
16 there should be an annotation or something that
17 requires that the non-synthetic form be used, and
18 perhaps the synthetic form not allowed, period.

19 I think that this is really important
20 because from the organic versus natural
21 perspective too, there's a lot of products that
22 people consider them to be natural when they

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1 contain Xanthan gum.

2 If you get into the discussion about
3 organic versus natural and you have a product that
4 would meet the requirements and could be labeled
5 as organic. But, let's say, you were to use the
6 current policy under FDA with respect to natural,
7 it would contain a synthetic ingredient --- that
8 being Xanthan gum -- and you wouldn't be able to
9 call it natural.

10 So it just seems like there -- this is
11 one opportunity that kind of jumped out at me for,
12 you know, all the obvious reasons as well as that
13 one. Because I'd recently been working through
14 comments to FDA on the definition of natural.

15 CHAIR FAVRE: Tom and then Zea.

16 VICE CHAIR CHAPMAN: I'm looking at
17 your stool here and I'm glad I'm on a more
18 comfortable chair. But we've received a lot of
19 comments about consumer input and I was wondering
20 where -- or consumer preference -- and I was
21 wondering where that sat on that three-legged
22 stool.

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1 MS. WYARD: I'm glad I brought it up
2 here because I can't see that far even with my new
3 glasses. So, yes, I think that -- so alternatives,
4 health and environment, and suitability.
5 Suitability is a term that we gave -- it's actually,
6 in the law it's compatibility. Suitability just
7 seemed a little easier to digest.

8 In the introduction we have talked
9 about the challenges for each of the three criteria
10 that are in the law. And when you look at
11 suitability or compatibility, it's definitely,
12 it's arguable that that is the most nebulous.

13 Suitability or compatibility,
14 specifically says it's compatible with organic
15 production or handling. And there isn't any more
16 specificity in the law or in the regulations for
17 what that means.

18 However, in the PPM there is in the
19 Appendix A there --- or yes, in the annex
20 there -- there is a recommendation that was passed
21 in 2004, I believe. And that has a long list of
22 criteria that I believe you're using, and it's

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1 where you go to to understand whether or not
2 something is compatible with organic production or
3 handling.

4 And there's one specific question that
5 asks whether or not the substance satisfies
6 consumer perception, in terms of organic integrity
7 and, I think, authenticity. So I mean I would
8 argue there's three reps on the board, consumer
9 reps on the board, and there's that compatibility
10 in reference to that recommendation that was
11 passed.

12 So absolutely consumer preference
13 plays into it. I think you have to balance
14 science, you have to balance consumer preference,
15 you have to look at the alternatives. And that's
16 the whole meaning of balancing this three-legged
17 stool, is that it's not just science alone, it's
18 not just alternatives alone, it's not just
19 compatibility alone.

20 CHAIR FAVRE: Zea?

21 MS. SONNABEND: Thanks. Back to
22 xanthan gum for a second. And when you were a

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1 product, a processing review coordinator in your
2 past, would you being able to tell if xanthan gum
3 was manufactured from a non-synthetic source
4 versus a synthetic source? Or would passing such
5 a restriction place a pretty strong hurdle to
6 certifiers to determine that?

7 MS. WYARD: I think synthetic and
8 non-synthetic determinations are made all the
9 time. I think, yes, we definitely, including
10 myself, have the expertise to be able to determine
11 synthetic versus non-synthetic. We'd ask for that
12 information.

13 It would help if the final
14 classification guidance on synthetic and
15 non-synthetic were available. But, you know, I
16 think we probably would have been using that draft
17 form. But, yes, I think that's a requirement of
18 certifiers to be able to make that determination.

19 I'm not saying it's easy, but, yes.

20 CHAIR FAVRE: Thanks, Gwen. Next up
21 is Ann Marie Hourigan, with John Ashby as our last
22 public comment.

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1 MS. HOURIGAN: Good afternoon. My
2 name's Ann Marie Hourigan. I'm with Earthbound
3 Farm, a dedicated organic producer and handler of
4 organic packaged salads.

5 Earthbound Farm supports the relisting
6 of both peracetic acid on 205601 and cellulose on
7 205605. Peracetic acid is an important tool which
8 we use in our irrigation lines and to disinfect
9 equipment. It's more effective than other
10 approved sanitizers currently available and
11 decomposes quickly.

12 Cellulose is a nominal ingredient in
13 the organic shredded cheese that we use in our
14 various organic salad bowls and salad kits. It's
15 a plant-based fiber found in all plants. It has
16 a technical anti-caking agent effect on the
17 shredded cheese, which keeps the cheese from
18 clumping.

19 In addition, Earthbound Farm would like
20 the NOSB to send a proposal to develop provisions
21 for the bioponic production including hydroponics,
22 aeroponics, and aquaponics back to the

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1 subcommittee for further evaluation.

2 The greatest challenge to the organic
3 industry is the maintenance of a reliable and
4 dependable organic supply chain. For Earthbound
5 Farm, that supply chain starts with organic produce
6 which is grown sustainably and with integrity.

7 Just to be fair, Earthbound Farm does
8 not currently use hydroponic production to grow any
9 of our produce nor do we have any plans to do so
10 at this time. In fact, we proudly organically farm
11 almost 30,000 acres of land.

12 However, in drought-ridden California,
13 we must be mindful of the resources we use,
14 specifically water. As we look to the future and
15 as water becomes more and more scarce, we need to
16 be able to carefully consider all of our growing
17 options.

18 It would be detrimental to the organic
19 industry to prematurely exclude any growing
20 methods that could conserve water consumption and
21 other natural resources based on the medium in
22 which a plant is grown.

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1 At this time, Earthbound Farm
2 encourages the NOSB to send the hydroponic proposal
3 back to the crop subcommittee for further
4 deliberation. Although the 2016 hydroponic and
5 aquaponic task force presented various
6 perspectives from across the industry, there's
7 still a lack of consensus clearly defining these
8 various methods.

9 As such, we encourage the crops
10 subcommittee to carefully evaluate the various
11 growing methods including bioponic practices which
12 have successfully integrated organic growing
13 methods and sustainable practices.

14 In the spirit of consumer transparency
15 and choice, we would support hydroponically or
16 bioponically grown crops to be labeled as such once
17 these terms have been clearly defined. Please
18 consider the further growth of the industry as well
19 as the preservation of precious resources.

20 In closing, I'd just like to thank the
21 NOSB Board for your time and for the opportunity
22 to come in here today.

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1 CHAIR FAVRE: Thanks, Anne Marie.
2 Questions? Dan?

3 MR. SEITZ: So it seems that in a number
4 of other regulatory processes cellulose is not
5 allowed. And I was just wondering why that is that
6 in some other places there hasn't been any -- or
7 it's much circumscribed, say, just for -- as a
8 filtering agent.

9 So here it's broader and I just was
10 wondering why in, say, Europe or whatever it hasn't
11 been as necessary a substance to allow.

12 MS. HOURIGAN: Oh, I couldn't speak to
13 why it wouldn't be as necessarily important in
14 other markets.

15 MR. SEITZ: okay.

16 MS. HOURIGAN: Thank you.

17 CHAIR FAVRE: Thanks, Anne Marie.
18 Last public commenter will be John Ashby. Hi,
19 John.

20 MR. ASHBY: John Ashby with California
21 Natural Products. I'm here for, I think, it's the
22 umpteen-bizillionth time for address silicon

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1 dioxide and enzymes while I'm here. And, in fact,
2 it's been so many times I can't even talk about it
3 anymore. So instead, I'm going to sing it.

4 (Singing.)

5 You'll never know how much you really
6 love me. Oh, yes, you do. Until I'm gone and then
7 you'll miss me
8 so -- doo-doo-doo-doo-doo-doo -- listen.
9 Ooh-ooh-ooh, do you want to save organics?
10 Ooh-ooh-ooh, would you rather kill it dead?
11 Whoa-oh-oh-oh, closer. Woo-hoo-hoo, let me
12 whisper in your ear. Woo-hoo-hoo, say the words
13 you long to hear. I'm in love with silicon dioxide
14 and enzymes too-ooh. I've known this secret for
15 a decade or two. Can't make our products with
16 these two-ooh-ooh. Ooh, listen. Ooh-ooh-ooh, do
17 you want to save organics? Ooh-ooh-ooh, vote for
18 silicon and enzymes. Whoa-oh-oh, closer.
19 Mmm-mmm-mmm, please do whisper in my ear.
20 Mmm-mmm-mmm, say the words I long to hear -- you'll
21 keep them on the list -- enzymes and silicon
22 dioxide, so organics can continue to thrive and I

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1 can keep my stupid job alive and come back this
2 spring and never have to sing again.

3 (Applause.)

4 Long live enzymes and silicon dioxide.
5 And thank you, guys.

6 CHAIR FAVRE: I just sort of dare
7 anybody to ask a question.

8 (Laughter.)

9 There you go. We got the bold one. Go
10 ahead, Emily.

11 MS. OAKLEY: Well, I can't sing my
12 question. And without singing your reply, could
13 you elaborate, just briefly, on silicon dioxide for
14 me?

15 MR. ASHBY: Yes. You know,
16 this -- what you see currently on the list was a
17 compromise that was worked out by me and the owner
18 guy who provides the organic rice hulls because
19 silicon dioxide can do some things that rice hulls
20 cannot.

21 It can deal with some really
22 hygroscopic products. You just can't make most of

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1 the products we make without having the silicon
2 dioxide because it keeps it from just forming into
3 a sugar brick instantaneously.

4 And that having been said, I'm not
5 against the rice hulls. And we, in fact, have
6 another product that we're making at our plant. In
7 about a month we're going to do a trial to see if
8 we can, for that product, take the silicon dioxide
9 out and replace it with the rice hulls.

10 But the basic solids that, you know,
11 rice solids that our company invented, literally
12 decades ago, were organic when there wasn't even
13 anything close to a definition of what organic was.
14 They've been around that long. They're just
15 critical in some products.

16 You just can't make a whole lot of
17 products just with sorbs. You've got to have
18 solids along with the sorbs. And it's the silicon
19 dioxide that's the flow agent that keeps it flowing
20 so the manufacturer can use it in their location.

21 CHAIR FAVRE: Okay.

22 MR. ASHBY: Thank you.

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1 CHAIR FAVRE: Thank you, John. All
2 right, folks. This concludes are public comment
3 section of the meeting. And we're running about
4 25 minutes late so we are just going to shake it
5 off and plunge right in to our next agenda item.

6 Our next agenda item is the NOSB
7 discussion of suggested NOP priorities for fiscal
8 year 2017. Michelle's going to put up that on the
9 screen for us. Right, Michelle?

10 So let me give you folks some background
11 on this. So every year the NOP puts together a work
12 plan for their fiscal year which starts October 1.
13 And this year I think we've got a really good line
14 of communication between the Board and the program.
15 And I think we've all worked hard to ensure that
16 opportunity was there. And the
17 programmer approached us and said we have a pretty
18 voluminous list which Miles talked about yesterday
19 on the outstanding items, the recommendations that
20 the Board has sent to the program or activities or
21 tasks that we sent to the program.

22 And there's only so much bandwidth.

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1 And so the program asked us to give further comments
2 on where their priorities should be on the list of
3 things we'd already submitted as a board.

4 And so what we did here was go through
5 essentially the outstanding list. And each
6 subcommittee had an opportunity to deliberate what
7 those various items were and to provide some
8 feedback to the program on where we would, as a
9 board, like to see them put their focus.

10 So -- and I want to say, again, this is
11 the first time that we've had the opportunity to
12 contribute to this conversation. And I think we
13 have agreed, at least in principle, that this is
14 something that we want to keep as an ongoing
15 practice.

16 So what I'm going to do now is I'm going
17 to turn it over to each of the subcommittee chairs
18 for them to give feedback on what their
19 subcommittee reached as recommendations or
20 suggestions for priorities. And we're going to
21 start with handling first.

22 MR. MCEVOY: May I say something?

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1 CHAIR FAVRE: Yes, I'm sorry. Before we
2 do that, Miles wants to say something.

3 MR. MCEVOY: Yes, as I described
4 yesterday, and I've described in numerous
5 presentations to the Board at the board meetings,
6 we have a long list of projects to do to implement
7 the NOSB recommendations.

8 Some of these things take a long time.
9 Some of these take a lot longer than I ever imagined
10 when I first started this job seven years ago. And
11 we have both limited resources and that narrow
12 regulatory pipeline for getting things through the
13 regulatory lists.

14 So we have plans in terms of how we're
15 approaching that prioritizing various projects,
16 various NOSB recommendations. But we thought it
17 would be good to both share with the NOSB the list
18 of NOSB recommendations that are still outstanding
19 and the ones that are in process and to get some
20 feedback from the Board on what they see as the
21 priorities in terms of these outstanding
22 recommendations so we can then adjust our plans

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1 appropriately to address the needs and the priorities
2 of the organic community and from the Board's
3 perspective.

4 CHAIR FAVRE: Thanks, Miles. Okay, I'm
5 going to turn it over to Harold to discuss the
6 handling comments.

7 MR. AUSTIN: Okay, thanks, Tracy. The
8 first item is actually not a draft item but it would
9 be the classification of a materials guidance which
10 would help us with the determination to decide on
11 the materials what's agricultural, what's not
12 agricultural and then also what's a synthetic
13 versus a non-synthetic by the use of those decision
14 trees.

15 A second point that we would like to see
16 is calculation percentages of organic ingredients.
17 We've been waiting on that one for a little while.

18 And third point would be infant formula
19 substances, nutrient vitamin minerals -- accessory
20 nutrients that we, the NOSB, have already voted to
21 prohibit. And we're still waiting for actions to
22 be taken upon those.

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1 CHAIR FAVRE: Okay, thank you, Harold.
2 Next up, I'm going to turn it over to Zea for Crops.

3 MS. SONNABEND: Thank you. We on the
4 Crop subcommittee also decided that the
5 classification of materials guidance was the most
6 critical thing and also what we've been waiting on
7 the longest, since it's been my whole term that
8 we've been waiting for this to come out.

9 Other issues that we identified are
10 fixing the sodium nitrate issue which dates back
11 from before my term started -- wrote and owned and
12 something we adopted in 2013.

13 And to proceed with the annotation
14 change for the EPA list for inerts, along with that
15 is keeping forward motion on the work of the inerts
16 working group to work with the Safer Choice
17 program.

18 And lastly, we concluded that
19 apiculture standards are quite important for crop
20 production, even though it falls on Livestock
21 because we can't, of course, produce crops without
22 bees. Thank you.

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1 CHAIR FAVRE: Thanks, Zea. Okay,
2 Livestock. Ashley?

3 MS. SWAFFAR: So our top four that we
4 determined, in no particular order, that were
5 important to us on the committee was zinc sulfate
6 for hoof treatment, the origin of livestock rule,
7 apiculture standards and the methionine averaging
8 for poultry.

9 CHAIR FAVRE: Okay, Materials. Lisa?

10 MS. DE LIMA: We just had one, similar
11 to others, classification of materials.

12 CHAIR FAVRE: Okay. Carmela, CACS.

13 MS. BECK: And ours it's listed the
14 calculating percentages of organic
15 multi-ingredient products. But we got the good
16 news that that's forthcoming, so that's good news.

17 CHAIR FAVRE: And, Tom?

18 VICE CHAIR CHAPMAN: None of the
19 proposals before were related to the PDS so we had
20 none.

21 CHAIR FAVRE: Okay. So I just want to
22 open this up briefly for any board members to

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1 express whether they have any additional comments
2 based on the recommendations that came from the
3 subcommittee.

4 VICE CHAIR CHAPMAN: None of the
5 proposals before were related to the PDS so we had
6 none.

7 CHAIR FAVRE: Okay. So I just want to
8 open this up briefly for any board members to
9 express whether they have any additional comments
10 based on the recommendations that came from the
11 subcommittee. Any feedback? Okay, thanks.

12 I think generally we had very good
13 robust discussions about this on the subcommittee
14 and debated various items. It was interesting to
15 me to find that classification of materials
16 actually played pretty high as did the apiculture
17 standards.

18 And so I think this exercise proved to
19 be useful in that we did actually find some
20 consensus across the subcommittees where we felt
21 like the program could put some resources. Do you
22 have any final comments?

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1 MR. MCEVOY: No. Just thank you very
2 much. It's great feedback. Appreciate it.

3 CHAIR FAVRE: Okay, carrying on, we are
4 going to start our subcommittee deliberations.
5 The first up is going to be CACS. I want to again,
6 just remind everybody, since we've gotten back
7 after lunch, just to make sure you silenced your
8 cell phones and muted your computers, please.

9 And also, just as a reminder to everyone
10 including the board members here, that these
11 motions are coming to the floor as seconded
12 motions, already, from the subcommittee. So with
13 that I'll turn it over to Carmela.

14 MS. BECK: Thank you, Madame Chair.
15 So this past semester we worked on two documents
16 or, excuse me, two topics, the first being
17 inspector onsite evaluation requirements as
18 outlined in NOP Instruction 2027. And the second
19 one was eliminating incentives to convert natural
20 ecosystems in organic production.

21 So I'm going to go ahead and ask Dr. Jean
22 Richardson to present on the first topic. Oh,

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1 perhaps --

2 DR. RICHARDSON: Okay, thank you.

3 MS. BECK: Thank you.

4 DR. RICHARDSON: Okay, this is a very
5 interesting one to be involved in because I've been
6 an inspector for 16 years. So -- and then on the
7 Board and all those kinds of things. So I can see
8 organics from a number of different points of view
9 and done training with IOIA.

10 So what we're looking at here, we're not
11 going to be voting on anything today but we will
12 be -- Scott and I will be giving you some feedback
13 as to what it is we're going to do with the
14 information we've received here.

15 The USDA regulations at 205.501
16 specifically say that the certifying agent must
17 conduct annual performance evaluations. And I
18 stress those terms because I'll bring them up
19 again. The certifying agent, the -- whoever it is,
20 has to do annual performance evaluations. And you
21 expect that from your boss. You expect to get an
22 annual evaluation.

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1 For anyone who's doing -- for anyone who
2 reviews applications for certification performs
3 onsite inspections, et cetera. We're all aware of
4 that. And then it obviously wasn't being done
5 super-well and the -- or at least it wasn't being
6 done consistently.

7 And when the NOP noted that not every
8 certifier was really necessarily doing a good job
9 in either training or their inspectors or
10 when -- and when they went out and the NOP did field
11 audits, it was not happy with the performance of
12 some inspectors sometimes.

13 So in 2011, after public comment, the
14 NOSB had analyzed this, got public comment, got
15 further information and I was on that committee at
16 that time as well. And the statement we came up
17 with was that there would be witness audits. And,
18 again, I want you to notice that word.

19 Witness audits take place by the ACA's
20 or -- next slide up. Doesn't want to go up.
21 Michelle, it's not going -- there you go. Thank
22 you.

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1 That the NOSB said there should be a
2 witness audit every 300 inspections or every 300
3 years. And the dates that it had come up with were
4 three to five years. John Foster, for example, was
5 one of the people that was working on that, was one
6 of the lead person at the time. And
7 they said the results must be
8 documented -- problem? Are you going to do it for
9 me? Oh, good. Thank you.

10 And again, we use the term witness
11 audits. Witness audits may be conducted by
12 certification management senior inspectors or
13 senior reviewers. So that was what -- we only know
14 what NOSB said based on input from the broader
15 stakeholders after public comment.

16 Then the NOP took what we said, and
17 without further public comment or coming back to
18 us, promulgated in 2013 2027 which required annual
19 in-field inspections which they then revised
20 slightly in March to say field evaluations for
21 inspectors only should take place onsite by a
22 supervisor or a peer, another inspector, at least

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1 annually -- so every year, everybody and they're
2 using the word, evaluation. The field
3 evaluation should be conducted at the certifier
4 agent's expense. And the certifiers may use the
5 field evaluation of another certified, accredited
6 certifier and certifiers may submit alternative
7 proposals for field evaluation to their
8 accreditation manager. That last clause
9 there, point 3, hasn't worked out yet. And we need
10 to address that when we -- I'll come back at the
11 end to say how we might further address that aspect
12 that hasn't successfully led to changes yet.
13 So -- oh, you're going to stand there and do it for
14 me. It's just sticking. Oh, the battery's
15 wearing out? Okay.

16 So then what happened next is in 2015
17 the IOIA, realizing that this had to take place,
18 developed an evaluation form, recruited evaluators
19 and in consultation with several certifiers,
20 implemented a fee-for-service program which
21 continues.

22 And we've heard comment on that. You

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1 heard comment on that again today, and Margaret on
2 the webinar the other day, Margaret Skoals.

3 Meanwhile, in December, on December the
4 8th, 2015, the NOP issued NOP 2501, evaluating
5 auditor performance. And those are for NOP
6 auditors. This requires in-field evaluations for
7 those folks every three years. And they use the
8 work, witness appraisal. Witness appraisal
9 should be conducted at least once every three
10 years.

11 If you then look at other kind of
12 in-field evaluation of assessors, auditors,
13 inspectors, whatever they're called by the various
14 entities like GAP or SQF or NSF, they're anywhere
15 from two to four years, typically, that take place.

16 So once every single year for every
17 inspector is an unusual situation. And I
18 understand having -- we invited Sherry Courtney to
19 come on to our CICS call. And we -- she was very
20 clear that, from the field work that the auditors
21 had done, is that they were very, very concerned
22 about low quality of some inspectors.

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1 So I can really appreciate the concern
2 that the NOP had given their need to assure the
3 integrity of organic work worldwide. No simple
4 matter.

5 So how is it actually working though?
6 We did a sort of pilot, as you heard from Abe again
7 this morning. There was a pilot of a hundred
8 inspectors last year using the IOIA form and other
9 forms of evaluation and many, many this year. I
10 don't remember how many.

11 But a lot of us were inspected through
12 either IOIA or through our certifiers because there
13 are a large number of inspectors , not just on staff
14 but contracted worldwide. And so there's a lot.
15 We don't actually know how many of us, inspectors,
16 there are, which would be an interesting database
17 to start from, but still.

18 Okay, so we got a lot of public comment, substantive
19 public comment. I mean, not masses, not thousands
20 of papers like we did for other things but we got
21 very substantive comment provided from seven
22 certifiers from the accreditation organization

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1 itself based on a survey which had been conducted
2 and from consumer groups from IOIA and not really
3 very much from inspectors or industry per se.

4 So what can we say about the benefits?
5 Obviously, there have been some benefits. There's
6 no question about it. I believe it's reasonable
7 to say that certifiers are no longer hiring poorly
8 performing inspectors. Or if they're marginally
9 okay, then they're being retrained or sent off to
10 IOIA boot camp and hopefully coming back to work
11 for the certifier but with better ability to do
12 their work.

13 So from that point of view, the NOP
14 edict, so to speak, has -- or policy, I should
15 say -- has worked quite well in shaking people up.
16 It is also, I think, as we've heard from public
17 comment, allowed certifiers to identify where
18 further training is needed.

19 And that is very important because a
20 critical aspect of any form of evaluation must be
21 the professional development of the inspector. In
22 this case, we're talking inspectors. And,

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1 obviously, we, all of us, have been evaluated in
2 all of workplaces, all of our careers, I'm sure.
3 And we know how much we do appreciate hearing how
4 we can do better and being helped to go and get that
5 training, hopefully paid for by the people that you
6 work for.

7 So professional development has been
8 identified and I think that that is
9 certainly -- there's been an improvement.

10 The other thing that we noticed in
11 public comment is that it's opened a broader
12 dialogue between the certification staff and the
13 inspectors. And I think that's absolutely
14 terrific. That's really been good.

15 You know, we inspectors are always
16 talking to each other and, you know, on the phone
17 calling each other up. And I think that it's
18 increased the likelihood of -- especially when
19 you're out, you know, you're in the middle of
20 nowhere and you're -- the agency that you're
21 working for is on the West Coast. You're on the
22 East Coast. You may need to call someone

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1 in-between.

2 But you're calling staff. You're
3 calling each other. And I do think that that's
4 been a really good benefit.

5 We think that there's been, it's led to
6 more of an increased consistency between
7 certifiers. They had to agree on the evaluation
8 instrument, for example, that IOIA put together
9 that some folks used. And it's also led to more
10 sort of cross-conversation between certifiers and
11 the reviewers as to what should be being looked for
12 and how to measure it.

13 I think that it's increased oversight
14 and accountability for inspectors. Although, as
15 we've heard from the people at, these certifiers
16 that came to this meeting, everybody has had or at
17 least all the ones that have presented at this
18 meeting and that received comment on, have their
19 own evaluation programs in place.

20 Now there are a lot of certifiers that
21 are not here in this room and that haven't provided
22 information. And so, hopefully, they will be

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1 caught in this net of improving their
2 certification -- their evaluation of their
3 inspectors once the word gets out as to how it has
4 to be done, if we make, decide to make some changes.

5 So if we go to the next slide, thank you.
6 So those are the benefits. Then we look at the
7 costs. If you look into a cost-benefit analysis
8 in terms of me analyzing this policy document,
9 there are a lot of costs and challenges associated
10 with this NOP 2027.

11 We heard from pretty much everybody
12 that it's resulted in a disincentive to hire
13 contract inspectors who only do a handful of
14 inspections. It's just -- it's too expensive and
15 logistically too complex. And we've heard that,
16 I would say, a hundred percent of stakeholders that
17 have been involved in it would agree with that.

18 And so it's meant that there's been a
19 disincentive to accept new clients, new producers,
20 either locally or in distant location, because they
21 just -- they don't have enough inspectors and they
22 can't necessarily afford, either logistically or

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1 for financial reasons, to do reviews of inspectors
2 either locally or distant.

3 Again, we heard that here at this
4 meeting as well as in the written material we
5 received. It's also -- it's, obviously -- it's
6 very expensive. Everybody, countrywide, in
7 organics has always tried to be very, very low in
8 the costs that charge producers, especially the
9 vegetable, dairy farmers.

10 You know, maybe it's different for
11 handlers. They can perhaps, the large processors
12 can afford more in terms of fees. But the industry
13 as a whole has kept costs as low they possibly can
14 do.

15 So if you start adding in annual costs
16 per inspection, then you're looking at anywhere
17 from \$400 to \$2,000 to review an inspector on an
18 annual basis. These are numbers that are provided
19 to us and the written documents that came here, if
20 you want to check them all out.

21 This, for many, larger certifiers,
22 especially, this has resulted in huge annual budget

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1 changes and how to -- whether or not this can be
2 sustainable is really questionable. You can do it
3 for a year, but can you do it every single year and
4 keep pushing these costs somewhere, down to the
5 farmer, up to the consumer, is this is a really good
6 benefit.

7 When, remember, we heard a perfectly
8 articulate presentation from one of our certifiers
9 pointing out that when they looked at the
10 difference between the evaluations that they were
11 doing a couple of years ago and last year compared
12 with the ones that they'd been doing now using these
13 evaluation instruments that, you know, for example
14 the IOIA one, is that they really have not found
15 that it's told them anything new, that they didn't
16 already know.

17 So it may not be a very effective way to do what
18 we hope to do, which is to retain high quality
19 inspectors. So not cost-effective, one
20 certifier, for example, said that they have 70
21 inspectors who do almost 5,000 inspections a year
22 between them. And these, the number of

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1 inspections an inspector might do is anywhere from
2 only one to 200. So this is a very
3 conflicts-logistic burden for that certifier and
4 for many other certifiers.

5 We also noted we specifically wanted to
6 know how things were going on internationally.
7 And we did not get any information whatsoever as
8 to whether or not this annual -- every inspector
9 annually, every year, worldwide is taking place.
10 So far the information that I've been provided with
11 does not indicate that any international
12 inspection evaluations have taken place, as
13 they're required to, under this NOP 2027.
14 Obviously, the cost of that would be enormous.
15 And yet, as you've heard of the issues on Turkey,
16 for example, that we've come up with at this
17 meeting, inspection of inspectors overseas is
18 obviously -- would be a very -- I would see those
19 as being high risk.

20 Last one on this page is sharing files
21 through unsecured email service places client
22 confidentiality at a risk. I've asked this

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1 because I'm an inspector and I think that the
2 agencies are a bit naïve if they don't think that
3 this is a serious problem.

4 We did hear from IOIA and from
5 certifiers that they don't see that the use of
6 sharing files is a potential for sending around
7 documents that are suddenly available for whoever
8 likes to hack into things. There are people around
9 the world that like to hack into emails, as we know.

10 My experience with this is that it is
11 not secure. And I was requested to send the -- all
12 the inspection materials of a clinic by my Gmail
13 account, which is unsecured, to the person that was
14 selected to be the person that was going to do my
15 inspection.

16 I refused to do that because I didn't
17 want the liability. And I requested that my
18 certifier do that and not me. And so I'm
19 Absolutely certain that there are files going
20 around where, if the producers knew that the
21 reports from their inspections and their files
22 which contain, frequently, confidential business

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1 information are being shared through unsecured
2 emails they would not be happy.

3 And it would increase your liability,
4 folks. So, let's see, do we have another one?
5 Let's move to the next slide. Oh, we think it's
6 going to work now. She's changed the battery.
7 There you go.

8 Okay, so sharing evaluations between
9 certifiers, we find, is not consistent. Some
10 certifiers don't want to take the cost of buying
11 from IOIA so they would really work out how they
12 could just call another certifier and get copies
13 of Jean's reports or Jean's evaluation, et cetera.

14 So we've been, we've heard that there's
15 lack of consistency in the sharing of evaluations
16 between certifiers. And, of course, if you don't
17 hire or you want to buy the report that was done
18 on Jean, you have to buy that form IOIA if you
19 haven't hired IOIA to come and do the inspection
20 of Jean, if you see what I mean.

21 So it leads to a certain amount of
22 inconsistency. And, of course, there's

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1 inconsistency in the kinds of instruments that are
2 being used because not everyone is using the IOIA
3 template.

4 There's also confusion over the terms
5 personnel evaluation versus witness audit. And I
6 referenced that at the beginning because when the
7 CACS looked at this and analyzed public comment and
8 reviewed it a few years ago, we specifically used
9 the word witness audit. I think it's a big
10 difference between me coming in here and doing a
11 witness audit of my friend, whoever. Harold
12 Austin, if he's the guy out there doing it, I can
13 witness what he does. But I, personally, would not
14 want to be putting the responsible position of
15 actually doing a personnel evaluation of him.

16 I think that's not appropriate. I
17 think that personnel evaluations should be done by
18 the people who hire you and pay your income.
19 Because I think that what we're finding is that it's
20 leading to inspectors being placed in rather
21 difficult professional relationships with fellow
22 inspectors and inconsistent evaluations.

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1 And we're had -- that is reported to us,
2 in the written comments that sometimes they'll just
3 come out. Yet, sure, ten out of ten, they're
4 great. That's my friend. Ten out of ten, they're
5 great -- which doesn't help anybody really, even
6 though it may be true.

7 Also the IOIA evaluation instrument,
8 it's long and detailed and it's been agreed on.
9 But it really isn't designed with the goal of
10 improving the inspector. And that should be the
11 goal of what an evaluation or is, a personnel
12 evaluation side, of what we're trying to do.
13 We received information that it increases time,
14 cost and stress for both the clients and
15 inspectors, typically taking longer than the
16 normal inspection. And even though the way which
17 it was set up, which I found pretty
18 cumbersome -- the way in which it's set up, you tell
19 the client that it's really not going to be more
20 expensive for them. It is because you get paid by
21 the hour and if it takes twice -- if it takes 11
22 hours instead of 5 hours, that's quite a large hunk

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1 of money that that client then has to pay.

2 So if certifiers were to adopt a
3 risk-based plan to conduct in-field witness
4 audits -- and that's the terminology I think should
5 be used -- of all inspectors over a period of three
6 years -- so rather than one year -- how will the
7 overall consistency be obtained and maintained
8 throughout the industry?

9 And that's the, sort of the challenge
10 that then gets thrown back to the ACA organization
11 and to individual certifiers. It's going to be
12 really important that whatever it is that you come
13 up with to address the needs, to demonstrate that
14 you are -- that you have a plan in place -- I think
15 that that is -- we need to make sure that whatever's
16 being proposed is consistent so that you can
17 satisfy the NOP that we will really be leaning hard
18 on inspectors to improve the quality of them.

19 So steps forward, I believe that the
20 subcommittee will quick prepare a proposal to make
21 recommendations to the NOP to revise an update NOP
22 2027 based on public comment, recommending a

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1 risk-based way of approaching inspector witness
2 audits as part of their annual evaluation.

3 And we hope that it gets -- the changes
4 take place sooner rather than later. And we will
5 be using some of the phrases, a lot of the phrases
6 that have come directly from the public comment
7 provided for this meeting.

8 What I'll do at this point is I'll turn
9 it Scott who's been working with me on this topic.

10 MR. RICE: Thanks, Jean. You hit a lot
11 of the points that, obviously, we talked about and
12 that I've talked about with fellow certifiers.

13 I just want to reiterate the -- that
14 there's consistent agreement that these are
15 helpful -- it's a helpful practice to go through
16 the witness audit process. And also just wanted
17 to also reiterate, you know, there is a constant
18 feedback loop in that certification.

19 So if, in addition to these witness
20 audits, we're also seeing, as Jean noted, the
21 review of inspection reports, comments from
22 certified operations. VCO mentioned, I think,

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1 that they leave a postcard behind with a feedback
2 card that can be mailed in. And that's also
3 useful, as well as a lot of periodic training both
4 in-person and via webinar and, of course, IOIA's
5 boot camp which it is, and in a good way.

6 And I think as far as Jean's last point, ACA, the
7 Accredited Certifiers' Association, and
8 certifiers in general are very open and eager to
9 work together to present an alternative to that
10 every inspector, every year requirement that we
11 have right now. That would still be as rigorous
12 but allow the flexibility that that diverse
13 certification kind of landscape that we work in
14 requires.

15 DR. RICHARDSON: Yes, Miles? You have
16 a question?

17 MR. MCEVOY: Yes, so it' really
18 important that there are -- it's a requirement that
19 they're qualified personnel that do the
20 certification work and especially that the
21 inspectors are qualified and do a thorough
22 inspection. So that part of the requirement's in

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1 the accreditation criteria.

2 As we have been doing audits for a long
3 time, one of the things that we were noticing, there
4 are some weaknesses in the inspections, inspectors
5 that we were seeing out in the field through witness
6 inspections and as well as in review audits that
7 we also conduct. And we saw a variety of different
8 practices that were occurring in terms of the
9 requirement that there's an annual performance
10 evaluation.

11 Some certifiers were doing in-field
12 evaluations of the inspectors and some were not
13 doing any at all. So in order to improve the
14 overall quality of the inspection process and
15 ensure that all the inspectors are meeting the
16 expectations of a thorough and complete inspection
17 with the quality that's necessary, we issued this
18 instruction to certifiers to say an annual,
19 in-the-field appraisal of the work that the
20 inspectors are doing is really, really important.

21 We're open to other ideas. But it is
22 a requirement that there is this annual performance

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1 evaluation. We feel that you -- in order to really
2 evaluate the competency, you have to see somebody
3 actually doing the work. And just reviewing the
4 inspection reports themselves is not getting a
5 complete picture of the work that an inspector is
6 conducting. But we're certainly open to other
7 ideas as we continue to work on this topic.
8 Thanks.

9 DR. RICHARDSON: Tom?

10 VICE CHAIR CHAPMAN: I guess the
11 question I would pose to the program is why would
12 food safety systems that require two to four years
13 be sufficient? It's such an important topic to
14 determine an inspector qualifications and not have
15 a similar program in place that would be in place
16 for organic inspectors.

17 MR. MCEVOY: I can't speak to why the
18 food safety programs have a two-year review, but
19 it is a requirement in the organic regulations that
20 there's an annual performance evaluation of
21 everybody involved in the certification process.
22 From our perspective, at this point in time, we feel

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1 that it is important that that's done in the field
2 on an annual basis.

3 MS. BECK: Some more -- Zea?

4 MS. SONNABEND: So I guess this is a
5 comment and a question. Have you looked at what
6 a risk-based assessment would actually look like
7 in practice? Because it does seem to me, for
8 instance, that it would be as simple as a rating
9 of 1, 2, 3.

10 And people, you know, I, for instance,
11 have been inspecting for 30 years now. And if my
12 witness audit occurred and everything seemed to be
13 fine and I have a long track record, that I was given
14 a 3 which would mean that I don't have to be a
15 witness audit for another three years where as a
16 new inspector who might need improvement would get
17 a 1 and they could just have to be inspected in the
18 field every year.

19 I mean, that just seems simple.

20 DR. RICHARDSON: Yes, we did get some
21 of the public comment does include specificity in
22 terms of what a risk-based would look like. We do

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1 recognize, however, that there's going to be a need
2 to be consistent because there would be concern
3 that if Certifier A has such-and-such a plan and
4 we know they're doing a pretty good job but then
5 Certifier B comes in and suggests something
6 slightly different, we want to have consistency.

7 So when we write the proposal which we
8 will do following this meeting through CACS that
9 would go, that would be proposed for the next
10 meeting, we will include some of those examples of
11 what a risk-based might look like.

12 MR. MCEVOY: Yes, that would be a
13 potential reasonable approach, as having a
14 risk-based approach, as you suggest. So if we can
15 specify that that could be a way to move forward
16 on this to lessen the burden on certifiers.

17 I also wanted to respond to Jean's
18 comment about certifiers working outside the U.S.
19 They have the same requirements. They're also
20 required to do an annual evaluation, and that is
21 happening. It was not happening before this and
22 now it is happening at that annual in-the-field

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1 evaluation of all inspectors, which is occurring.

2 DR. RICHARDSON: We didn't get any
3 public comment on that. The one comment we got was
4 from a very large certifier which said they had not
5 done any of these annual overseas because they
6 couldn't afford to do it. So, okay. So you
7 obviously have more data -- which we need.

8 CHAIR FAVRE: Harriet?

9 MS. BEHAR: So I think though even for
10 the, in the risk-based, in the in-between years for
11 the in-field, I mean, I agree that you never know
12 when an inspection report is missing, if you
13 weren't there to know what's on there.

14 But especially if it's a client who's
15 been certified for numerous years, you
16 could -- it's almost like doing a desk audit. You
17 can look back at previous inspection reports. You
18 can look at previous, at numerous client feedback
19 loops.

20 I mean, there's a lot of document that
21 will help you decide who's at higher risk and are
22 they actually doing a good job. So I think that

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1 there's more than -- it's not just only the witness
2 audit can really tell you what's going on out there
3 on the farm. There's many ways to at least point
4 to the people that really need a little more
5 oversight.

6 MS. BECK: Is there any further -- oh,
7 Francis?

8 MR. THICKE: Yes, I'd just like to give
9 the farmer perspective and that is that, being
10 certified many years and inspected many years, is
11 that you can see right away who knows what they're
12 doing and who doesn't.

13 And some of them are really good and
14 they're really thorough and farmers don't really
15 like them because they take all day. But you can
16 see it right away and they don't -- I think this
17 idea of a risk-based thing would be perfect for
18 them.

19 Others, you can see they're struggling
20 along and sometimes farmers like them because they
21 get out quick. But nevertheless, those kind -- it
22 seems to me like if they had a couple annual

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1 evaluations and they -- you could go by the
2 evaluation. When they get up to snuff you wouldn't
3 have to do it so often.

4 And farmers don't like to have too many
5 inspectors running around the farm anyway. It
6 takes longer and --

7 VICE CHAIR CHAPMAN: It's true on the
8 handling side as well. You can tell within about
9 ten minutes whether you have a good inspector or
10 not.

11 MS. BECK: Emily?

12 MS. OAKLEY: I want to echo Francis'
13 comment about having a good inspector just
14 increases your confidence in the label that you're
15 certifying to and that you're paying for as a
16 farmer. So I applaud all efforts to increase the
17 competency and evaluation on inspectors.

18 MS. BECK: Oh, okay, any more
19 discussion? Okay. I want to thank Jean, Dr.
20 Richardson, and Scott. And we're going to go ahead
21 and do a verbal update. Harriet, would you mind?

22 MS. BEHAR: Okay, so there is a

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1 discussion document in process on eliminating the
2 incentive to convert native ecosystems to organic
3 production. But this is a detailed subject and it
4 needs a fair amount of depth of thought on both its
5 impact, if it's put in place and its impact if we
6 don't.

7 So we are somewhat focusing on defining
8 what these native ecosystems look like as well as
9 what disincentives might look like along with, as
10 Joann had presented, what is going on in other
11 countries on this subject.

12 And I have to say, as the lead person
13 on this issue, I'm very gratified that many people
14 did give public comment that they were interested
15 in this, that they thought this was important. And
16 we really look forward to your comments once we have
17 something to share with you.

18 MS. BECK: Is there any discussion on
19 this topic at this time? Emily.

20 MS. OAKLEY: I know I've already
21 expressed this. I just feel unbelievably strongly
22 in support of this effort and I take most stringent

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1 path possible and have offered my services to help
2 work on this even though I'm not on this committee.
3 So thanks, Harriet.

4 MS. BECK: Is --

5 MS. BEHAR: One of the challenges
6 is -- and we've heard this from the program, that
7 it might need maybe even more than a rule change
8 because this is basically kind of overseeing what's
9 being done before the organic certification
10 process is coming on to the land.

11 So there's an issue of what we're viewing. So what
12 we're trying to see how we can best approach that
13 issue.

14 MS. BECK: Any further discussion?
15 Okay, so that closes out our topics for the day.

16 CHAIR FAVRE: Thank you, Carmela and
17 subcommittee. Next, we're going to turn it over
18 to Harold Austin and the Handling subcommittee.
19 Harold?

20 We have some folks complaining up here
21 that we need a break. What do you all think? Do
22 we need a break? All right, we are now roughly two

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1 hours behind schedule though, so let's make it a --

2 FEMALE PARTICIPANT: Two hours?

3 CHAIR FAVRE: That's what he just said.

4 Oh, all right, 45 minutes. He's like Dr. Doom up
5 here. You know, you're running behind schedule.
6 You're an hour behind schedule -- all day
7 yesterday.

8 All right, we're going to take a
9 15-minute break. Have everybody back here at five
10 till -- or ten till.

11 (Whereupon, the above-entitled matter
12 went off the record at 3:36 p.m. and resumed at 3:55
13 p.m.)

14 CHAIR FAVRE: Okay, without further
15 ado, I'm going to go ahead and turn things over to
16 Harold Austin on the Handling subcommittee.
17 Harold?

18 MR. AUSTIN: Thank, Tracy. I'd like
19 to welcome everybody back for the Handling
20 subcommittee's presentation to the, of our work to
21 the entire NOSB Board, the NOP and all of you
22 organic stakeholders that are gathered here today.

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1 The Handling subcommittee has a
2 responsibility to oversee those materials on the
3 National List at 205-605, Non-agricultural,
4 Non-organic Substances, a, non-synthetics
5 allowed, b, synthetics allowed; and also at
6 205-606, Non-organically produced agricultural
7 products allowed as ingredients in or on processed
8 products labeled as organic.

9 While we've had a busy semester, I think
10 we can all agree that it pales in comparison to what
11 we went through last year when trying to deal with
12 the Sunset 2017 workload.

13 Yet we've been busy nonetheless. In fact, we've
14 actually added Tracy back on to our subcommittee,
15 even though she's our Chair, to help with the
16 workload, especially to help shepherd the two
17 tocopherol documents along with the new
18 L-methionine petition for handling, two materials,
19 she just doesn't seem to be able to outrun. About
20 the only way is to get sunsetted off the Board,
21 Tracy.

22 Before we move on to the work and do the

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1 work-up for today's presentations, I would like to
2 take just a moment to bring you up to date on what
3 we've been working on on the status of some of the
4 items on our work plan that we won't be going into
5 great detail on today, but just to give you a brief
6 update.

7 One, on BPA packaging substances, we
8 recently received the TR from the contractor. We
9 will begin work on the TR sufficiency on that before
10 we begin the work on the discussion document
11 preparations.

12 Reclassification of magnesium
13 chloride, this is on hold while we await the
14 finalization of the materials classification
15 guidance. Also we're going to have a TR in
16 development on that particular material as well.
17 Sodium dodecylbenzene sulfonate, the last time
18 I'll probably get to say that one, Jean, SCBS, as
19 you all may recall, it was referred back to the
20 subcommittee at the spring meeting for further
21 review.

22 We're currently waiting for a TR to come

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1 back. That's due sometime in December and then
2 we'll begin to work on further subcommittee
3 discussion and proposal for the future meeting,
4 probably, I'm going to guess, it won't be before
5 the fall meeting.

6 We also get a review of the '16 Sunset
7 2019 materials to determine which of those might
8 need a TR to be requested for them. We did request
9 TRs be developed for magnesium chloride as well as
10 potassium acid tartrate. We did not request a new
11 TR be developed for sodium phosphate since we did
12 a broad scope TR that covered all of the phosphates
13 in preparation for the discussion document that
14 we'll be discussing in a little while.

15 We did this review to help expedite the
16 prep for the spring meeting in 2017 since the
17 subcommittee will only have six subcommittee calls
18 after this meeting to do their subcommittee work,
19 and that will only afford the new incoming members
20 two subcommittee calls before the deadlines of the
21 work to be submitted before the spring meeting.

22 So it give you kind of a quick overview

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1 on the timeline and the fast learning curve that
2 these five new members are going to be undergoing
3 once they arrive onto the Board officially.

4 We also received two new petitions this
5 summer, one for L-methionine. I've heard that
6 name before. And another, for short, DNA tracers.
7 So that's a quick overview on the other stuff that
8 we've been working on.

9 And now, moving in to the Handling
10 subcommittee's work for this past semester as they
11 pertain to our presentations today. First we'll be
12 discussing the Sunset 2018 materials beginning
13 with those listed at 205-605 a, non-synthetic.

14 The first material we'll be discussing
15 will be agar-agar. And, Dr. Brines, if you would
16 be so kind.

17 DR. BRINES: Thank you, Harold. All
18 right, to introduce the first substance under
19 Review for Sunset 2018 for this meeting, we're at
20 Section 206-605 of the National List as
21 non-agricultural, non-organic substances allowed
22 as ingredients in or on processed products labeled

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1 as organic or made with organic-specified
2 ingredients or food groups.

3 The first substance under
4 non-synthetics allowed is agar-agar. And the most
5 recent technical report for this substance was
6 submitted in, was developed in 2011. Thank you.

7 MR. AUSTIN: Thank you, Dr. Brines.
8 Turn it over to Lisa De Lima to present this --

9 MS. DE LIMA: Oh, sorry. Okay. All
10 right, so agar-agar uses include thickener,
11 gelling agent and absorbent. It's derived from
12 red algae, primarily the Gelidium and
13 Gracilaria -- sorry, I butchered those -- species.

14 Agar-agar is permitted for use in
15 organic production known internationally by CODEX,
16 the EU, IFOAM and Canada. The subcommittee is
17 aware that, at the last review, questions were
18 raised about its classification and we will take
19 a look at this once the NOP finalizes guidance for
20 materials classification.

21 The 2011 TR did not find the substance to be harmful
22 to human health. In terms of impact on the

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1 environment, the TR reported limited evidence to
2 suggest that the harvesting of the algae used to
3 make agar-agar may be harmful to biodiversity.

4 And the discussion document that the
5 subcommittee has put forward on marine materials,
6 as it progresses, it might look at harvesting of
7 marine plants and deem that aspect to be further
8 explored.

9 We requested that the public inform us
10 of any new developments with alternatives to
11 agar-agar. We received little response. We did
12 hear that it has stronger setting properties than
13 animal-based gelatin, that it's less
14 temperature-sensitive than other alternatives and
15 we were also told that an alternative stabilizer
16 would be carrageenan.

17 So the subcommittee did vote to retain
18 agar-agar on the National List.

19 MR. AUSTIN: Thank you, Lisa. Any
20 questions? Jean.

21 DR. RICHARDSON: Yes, more of a comment
22 than anything else. I mean, I will be voting to

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1 retain it on the list, but I would like to point
2 out that the agar-agar, as it's pronounced, can be
3 both wild and cultivated.

4 And I believe that we should be sending
5 out a message to industry that we would like to
6 encourage them to move towards organic
7 certification of the seaweed whether either from
8 wild harvested or from the cultivated formats.
9 And so it's just sort of a message to the audience
10 out there that that, we believe, having done all
11 the marine plants, that this would help to improve
12 the -- both the quality and the quantity and the
13 long-term sustainability of this material.

14 Because we know that there has been an
15 excessive demand for agar-agar worldwide over the
16 last ten years, and it's been very difficult to meet
17 that demand.

18 MR. AUSTIN: Thank you, Jean. Any
19 other further comments or questions? Seeing none,
20 I'll turn it over to you, Tracy, for the vote. And
21 I would point out that this comes to you as a motion
22 with a second, from the subcommittee, motion to

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1 remove.

2 CHAIR FAVRE: Yes, thank you. We're
3 going to start the voting down with Francis.

4 MR. AUSTIN: No.

5 MR. BUIE: No.

6 CHAIR FAVRE: Objections? That's fine.
7 That'll work. Okay, sorry. Sorry. Yes, we're
8 starting there. Go ahead. You did it right,
9 Jesse.

10 MS. BECK: No.

11 MS. SWAFFAR: No.

12 MS. DE LIMA: No.

13 VICE CHAIR CHAPMAN: No.

14 MR. SEITZ: No.

15 DR. RICHARDSON: No.

16 MS. BEHAR: No.

17 MS. SONNABEND: No.

18 MR. RICE: No.

19 MS. OAKLEY: No.

20 MR. THICKE: No.

21 CHAIR FAVRE: Chair votes no.

22 MS. DE LIMA: That's zero yes, 14 no.

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1 The motion fails.

2 MR. AUSTIN: Thank you. Moving on to
3 the next item on the subcommittee's presentation,
4 2018 Sunset materials, is -- are animal enzymes.
5 Dr. Brines.

6 DR. BRINES: Thank you. This
7 substance is in the same section of the National
8 List, same paragraph under a non-synthetics. And
9 the listing and annotation reads, Animal enzymes,
10 rennet, animals-derived catalase bovine liver,
11 animal lipase pancreatin, pepsin and trypsin.
12 Thank you.

13 MR. AUSTIN: Thank you. Lisa, if you
14 would be so kind to present our document.

15 MS. DE LIMA: Animal enzymes are used
16 in very small amounts to carry out naturally
17 occurring biological processes used in the
18 processing of food or ingredients. For example,
19 rennet's used as a coagulant to curdle milk to be
20 made into cheese. They are traditionally made
21 from the fourth stomach or other animal organs.
22 Their use is currently permitted in organic

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1 processing in Canada, CODEX, EU, IFOAM and Japan.
2 Enzymes do contain other ancillary substances
3 which function as dilutants, preservatives to
4 control microbial contamination and stabilizers to
5 prevent the loss of enzyme activity.

6 They may be GROS or be FDA-approved food
7 additives for this use, so they must be. The
8 subcommittee asked the public to comment on
9 availability or organic animal enzymes and comment
10 indicated that none has been found so far.

11 Public comment was generally in support
12 of retaining animal enzymes on the National List
13 with some cheesemakers commenting that animal
14 enzymes are essential for the production of certain
15 cheese types.

16 Other public comment requested a
17 continued exploration for organically produced
18 animal enzymes. The subcommittee did not find any
19 new information to indicate harm to human health
20 or the environment. And the subcommittee voted to
21 retain animal enzymes on the National List.

22 MR. AUSTIN: Thank you. Any questions

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1 or comments from the Board? Harriet.

2 MS. BEHAR: Well, there's quite a few
3 ancillary substances used with the animal enzymes.
4 I know we haven't really talked about like having
5 a preference of certain ones over others. But
6 that might be something for the future.

7 I know that some of the enzymes have
8 preservatives in them but some of the same enzymes
9 are also available as freeze-dried which don't then
10 need any of those preservatives. So I'm just
11 putting it out there. I'm going to vote for this,
12 but it's kind of a larger picture issue.

13 MR. AUSTIN: Emily and then Zea.

14 MS. OAKLEY: This is a question to
15 Handling. Would you recommend a TR in the next
16 round, assuming that this stays on the National
17 List?

18 MS. DE LIMA: With any specific
19 questions? Any focused questions for the TR that
20 you have in mind?

21 MS. OAKLEY: Well in terms of its
22 necessity and specifically if there are

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1 alternatives for the cheeses that are saying that
2 it is continuing to be necessary.

3 MS. DE LIMA: I mean, we haven't
4 discussed it as a subcommittee, but we could talk
5 about it.

6 MR. AUSTIN: There were some comments,
7 and I don't remember exactly which products that
8 were, but there were some comments that came in that
9 said their materials would not be able to be
10 formulated without the use of animal enzymes.
11 I do remember that but I don't remember the
12 specific --

13 MS. OAKLEY: You mean specific
14 cheeses?

15 MR. AUSTIN: I can't remember the
16 specs.

17 MS. OAKLEY: Because there were Romano
18 and a couple blue cheeses that were specifically
19 named.

20 MR. AUSTIN: Yes, there were -- I'm not
21 sure which ones. I can't remember right off,
22 off-hand. Zea, then Jean.

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1 MS. SONNABEND: Maybe I'm getting this
2 mixed up with another thing. I thought we had
3 talked about the ancillary substances and decided
4 to bring a proposal for additional ones forwarded
5 at our next meeting.

6 MR. AUSTIN: That's going to be on
7 cellulose.

8 MS. SONNABEND: Oh, okay. Then,
9 because I know that we -- the chart we submitted
10 for the 2017 enzymes did include the ones for the
11 ancillaries for animal enzymes as well. And
12 unless we got any new ones in then they would
13 considered approved.

14 MS. DE LIMA: No, we didn't get any new
15 ones in. And we did the, you know, what we were
16 supposed to do per ancillaries. And no new
17 information, so that chart is in the posting and
18 will go through with the listing.

19 MR. AUSTIN: Lisa?

20 DR. BRINES: Thank you. Just one
21 clarification on the technical report since didn't
22 give it in my introduction for this substance. So

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1 there was a limited scope technical report that was
2 requested by the Board during the last round of
3 sunset for enzymes, which was not animal enzymes
4 but it was part of the Sunset 2017 review.

5 But as part of the scope of that report
6 we did include enzymes and animal enzymes both.
7 And that report did address specific questions from
8 the Board about the use of ancillary substances and
9 enzyme products. Thanks.

10 MR. AUSTIN: Thank you for that
11 clarification. Any further comments or
12 questions? Seeing none, Tracy, I'll turn it over
13 to you for the vote.

14 CHAIR FAVRE: Okay, Harold, we're
15 going to start with you.

16 MR. AUSTIN: No.

17 MR. BUIE: No.

18 MS. BECK: No. MS. SWAFFAR:

19 No.

20 MS. DE LIMA: No.

21 VICE CHAIR CHAPMAN: No.

22 MR. SEITZ: No.

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1 DR. RICHARDSON: No.

2 MS. BEHAR: No.

3 MR. RICE: No.

4 MS. OAKLEY: No.

5 MR. THICKE: No.

6 CHAIR FAVRE: Chair votes no.

7 MS. DE LIMA: That's zero yes, one
8 absent and 13 no -- 14, no. The motion fails.

9 MR. AUSTIN: I think just for
10 clarification purposes, all of the Sunset '18, 2018
11 sunset materials are in front of us with a motion,
12 with a second to remove. So thus we did not read
13 the motion to delist this on that.
14 So moving ahead, we'll do that.

15 CHAIR FAVRE: Yes, we probably need to
16 at least read the motion.

17 MR. AUSTIN: Yes, so, okay, moving
18 ahead, the next material up before the subcommittee
19 will be calcium sulfate-mined. Dr. Brines.

20 DR. BRINES: Thank you. This
21 substance is listed in Section 205-605(a) of the
22 National List as calcium sulfate-mined, and the

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1 most recent technical report was completed in 2001.
2 Thank you.

3 MR. AUSTIN: Thank you. Tom, if you
4 would lead the subcommittee's presentation,
5 please.

6 VICE CHAIR CHAPMAN: Calcium sulfate
7 is primarily used as a coagulant in the
8 manufacturing of the soft and silky types of tofu.
9 It's used also as a water conditioner in brewing.
10 Beyond these uses, it has applications -- dough
11 conditioning as a firming agent; in canned foods
12 general ingredient, carrier, pH buffer, abrasive
13 and it can be used in cosmetics or toothpaste.

14 Calcium sulfate can be obtained from
15 natural or synthetic sources but the listing
16 restricts calcium sulfate to mined sources. And
17 mine gypsum is the primary source.

18 After mining crude gypsum it's ground
19 and separated and normally sold in a pure form but
20 may contain some impurities that came from the
21 mining process such as calcium carbonate or
22 naturally occurring silica.

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1 The material is grass and has no
2 ancillary substances. The calcium sulfate is on
3 all the national and international organic
4 standards but they do have some varying
5 restrictions.

6 Comments received this meeting, we had
7 comments at the spring meeting. These comments
8 highlighted the need in tofu and beer applications
9 but some commenters asked for restrictions to these
10 uses only.

11 While the Handling subcommittee finds
12 enough information at this current time to renew
13 the calcium sulfate future, we do encourage future
14 entities to consider a new technical review which
15 would be useful in reviewing new data and
16 alternative manufacturing methods, environmental
17 or human health concerns and/or whether an
18 annotation should be recommended.

19 Based on public comments and current
20 technical information, the material satisfies all
21 evaluation criteria and the Handling committee
22 supports relisting calcium sulfate.

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1 MR. AUSTIN: Thank you, Tom. Zea,
2 then Jean.

3 MS. SONNABEND: A question for Tom on
4 something I just noticed that you said. If
5 something is just mined and ground up, what new
6 manufacturing technologies would a TR be necessary
7 for?

8 VICE CHAIR CHAPMAN: Speaking to the
9 health concerns, environmental concerns, the
10 alternative manufacturing methods, maybe not.

11 MR. AUSTIN: Jean?

12 DR. RICHARDSON: As you recall, last
13 time we did our sunset materials, each time there
14 was something where we thought we might want to
15 consider an annotation, we would start to make a
16 checklist for each of the subcommittees.

17 I'd like to suggest that doing that with
18 this one, for example. And when we go back to our
19 next Handling subcommittee to discuss amongst
20 ourselves whether or not we should prepare or
21 recommend that there be an annotation because there
22 were quite a few public comments suggesting that

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1 it be limited in its range of uses.

2 So I'm just suggesting we put it on our,
3 you know, discussion agenda following the meeting.

4 MR. AUSTIN: Okay.

5 VICE CHAIR CHAPMAN: Can I ask a
6 question on that?

7 MR. AUSTIN: You may.

8 VICE CHAIR CHAPMAN: So I saw those
9 questions as well but I didn't see any
10 justification as to why we would restrict its
11 usage. Further, it's widely used in other organic
12 production systems.

13 DR. RICHARDSON: Yes, and I actually
14 did reach out to one of the people that had written
15 this in order to find out that detail, and I did
16 not hear back from that person.

17 MR. AUSTIN: Well I think it's still a
18 good point raised so that we can bring it back to
19 the subcommittee for further discussion, you know,
20 and that we can carry on with that material for
21 those that follow after us.

22 So, okay. Any further questions or

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1 comments? Seeing none, Tracy, I will hand back to
2 you with a motion from the subcommittee to the full
3 board to remove calcium sulfate-mined from the
4 National List, and this is a seconded motion.

5 CHAIR FAVRE: Okay, we'll start with Jesse.

6 MR. BUIE: No.

7 MS. BECK: No.

8 MS. SWAFFAR: No.

9 MS. DE LIMA: No.

10 VICE CHAIR CHAPMAN: No.

11 MR. SEITZ: No.

12 DR. RICHARDSON: No.

13 MS. BEHAR: No.

14 MS. SONNABEND: No.

15 MR. RICE: No.

16 MS. OAKLEY: No.

17 MR. THICKE: No.

18 MR. AUSTIN: No.

19 CHAIR FAVRE: Chair votes no.

20 MS. DE LIMA: Zero yes, 14, no, 1
21 absent. The motion fails.

22 MR. AUSTIN: Thank you. Okay. It's

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1 nice to be a part of a subcommittee that has
2 nothing controversial that we need to present
3 today.

4 All right, Dr. Brines, if you'd be so
5 kind as to read carrageenan or carrageenan.

6 DR. BRINES: Yes, this one is also at
7 Section 205-605(a) of the National List and reads
8 as, Carrageenan. The last technical report, full
9 technical report was completed in 2011.

10 But in support of the sunset review the
11 Handling subcommittee did request and receive the
12 limited scope technical report to address some
13 specific questions. So that report as well as
14 previous technical reports are available on the NOP
15 website. Thank you.

16 MR. AUSTIN: Thank you. Zea, if you
17 would lead the subcommittee's presentation to the
18 Board, please.

19 MS. SONNABEND: Thank you. Well even
20 though like nobody really had anything to say about
21 this, we thought we'd show you a little slide show
22 anyway, which Michelle is going to rev up right now.

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1 Okay, 3,000 or so pages later, we are
2 going to do our best to at least touch on some of
3 the issues. To do a thorough sunset review, these
4 are the issues that we're going to talk
5 about -- classification, environment criteria,
6 human health and sensitivity.

7 The alternatives which we got both
8 product-specific alternatives and then
9 alternative suggestions that were mostly reasons
10 why it didn't work. So I've separated those out.
11 And then, of course, what we have to determine is
12 compatibility.

13 The statement on classification has not
14 really changed. It was our intention to wait for
15 the classification of materials, final guidance,
16 before we addressed the issue of classification.
17 This is still our position.

18 Both the TR and continued public
19 comment indicates that there's more than one method
20 used to extract and purify carrageenan and some
21 methods may be synthetic while others, quite
22 clearly, are non-synthetic. And that will be

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1 looked at, if it remains on the list, when the
2 guidance is out.

3 Secondly, the environmental criteria.
4 We had promised that we would take a look at the
5 marine materials TR in assessing this review. A
6 very short period of time between the time that that
7 came out and this time we had to finish this review.

8 So we haven't really formulated a
9 specific course of action from the issues that were
10 raised in that TR. Continued public comment on the
11 subject indicates that most seaweed used for
12 carrageenan production is farmed and not gathered
13 from the wild. I think the statistics we got in
14 were around 95 percent farmed.

15 The farming practices seem to be in
16 alignment with organic principles which, of
17 course, brings up the question of why is it not
18 certified organic. And you heard me asking many
19 of the practitioners that question.

20 So human health. Well, a very lot of
21 the public comment and the TR, both written-in
22 verbal comment, had to deal with this subject. In

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1 an initial posting we made the following statement.

2 We're troubled that the research
3 showing inflammation and glucose intolerance is
4 all from one research team and it has not been
5 replicated. We've examined most of the references
6 that were provided as citations in both the first
7 and second comment periods.

8 We found that the claims of replication
9 could not be substantiated. We also heard no
10 substantiation for the claim that inflammation
11 responses from this material are universal to all
12 humans.

13 That statement was made repeatedly but
14 no citation was given for that. Since one of the
15 basic tenets of science is that experimental
16 results should be able to be reproduced in
17 different labs by different researchers, the
18 Handling subcommittee has concluded there is not
19 sufficient replicated evidence that carrageenan is
20 harmful to human health for everyone.

21 While it's been more extensively
22 studied than the other synthetic and non-synthetic

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1 emulsifiers, there may be reason for concern that
2 all emulsifiers can lead to inflammation and that
3 this is not a unique function of carrageenan.

4 The public comments at this time, we
5 heard from people who -- many sensitive people who
6 not only mention carrageenan but also mention some
7 of the other emulsifiers. Oh, see, I keep flipping
8 it on the screen and not on my thing.

9 Okay, so in the 2002 sunset review, we
10 received public comment from seven individuals who
11 described themselves as sensitive to carrageenan
12 by stating that they experienced adverse effects
13 that stopped when they removed it from their diet.

14 In this batch of public comment, we were
15 served many dozens more of these experiences.
16 Many of these, as I mentioned, also indicated they
17 were sensitive to other gum additives such as
18 gellan gum and guar gum. And some said they were
19 sensitive to all seaweed products.

20 Epidemiology studies of food
21 sensitivity are not in the literature provided
22 because it appears that it has not been studied.

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1 We do not want to dismiss these concerns. We feel
2 like they are very real concerns. As I have said
3 here many times, as someone who's very sensitive
4 to some foods myself and have to read ingredient
5 labels extremely carefully or I get very sick, we
6 acknowledge that these are very real concerns and
7 should be investigated further.

8 Carrageenan is required to be on food labels with
9 very few exceptions. Therefore, those who wish to
10 avoid it have the ability to do so for the most part.
11 We urge that all organic food processors fully
12 disclose all their ingredients on the label, and
13 that included secondary manufacturers.

14 Speaking from experience here, if you
15 have something on a label that says, bread
16 crumbs -- well, bread crumbs is not an ingredient.
17 Bread crumbs is, you know, 14 different things that
18 went into making the bread.

19 If you say sour cream you very well
20 might have carrageenan in there and we really urge
21 you to please put full labels on those products.

22 Okay, so once the subcommittee had

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1 determined that we were fairly unanimous on the
2 lack of evidence of -- on health effects, we
3 undertook to really take a close look at which
4 products have alternatives because consumers are
5 continuing to send the message that they think
6 carrageenan should be off the list.

7 And we were having trouble getting very
8 clear evidence about the things that were
9 alternative or not. So I prepared this chart which
10 takes three slides. The white, the lines in white
11 are the type of product. And the purple stripes
12 are what it was about that product that made it
13 difficult to make without carrageenan -- and the
14 comments we received.

15 So for whipping and heavy cream, yes,
16 there are some that could be made without
17 carrageenan but their whipability suffered.

18 Now when we, as board members, evaluate
19 these alternatives, we have to ask ourselves does
20 whipability suffering make a real difference to us.
21 And in some cases, if the product cannot be made
22 at all, does this product need to be made in the

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1 organic universe or can the world live without a
2 certain amount of whipability in their whipped
3 cream?

4 So, you know, this is where we're all
5 examining for our own selves what we think is
6 appropriate. So we heard very much comment, and
7 I had to summarize it quite a bit, but protein
8 shakes with milk proteins -- protein settlement
9 settles on the bottom and cannot be shaken up.
10 And apparently the longer it sits on the shelf, the
11 harder the sediment becomes. But it can
12 become -- in some products it can become quite hard
13 quite quickly, and so then it cannot be shaken up.

14 The hydrolyzed proteins lack
15 viscosity. And we heard from one gentleman about
16 the probiotic straws which the probiotics don't
17 survive properly with gellan gum compared to if
18 carrageenan was used with those milk protein
19 products.

20 Several of the other dairy products we
21 did not receive comments about. And so I've listed
22 those. Next, we also did not -- and I should

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1 mention that these charts are a compilation of both
2 the first posting comments and these. So I added
3 what we got in new on to the chart that I presented
4 last time.

5 So, likewise, we didn't get new
6 comments about the fruit fillings and puddings.
7 We didn't get a comment about the Gummy Bears or
8 the vegan marshmallows this time. And I think the
9 soy milk comments are probably combined in with the
10 nut milk comments, for the most part.

11 Okay, frozen desserts -- and what we heard about
12 was soy desserts, but this might be true of ice
13 cream. Carrageen uniquely can control ice crystal
14 formation in the frozen desserts. And the other
15 gums just do not have the same effect.

16 Processed meats. Carrageenan has been
17 instrumental in allowing meat processes to lower
18 sodium levels as well as remove phosphates from
19 products.

20 Non-dairy beverages, including grain
21 and nut milk -- a complete -- while they have
22 substituted usually a combination of gums, gellan

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1 and guar or gellan and xanthan, a complete match
2 for these other stabilizers for carrageenan never
3 happens because rheology developed by carrageenan
4 and protein is so unique.

5 And viscosity -- where viscosity is the
6 key functionality, the majority of the
7 reformulations did not work. In other words, when
8 you wanted something that was thick and flowed
9 properly, the gums do not work while, of course,
10 they do give a product that might be overly runny
11 or whatever.

12 Okay, beer. In beer it's used -- we've
13 got a couple of quite extensive comments in beer
14 saying that it was necessary. It is used as a
15 processing aid for the clarification of wort.
16 Trace amounts or none remain in the final product.

17 It is unclear -- we didn't hear from any
18 beer makers who could make it without it. And as
19 a processing aid, it does not have to be on the
20 label. So we don't know if there are beers
21 without -- successful without it or not.

22 We didn't have time to research it, but

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1 I don't think that that it causes quite the level
2 of consternation as some of the other ingredients
3 because if there is none left in the final product,
4 obviously, you're not ingesting it.

5 Okay, adult medical supplements and
6 infant formulas. We heard quite a bit about infant
7 formula but I realized, and after we were talking
8 about it yesterday and which, actually, after I
9 prepared this slide, that none of what we heard was
10 actually from the infant formula makers.

11 We heard from the food additive
12 suppliers and things like that that it is essential
13 for products that -- so that separation and
14 settling don't appear, don't occur. And for
15 things that have to go through, say a nipple on a
16 bottle or a tube like an adult medical supplement,
17 the whole idea of the carrageenan is it makes it
18 appear thick but be thin enough to go through those
19 type of tubes.

20 Also, the claim that the nutrients that
21 settle out of the infant formula, no matter how hard
22 you shake them, is no longer available to

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1 developing infants. And then dry formula, which
2 is the alternative, is not feasible in areas with
3 polluted water.

4 So after it got questioned by Tom here
5 that he had really only seen one brand of liquid
6 infant formula that he could find, I decided to do
7 an Internet search just this morning. And I found
8 only one brand of liquid infant formula still
9 available in the United States -- which is
10 interesting because when we took up all the
11 accessory nutrients in 2013 I did the same survey
12 and I found five brands of liquid infant formula
13 ready to use available.

14 Now I wasn't looking for carrageenan at
15 that time and I did copy down all the ingredient
16 lists and it's at home. But it appears only one
17 of them, the Similac organic ready to use are still
18 available.

19 And yet unlike the 2013 where we found
20 maybe almost five or less dry infant formula
21 powders, this time I found one, two, three, four,
22 five -- eight different kinds of infant formula

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1 powder. And one of them did not have the
2 ingredients on the website, but seven of them
3 did -- and none of them had carrageenan in it.

4 So the powdered infant formula is, does
5 appear to be a viable alternative and it's not
6 needed. But the liquid infant formula does have
7 it in it, the one that's left.

8 Okay, last but not least, the capsules
9 for supplements, particularly vegetarian ones.
10 As you probably know, the capsules that are not
11 vegetarian are made with gelatin and gelatin is a
12 viable alternative, but it is not acceptable for
13 vegetarians. The carrageenan provides rigidity
14 and structure in which organic supplements are
15 contained. Non-carrageenan substitutes do not
16 provide suitable capsule integrity and can impart
17 an off-taste that consumers notice when capsules
18 are swallowed.

19 This -- two different companies
20 submitted comment on this, I guess both of which
21 make organic capsules. And one of them went into
22 great detail about the -- their experiments they

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1 had done with the other gums.

2 So this was the capsugel comment or
3 capsugel. And they tested gellan gum which allowed
4 for -- let's see. The formula for organic products
5 requires high temperatures that lead to fast
6 degradation.

7 They tried xanthan and locust bean gum,
8 I guess combined, and it was such a high quantity
9 that it led to a viscosity that it was too high for
10 their manufacturing process and didn't make a good
11 capsule.

12 The agar, very low setting temperature,
13 slow dissolution performance and requires
14 viscosity that is too high for the capsule
15 manufacturing process.

16 And pectin, gelling strength is low.
17 And although the weakness can be compensated by
18 higher concentration and addition of salt, it would
19 result in viscosity too high for the capsule
20 manufacturing process.

21 So this as the type of detailed
22 information we wish we had for every single product

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1 on here, on the list. But Capsugel went on to say,
2 We formally request the Handling subcommittee to
3 develop a separate proposal to add an annotation
4 for carrageenan that limits its use only for
5 capsule shells. Therefore, the vote on sensitive
6 carrageenan must be postponed or deferred to allow
7 time for a new subcommittee proposal.

8 Okay, all right, so then on to the
9 general comments about alternatives. It has a
10 critically unique ability to deliver optimal
11 balance of sensorial attributes and underlying
12 product stability.

13 It has specific interaction with
14 casein, micelle and dairy products, and this is one
15 that applies to all dairy products. And this
16 permits very low usage levels relative to gums like
17 xanthan and gellan.

18 And a number of commenters went on to
19 say that because you can use ten times less
20 carrageenan than you'd have to use with the other
21 gums, when you use the other gums, you're really
22 pushing up against the 5 percent limitation on the

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1 amount of non-organic ingredients allowed in
2 processed food.

3 And they have a hard time formulating
4 within the 95 percent rule when they cannot use
5 carrageenan.

6 In addition to those concerns, the
7 alternative gums require significantly longer
8 mixing times, thereby lowering throughput, present
9 additional complexity in powder mixing and
10 hydrating which are safety critical process steps.

11 The settling on the bottom we have heard
12 about a bunch of times. So talk about that. The
13 texture and what several commenters have called the
14 mouthfeel really suffers when they use the other
15 gums.

16 And the very interesting point, I
17 thought that the alternatives suggested by the
18 committee are not more organic. Many of the
19 alternatives, particularly gellan and xanthan, are
20 currently on 205-605 (b) as synthetics.

21 And usually, the NOSB has not removed
22 things from the list that are on 605(a) in favor

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1 of things that are on 605(b) because the order of
2 priority is for non-synthetic over a synthetic
3 ingredient.

4 So perhaps gellan gum and xanthan gum
5 are really not completely viable alternatives
6 compared to something that is on 605(a) and
7 possibly could be produced organically.

8 So this brings us to the final slide.
9 Each member of our Handling subcommittee had their
10 own perception about carrageenan. As you all saw
11 from the proposal, it came out of the committee with
12 a vote of two in favor of relisting and five -- I
13 think it's five or four against.

14 I have been questioning many of our
15 commenters just so that everyone on both sides of
16 the issue would get the idea that if this is voted
17 off the list it is not necessarily going away
18 because it is entirely possible, in my opinion, to
19 produce it organically.

20 And if it is produced organically and
21 they get it certified, it will be right back in all
22 the foods without any necessary restrictions and

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1 can be in the 95 percent of the material. So
2 really, those of you who have health concerns that
3 would really like it off, out of foods, might be
4 better off wanting to leave it on the list but limit
5 it by annotations so much so that even the organic
6 form could not be used in the future.

7 Either that or petition so that an
8 organic farm could not be used in the future,
9 depending on how our vote comes out. So I'll leave
10 it at that to open discussion and then I might have
11 more to say later.

12 MR. AUSTIN: Okay, discussions from
13 the Board? Any questions, comments? Lisa.

14 MS. DE LIMA: I just want to clarify a
15 couple of items on the chart. Can you go back,
16 Michelle? Because we had talked about --

17 MS. SONNABEND: I can go back. Which
18 slide do you want to go back to?

19 MS. DE LIMA: The alternatives one and
20 the previous one. So we had talked a little bit
21 in the subcommittee this summer when we looked at
22 this chart and then found other alternatives or

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1 products that are made without carrageenan.

2 So I just want to clarify some of the
3 ones on here because I found -- we saw protein
4 shakes, yogurt, sour cream, cottage cheese, fruit
5 fillings, puddings, frozen soy desserts all exist
6 without carrageenan that are on our shelves in our
7 grocery stores.

8 And vegan marshmallows, I kind of throw
9 into the category that Zea talked about, like do
10 we really need organic vegan marshmallows because
11 currently they're not being made organically and
12 we still sell plenty of them in the natural form.

13 I guess the beer and the capsules are
14 question marks for me but nothing else is.

15 MR. AUSTIN: Anybody else? Tom, then
16 Emily.

17 VICE CHAIR CHAPMAN: There's
18 definitely beers manufactured without
19 carrageenan. Pinkus Brewery in Germany is a
20 200-year-old brewery. They're certified organic
21 to the USDA standards and under the German beer
22 purity laws, an additive like carrageenan would not

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1 be allowed.

2 DR. RICHARDSON: And available
3 anywhere?

4 VICE CHAIR CHAPMAN: Yes. I can buy it
5 at my supermarket.

6 MR. AUSTIN: Thank you Tom, Emily?

7 MS. OAKLEY: The only one that speaks
8 to me is the capsules but I wouldn't want to
9 annotation change necessarily just for that,
10 certainly not at this meeting. But I do think it
11 is a legitimate concern.

12 But I also want to say that I, before
13 attending this meeting, sent an email and a
14 newsletter to my CSA customers, talking about some
15 of the controversial issues that we'd be
16 discussing. And carrageenan was the one thing
17 that my customers came to talk to me about.

18 MR. AUSTIN: Thank you. Jean?

19 DR. RICHARDSON: There are organic beers
20 made in the U.S. that do not use carrageenan.

21 MR. AUSTIN: Harriet?

22 MS. BEHAR: I know that the consumers

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1 can look at a label and decide not to choose
2 something, but I really would not want us to go down
3 the road of the organic consumers kind of trust that
4 we're looking over what the additives are in their
5 foods and have --- so I want to see a clean label
6 on organic foods, so I know that's an option but
7 I don't like seeing that organic is like all of a
8 sudden, they have to look at every label, too, and
9 I think with the gel caps, I think too, that there
10 could be an annotation but I think they would have
11 to just come back and, I think, Lisa said to me that
12 there isn't any organic --

13 MS. DE LIMA: I mean just what I know,
14 on my shelves --

15 MS. SONNABEND: On her shelves --

16 MS. DE LIMA: There's a certified
17 organic product, but it's in tablet form. They
18 don't use capsugel. And then there's another
19 brand that doesn't have the seal but is made with
20 organic herbs and they use the capsugel.

21 MS. SONNABEND: The capsugel informed
22 us that - their public comment says they do make

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1 organic certified --

2 MS. BEHAR: Okay. Well made with a
3 certified organic product as well. So I have some
4 sympathy there, but I'm not sure that we want to
5 relist, just so we can retain gelcaps.

6 MR. AUSTIN: Well I think that as,
7 sitting here as one of the Handler representatives,
8 I think we have a responsibility to understand that
9 not every manufacturer produces things using the
10 exact same materials or the exact same processes.

11 So because some entity can produce
12 something without an additive or a material or a
13 substance in there, does not necessarily mean that
14 all producers are capable of doing the same thing.
15 I think we can apply that to our growing principles
16 as well as our handling principles. Not
17 everything is exact. So I think because somebody
18 can declare that they can make it, doesn't mean that
19 they all can. They've all invested. They're all
20 organic stakeholders providing the organic
21 community with an organic, viable product that's
22 on the store shelves now because of this National

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1 List in existence.

2 They've done their due diligence by
3 following the process that's been laid before them
4 and I think we need to understand that, when we're
5 talking about these materials and we're making
6 these decisions. Because our decisions and our
7 votes impact people's lives.

8 So I think if there's one person that's
9 producing an infant formula that relies on it, I'm
10 going to support that. If there's one or two
11 people or companies that are supporting a protein
12 shake that has a need for this material still in
13 it, while two others don't, as long as we've got,
14 I've got an organic handler that still has a need,
15 I'm going to support that need, because that's what
16 I think we, as an organic community, should be
17 doing. Emily, you had another question?

18 MS. OAKLEY: I wanted to echo Zea's
19 brief comment in her presentation that it would be
20 nice if we could have similarly robust discussions
21 for many of the other items on the National List.
22 I know there's not time for that but I appreciate

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1 the depth of conversation that's gone into this
2 subject.

3 MR. AUSTIN: Thank you. Any
4 further -- Tom.

5 VICE CHAIR CHAPMAN: So as the other
6 handling representative, I do really appreciate
7 Harold's perspective and I think it's a very valid
8 point. I struggled a lot with this substance. I
9 see their need under the criteria under the
10 compatibility and under compatible system of
11 organic handling. I go back to our PPM that Gwen
12 talked about earlier and then there's a line does
13 this substance satisfy expectations of organic
14 consumers regarding the authenticity and integrity
15 of organic products?

16 I struggle with this because I feel like
17 consumer expectations gets thrown around lightly
18 but if there's one I would say it seems to be quite
19 clear on, this is the substance. As an
20 organization that doesn't use it, we get highly
21 asked about its usage, still.

22 At a certain point, you have to balance

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1 both the needs of operations to produce their
2 products, as well as the interest and demands of
3 the consumers that buy them and so, allowing
4 several but few operations to continue to make
5 products that utilize this substance versus the
6 maybe minor or significant degradation of the
7 organic label in the view of the organic consumers
8 is something I'm trying to balance out here and at
9 this time, I'm leaning towards that organic
10 consumer and I'm thinking that it makes sense not
11 to relist this item.

12 MR. AUSTIN: Jean?

13 DR. RICHARDSON: So I'm a consumer rep
14 so I will be voting to remove this from the list
15 but with some caveats. Again, I've looked a lot
16 at the marine materials and there's no question
17 that carrageenan was one of those materials that
18 was early over-harvested in many parts of the
19 world.

20 And it is now cultivated and it could
21 as Zea pointed out very eloquently, it could, if
22 there was a will, be produced organically and as

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1 Zea mentioned, it could then be in our products.
2 Anyway.

3 However, I think that it is important
4 to encourage organic certification, especially for
5 a product like this, where we know that it's easy
6 to overharvest these types of marine plants in a
7 number of different areas and I've observed it, you
8 know, first hand, over the last thirty years in
9 different parts of the world.

10 So let's encourage --- so one of the
11 reasons why I would vote to remove it is that I want
12 to send a clear message that it could, in fact, be
13 certified organic either wild crop harvested, or
14 cultivated. Then there is the issue of necessity.
15 I really don't see it as being a particularly
16 necessary material in organic foods.

17 You know, I, we struggle with this and
18 we've discussed it a great deal on the subcommittee
19 and at the previous meetings as well. And we went
20 through each one of these materials in great detail
21 and our subcommittee members did surveys of their
22 stores and everything, to find out and really find

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1 alternatives for each of these.

2 And it was, with, you know, with the
3 very limited exceptions that have come up already
4 today, I won't repeat them, it doesn't appear to
5 me to be, really, to rise to the level of necessity.
6 So we've got environment, we've got necessity as
7 two of the criteria that I don't think that would
8 justify relisting it.

9 As to the health issues, I am really
10 just not sure. I read those thousands of papers
11 and I am really, as Zea said also, really concerned
12 for the sensitivity of the individual people that
13 have written in with concern, but I couldn't
14 totally find the scientific connection between
15 their obvious problems with their health and that
16 specific material.

17 And you know, I'm an asthmatic so again,
18 like Zea, if there are things that impact me and
19 people say, oh Jean, it's all in your head, I don't
20 think it is. It's something that I've eaten or
21 breathed in or whatever it might be. So their
22 concerns are real but as with so many things, in

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1 health related issues, it's hard to have a
2 proximate cause relationship, a direct
3 relationship, between the specific ingredient and
4 the human health impact. So I'll be voting to
5 remove.

6 MR. AUSTIN: Any further discussion?
7 Ashley.

8 MS. SWAFFAR: So I also struggled with
9 this one but I really look to our consumers and
10 they've really spoken and I think the industry has
11 done a great job of responding and doing a lot of
12 legwork since the last time this came up for sunset.

13 And, you know, the biggest majority of
14 all products, a lot of folks have removed
15 carrageenan from it. And, you know, I think just
16 about everything now has an alternative and, to me,
17 I look to that. And I say, I know you're different
18 Harold, but you know, if one of the leading dairy,
19 organic dairy handlers in the country can make
20 protein shakes, yoghurt, sour cream, cottage
21 cheese, and milk without using carrageenan, I
22 really think there's probably not a necessity for

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1 this. But I will say if carrageenan is removed,
2 I am very concerned about the other gums going away
3 also. You know I think these guys have done a
4 remarkable job replacing carrageenan with gellan
5 gum, xanthan gum, all those things and I just want
6 to be cautious the next time that those are up for
7 sunset because I think these guys do need some type
8 of thickening agent.

9 And I just would hate to see this
10 complete whittling away of the National List as a
11 lot of people like to call it, so you know, I am
12 going to vote to not relist carrageenan but I will
13 say, you know, I am concerned next time those gums
14 are up for sunset.

15 MR. AUSTIN: Thank you. Zea.

16 MS. SONNABEND: Okay. What I have to
17 say now represents my personal opinion and no one
18 else's opinion out there. As my fellow members,
19 I am conflicted about this material. From a
20 scientific point of view, I feel that the science
21 sides pretty clearly with the safety of carrageenan
22 for most of the general population.

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1 And when we ask for replication of results of the
2 findings of the one lab, the fact that we were
3 pointed to a citation for a study that hadn't even
4 been conducted yet, made me want to discredit
5 everything else that that commenter had to say,
6 because that is totally lacking scientific
7 integrity.

8 So the scientist's seat, which I
9 represent, for me, falls clearly on the side of most
10 of the science says it's okay. The alternatives are
11 very mixed. I, you know, as I have said, I think
12 every meeting since I've been up here, if you want
13 to avoid this in other things, you should be eating
14 less processed food. Eat real food and you won't
15 have to worry about food additives so much.

16 I do understand that not everyone
17 agrees with that. Some people are in a position
18 where they have to eat more processed food. They
19 don't all grow most of their food like I tend to
20 do. And so, but when it comes down to the issue,
21 as Tom seems to think it's an equal criteria to the
22 seven criteria in the rule, what consumers think

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1 or what consumer demand is.

2 To me, what consumer demand is mostly
3 what people are buying, not what the special
4 interest consumer groups say they should want to
5 buy and as a scientist, I cannot evaluate that.
6 Every single consumer survey I've seen seems biased
7 in one way or the other to the results that they
8 want to achieve. And I don't feel I can evaluate
9 that in either direction.

10 So, much as I didn't want to -- oh, and
11 then lastly, when it occurred to me in reading the
12 public comments, that carrageenan could be
13 produced organically and actually nobody wrote in
14 and said we're going to produce it organically or
15 we could or we want to.

16 But they all wrote in about how
17 sustainable it was and all the really cool
18 practices that they were doing that preserved
19 biodiversity and met all of our criteria, I was,
20 like, why not inspire them to produce it
21 organically?

22 So, in the end, I'm really conflicted

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1 and much as I don't want to do this in some ways,
2 but I have decided I'm going to abstain.

3 MR. AUSTIN: Francis?

4 MR. THICKE: On our dairy farm, we
5 actually have a processing plant. We process our
6 milk, make cheese and yoghurt and so on. One thing
7 we make in the summer is a soft serve ice cream mix.
8 We make about 100 gallons a week and local grocery
9 stores put in their ice cream machine, soft serve
10 machine.

11 We put it in gallon jugs and we could
12 use carrageenan. It would be better but we
13 wouldn't. Because of our customer base, we
14 wouldn't think of that. But it tends to separate
15 and when they use it in the ice cream machine, they
16 just shake it up and put it in and it works fine.

17 So it's a little bit inconvenient but
18 it works. That's a small scale how, if we don't
19 have to have everything convenient, maybe we can
20 have things a little more natural. My customers
21 appreciate that.

22 MR. AUSTIN: Thank you. Harriet?

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1 MS. BEHAR: So if carrageenan is an
2 organic product sometime in the future, unlike the
3 crops and livestock sections of our National List,
4 there's no place to do a prohibited natural. And
5 so, the -- well, you could have an annotation and
6 restrict it severely. But you couldn't say
7 carrageenan, not allowed for any use. I mean
8 there's -- I mean I suppose maybe you could, I don't
9 know. But that's just a thought, you know, if it
10 is --

11 MS. SONNABEND: It's not going to be my
12 problem.

13 MS. BEHAR: It's not Zea's problem.
14 It might be my problem or somebody else's problem.
15 But I just thought that I would, you know, put that
16 out there that it's a possibility and --

17 MS. SONNABEND: Never been done
18 before.

19 MS. BEHAR: -- never been done.

20 MR. AUSTIN: Okay. Miles?

21 MR. MCEVOY: Yes. I just would like to
22 mention that the board should be using that

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1 criteria that are in the organic food production
2 act, the seven criteria that are mentioned as well
3 as the part of 205-600 that list additional
4 evaluation criteria for processing aids. And
5 those are the criteria that you need to use in terms
6 of your evaluation and making a determination on
7 this particular substance.

8 MR. AUSTIN: Thank you, Miles. Tom?

9 VICE CHAIR CHAPMAN: So I want to clear
10 I guess a couple things up. Health concerns,
11 environmental concerns, those are not motivating
12 factors for my vote on this item. I found those
13 satisfied as well, via comments that we got. That
14 is not why I am voting the way I plan to vote.

15 In terms of compatibility with organic
16 handling plan, or organic, a system of organic
17 agriculture, which is the crux of what I'm lying,
18 making my decision on. And I cited consumer demand
19 for that. It isn't based on what was presented
20 from consumer interest groups. It's based on
21 responses from industry to the demand.

22 We all, who sell products, farmers, and

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1 handlers here on the board, and the retailer, have
2 to respond to demands of consumers. You go to your
3 farmers markets on Saturdays because your
4 consumers want some local convenience and access
5 to buy those products.

6 You flavor your soft-serve a certain
7 way because that's the flavors your consumers want
8 to consume. And we've seen a lot of change in
9 handlers formulating away from carrageenan and
10 that's not due to nothing. That's due to consumer
11 demand to move away from that product. And that's
12 the indicator that I'm looking at now.

13 MR. AUSTIN: Thank you, Tom. Lisa?

14 MS. DE LIMA: I'll be quick because Tom
15 kind of summed it up. But, you know, Zea was saying
16 she can't evaluate consumer demand. But, you
17 know, being in the position that I am, I can
18 evaluate that. And it's gotten to a point where
19 for all new items that we evaluate, whether they're
20 organic or not, we're not allowing carrageenan.

21 So it's that serious and it's really
22 awkward to be like, well carrageenan exists under

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1 the organic label. But any new item that our
2 stores bring in aren't going to have carrageenan
3 in it. So that's in response to the demand that
4 we've seen from our customers as to not wanting
5 carrageenan in any products, organic or not.

6 MR. AUSTIN: Okay. And I think -- go
7 ahead Scott.

8 MR. RICE: I echo much of the struggles
9 that my fellow board members have expressed. And
10 most resonant with me is the compatibility
11 question. I think again, Tom summed that up well.
12 I did hear from a couple of beer makers that use
13 this product, I've used it myself in home brewing
14 and they make delicious beers.

15 But we're an innovative industry and as
16 has been pointed out, there are organic beers out
17 there that are successful and do well. And I'm
18 confident that alternatives will be, alternatives
19 can be used or not used at all. But I am --- my
20 feeling is carried with that concept of
21 compatibility and I don't think I will be voting
22 to relist this.

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1 MR. AUSTIN: Any further discussion?
2 Tom?

3 VICE CHAIR CHAPMAN: Sorry to say this
4 one more time, I'm going to make this quite clear.
5 My decision again is, like Scott said, on
6 compatibility. We further have some guidance on
7 what compatibility means, I know it's a somewhat
8 unclear term.

9 But compatibility is the criteria I'm
10 making my decision on.

11 MR. AUSTIN: Thank you. Any further
12 discussion? Seeing none, I will turn it back over
13 to Madam Chair, as a motion from the subcommittee
14 to remove carrageenan from the National List.

15 CHAIR FAVRE: Okay. We have a
16 seconded motion to remove carrageenan. Voting is
17 going to start with Carmela.

18 MS. BECK: No.

19 MS. SWAFFAR: Yes.

20 MS. DE LIMA: Yes.

21 VICE CHAIR CHAPMAN: Yes.

22 MR. SEITZ: Yes.

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1 DR. RICHARDSON: Yes.

2 MS. BEHAR: Yes.

3 MS. SONNABEND: Abstain.

4 MR. RICE: Yes.

5 MS. OAKLEY: Yes.

6 MR. BUIE: No.

7 MR. THICKE: Yes.

8 MR. AUSTIN: No.

9 CHAIR FAVRE: Chair votes yes.

10 MS. DE LIMA: Ten yes, three no, one
11 abstain, one absent. The motion passes.

12 MR. AUSTIN: Thank you. Moving on.
13 Next item on our list is glucono delta-lactone.
14 Dr. Brines?

15 DR. BRINES: Okay, thank you. This
16 substance is also included in section 205-605 of
17 the National List, under paragraph A. And it is
18 listed as glucono delta-lactone, production by the
19 oxidation of d-glucose with bromine water is
20 prohibited.

21 In support of this sunset review, the
22 handling subcommittee did request the development

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1 of an updated technical report. And that report
2 was developed and posted prior to the spring
3 meeting. Thank you.

4 MR. AUSTIN: Thank you. Tom, if you
5 would give the subcommittee's presentation to the
6 board please.

7 VICE CHAIR CHAPMAN: Glucono
8 delta-lactone, otherwise known as GDL, is
9 primarily used in the production of tofu,
10 particularly the silken type of tofu. Tofu
11 production used GDL as a coagulant.

12 GDL can also be used as a turning agent,
13 leavening agent, pH control agent and sequestrant.
14 There are a variety of ways GDL can be produced.
15 The most common has gluconic acid produced through
16 fermentation and acid based reactions to make GDL.
17 Other processes to make GDL involve oxidation with
18 bromine water, which is not allowed by annotation
19 on the National List, and by oxidation with
20 purified enzymes.

21 GDL is not currently permitted on any
22 of the other international lists we consulted.

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1 The 2016 technical review examined human health and
2 environmental impacts of GDL's usage and found low
3 to no risk.

4 The review did raise a question on the
5 classification of the given substance if it's
6 produced via fermentation and acid-based
7 reactions, given that there's a chemical reaction
8 there. However, the process is similar to that of
9 citric acid, which we have deemed as non-synthetic.
10 Comments received at this meeting mirrored
11 comments received at the spring meeting, responses
12 stated that distinctly different types of tofu
13 products are manufactured from different
14 coagulants.

15 Concerns were raised about usage of GDL
16 beyond the coagulation in tofu, as well as the
17 enzyme process of manufacturing and requested
18 further annotation restrictions. As annotated
19 changes are not possible during the sunset review,
20 this requires separate action with the board.

21 The material satisfies the OFPA
22 criteria and the handling committee supported the

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1 relisting of GDL by a split vote. And Michelle,
2 can you scroll down? Of six no and one abstain.

3 MR. AUSTIN: Thank you, Tom. We'll
4 open it up for board discussion. Emily?

5 MS. OAKLEY: I have a question as to why
6 this substance is not permitted in the EU, Canada,
7 Japan Codex or iPhone. Is that because it hasn't
8 been petitioned there?

9 VICE CHAIR CHAPMAN: I can't really
10 speak to demands of those other countries and their
11 want for types of tofu.

12 MS. OAKLEY: Okay. I have another
13 question. Since this is primarily used for silky
14 tofu, does calcium sulfate not meet that need?

15 VICE CHAIR CHAPMAN: Yes. There
16 was -- can you scroll up on my proposal, or on the
17 --- up a little bit. Somewhere, okay I'll just
18 look it up on my computer, hold on. I can't read
19 from that far away.

20 So there's several coagulants that
21 exist for tofu including magnesium chloride,
22 calcium chloride, calcium sulfonate and magnesium

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1 sulfonate as well as acids like citric and lactic.
2 Each of these produce a different type of tofu
3 texture and flavor, making them distinctly
4 different products.

5 Calcium cells produce firmer tofus,
6 sulfate cells produce softer tofus, GDL produces
7 that silken tofu. So it's really the texture and
8 flavor basis of it.

9 MR. AUSTIN: Dan?

10 MR. SEITZ: Emily actually asked the
11 two questions that I had. Except I want to note
12 that in the report we have on calcium sulfate mind,
13 it does say that it is essential for soft and silky
14 tofu.

15 And in this other report, I mean in this
16 report it says that calcium sulfate wouldn't be
17 good for that. So there is a little bit of an
18 ambiguity there about whether there is another
19 substance that could replace this.

20 VICE CHAIR CHAPMAN: Yes, it's my
21 understanding calcium -- I'm not a tofu expert
22 perhaps we can consult Jean on this one. I believe

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1 calcium sulfate produces the soft tofu, where GDL
2 makes that silken tofu. And combinations of these
3 substances are often used as well to make tofus of
4 varying textures.

5 MR. AUSTIN: Any further discussion?
6 Seeing none, Madam Chair we will send this back over
7 to you as a motion from the subcommittee with a
8 second to remove glucono delta-lactone from the
9 National List.

10 CHAIR FAVRE: Thank you, Harold. We
11 will start the vote with Ashley.

12 MS. SWAFFAR: No.

13 MS. DE LIMA: No.

14 VICE CHAIR CHAPMAN: No.

15 MR. SEITZ: No.

16 DR. RICHARDSON: No.

17 MS. BEHAR: No.

18 MS. SONNABEND: No.

19 MR. RICE: No.

20 MS. OAKLEY: Abstain.

21 MR. THICKE: No.

22 MR. AUSTIN: No.

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1 MR. BUIE: No.

2 MS. BECK: No.

3 CHAIR FAVRE: Chair votes no.

4 MS. DE LIMA: That's zero yes, 12 no, one
5 abstain, one absent. Sorry, 13. The motion fails.

6 MR. AUSTIN: Thank you. Next item up
7 for presentation is tartaric acid. Dr. Brines, if
8 you would be so kind.

9 DR. BRINES: Yes, thank you. We're
10 still at section 205-605 of the National List under
11 paragraph A. The substance is tartaric acid made
12 from grape wine. And the last technical report was
13 completed for this substance for the last round of
14 sunset review the reports dated 2011. Thanks.

15 MR. AUSTIN: Thank you. I just
16 switched pages. Who's the lead on this? Ashley,
17 would you present please?

18 MS. SWAFFAR: Tartaric acid has a wide
19 variety of uses. These include use as a pH control
20 agent, preservative, emulsifier, dilating agent,
21 flavor enhancer, flavor modifier, stabilizer,
22 anticaking agent and firming agent.

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1 And it has also been used in the preparation of
2 baked goods and confectionaries, dairy products,
3 edible oils and fats, seafood products, meat and
4 poultry products, juice beverages, chewing gum,
5 cocoa powder and alcoholic drinks. Lots of uses
6 here.

7 Public comments that we've got in is
8 mainly around the wine industry. And they say
9 tartaric acid is used in our process to correct
10 natural acid deficiencies in grape juice and wine
11 and to reduce the pH of the grape juice and wine.

12 Another commenter said that every wine
13 we make has tartaric acid in it, it's used as a
14 preservative and stabilizer to lower the pH of the
15 wine. If they weren't able to lower the pH, they
16 would have to use a higher amount of sulfur dioxide
17 as a preservative. That would exceed the hundred
18 parts per million total amount.

19 And then a different use, someone wrote
20 in and said that tartaric acid is used in sour
21 candies to enhance the fruit flavors and sour
22 intensity. And they had said that alternatives are

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1 less stable to warm temperature environments.

2 And another wine maker said that it's
3 absolutely necessary for wine making in California
4 and for most warm weather wine making regions.
5 They said as grapes come in, we replace some of the
6 lost acidity, which is tartaric acid. Without it,
7 the wine would become more susceptible to spoilage
8 organisms and lack in flavor.

9 MR. AUSTIN: Thank you. We'll open it
10 up for discussion by the board. Any comments,
11 questions? Seeing none, Madam Chair we will turn
12 it over to you as a seconded motion from the
13 subcommittee for the board to remove tartaric acid
14 from the National List.

15 CHAIR FAVRE: Thank you, Harold. We'll
16 begin voting with Lisa.

17 MS. DeLIMA: No.

18 VICE CHAIR CHAPMAN: No.

19 MR. SEITZ: No.

20 MS. RICHARDSON: No.

21 MS. BEHAR: No.

22 MS. SONNABEND: No.

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1 MR. RICE: No.

2 MS. OAKLEY: No.

3 MR. THICKE: No

4 MR. AUSTIN: No.

5 MR. BUIE: No.

6 MS. BECK: No.

7 MS. SWAFFAR: No.

8 CHAIR FAVRE: Chair votes no.

9 MS. DeLIMA: Zero yes, 14 no, one
10 abstained, the motion fails, Ani absent.

11 MR. AUSTIN: Thank you.

12 We'll now move over to 205605B, first
13 material which is still a Sunset 2018 material, was
14 cellulose. Dr. Brines?

15 DR. BRINES: Yes, thank you. So, we are
16 now under Section 205605 of the National List under
17 Paragraph B, Synthetics Allowed. And, the listing
18 reads: "Cellulose for use in regenerative casings
19 as an anti-caking agents, non-chlorine bleached
20 and filtering aid."

21 In support of the review for this round
22 of Sunset the Handling Subcommittee did request the

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1 development of an updated technical report, and
2 that report was developed. It is posted on the NOP
3 website.

4 Thank you.

5 MR. AUSTIN: Thank you. I'm actually
6 the lead on this one.

7 Cellulose is available in several
8 different forms, with each having very functional
9 qualities. Used for multiple purposes in organic
10 handling. There are two specific forms of
11 cellulose currently permitted for use in organic
12 processing and handling, powdered cellulose and
13 also inedible cellulose casing.

14 Uses in organic handling include as a
15 processing aid, as Lisa just talked about for
16 filtering of juices, as an anti-caking agent
17 ingredient for use in shredded teas, and as a
18 processing aid in the form of peelable, non-edible
19 hot dog and sausage casings.

20 Some of these uses in organic handling
21 have been around since even prior to the creation
22 of OFPA.

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1 Cellulose in its natural form is the
2 main structural component of higher plant cells and
3 one of the most abundant organic substances on
4 earth.

5 Cellulose is considered grass under CFR
6 121.101.

7 The current Sunset review of cellulose
8 included a review of the historic information,
9 information provided during public comment period,
10 both oral and written, testimonies for the fall and
11 the spring meetings, a new technical evaluation
12 which we did receive on February 11th. We also,
13 under this review, included a look at what possible
14 ancillary substances might be used along with
15 cellulose in production for specific uses.

16 Internationally, cellulose is
17 permitted for use by most organic standards outside
18 of the U.S., or at least some of the uses in
19 applications currently allowed here under our
20 standards for processing and handling.

21 Public comment for the spring meeting
22 were 18 written comments, two oral comments via the

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1 webinar, four at the in-person meeting. For the
2 fall, there were 11 written comments submitted,
3 zero via the webinar, and two in-person comments
4 here in St. Louis.

5 Public comments for the most part were
6 in favor of relisting cellulose to the National
7 List, stated that it's still needed in their
8 handling process covering casings, filters and
9 also for shredded cheese production.

10 It was also mentioned that
11 alternatives, while they worked in some cases, did
12 not necessarily work in all cases, and that some
13 of the organic handlers still considered this to
14 be very essential.

15 Those in support also mentioned that
16 previous reviews have found no substantial risk to
17 the environment, human and/or animal health, from
18 either its manufacturer or its use.

19 Those opposed raised some concerns
20 about logging as a source of the pulp that it's
21 generated from, that it was not necessary, and that
22 they addressed and mentioned micro crystalline,

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1 cellulose was not adequately addressed.

2 We did discuss this at the spring
3 meeting, along with some of the other environmental
4 concerns. One certifier mentioned also that they
5 recently refused to certify a product that they had
6 reviewed because it did list micro crystalline
7 cellulose in it. So, it is apparent that the
8 certifiers do understand that that one is not a form
9 that is allowed in organic production.

10 During the first posting for the
11 discussion of cellulose there were five specific
12 questions asked for comments, to help the
13 subcommittee during this review of this Sunset
14 material. Some of those answers are provided in
15 the following information that we'll be briefed on
16 here shortly.

17 One of the big topics was around the use
18 of ancillary substances, were there any that were
19 used in conjunction with cellulose that were
20 intentionally -- and, an ancillary substance for
21 those that of you that may not know, an ancillary
22 substance are intentionally added to a formulated

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1 generic handling substance on the National List.
2 These substances do not have a technical or
3 functional effect in the finished product and are
4 not considered part of the manufacturing
5 processes, or even reviewed by the NOSB.

6 While some of these substances are
7 removed or consumed in their processing, many may
8 remain in the final product in very tiny amounts.

9 Information provided in the TR that we
10 got back in February, as well as during public
11 comment, provided us with the following list of
12 ancillary substance functional class. For
13 non-synthetic, potato starch and dextrose.
14 Carriers and fillers, synthetic propylene glycol.
15 Preservatives, Polysorbate 80, as well as enzymes.
16 Binder plasticizer lecithin, propylene glycol
17 mineral oil. Anti-caking and anti-stick agents,
18 mineral oil, animal oil, fish oil, resin.
19 Releasing agents, mineral oil.

20 Mineral oils are on the combined IARC
21 and NPT list. The latest technical evaluation
22 report for mineral oil that was provided to the

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1 livestock committee states that the refining
2 process for refined mineral oil does remove the
3 materials that pose a carcinogenic problem and
4 concern in mineral oils.

5 Public comments submitted do state that
6 mineral oils, indeed, do appear to be common
7 ancillary use for cellulose. They would also
8 assume that due to the nature of the use that these
9 would be from refined mineral oils. The TR also
10 stated and mentions that according to the FDA
11 database for everything added to food in the United
12 States, mineral oils are approved for use as
13 direct, secondary direct, and indirect additives
14 for human and animal feed. FDA also permits the
15 direct addition of mineral oil, to include for
16 consumption under 21 CFR 172.842, and also under
17 172.878.

18 Going further into the other questions
19 and considerations again also with the
20 ancillaries, we asked about releasing agents. The
21 only one that we were able to find was isolated was
22 mineral oil, so we asked if there were any others

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1 and for what purposes.

2 Public comment provided us back -- the
3 subcommittee back, with the additional information
4 regarding ancillary substances, that some casings
5 were being used were already soaked, ready to use
6 form, thus required no additional releasing
7 agents.

8 Also, identified the additional
9 ancillaries, food grade mineral oil used as an aid
10 for shearing. Food grad white mineral oil is also
11 used. Polyvinylidene chloride as a coating.
12 Quinine as a coating. Sodium hydroxide as a
13 coating, and also as a pH control agent. These last
14 four were specific for use as an ancillary in
15 casings.

16 Another comment said that one of their
17 suppliers two different materials both releasing
18 agents, one that they use, a non-extractable
19 proprietary food grade launching hydrocarbon,
20 similar to that used for milk carton liners. There
21 was no migration to the meat as this was fixed to
22 the casing surface.

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1 Another supplier told them that they
2 used CMC, carboxymethyl cellulose as a fueling aid,
3 as well as Polysorbate 80 as a surfactant in and
4 emulsifier to help with that material.

5 Resin was also identified as being used
6 in cellulose filters. Another certifier identified
7 cellulose papers that include a synthetic binder
8 resin that helps to strengthen the paper components
9 that was not included on the TR.

10 So, there were numerous ancillary
11 substances that were provided in this last round of
12 public comment that we had not received as a result
13 of the TR or the spring meeting and the comments
14 provided there.

15 I would point out, so that because of the
16 fact that they were mentioned after our document was
17 posted for public document, these additional
18 ancillaries will need to be brought forward -- we
19 will bring them forward by the subcommittee as a
20 proposal at our spring meeting to be included on to
21 the list previously mentioned, after we've had an
22 opportunity to review and vet them properly for

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1 inclusion.

2 I've stated in our previous ancillary
3 substance policy that was just recently adopted
4 that these ancillary substances could continue to
5 be allowed for use until we can bring forward the
6 secondary motion on having an immediate impact on
7 the handling process at this time, but for continued
8 inclusion for use this would have to be brought
9 forward with a separate motion as I just said to be
10 added to that list of approved ancillary
11 ingredients for use with cellulose.

12 We also asked for information about why
13 some cheese processes can use cellulose while
14 others don't. Some of the responses back from the
15 public comments were, we use cellulose very much
16 needed because it is a very necessary anti-caking
17 agent. One comment, moisture content in various
18 blends varies. One example given was that certain
19 mozzarella cheese that has a mineral moisture
20 content of 45 percent, without an anti-caking agent
21 it would simply clump up in the bag.

22 They also stated that various research

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1 shows that trials using other alternatives have not
2 been successful. Different types of formulations
3 of cheese production have different needs to create
4 the desired end product.

5 Location and conditions formulated
6 under also have an impact on the final end product,
7 versus no need as well.

8 One organic cooperative mentioned that
9 it is still very much needed in their organic
10 cheeses. They sell over 2 million pounds of
11 shredded cheese manufactured from 21.5 million
12 pounds of organic milk. The research and
13 development staff plans trials on other materials
14 in the future, but their anecdotal information
15 found in their current research indicates that
16 trials with other materials have not performed
17 well. They also support the continued listing of
18 regenerative casings.

19 Thus, it would appear that while some of
20 the concerns that have been raised around the source
21 of cellulose, alternative sources, controlled
22 sources, and research into utilization of waste

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1 products seems to be very well under way to help
2 mitigate the concerns that have been raised in the
3 past, and also in the spring meeting some of the
4 public comments.

5 Certifiers have also, indeed, shown
6 that they have an understanding of microcrystalline
7 cellulose is not an allowed form in organic handling
8 and have rejected projects using such. That seems
9 to be a public comment and a public concern that
10 continually gets raised. So, hopefully, we can put
11 that one to bed.

12 Also, industry surveys certifier
13 comments and organic handler comments have stressed
14 how essential cellulose still seems to be, since
15 alternatives do not meet all of the needs for
16 organic handlers at this time.

17 I'll open it up for questions at this
18 time, or discussion.

19 Dan?

20 MR. SEITZ: A couple questions.

21 So let me -- I just want to understand
22 the ancillary substance question. Does that mean

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1 if I were to buy powdered cheese or grated cheese,
2 and there was cellulose in it, that that cellulose
3 might have trace amounts of any of those ancillary
4 substances?

5 MR. AUSTIN: It's possibly -- a lot of
6 times that ancillary substance will be removed from
7 the end product, but sometimes there are small
8 amounts.

9 Also, the TR was very specific that
10 there are cellulose materials that are formulated
11 that do not have any of these ancillary substances
12 in them. So, it's a matter of the handler, the
13 process, the end product that they are trying to
14 formulate is what's going to dictate what they are
15 using.

16 MR. SEITZ: And, the second question is
17 around the annotation that says, around anti-caking
18 agents, that it's non-chlorine bleach. And, I
19 assume that that just applies to the anti-caking
20 agents.

21 And, what was the issue around the
22 chlorine bleach, the fact that chlorine was used in

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1 the process in order to make the substance, or that
2 there may be leeching of chlorine into the food?
3 I'm just trying to understand what the issue is
4 around --

5 MR. AUSTIN: Harriet, do you know the
6 answer to that? Okay.

7 MS. BEHAR: That was going to be my
8 comment. Way back in the dark ages, around 1992,
9 I worked for Organic Valley, and along with other
10 manufacturers we were putting together the first
11 Nation List, and cellulose was on that list. And,
12 I did some of the research on this product, and found
13 that chlorine bleach is used at times to de-lignify
14 the wood pulp, basically, white knit, right, so that
15 you wouldn't have these kind of brown cellulose
16 powder that you would put in food, and would be very
17 unappetizing.

18 So -- but then as I did further research,
19 the chlorine bleaching does result in the
20 production of dioxin, and that chlorine bleach
21 cellulose would have traces of dioxin, which is a
22 known carcinogen and extremely toxic.

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1 So, there was one at the time
2 manufacturer that de-lignified using hydrogen
3 peroxide instead, and did not have the same dioxin
4 residue or issue. And so, that's why we put it on
5 the list with non-chlorine bleach, because of that
6 health issue. And, I believe now there are many,
7 if not the vast majority, of the cellulose, and a
8 lot of de-lignification for all kinds of paper
9 products or whatever is not being done with chlorine
10 because of that issue. So, organic was the
11 forefront of that.

12 MR. AUSTIN: Thank you.

13 Anything else? Emily?

14 MS. OAKLEY: My vote on this will be as
15 an organic consumer, because I try to purchase
16 anything organically that I can. And, the first
17 time I noticed cellulose on an ingredient label I
18 was concerned. I avidly avoid products with
19 cellulose in them, because it represents to me a
20 product that consumers would question in terms of
21 an organic ingredient. So, I will not be voting to
22 support this.

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1 MR. AUSTIN: Anyone else?

2 MS. BEHAR: So, at the same time I also
3 questioned about cellulose, and I spoke with
4 numerous food sciences. And, the one person said
5 to me, well, there's a lot of people who chew on wood
6 toothpicks on a regular basis, and he just felt that
7 the health concern for cellulose was quite minimal
8 and for centuries people have been chewing on
9 cellulose.

10 MR. AUSTIN: Thank you.

11 Jean?

12 MS. RICHARDSON: I have a hard time with
13 this material. I mean, I don't want to eat wood.
14 But, I was very disappointed to find out that
15 there's all this cellulose in the Parmesan cheese
16 that I might buy. I don't get the mozzarella, I can
17 grate that myself, but I haven't tried that with the
18 other stuff.

19 So, I definitely avoid it. And, I would
20 certainly recommend others that do it, too.
21 However, we couldn't find in the research that we
22 did, the Handling Subcommittee in looking at the TR

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1 that there were negative health impacts associated
2 with the use over a period of time.

3 And, like Harriet mentioned, we know
4 that we've moved to the chlorine free, and that
5 lignification process, et cetera, and so even
6 though it is wood, and I would rather it not be
7 there, I think that we still have to leave it on the
8 list, because we do need it for the other two uses
9 for which it is, typically, used.

10 And, I will note, however, that, you
11 know, the Europeans can manage without out, I don't
12 really know why we can't. And so, you know, it
13 would be nicer, from my perspective, if we simply
14 had it as the European do, instead of having it to
15 be used as an anti-caking agent as well as a
16 filtering aid.

17 But, there's not enough there to meet
18 the criteria to justify removing it, just because
19 I don't like it isn't a good enough criteria.

20 MR. AUSTIN: Tom?

21 VICE CHAIR CHAPMAN: I want to echo
22 Jean's comments. I buy my cheese whole and shred

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1 it myself at home. It helps build the muscles a
2 little bit.

3 But, you know, I want to highlight the
4 reason why I will be voting for this in part is
5 because I haven't seen a consumer demand not to buy
6 organic products with cellulose.

7 Also, a comment we received, we sell
8 over 2 million pounds of shredded cheese annually,
9 utilizing 21.5 million pounds of certified organic
10 milk, which is a fairly small additive with very
11 benign issues that results in a very large amount
12 of organic sales, which results in a very large
13 amount of organic land under organic management.

14 MR. AUSTIN: Thank you, Tom.

15 Dan?

16 MR. SEITZ: So, I'm of mixed mind about
17 this, because I think consumers are sometimes
18 schizophrenic in what they want. On the one hand,
19 they want convenience. And, on the other hand they
20 want purity of ingredients. So, I wish I wasn't the
21 second to vote on this particular vote on this
22 particular one, but I'll have to think through my

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1 ambivalence very quickly.

2 MR. AUSTIN: And, the one thing that I
3 would point out, that there is -- there seems to be
4 a tremendous amount of research underway looking at
5 alternative sources to make the powder out of. And
6 then, also there was some concern raised around the
7 filters, and there's a lot of research to recycle
8 and regenerate that material as well. So, research
9 is ongoing, which is a positive.

10 Any further discussion?

11 Seeing none, Madam Chair, I will hand
12 you over the motion to remove cellulose from the
13 National List as a seconded motion.

14 CHAIR FAVRE: Thank you, Harold. And,
15 I'll remind you that our reception ends at 8:00
16 tonight, so we'll just need to keep an eye on that
17 when we go through our material.

18 We will start the vote with Tom Chapman.

19 VICE CHAIR CHAPMAN: I can vote very
20 slowly.

21 No.

22 MR. SEITZ: Abstain.

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1 MS. RICHARDSON: That would be a good
2 one, I could abstain.

3 No.

4 MS. BEHAR: No.

5 MS. SONNABEND: No.

6 MR. RICE: No.

7 MS. OAKLEY: Yes.

8 MR. THICKE: Yes.

9 MR. AUSTIN: No.

10 MR. BUIE: No.

11 MS. BECK: No.

12 MS. SEPULVEDA: No.

13 MS. DeLIMA: No.

14 CHAIR FAVRE: Chair votes no.

15 MS. DeLIMA: That's two yes, 11 no, one
16 abstention, one absent. The motion fails.

17 MR. AUSTIN: Thank you.

18 Next on our list of materials, potassium
19 hydroxide.

20 Dr. Brines?

21 DR. BRINES: Okay, thank you.

22 The substance is included at Section

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1 205605B of the National List, and the listing reads
2 as: "Potassium hydroxide prohibited for use in live
3 peeling of fruits and vegetables, except when used
4 for peeling peaches."

5 In support of the Sunset Review this
6 cycle, the Handling Subcommittee did request the
7 development of an updated technical report, and
8 that was completed this year and available prior to
9 the spring meeting.

10 Thanks.

11 MR. AUSTIN: Thank you.

12 Ashley, if you would give the
13 subcommittee's presentation, please.

14 MS. SEPULVEDA: Potassium hydroxide is a
15 synthetic and organic compound for use by the
16 extrolysis of potassium chloride, also known as
17 potash. It is a strong base and alkaline in
18 solution. Much of its utility in food processing
19 is based on its function of the caustic strong base.
20 Potassium hydroxide is widely used in food
21 processing as a pH adjuster, cleaning agent,
22 stabilizer, thickener, and poultry scald agent.

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1 It is also used as a live peeling of peaches, in that
2 peach peeling potassium hydroxide serves to weaken
3 the glycolosons in pectin, which is responsible for
4 skin adhesions. Weakening these bonds allows the
5 peeling of peach skin by water and other mechanical
6 methods.

7 Some of the public comment that we got
8 in said, removal of potassium hydroxide from the
9 National List will have a huge impact for us.
10 There's nothing at the moment that can be used as
11 a replacement to effectively clean as well as
12 potassium hydroxide. And, they have said that to
13 their knowledge there's been no organic replacement
14 or other material that has had the same effect or
15 provides the same quality.

16 Another person wrote in and stated that
17 potassium hydroxide is a hazardous material,
18 possibly one of the most hazardous and toxic on the
19 National List.

20 Another person wrote in stating that it
21 is, specifically, used to adjust the pH up or down
22 in their buttermilk. The only alternative to

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1 potassium hydroxides are sodium hydroxides, which
2 they feel is much harsher and adds sodium to the end
3 product, or calcium hydroxide which is also a
4 harsher alternative. Potassium hydroxide they
5 felt was a better fit as a processing aid, and is
6 much gentler to the proteins in the buttermilk.

7 MR. AUSTIN: Thank you. We'll open it up
8 for discussion. Any comments, questions?

9 Seeing none, Madam Chair, we will hand
10 you potassium hydroxide back as a seconded motion
11 to remove from the National List.

12 CHAIR FAVRE: Thank you, Harold.

13 We will start voting with Dan.

14 MR. SEITZ: No.

15 MS. RICHARDSON: No.

16 MS. BEHAR: No.

17 MS. SONNABEND: No.

18 MS. OAKLEY: No.

19 MR. THICKE: No.

20 MR. AUSTIN: No.

21 MR. BUIE: No.

22 MS. BECK: No.

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1 MS. SEPULVEDA: No.

2 MS. DeLIMA: No.

3 VICE CHAIR CHAPMAN: No.

4 MR. SEITZ: No.

5 CHAIR FAVRE: Chair votes no.

6 MS. DeLIMA: Zero yes, 14 no, one absent,
7 the motion fails.

8 MR. AUSTIN: Thank you.

9 The next material is silicon dioxide.
10 Dr. Brines?

11 DR. BRINES: Thank you. I won't be
12 singing this one either.

13 So, this one is a Section 205605 of the
14 National List. Under Paragraph B there's a hypo in
15 the meeting materials, but it is under the
16 Synthetics Allowed. And, it is listed as silicon
17 dioxide permitted as a defoamer, allowed for other
18 uses when organic rice hulls are not commercially
19 available.

20 And, the most recent technical report
21 for this substance was completed in 2010.

22 MR. AUSTIN: Thank you.

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1 Lisa, if you would present, please.

2 MS. DeLIMA: So, silicon dioxide use as
3 an anti-caking agent, filtration agent for beer, an
4 absorbent and defoaming agent. It's manufactured
5 by vapor phase hydrolysis.

6 Silicon dioxide can be produced as a
7 nano material, but for use in organics the material
8 would have to be petitioned to be placed on the
9 National List, as stated in the NOP policy
10 memorandum from March, 2015.

11 We requested that the public give us an
12 understanding of where rice hulls were not by law
13 traded and why. Feedback included that rice hulls
14 don't work in powdered cheeses, dry flavors, fruit
15 platters, rice served solids, as a flow agent, and
16 also in -- used to meter seed during seed coating.

17 Public comment was generally supportive
18 of retaining on the National List. There were a
19 couple of comments concern about silicon dioxide
20 produced by Nanotec, which I just addressed.

21 A couple of commenters suggested
22 further annotating to list specific allowed uses,

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1 and another organization called for more research
2 into alternatives for anti-caking and filtration
3 uses before the next Sunset.

4 And, the subcommittee voted to retain
5 silicon dioxide on the National List.

6 MR. AUSTIN: Thank you.

7 We'll open it up for discussion from the
8 Board. Any discussion?

9 Seeing none, Madam Chair, we will hand
10 you the motion to remove silicon dioxide from the
11 National List as a seconded motion from the
12 subcommittee.

13 CHAIR FAVRE: Thank you, Harold.

14 We'll start the voting with Jean.

15 MS. RICHARDSON: No.

16 MS. BEHAR: No.

17 MS. SONNABEND: No.

18 MR. RICE: No.

19 MS. OAKLEY: No.

20 MR. THICKE: No.

21 MR. AUSTIN: No.

22 MR. BUIE: No.

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1 MS. BECK: No.

2 MS. SEPULVEDA: No.

3 MS. DeLIMA: No.

4 VICE CHAIR CHAPMAN: No.

5 MR. SEITZ: No.

6 CHAIR FAVRE: Chair votes no.

7 MS. DeLIMA: That's zero yes, 14 no, one
8 absent, the motion fails.

9 MR. AUSTIN: Thank you.

10 Now for the last of our Sunset 2018
11 materials, which is a 606 material, colors
12 beta-carotene extract.

13 Dr. Brines, if you would, please.

14 DR. BRINES: Sure. We are now at Section
15 205606 of the National List of non-organically
16 produced agricultural products allowed as
17 ingredients in or on processed products labeled as
18 organic.

19 Under Paragraph D, "Colors derived from
20 agricultural products must not be produced using
21 synthetic solvents and carrier systems or any
22 artificial preservatives."

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1 And, number two is beta-carotene
2 extract color derived from carrots or algae,
3 pigment cast number 7235-40-7, and the most recent
4 technical report for this substance was completed
5 in 2011.

6 Thanks.

7 MR. AUSTIN: Thank you.

8 Dr. Richardson, if you would give our
9 subcommittee presentation, please.

10 MS. RICHARDSON: This is a relatively
11 -- oh, no, it's not simple -- the beta-carotene
12 extract is used for color only, that's its primary
13 product. It can't be used using synthetic solvents
14 or carrier systems or any other preservatives, but
15 it can be -- it is derived from agricultural
16 products.

17 It is widely used, you know, in organic
18 production, and it's always a challenge for me on
19 something like this because what I see is, it seems
20 to me that we could have organic carrots being used
21 -- to be used as color, instead of something that
22 could be organic. Although, in the past when we've

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1 reviewed this it's been explained to us that that's
2 not give strong enough color, therefore, the vast
3 majority of the color nowadays is derived, again,
4 from algae. And, you know Jean's opinion and
5 concern about the use of algae at the present time.

6 The beta-carotene comes, primarily,
7 then from green seaweeds, which are primarily
8 cultivated. And so again, you can either have it
9 from cultivated carrots or you can have it from
10 cultivated seaweed, if they were certified organic,
11 either wild or cultivated, but, primarily, they are
12 cultivated. It's from this is what is called
13 Dunaliella.

14 So, it would seem to me when I review it
15 is that it doesn't reach the 205600B1 and 4,
16 especially, where it says the substance cannot be
17 produced from a natural source and there are no
18 organic substitutes. And secondly, its primary
19 purpose is as a color.

20 And so, from my perspective, I was in the
21 minority on this on the subcommittee, it will be
22 something that I would vote to remove.

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1 MR. AUSTIN: Thank you.

2 We'll open it up for discussion.

3 Emily?

4 MS. OAKLEY: This is a question to the
5 Handling Committee. There was another person who
6 voted to remove, and I don't want to put that person
7 on the spot. But, whoever it was if they feel
8 comfortable explaining their view?

9 MS. DeLIMA: I think that was me. It's the
10 same as Jean.

11 MS. OAKLEY: Okay, thank you.

12 MR. AUSTIN: Dan?

13 MR. SEITZ: So, there's another source of
14 orange/yellow coloring, Annatto, and I don't know
15 if that serves the same purpose, if that can be
16 derived from organic substances. How does that
17 compare?

18 MS. RICHARDSON: Gosh, we did that last
19 year -- I mean last session. And, if you can
20 remember, Ashley, good.

21 VICE CHAIR CHAPMAN: Annatto used to be on
22 the National List, and it's been removed because

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1 there was not sufficient organic supplies to begin.
2 In terms of interchangeability, I don't know.

3 MR. AUSTIN: Ashley?

4 MS. SEPULVEDA: Jean, why can't organic
5 carrots be used? Why don't they get a good enough
6 color?

7 MS. RICHARDSON: As I recall, and this is
8 from earlier public comment that did not come in
9 this time, but it was like from whenever it was we
10 last looked at it, is that we weren't really able
11 to get the maximum amount of red of the strong color
12 that they wanted from it, from the carrots, as
13 opposed to the algae.

14 MR. AUSTIN: Jean, that's correct. It was
15 -- it was the deepness and the coloration of the
16 pigment itself that they were able to derive from
17 the algae is what they were looking for.

18 MS. RICHARDSON: I think it was in some of
19 the OTA comments that we got when they did the full
20 analysis, when we looked at all the other colors in
21 the previous Sunset analyses from a number of
22 different industry input and public comment in the

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1 earlier analysis, from all the other colors, we did
2 that last year.

3 MR. AUSTIN: Yes, and I think we did get
4 one public comment this round, but it was lumped
5 into one of the general comments that stated that
6 same thing.

7 Any further discussion?

8 Yes, Francis?

9 MR. THICKE: Yes. I don't really believe
10 that perfect color is important to -- is necessary
11 in organic food so I'll be voting against it.

12 MR. AUSTIN: Any further discussion?

13 Ashley?

14 MS. SEPULVEDA: So, these colors kind of
15 throw me. I know when we voted last fall on colors,
16 it was -- I voted to remove several colors, and I
17 just -- is there any great reason to relist besides
18 they can't get the right hue of the red/orange color
19 they are looking for? Anybody? What's the reason
20 besides they can't get that right hue of orange or
21 red colors?

22 MS. RICHARDSON: Well, they are using --

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1 I guess I don't understand the question, they want
2 to have the color in the product, and so this is what
3 they want to get it from, either carrots or the red
4 algae. But, I think about 90 percent of it comes
5 from the algae nowadays, for the beta-carotene.

6 MS. SEPULVEDA: The only reason they don't
7 use that organic one is just because they don't get
8 the right hue, and that's the only reason that they
9 need it. There's no other reason.

10 MR. AUSTIN: Correct.

11 Any further discussion?

12 Seeing none, Madam chair, we will hand you
13 a motion with a second to remove colors
14 beta-carotene extract from the National List.

15 CHAIR FAVRE: I will start the voting with
16 Harriet.

17 MS. BEHAR: No.

18 MS. SONNABEND: No.

19 MR. RICE: No.

20 MS. OAKLEY: Yes.

21 MR. THICKE: Yes.

22 MR. AUSTIN: No.

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1 MR. BUIE: No.

2 MS. BECK: No.

3 MS. SEPULVEDA: Yes.

4 MS. DeLIMA: Yes.

5 VICE CHAIR CHAPMAN: No.

6 MR. SEITZ: Yes.

7 MR. CLAYTON: Yes.

8 CHAIR FAVRE: Chair votes no.

9 MS. DeLIMA: That's six yes, eight no, one
10 absent, the motion fails.

11 MR. AUSTIN: Okay, that ends our Sunset
12 2018 materials. We'll be now moving on to, for the
13 Handling presentation, be moving into the
14 proposals.

15 First up is sodium chloride for
16 generation of chlorine dioxide gas petition.

17 Dr. Brines?

18 DR. BRINES: Thank you.

19 This petition was submitted by ICA
20 TriNova, LLC on December 1, 2015. There was also
21 an update to the petition which is posted as an
22 addendum on the NOP website, and that petition

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1 addendum was submitted on April 21, 2016.

2 The petition requests the addition of
3 sodium chloride for the generation of chlorine
4 dioxide gas to Section 205605 of the National List
5 as an antimicrobial, and no technical report was
6 developed at this time.

7 Thank you.

8 MR. AUSTIN: Thank you.

9 Scott, if you would lead the presentation
10 for the subcommittee, please.

11 MR. RICE: Yes, thank you.

12 This material was petitioned for use as
13 an antimicrobial pesticide, sanitizer and/or
14 disinfect for fruits and vegetables. It is used
15 for the direct treatment of fruits and veggies
16 during storage, transportation and food prep
17 applications, with no requirement for post
18 treatment rinse.

19 It is produced by impregnating zeolite
20 with sodium chloride, and then activating that
21 zeolite with a solid or liquid acid such as citric
22 acid, with an unspecified buffer that is used --

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1 used in post-harvest handling of the disinfectant
2 to kill microorganisms. In these applications,
3 the mode is the ClO₂, the killing agent, it is
4 applied as a dry pure gas in closed containment and
5 the treatment is done over several hours until the
6 substance is completely consumed.

7 The ClO₂ is converted to a chloride ion
8 on the food products, and in processing facilities
9 the use of this is as an oxidizer, cleaner,
10 deodorizing agent, applied as a pure gas at the
11 point of need.

12 Those rates vary and will convert to
13 chloride ion when reacting with a wide variety of
14 organic matter.

15 The initial review of this found that the
16 initial petition sought to list it as a process
17 rather than a material. And, we received some
18 input from the program that if reviewing petitions,
19 the Handling Subcommittee would have reviewed
20 several materials, the sodium chloride and zeolite
21 acting as a carrier, and impregnated with that
22 sodium chloride an acidic chlorine activator and

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1 related buffers. And, when used together as
2 directed those produce the ClO₂ gas.

3 So, with that thinking, we requested that
4 the petitioner revised the petition to sodium
5 chloride for the generation of gas, believing that
6 a petition considering sodium chloride for that
7 particular use of gas generation was more
8 consistent with how other sodium chloride materials
9 have been reviewed.

10 We did receive that revision to the
11 petition, and we did receive a number of comments
12 on this. Several commenters noted the material
13 should have been petitioned or listed as chlorine
14 dioxide gas, with an annotation restricting the
15 form to generated for sodium chloride. And, as I
16 noted, it's important to know the initial petition
17 was submitted in this way, but again, the thinking
18 was the end material was not a bottle of chlorine
19 dioxide gas, and hence we asked for that revision.

20 There were a number of commenters that
21 feel the ClO₂ gas does not have a place in organic
22 production, and they substitute for good care and

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1 handling of produce. Several commenters noted
2 this material has only conditional registration
3 from EPA, and that such registration means there's
4 limited data on residues or residue tolerance.

5 We had some comments expressing concern
6 for worker safety when using this material. There
7 were comments requesting the subcommittee to review
8 this in relation to other sanitizers and/or
9 chlorine materials, as we've heard before.

10 One commenter noted, well, the petition
11 states there is no listed sanitizer in gaseous form.
12 There's the ozone listed on the National List. The
13 subcommittee recognizes that.

14 Another commenter noted if sodium
15 chloride for the generation of chlorine dioxide gas
16 listed in that manner appears on the National List,
17 it is unclear how other precursors and activators
18 other than sodium chloride could be reviewed.

19 Finally, some commenters noted the need
20 for a TR to provide more mutual input on this
21 material.

22 Several other perspectives, commenters

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1 noted the addition of this CL02 gas as a step forward
2 for reducing microorganisms on fruit and vegetables
3 and would add another option for sanitation.

4 One owner/operator of a small veggie farm
5 stated this would offer another option in their
6 sanitation.

7 A commenter noted that CL02 gas provides
8 an excellent option for treatment of open wound
9 fruit, where aqueous options are not effective.

10 And, wrapping up those comments, there
11 were several comments that suggested the
12 subcommittee return this back to address all of
13 these issues that I've noted, and, perhaps,
14 consider, as suggested, these with other sanitizers
15 and/or chlorine materials.

16 So, based on those comments, I would
17 propose that we would make a motion to refer this
18 sodium chloride for the generation of chlorine
19 dioxide gas back to the Handling Subcommittee for
20 further consideration.

21 MR. AUSTIN: Okay.

22 Jean?

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1 MS. RICHARDSON: I make the motion.

2 MR. AUSTIN: So, we have a motion to refer
3 this back to the subcommittee for further review and
4 discussion. Do we have a second?

5 MS. SEPULVEDA: Second.

6 MR. AUSTIN: Ashley seconds it.

7 Is there any further -- any discussion?

8 Seeing none, Tracy, I'll hand it to you.

9 CHAIR FAVRE: Okay. We will be starting
10 the voting with Zea. Oh yes, I'm sorry, before we
11 do that, this is a simple majority, this is not a
12 definitive vote on this, on sending it back to the
13 subcommittee.

14 MS. SONNABEND: And, does it have a maker
15 and a second to send it back?

16 CHAIR FAVRE: Yes.

17 MS. SONNABEND: Yes. Okay, I vote yes.

18 MR. RICE: Yes.

19 MS. OAKLEY: Yes.

20 MR. THICKE: Yes.

21 MR. AUSTIN: Yes.

22 MR. BUIE: Yes.

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1 MS. BECK: Yes.

2 MS. SEPULVEDA: Yes.

3 MS. DeLIMA: Yes.

4 VICE CHAIR CHAPMAN: Yes.

5 MR. SEITZ: Yes.

6 CHAIR FAVRE: Chair votes yes.

7 MS. DeLIMA: It's 14 yes, zero no, one
8 absent. The motion passes.

9 MR. AUSTIN: So, sodium chloride for
10 generation for chlorine dioxide gas has been
11 referred back to the subcommittee for further
12 review.

13 Next would be a proposal for oat protein
14 concentrate as petitioned.

15 Dr. Brines, if you would, please.

16 DR. BRINES: Sure. Thank you.

17 This substance was petitioned by Tate &
18 Lyle on February 16, 2016. The petition requests
19 the addition of oat protein concentrate to Section
20 205606 of the National List as a non-organic
21 agricultural ingredient. And, there is no
22 technical report developed in support of this

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1 petition.

2 Thank you.

3 MR. AUSTIN: Thank you.

4 Lisa, if you would give the presentation,
5 please.

6 MS. DeLIMA: So, oat protein concentrates
7 being petitioned by the manufacturer as a natural
8 component of oats, an agricultural commodity.

9 According to the petition, the substance
10 is isolated from oat brands through a simple process
11 of grinding, heating and water extraction. No
12 synthetic chemical additions or solvents are used
13 in the manufacturing process as being petitioned.

14 Oat protein concentrate is a vegan
15 protein source, and you can use the supplement
16 protein content in a wide range of foods. Examples
17 listed in the petition include vegan entrees,
18 cereal bars, baked goods, breakfast cereals, pasta,
19 and meal replacement shakes.

20 Overall, oat protein concentrate appears
21 to have no significant negative impact on human
22 health, and the petition states that the oat protein

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1 concentrate is safe in handling that crop
2 production, therefore, has no effect on soil, crops
3 and livestock.

4 However, the subcommittee would like to
5 point out that according to the USDA Pesticide Data
6 Program there are seven pesticide resonates found
7 on conventionally grown oats, and conventionally
8 grown oats are what oat protein concentrate is
9 derived from.

10 The subcommittee saw no reason why oat
11 protein concentrate cannot be manufactured
12 organically, and, therefore, we recommended that
13 the petition material should not be placed on the
14 National List.

15 MR. AUSTIN: Thank you.

16 We'll open it up for discussion at this
17 time. Any comments? Any questions?

18 Seeing none, we'll proceed to vote. The
19 first would be a classification motion to classify
20 the oat protein concentrate as petitioned as
21 agricultural, and that is a motion that has been --
22 comes from the subcommittee seconded.

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1 CHAIR FAVRE: Okay. We'll be starting the
2 voting with Scott.

3 MR. RICE: Yes.

4 MS. OAKLEY: Yes.

5 MR. THICKE: Yes.

6 MR. AUSTIN: Yes.

7 MR. BUIE: Yes.

8 MS. BECK: Yes.

9 MS. SEPULVEDA: Yes.

10 MS. DeLIMA: Yes.

11 VICE CHAIR CHAPMAN: Yes.

12 MR. SEITZ: Yes.

13 MS. RICHARDSON: Yes.

14 MS. BEHAR: Yes.

15 MS. SONNABEND: Yes.

16 CHAIR FAVRE: Chair votes yes.

17 MS. DeLIMA: That's 14 yes, one absent, the
18 motion passes.

19 MR. AUSTIN: Next will be a listing motion.
20 This motion will be to add oat protein concentrate
21 as petitioned to 205606 of the National List, and
22 this is a second motion from the subcommittee that

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1 has a second.

2 CHAIR FAVRE: We'll start the voting with
3 Emily.

4 MS. OAKLEY: No.

5 MR. THICKE: No.

6 MR. AUSTIN: No.

7 MR. BUIE: No.

8 MS. BECK: No.

9 MS. SEPULVEDA: No.

10 MS. DeLIMA: No.

11 VICE CHAIR CHAPMAN: No.

12 MR. SEITZ: No.

13 MS. RICHARDSON: No.

14 MS. BEHAR: No.

15 MS. SONNABEND: No.

16 MR. RICE: No.

17 CHAIR FAVRE: Chair votes no.

18 MS. DeLIMA: That's zero yes, 14 no, one
19 absent. The motion fails.

20 MR. AUSTIN: Thank you.

21 Next proposal will be tocopherols, for an
22 additional listing.

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1 Dr. Brines?

2 DR. BRINES: This one was not a Sunset or
3 petition as nothing to prepare, so you are on your
4 own for this one.

5 MR. AUSTIN: Okay, we are on our own.

6 Tracy, I'm going to turn it over to you,
7 since you are the lead on it.

8 CHAIR FAVRE: Okay. We undertook this
9 enterprise after we received some feedback when we
10 were looking at tocopherols earlier for Sunset,
11 that there was a feeling that there was --
12 originally the thought that was conveyed to us is
13 there was organic tocopherols that were out there,
14 and that we might consider removing tocopherols
15 from 205605B.

16 After doing a little more digging, we
17 really found out that what someone was calling
18 organic is really what we would consider a
19 non-synthetic, not organic. And further digging
20 led us to really believe that there was not
21 sufficient commercial availability of organic, but
22 we did still feel as though we wanted to encourage

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1 industry to move away from synthetic versions of
2 tocopherols to non-synthetic, with the ultimate
3 goal of eventually getting to organic.

4 So, we proposed this initial listing at
5 205605A, and then we, actually, have an associated
6 proposal along with that for a change in the
7 annotation, because when we were doing the
8 additional listing at 605A we really realized that
9 there was some language in the annotation of the
10 original listing at 605B that didn't make a lot of
11 sense anymore and we wanted to make the change.

12 Just because we are trying to be nice and
13 tidy we wanted the annotations to be consistent in
14 both places.

15 So, I think probably everybody here knows
16 that tocopherols really function in anti-oxidants
17 in food, and to prevent rancidity, particularly, in
18 fats, separated typically from other compounds in
19 vegetable oil distillate by multiple extractions
20 for refining steps, further complicated by the fact
21 that using our classification of materials decision
22 tree how the material is manufactured impacts

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1 whether it's classified as synthetic or
2 non-synthetic.

3 So, we did include in our proposal a
4 discussion on the determination of synthetic and
5 non-synthetic tests for tocopherols, but we didn't
6 receive public comment, actually, from Emily Brown
7 Rosen, who I think she's probably -- she's not here
8 with us tonight anymore, but rightfully pointed out
9 -- oh, is she -- wave your hand -- there you go, there
10 you go -- if she had been still with us she would
11 have saved us from not having this done before we
12 published it. So, there you go, this is your fault.

13 Anyway, she rightfully pointed out that
14 we had considered the determination of agricultural
15 versus non-agricultural, and so that there's,
16 actually, a second decision tree. This is from the
17 classification materials draft guidance, which is
18 any day now going to be finalized.

19 So, we are working from that draft
20 guidance in order to give some folks an indication
21 of how we are coming through this.

22 So, the proposal itself was brought

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1 forward to encourage the use of non-synthetic
2 tocopherols, and we had a pretty robust
3 conversation about it.

4 Right now, there is, the motion itself is
5 to list tocopherols at 205605A of the National List,
6 and then with the annotation tocopherols derived
7 from vegetable oil. The original annotation said
8 derived from vegetable oil when rosemary extract
9 was not a suitable alternative, and we did strike
10 that.

11 Additionally, we received further public
12 comment that -- actually, generally, overall the
13 public comment on this was supportive of this
14 decision to provide an additional listing, but
15 everybody provided some additional information and
16 allowed us to tweak it.

17 One of the comments, I believe it was OTA,
18 made a comment that some of the vegetable -- we
19 specified here vegetable oils, but quite a few of
20 the tocopherols are derived from other types of
21 oils, including nuts, and so this might be really
22 restrictive. And, they suggested a change in the

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1 annotation to read derived from plant oils.

2 So, because we've gotten various feedback
3 like this, we came to the conclusion in the Handling
4 Subcommittee that it might be better for us to send
5 this back as not quite ready for prime time, work
6 on tweaking that annotation, and bring it back in
7 the spring.

8 MR. AUSTIN: Yes. I think do we want to
9 open this up for a little bit of discussion? Looks
10 like Dan has a question.

11 MR. SEITZ: I saw a couple comments, and
12 I was thinking along the same lines, that it would
13 be good to -- if it's sent back to committee it would
14 be good to specify in the annotation that it's
15 non-GMO oils and oils that are made without
16 synthetic solvents. And, I think there were a
17 couple comments to that effect.

18 MR. AUSTIN: Well, and I think that will
19 be something that we can hash out once we get it back
20 into the subcommittee, then we can start to look at
21 how we redefine this. And, this will really -- it's
22 going to impact both of these motions on

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1 tocopherols, because we've got similar annotation
2 language to keep it consistent for both proposals.
3 So, I just wanted to put that out, that we will be
4 looking at both of these to treat them both the same
5 way to refer them both back.

6 CHAIR FAVRE: Okay. So, I would like to
7 suggest that we make a motion to send this back to
8 subcommittee.

9 MS. RICHARDSON: Second.

10 CHAIR FAVRE: I was going to say, I'll
11 make the motion.

12 MR. AUSTIN: Okay. We have a motion and
13 a second. Do we have any further discussion?

14 Hearing none, we are ready to vote.

15 CHAIR FAVRE: Okay. We will start the
16 voting with Francis.

17 MR. THICKE: Yes.

18 MR. AUSTIN: Yes.

19 MR. BUIE: Yes.

20 MS. BECK: Yes.

21 MS. SEPULVEDA: Yes.

22 MS. BECK: Yes.

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1 MS. SEPULVEDA: Yes.

2 MS. DeLIMA: Yes.

3 VICE CHAIR CHAPMAN: Yes.

4 MR. SEITZ: Yes.

5 MS. RICHARDSON: Yes.

6 MS. BEHAR: Yes.

7 MS. SONNABEND: Yes.

8 MR. RICE: Yes.

9 MS. OAKLEY: Yes.

10 CHAIR FAVRE: Chair votes yes.

11 MS. DeLIMA: That's 14 yes, one absent, the
12 motion passes.

13 CHAIR FAVRE: Okay. And likewise on the
14 second proposal we have, which is simply for the
15 annotation change for the listing of tocopherols at
16 205605B, I'd like to make a motion to send this back
17 to subcommittee.

18 MS. SEPULVEDA: Second.

19 MR. AUSTIN: We have a motion and a second.
20 Is there any further discussion?

21 Seeing none.

22 CHAIR FAVRE: Okay. We'll start the

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1 voting with you, Harold.

2 MR. AUSTIN: Yes.

3 MR. BUIE: Yes.

4 MS. BECK: Yes.

5 MS. SEPULVEDA: Yes.

6 MS. DeLIMA: Yes.

7 VICE CHAIR CHAPMAN: Yes.

8 MR. SEITZ: Yes.

9 MS. RICHARDSON: Yes.

10 MS. BEHAR: Yes.

11 MS. SONNABEND: Yes.

12 MR. RICE: Yes.

13 MS. OAKLEY: Yes.

14 MR. THICKE: Yes.

15 CHAIR FAVRE: The Chair votes yes.

16 MS. DeLIMA: That's 14 yes, one absent, the
17 motion passes.

18 MR. AUSTIN: Okay. Continuing forward,
19 that takes care of our proposals on our list for the
20 Handling Subcommittee.

21 We move now into discussion documents,
22 with the first being The Cumulative Impact of

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1 Phosphates in Organic Processed Foods.

2 Jean, if you would give our presentation,
3 please.

4 MS. RICHARDSON: I'm going to be very brief
5 on this, given the lateness of the hour, and because
6 it's not a proposal that we are voting on anything
7 today.

8 This item came up during our Sunset
9 analysis of a number of phosphates, and because it
10 was relating to possible health issues related to
11 the cumulative impact of phosphates on humans
12 especially as it would impact kidney function,
13 heart, so forth. And so, that's why we requested
14 a technical report on the cumulative impact of
15 phosphates.

16 And, following that we sent out -- the
17 discussion document went out for this meeting in
18 order to obtain as wide a range of stakeholder
19 response in terms of public comment, in order to
20 determine how we could go forward. Because when we
21 did our analysis on the Sunset materials, the
22 phosphates, it was clear that no one individual

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1 phosphate material that was being used in organic
2 production of itself could be ascribed as causing
3 directly the human health impact. But, there was
4 certainly question for the cumulative impact in the
5 combination with a range of other phosphates, both
6 natural and in conventional foods that we are eating
7 in addition.

8 The public comment that we received from
9 this meeting certainly points out, as we expected,
10 what a complex subject that we are dealing with. A
11 quote from one of the comments that we have is that,
12 "We are in full agreement that this could be
13 determined to be a serious issue worth pursuing with
14 recommendations, but the task may be a much bigger
15 public health and nutrition issue than the NOSB
16 could or should take on."

17 And, this commented from a large
18 certifier recommended that what we do is, if we do
19 intend taking it forward in subcommittee that we
20 bring experts to the table from a range of different
21 fields in order to determine what, if anything,
22 should be done in terms of possible annotations, for

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1 example, of individual phosphate materials.

2 Another commenter raised issues relating
3 to National List annotations of sodium phosphate,
4 potassium phosphate, and phosphoric acid, and
5 wanted us to look further into the issue of
6 annotations.

7 Another trade organization, I quote, says
8 they "...recognize that high phosphorus intake may
9 result in a spectrum of health problems to a small
10 segment of the population, particularly, for
11 individuals with chronic kidney disease. However,
12 there is insufficient evidence suggesting over
13 consumption of phosphates in the broader healthy
14 population."

15 Another one of our public commenters, the
16 gentleman from IFAC who gave us also oral comment
17 yesterday, their organization, which is the --
18 what's the name again -- International Food
19 Additives Council, they provided us with a really
20 excellent and very, very detailed analysis of the
21 technical report, doing a comparative analysis of
22 the range of additional peer-reviewed articles

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1 pointing out that the technical report itself
2 really was inadequate to fully address the issue.

3 And so, and I'm making these comments, so
4 turning towards Deputy Administrator McEvoy, just
5 to make a point that we really have to be much more
6 careful and much more assertive in getting the kind
7 of information we want from technical reports.
8 This isn't the first technical report where we find
9 later on that we have failed to get adequate
10 information. And, I appreciate the comments from
11 IFAC and the detailed analysis which, again,
12 because of time I'm not going to go into today.

13 But, they were able to clearly indicate
14 that there were many other medical and nutrition
15 research articles that have been provided, that
16 were available, that have not been provided to us
17 in the technical report.

18 I'm not sure that this sort of fully helps
19 us to address the issues that we have before us.
20 Personally, from a personal point of view, I will,
21 obviously, pay attention to the labels more and
22 avoiding phosphates, in order to avoid any

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1 potential health problems as far as possible. But,
2 certainly, I'm not really sure what the Handling
3 Committee could or should do with this at the
4 present time, except to say that all of these
5 materials that we have should be carried forward and
6 used at the five-year Sunset Review when these
7 materials are looked at again, to see if there is
8 further information that indicates that the health
9 issues are, indeed, far more complex and far more
10 pervasive than has been indicated by the research
11 that came out in the present set of analyses.

12 I also worked on this with Harold, so I'll
13 ask Harold if you would add your comments as well.

14 MR. AUSTIN: Thanks, Jean.

15 Well, and I think just to reiterate what
16 you pointed out, I think the IFAC document that they
17 sent to us and their public comments pointed out a
18 lot of mistakes that had been performed and details
19 that were incorrect in the TR. And, they did a
20 pretty comprehensive review and presented that.

21 So, I appreciate the effort for that.

22 I'd also point out that we did have a

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1 commenter who both provided us with written
2 testimony and then also with oral testimony. He
3 had given us examples about the daily intake, you
4 know, on a 1,000 or 1,600 milligram daily mean
5 intake for average groups, a 4 ounce serving of fish
6 is 350 milligrams, a four ounce serving of chicken
7 was 300, compare that to the amount of calcium
8 monophosphate in an organic muffin, 19 milligrams,
9 or in a frozen waffle it's 16. So, it kind of helps
10 to frame that a little bit. But, I think there are
11 concerns, and I think we had numerous comments
12 coming back in that we should look at the experts,
13 that we are not qualified to make this type of a
14 decision as a voluntary board. This is one of those
15 points in, there were comments made that should this
16 even fall into the area of our review, or is this
17 something that should be looked at from a different
18 governmental agency, as far as the health concerns
19 around this material. So, you know, that question
20 got raised, whether we should have even picked this
21 one up.

22 I'm glad that we did, whether we -- no

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1 matter what we do with it, I think it's good that
2 we are showing due diligence to take the concerns
3 seriously, that we are looking into it, whether we
4 move forward with anything or not, I think we are
5 beginning the process.

6 And, I think if nothing else we've raised
7 that issue one more time about the quality of the
8 work on the TR, and I think also we are hearing the
9 consumers, and we are hearing the issues being
10 raised, and we are trying to address those to the
11 best of our ability.

12 I think this might frame that there's some
13 things that might be out of the scope of what we are
14 capable of doing, though, too.

15 Any further discussion?

16 Okay. Harriet.

17 MS. BEHAR: Well, as I asked one of the
18 public commenters, as far as the cumulative effects
19 of phosphates issue, but sometimes phosphates can
20 be a little bit problematic in that they might
21 prevent absorption of other nutrients when consumed
22 with other foods.

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1 MR. AUSTIN: Okay. Any further discussion?

2 Seeing none, thank you, Jean, and we'll
3 see -- this is just simply a discussion document,
4 so now it -- yes, we'll just bring it back up at
5 Handling, and whether we choose to do anything or
6 not.

7 Moving on, the next item is a discussion
8 document on marine algae listings on National List.

9 Jean, if you would, please.

10 MS. RICHARDSON: Again, I'm going to try
11 to be really brief. This is not being voted on
12 today, this is simply a presentation, a discussion
13 document.

14 Again, just to give background, is that
15 when we were doing Sunset Review last time, when we
16 did the 200 materials, it became very obvious that
17 there are a number of marine algae listings on the
18 National List, and they are both overlapping and
19 confusing, and they lack clarity. And, we
20 determined that we needed further information.

21 And we, therefore, sought to get a
22 technical report, and again, as my comments that I

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1 said earlier on the phosphate issue, the same
2 applies as to the technical report that we got on
3 the marine algae one, it wasn't bad, but it wasn't
4 great. And so again, we really have to really hold
5 the feet to the fire of the NOP to be sure that we
6 get really high quality TRs for doing this complex
7 stuff that we are working on. And, I know it's not
8 always easy, but still.

9 So, we got a technical report, and we
10 posed through the discussion document a whole range
11 of questions. The primary things being to
12 determine whether or not we should try to get some
13 clarity on these names, and if they should, when
14 they next look at Sunset Review or even now, is there
15 a need for us to go ahead and be recommending a
16 proposal with annotations or just name changes.

17 So, what you have up there are the nine
18 materials, marine algae listings that we have. So
19 aquatic plant extracts, general term from things
20 like wild kelp, brown seaweeds, there are three
21 kinds of seaweeds, by the way, three classes, red,
22 brown and green. Alginic acid comes mostly from the

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1 wild browns, agar-agar, and carrageenan come mostly
2 from the red seaweeds, both wild and cultivated, but
3 mostly cultivated owing to the fact that they both
4 have been over harvested.

5 The alginates are mostly from the brown,
6 wild brown seaweeds. The beta-carotene from green
7 seaweeds, primarily, cultivated. Kelp from
8 primary, from brown seaweeds, except you will find
9 that in fertilizers the term kelp actually includes
10 all classes, red, green and brown. So, if you could
11 do your organic certification you will find that
12 those kelp fertilizers that are going out might just
13 be made of whatever it is. But, it's not just the
14 brown seaweeds, it's all classes in that.

15 And, the other caveat on the kelp category
16 is that kelp for livestock feed must be certified
17 organic.

18 And so, the kelp word is certainly one of
19 the ones that will need further clarification to be
20 sure we know what we are looking at.

21 The other is typically cultivated
22 laminary species, laminary being a sub-group of

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1 kelp, and then wakame seaweed, and buried in that
2 is cultivated and it's invasive. So, the more we
3 can get rid of that the better. It's an extremely
4 big problem, for example, in New Zealand, Australia
5 and the Pacific. It's not -- it needs over
6 harvesting apparently.

7 Anyway, moving right along, the next
8 slide -- well, global context, extremely fast
9 moving industry. There is over harvesting impact
10 on marine ecosystems and need for ecosystem
11 conservation. There is debate between industry
12 and marine ecologists on the extent to which wild
13 harvesting techniques are impacting seaweed
14 cultivation and seaweed harvesting worldwide.
15 Certainly, there's a big expansion seaweed
16 cultivation, and along with that, of course, goes
17 associated problems of disease and invasive
18 species.

19 A United Nations policy document that
20 came out in 2016 I think phrases it rather nicely.
21 It says, "In the last decade, the rapid expansion
22 of the industry is being driven by growing global

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1 demand for edible seaweeds that are contaminant
2 free with a high level of traceability, and for
3 products for pharmaceuticals, nutraceuticals,
4 antimicrobial, and biotechnological
5 applications."

6 And, obviously, it's a very complex,
7 fast-moving field for us to be sort of involved in,
8 as we are trying to decide do we need annotations
9 or not.

10 It's important also to -- we asked -- a
11 lot of questions we asked was to find out the role
12 of seaweeds in climate change, assuming all of the
13 new administration doesn't believe there is any.
14 But still, what is the role of seaweeds in climate
15 change? There is some pretty good research data
16 that came in to strengthen our understanding from
17 the scientific community, how important seaweeds
18 are in reducing the speed of global climate change.

19 And, there's also the interesting issue
20 of sequestration of metals, especially heavy metals
21 and other contaminants in seaweeds. This is both
22 a good thing and a bad thing. Obviously, we, as

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1 humans, don't want to eat seaweeds that have
2 contaminants in them, and at the same time seaweeds
3 can be used to decontaminate in certain areas. And
4 so, this is an opportunity and a challenge for us
5 to understand if we need to have annotations that
6 relate to contaminants.

7 So, our public comments, we asked should
8 we do something with the naming conventions, it's
9 certainly not going to be easy to be quite honest,
10 because there's a lot of morphological plasticity
11 in the naming conventions that are used in seaweeds.
12 They have different names in different parts of the
13 world. They keep changing, so it won't be easy.

14 But certainly, most of the public
15 commenters said yes, go ahead, try to work out a list
16 that would have both the common names, obviously,
17 we'll be using the same names that we have presently
18 for the nine listings, but we will be attempting to
19 add to those, to add in some, best we can add to it,
20 but certainly left than the class we'll be able to
21 get, I hope, to some genesis and in some cases we
22 can stay with the species, but to try to consolidate

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1 in order so it's clear and, therefore, much easier
2 to be monitored and inspected in terms of their
3 usage.

4 The second main area for public comment
5 was, should annotations be written to clarify
6 specific uses or harvesting guidelines, such as no
7 machine harvesting, or you can't have it if it's not
8 harvested from an identified conservation zone,
9 things like that.

10 We got quite a bit of comments across the
11 whole spectrum as to why this is a good idea, why
12 this is not a bad idea, because it's not really that
13 easy, and because you can't really generalize
14 because a lot of these are in international waters.
15 And, we don't, necessarily, have the degree of
16 control that we might do in terms of being able to
17 -- if they are not organic, if they are not organic
18 wild harvested, NOP isn't going to have the ability
19 to go out and verify. So, if these are non-organic,
20 our degree of control is certainly somewhat
21 limited.

22 Nonetheless, based on public comments,

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1 was one of the ones that thought we should try to
2 do some annotations, and they did provide some
3 recommended language. And, they also commented
4 that it would be quite useful for us to relook at
5 this when we get NOP guidance on the classification
6 of materials.

7 So, I think that probably what we will do
8 this, I think probably what we should do with this
9 is, we should take it -- we should go back with these
10 public comments and all this sacred information, we
11 got thousands of pages of this if you read all of
12 it, which I did, all the peer review journal
13 articles, in order to get a draft proposal to bring
14 up in April with the Latin names and so forth to get
15 the list tidied up. And, we may develop a
16 recommendation that would help the NOP to develop
17 some harvesting guidelines for wild harvested, and
18 we may try to work on some draft annotations,
19 although we don't have much time until the next
20 posting for April. So, it's hard to know exactly
21 where we will go with this, except I think cleaning
22 up the National List to make it more easy to follow

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1 will certainly be helpful to people at the next
2 Sunset Review.

3 Who worked on it with this? Scott,
4 right? Yes, Scott helped me with it, so why don't
5 you add your bit here.

6 MR. RICE: I think that was pretty
7 comprehensive.

8 I look forward to working on it some more,
9 and we'd welcome others to participate as well.
10 It's a topic that I find very interesting and
11 important to work on.

12 I don't have anything more to add, but
13 look forward to working with you.

14 MR. AUSTIN: Okay. Thank you Jean and
15 Scott, and that will be going back for the
16 Subcommittee for further work.

17 The last item on our agenda for the
18 Handling Subcommittee presentation is an update on
19 xanthan gum reclassification.

20 Zea, if you would please?

21 MS. SONNABEND: After the 2017 Sunset
22 Review for xanthan gum, we thought that we might

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1 request a limited scope TR to look at the
2 manufacturing methods, because we got quite a bit
3 of public comment that it really should be
4 considered non-synthetic.

5 So, we did commission that TR, and we got
6 it back, and it told us that there were several ways
7 to make xanthan gum. Some of them were synthetic,
8 and some of them were non-synthetic.

9 Being that this semester I had some other
10 rather sticky, gummy things that I had to work on,
11 we decided that we were not going to take a further
12 action at this time, and as we have said for quite
13 a few other things, we are kind of waiting for the
14 classification of materials guidance to come out.

15 So anyway, we could not prepare something
16 for this meeting, which didn't mean to imply that
17 we were never going to do it. And, you know, a lot
18 of public comment came in that said they wanted us
19 to do it, and so I'm sure we are going to take a look
20 at that and consider doing some sort of
21 reclassification in the future.

22 MR. AUSTIN: Thank you, Zea.

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1 And I agree, we did get a lot of comments
2 back asking us to take a look at this in a similar
3 process as we looked at tocopherols. So, I think
4 it makes sense to at least get it back into the
5 purview of the Subcommittee and have a good
6 discussion about it, see how we move forward.

7 So, with that, that ends the presentation
8 of the Handling Subcommittee to the full NOSB, and
9 I would just like to point out that we are giving
10 you back 13 minutes out of our time slot, even though
11 we are late, it wasn't our fault.

12 CHAIR FAVRE: I agree, I understand.

13 MR. AUSTIN: This is a first.

14 CHAIR FAVRE: And, for those of you
15 die-hard fans we are calling an audible again, as
16 I told you yesterday I'm trying to do.

17 We found out that the Commissioner or the
18 Director of Agriculture, Missouri Director of
19 Agriculture, is going to be in attendance at the
20 reception tonight, but can only stay until about
21 6:30. So, we are going to -- we are going to quit
22 -- we are going to quit here, and we are going to

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1 pick up with materials first thing in the morning.
2 And, I apologize to any of you that messes up your
3 schedule.

4 MS. SONNABEND: What is audible, tell us
5 what audible is, because we couldn't hear you.

6 CHAIR FAVRE: Yes. We are making a change
7 in the schedule. Yes, we will be starting at our
8 regularly scheduled time tomorrow. We've got some
9 play in our schedule, and we'll need to take it up
10 tomorrow.

11 MS. SONNABEND: But, you are doing
12 materials first?

13 CHAIR FAVRE: Yes, materials will be taken
14 first.

15 MS. SONNABEND: Not that first.

16 CHAIR FAVRE: Yes.

17 MS. SONNABEND: Okay.

18 (Whereupon, the above-entitled matter
19 went off the record at 6:21 p.m.)

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UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

FALL 2016 MEETING

+ + + + +

FRIDAY

NOVEMBER 18, 2016

+ + + + +

The Board met in the Chase Park Plaza,
212-232 N. Kingshighway Boulevard, St. Louis,
Missouri, at 8:29 a.m., Tracy Favre, Chair,
presiding.

PRESENT

TRACY FAVRE, Chair
TOM CHAPMAN, Vice Chair
HAROLD AUSTIN
CARMELA BECK
HARRIET BEHAR
JESSE BUIE
LISA DE LIMA
EMILY OAKLEY
SCOTT RICE
JEAN RICHARDSON
DAN SEITZ
ZEA SONNABEND
ASHLEY SWAFFAR
FRANCIS THICKE, Ph.D.

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ALSO PRESENT

MILES McEVOY, Designated Federal Officer, Deputy
Administrator, National Organic Program

MICHELLE ARSENAULT, Advisory Board Specialist,
National Organic Program

LISA BRINES, Ph.D., National List Manager,
National Organic Program

SAM JONES-ELLARD, Public Affairs Office,
Agricultural Marketing Service

PAUL LEWIS, Ph.D., Director, Standards Division,
National Organic Program, USDA

JESSICA WALDEN, Materials Specialist, National
Organic Program

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

2 (8:29 a.m.)

3 CHAIR FAVRE: Good morning, ladies and
4 gentlemen, boys and girls. Please keep your arms
5 and legs inside the car at all times, fasten your
6 seatbelt. Welcome to the third and last day of the
7 fall 2016 NOSB Board Meeting. We've got a busy
8 agenda today, so we're going to go ahead and get
9 started where we left off yesterday with the
10 Material Subcommittee. Lisa, you ready to get us
11 going?

12 MS. DE LIMA: All right. So we're just
13 going to jump right into it starting with the
14 research priorities proposal, and Emily's going to
15 take us through that.

16 MS. OAKLEY: Well, since we have such
17 a really long agenda today, I'm going to keep this
18 very brief, but this is the fifth research priority
19 document that the Material Subcommittee has
20 submitted since 2012 and this year's document was
21 a synthesis of the previous year's suggestions, and
22 also, a prioritization of those previous

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1 priorities.

2 We got comments on all of the different
3 priorities, but I'll just highlight a couple that
4 were specific. We got the most on methionine, and
5 on the organic no-till suggestion. There was
6 comment to add soil carbon sequestration to the
7 organic no-till comment.

8 There was also some comment on celery
9 powder in terms of concerns about growing celery
10 simply to be high in nitrates. There was also
11 concern in terms of the GMO contamination, trying
12 to find mechanisms for mandatory payments by patent
13 holders to farmers who have been affected by GMO
14 contamination.

15 In terms of consumer demand, there was
16 a comment suggesting that surveys be posed to
17 capture both the positive and negative reasons that
18 consumers purchase organic food. For example, a
19 positive reason would be because I want to have
20 better health and a negative reason might be
21 because I don't want pesticides in my food, so
22 trying to look at it from that holistic

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1 perspective.

2 There were also some comments for
3 additional research priorities that we can add in
4 future years. Those were alternatives to ethylene
5 in pineapple, which we heard in the oral comments,
6 and from the written comments, manure use in food
7 safety. A suggestion that the NOSB write a letter
8 to the USDA asking that there be organic or
9 mandatory organic representation on research and
10 boards so that the organic perspective is heard.

11 Nitrogen nutrient management,
12 particularly in terms of the animal manure and
13 green waste. Also, research on organic
14 fungicides, herbicides, and insecticides, with
15 fungicides being a priority. A request that the
16 NOP broaden the delivery scope of the research
17 priorities to include private foundations, and
18 then report annually back to the NOSB on how the
19 priorities were distributed.

20 That is done verbally in our
21 subcommittee, because this is a document that most
22 of you might know is taken by the NOP to the broader

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1 community in terms of expressing the organic
2 community's research priorities, but this was a
3 request for a formal written report on how those
4 priorities were distributed. So are there any
5 questions from the subcommittees with respect to
6 the comments on their different priorities?

7 MS. BEHAR: Well, I'm just wondering
8 what the mechanism might be for us or the NOP to
9 feed into the research boards or, you know, the
10 committees that then oversee where the research
11 money goes. I don't know what the mechanism is,
12 if we agree with that public comment, to then move
13 it down the road. I don't know.

14 MS. OAKLEY: Well, Betsy is not here
15 because she is on maternity leave soon, but maybe
16 we can ask Miles that question?

17 MR. MCEVOY: Sure. So you're saying
18 what happens with the recommendation from the NOSB
19 on the research priorities or?

20 MS. OAKLEY: Or there was a public
21 comment suggesting that it would be good to include
22 private foundations for the delivery of these

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1 priorities, so what the mechanism for that might
2 be is Harriet's question.

3 MR. MCEVOY: So a mechanism for USDA to
4 provide this information to private foundations.
5 Do you have a list of private foundations that you
6 would identify that would get this list of
7 priorities?

8 MS. OAKLEY: They weren't identified
9 in public comment, but I think it's probably
10 broadly, Zea, reflected in hope of creating this
11 research framework in the first place. I'll let
12 Zea speak to that.

13 MS. BEHAR: Well, there are committees
14 that review grants at the federal level, and just
15 having, maybe, a placeholder on some or all of those
16 committees for people who have organic as part of
17 their background, so the people reviewing those
18 applications would see the organic applications a
19 little bit more favorably or at least be able to
20 answer questions by other committee members, what
21 is this all about.

22 So this has been an issue that, on the

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1 committees that decide who gets the money, and
2 these are all volunteers, there are other
3 professors and such that review these that we don't
4 have people on those committees who understand
5 organic systems, and what we need, and so we get
6 such a small portion then because there's not an
7 understanding of the need that we have on those
8 committees.

9 And so I think someone asked the USDA
10 to put more -- you know, to, basically, kind of set
11 a seat at the table for people who would have some
12 organic background.

13 MS. OAKLEY: Well, this is actually,
14 there are two separate requests. There was a
15 request, yes, that there would be a mandatory
16 organic representative on such boards, and then
17 there was an additional request that these
18 priorities be delivered to private research
19 foundations.

20 MR. MCEVOY: Okay. So in terms of
21 delivering to private research foundations, I
22 think we could do that if you identified which

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1 foundations you're referring to. Just seems like
2 an administrative process that we could do that.
3 In terms of the other point about certified organic
4 operations on the review boards, if that's part of
5 the recommendation, this recommendation does get
6 forwarded on to the various research agencies
7 within USDA that do provide grant opportunities,
8 so if it's part of the recommendation, that will
9 be seen and those things are taken very seriously
10 by those agencies.

11 MS. OAKLEY: Zea.

12 MS. SONNABEND: Well, it's not part of
13 the current recommendation, but it certainly is
14 something we could make a separate recommendation
15 or resolution about for the next meeting, so maybe
16 it could go on our work agenda.

17 MR. MCEVOY: Sounds good.

18 MS. OAKLEY: Francis.

19 MR. THICKE: I think that wherever we
20 send this research priority document, we need to
21 stipulate that this is not the whole universe of
22 organic research priorities, that this is the set

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1 that pertains to the work of the NOSB and the
2 organic program.

3 MS. OAKLEY: Any other discussion?
4 All right. Madam Chair.

5 CHAIR FAVRE: Okay. Let's see, where
6 did we leave off the vote yesterday? Some are over
7 there.

8 MS. OAKLEY: Do you want me to read the
9 motion?

10 CHAIR FAVRE: Yes, we need a motion to
11 --

12 MS. OAKLEY: This is the motion to
13 adopt the proposal on 2016 NOSB research
14 priorities.

15 CHAIR FAVRE: Okay. And as a reminder
16 to everybody, including the audience, these
17 motions come to the floor as seconded motions, so
18 we have a motion and a second, and, Jesse, you'll
19 start the vote this morning.

20 MR. BUIE: Yes.

21 MS. BECK: Yes.

22 MS. SWAFFAR: Yes.

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1 MS. DE LIMA: Yes.

2 VICE CHAIR CHAPMAN: Yes.

3 MR. SEITZ: Yes.

4 MS. RICHARDSON: Yes.

5 MS. BEHAR: Yes.

6 MS. SONNABEND: Yes.

7 MR. RICE: Yes.

8 MS. OAKLEY: Yes.

9 MR. THICKE: Yes.

10 MR. AUSTIN: Yes.

11 CHAIR FAVRE: The Chair votes yes.

12 MS. OAKLEY: It's 14 yes, 1 absent, the
13 motion passes. All right. So next up we have
14 excluded methods or proposal, and Zea's going to
15 take us through that.

16 MS. SONNABEND: Thank you. I'm going
17 to start out with a related announcement, which I
18 thought we were going to put on the agenda
19 separately, but we got several public comments
20 about what happened to our work on seed purity, and
21 I just wanted everyone to know, because it's not
22 totally transparent, that the Materials

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1 Subcommittee has discussed the next steps for seed
2 purity, and based on the ideas that were presented
3 on the spring discussion document and the public
4 comment that came in, we decided to request from
5 the NOP, establishing a seed purity advisory task
6 force.

7 And the goals of that task force would
8 be to develop processes to implement suggestions
9 regarding seed purity in organic systems and
10 develop effective data collection processes, act
11 as experts to interpret data, and design
12 crop-specific feasibility study.

13 The Department has told us that it's not
14 in the budget for the current fiscal year and so
15 that's where it stands at the moment with them.

16 Okay. On to excluded methods. And I
17 would like to say hello to whoever is here from
18 Monsanto, so you can witness what the organic
19 community thinks about the subject. In April
20 2013, we started this effort. The first
21 discussion document analyzed the language in the
22 exclusion methods definition that was already in

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1 the NOP rule and started collecting all the new
2 terminology that had arisen in the world of
3 biotechnology since 1995 when the definition was
4 originally adopted.

5 We have had documents out pretty much
6 continuously for comment since then. That is
7 seven comment periods, not including the aborted
8 one from when the government shutdown happened,
9 over a period of four years. Some people say that
10 isn't enough time to evaluate this technique, but
11 those people are joining us rather late in this
12 four-year, seven-comment period game, so that's
13 where we stand.

14 The organic regulations are processed
15 based, this means that we're not looking at end
16 products as much as the processes used to create
17 them. Since this is true of crop production and
18 food processing, it makes sense to follow this
19 approach for the processes used in biotechnology
20 rather than only look at the end products.

21 Yes, we are reacting to the failure of
22 the rest of the USDA and other agencies to properly

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1 regulate GMOs, because they're using a
2 product-based approach that is both inadequate and
3 shortsighted, but we're also trying to follow the
4 structure used for the rest of the organic
5 regulations while maintaining the slightly
6 increased flexibility inherent in putting this in
7 guidance rather than directly in regulations.

8 So we've set out a proposal here that
9 has three parts. First of all, we have some
10 supplemental definitions that go along with the
11 overarching definition of excluded methods that is
12 in the rule, but deal with some of the terms that
13 are in more common parlance in the world, such as
14 GMO, the internationally accepted definition of
15 modern biotechnology, and a term that is mentioned
16 in the excluded methods definition, but not
17 defined, which is classical or traditional plant
18 breeding.

19 Also, we've chosen to define synthetic
20 biology because it is its own thing, which is
21 slightly different, but very closely related to
22 GMOs.

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1 So the second portion of the document
2 of the proposal is the criteria that we would use
3 to measure new GMO processes. We realize that, you
4 know, probably by the time we pass this there's
5 already some new ones, in fact, public comment did
6 add some new ones to our chart in our discussion
7 document that we'll carry into the future work
8 plans of the Board, but we have better tools to
9 evaluate those methods if we have criteria.

10 And we have the overall principles of
11 organic farming to guide us, which we've excerpted
12 both the principles from our own policy and
13 procedures manual, and also taken a look at the
14 principles of the international community, IFOM.

15 So the criteria, basically, respect
16 this indivisible entity of the cell and talk about
17 not having insertions, deletions, or
18 rearrangements of the genome in vitro, in
19 particular. Maintaining the ability of a variety
20 to reproduce in a specie-specific form.
21 Preventing from introducing novel proteins and
22 other molecules that may not have occurred in

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1 nature in the first place into the environment.

2 And the exchange of genetic resources
3 in order to enable farmers to have a legal avenue
4 to save seed and plant breeders to have access to
5 germ plasm is a very important criteria.

6 So the third part is, we take a look at
7 those criteria in relationship to some of these
8 terms that we have here. And whenever we have had
9 public comment in the past periods that have said
10 such and such a term is not a GMO, or such and such
11 a term is a GMO, we do take a closer look at it in
12 subcommittee.

13 This has resulted in pulling off a
14 couple of things for further examination and has
15 resulted in adding terms on over time. The chart
16 that we have here is as far as we've gotten in being
17 able to determine that these things do not meet the
18 criteria.

19 Yes, we have a whole other chart some
20 of them are very clearly GMOs and many commenters
21 suggested that we move certain terms, such as
22 agroinfiltration, and cisgenesis, intragenesis,

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1 et cetera, on to the chart. We certainly may
2 intend to do that in the future, but once something
3 is posted for this meeting, we have to take it as
4 it is, although we can subtract things if we need
5 to once the comment has occurred, so that, we'll
6 continue to work.

7 Over the course of doing this we've
8 tried to be responsive to public commenters within
9 the organic community by refining the definitions
10 and criteria while reexamining the terms in the
11 chart when stakeholders raise specific questions.

12 At the spring meeting, we got some
13 concern about the wording in some of the
14 definitions and criteria. I announced at that
15 time at the meeting that I would welcome help from
16 stakeholders in revising those sections, so we
17 channeled everyone who volunteered for that into
18 an ad hoc group.

19 That group contained three public
20 sector organic plant breeders with PhD's, one
21 commercial sector PhD plant breeder, two PhD
22 scientists from NGO consumer groups, four people

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1 with extensive international experience on GMO
2 regulation who are from NGOs, two people involved
3 in organic trade, one farmer -- that's me, one
4 consumer -- that's Dan.

5 We worked on rewording those sections
6 and we made just fairly slight revisions, but
7 significant in terms of getting it right, and we
8 submitted the work back to the Materials
9 Subcommittee.

10 So based on the comments we received
11 since spring, we moved the embryo transfer in
12 animals process from the prohibited chart into the
13 discussion document when we got input from a number
14 of livestock farmers that this was something they
15 rely on and there may be some ways to do it that
16 might be GMO, but there were clearly some ways that
17 would really not be considered genetic
18 engineering, so we will take another look at that.

19 We also received specific comments
20 about CRISPR gene editing, sometimes called by
21 other names than CRISPR, but gene editing, and its
22 potential for desirable improvement in crops. The

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1 subcommittee decided to not move this off the chart
2 because it very clearly is a GMO and has no field
3 history of improved varieties to evaluated what
4 unintended effects the technology might have on the
5 environment, just like all of the GMOs released
6 into the environment have had unintended effects
7 that don't show up for a number of years.

8 So that brings us to the public comment
9 from this posting. We have a lot of support from
10 a wide variety of stakeholders now on passing this.
11 We got no more specific comments about the
12 individual definitions or the individual criteria.
13 We only got two specific comments on the terms in
14 the chart.

15 We got a couple more about CRISPR, which
16 I've already addressed what our conclusion was, and
17 we did get the one that we heard from DuPont, that
18 DuPont seed production technology does not belong
19 on this chart.

20 And so in light of that, we are willing
21 to take that one back and put it in the discussion
22 document and move forward the rest of the proposal,

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1 and we'll take another look at that one.

2 So we also got some good input from
3 certifiers. Well, first of all, the many sectors
4 we heard from included non-profits, organic plant
5 breeders, certifiers, trade associations. Many
6 of them brought up good supplemental points that
7 the NOSB can continue to work on as the work
8 continues.

9 Particularly worthwhile was expanding
10 the list of terms that are allowed techniques and
11 taking a look at the Canadian regulations which
12 have done just that and have a much more extensive
13 list of what is allowed than we have, which would
14 help to balance out just what is not allowed.

15 So then I want to read a portion of just
16 one public comment which sort of summarizes, I
17 think, the crux of the biscuit here, and this
18 comment is from Jim Fullmer of the Demeter
19 Association.

20 "Methods used to genetically modify
21 organisms or influence their growth in an organic
22 farming system should reflect the wisdom and

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1 inherent methods of the natural world that has
2 evolved the very existence of plants and animals
3 over thousands of years. While this may sound
4 simplistic or even Luddite, in fact, it is the
5 opposite."

6 "The natural world or life of the Earth
7 herself is a living organism, if you will, is based
8 on complex biological diversity, living
9 interconnected dynamics, and self-regulation.
10 There is a tremendous technological benefit in
11 observing, understanding, and implementing these
12 facts of the living world as agronomic tools."

13 "The genetic codes within such a system
14 evolved over time in unison with the evolution of
15 the living system itself, and diversity, not
16 monoculture, is clearly a driving force behind this
17 evolution. Genetic modification, void of this
18 principle, should be avoided in organic
19 agriculture."

20 Now, we have received a few comments
21 against the proposals from companies and
22 individuals such as DuPont Pioneer, the Grocery

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1 manufacturers Association, and the American Seed
2 Trade Association. Some of these commenters are
3 the same ones who have hindered progress in organic
4 seed availability and may not have the genuine
5 interest in the future of organic.

6 I'll address some of the points raised
7 in those comments. The first one is that the
8 definitions in our proposal should be the same as
9 the definition for bio-engineered food in the DARK
10 Act. I am going to ask Miles to make a statement
11 about the relationship between our definitions and
12 he doesn't want to call it the DARK Act, I'm sure,
13 but whatever it's called; bio-engineered food.

14 MR. MCEVOY: Sure.

15 MS. SONNABEND: You knew this was
16 coming, Miles.

17 MR. MCEVOY: I knew this was coming.
18 Absolutely. So Administrator Eleanor Starmer put
19 out a statement in September concerning the bill
20 that amends the Agricultural Marketing Act of 1946,
21 to include Subtitle E, the National Bio-engineered
22 Food Disclosure Standard.

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1 And in this statement, she describes
2 the relationship between the GMO disclosure
3 program and labeling under the Organic Foods
4 Production Act. And has issued a policy
5 memorandum on AMS bio-engineered foods disclosure
6 program consistency with the AMS national organic
7 program.

8 So this policy memo is available on the
9 AMS Web site and it describes the criteria that will
10 be used by the GMO disclosure program within the
11 agricultural marketing service as the basis for
12 ensuring consistency with the Organic Foods
13 Production Act and the AMS national organic
14 program.

15 It also explains how AMS views
16 requirements that fall outside these criteria and
17 are statutory authorities. The AMS national
18 organic program implements the Organic Foods
19 Production Act of 1990, acting upon
20 recommendations from this board, the National
21 Organic Standards Board, a federal advisory
22 committee appointed by the Secretary, the NOP

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1 establishes, monitors, and enforces the USDA
2 organic regulations codified in 7 CFR 205.

3 The organic regulations are further
4 explained through guidance, instructions, and
5 policy memorandums, all of which are published in
6 the NOP program handbook on the AMS Web site.
7 USDA's organic regulations establish criteria for
8 the production of organic crops and livestock,
9 processing organic products, and labeling of
10 organic food, fiber, and livestock feed in the U.S.

11 With rare and defined exceptions, all
12 products sold, labeled, or represented as organic
13 in the U.S. must be certified by a USDA-accredited
14 certifier. The use of bio-engineered products,
15 also generally referred as genetically-modified
16 organisms, GMOs, is prohibited in organic
17 production and handling.

18 The USDA organic regulations prohibit
19 the use of GMOs as excluded methods under 7 CFR
20 205.105 allowed in prohibited substances, methods,
21 and ingredients in organic production and
22 handling. This prohibition applies to any product

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1 certified and labeled as 100 percent organic,
2 organic, or made with organic specified
3 ingredients.

4 AMS livestock, poultry, and seed
5 program will implement the national bio-engineered
6 food disclosure standard, which instructs USDA to
7 establish a national mandatory bio-engineered food
8 disclosure standard with respect to any
9 bio-engineered food and any food that may be
10 bio-engineered by July 29, 2018.

11 AMS will implement this act through
12 rulemaking with public notice and comment. AMS
13 also intends to hold public stakeholder sessions
14 to seek input prior to rulemaking. In order to
15 ensure consistency between organic certification
16 and bio-engineering disclosure programs, as
17 instructed by statute, AMS is issuing the following
18 policy.

19 The policy is, when proposing standards
20 for a national bio-engineered food disclosure
21 program, AMS' policy will be as follows, no
22 certified organic products will require a

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1 disclosure as bio-engineered and no proposed rules
2 for bio-engineered food disclosure will require
3 that modifications be made to the USDA and organic
4 regulations.

5 So that's the policy that's in place at
6 AMS regarding the labeling of organic products in
7 relationship to the GMO disclosure program. The
8 Board has full authority to look at the
9 regulations, make recommendations concerning the
10 definition of excluded methods, guidance on the
11 meaning of excluded methods, so that's that.

12 MS. DE LIMA: Thank you very much,
13 Miles.

14 MS. SONNABEND: Okay. The second
15 point raised by some of the opposition was that the
16 definition of traditional or classical plant
17 breeding in the proposal differs from the USDA's
18 official definition of the term traditional
19 breeding. So I went to the link that was provided,
20 which is called a glossary of agricultural
21 biotechnology terms, and the paragraph right under
22 that title says, "These terms and definitions are

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1 intended for general educational purposes only.
2 They are not intended to replace any definitions
3 currently in use in any U.S. Government laws or
4 regulations, nor are they legally binding on the
5 actions of any government agency."

6 So we'll keep going. The next point
7 is, wait until the coordinate framework is adopted,
8 because it might affect our results. Well, so far,
9 several of us have been and testified at hearings
10 regarding the coordinated framework and it's
11 pretty clear they're not listening to us
12 whatsoever.

13 They're not going to increase the
14 oversight of GMOs, and GMOs are continuing to
15 contaminate organic production, so I don't think
16 we're going to wait. The point was raised that the
17 results of gene editing to improve varieties are
18 identical to the varieties bred with traditional
19 breeding methods, only, they can be developed
20 faster.

21 So I urge you to go back and read Jim
22 Fullmer's comment that I just read about the

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1 unintended consequences in the environment and
2 co-evolution. We would be better served by a
3 case-by-case approach based on the benefits of GMO
4 products. I urge those people to go reread the
5 process versus product discussion of our document.

6 More time is needed for public input.
7 Four years, seven public comment periods, we're
8 ready. It's incomplete, and therefore, should not
9 move forward. Yes, the chart is incomplete. It
10 will be a work in progress for many years, but the
11 definitions and the criteria are complete. We are
12 ready to go forward and put the structure in place
13 so that then it can be added to based on those
14 definitions and criteria in the future.

15 It's not lost on us that this proposal
16 has come to fruition here in Monsanto's
17 neighborhood in a time when people are still
18 reeling from the upcoming change in our government.
19 It could not be more clear to me that the time to
20 pass this proposal is now. Our organic future is
21 in for a rocky ride in the next four years.

22 That being said, the proposal is

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1 designed in a modular fashion so that we could vote
2 the three sections together or separately and we
3 can remove any individual term from the chart for
4 further work. We cannot add things to the chart,
5 as I've mentioned, and some commenters suggested,
6 because we need public comment on anything we plan
7 to add.

8 So I am proposing that we adopt the full
9 chart, remove the term DuPont seed production
10 technology, and move that to the discussion
11 document, and take another look at that in the
12 future.

13 So in closing, I was quite inspired by
14 the fact that John Ashby sang his public comments
15 and it made me bold enough to sing my closing, but
16 I can't sing as well as him, so you'll have to bear
17 with me, and I'm going to sing a combined verse from
18 the recently anointed Nobel Laureate.

19 The line it is drawn and the curse it
20 is cast, the slow ones now will later be fast. And
21 the present now will later be past, there's a
22 battle outside and it's raging. It'll soon shake

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1 the windows and rattle the walls, for the times,
2 they are a changing.

3 CHAIR FAVRE: Thank you, Zea. Does
4 anyone want to try to follow that? Jean.

5 MS. RICHARDSON: I just want to say how
6 speechless I am -- not just of you singing, of
7 course --- at the work that you've done and your
8 leadership on this over the last four years.
9 Absolutely mind-boggling, patience that you've
10 gone through, and I've been involved in many of the
11 subcommittee, not discussions, wasn't a member of
12 that committee, but listening in to the depth of
13 the debate.

14 I don't think anyone out amongst the
15 stakeholders can understand the number of hours,
16 and discussions, and conversations that have gone
17 into this and the work of the other members of the
18 board as well.

19 I'd like to strongly support passing
20 the whole thing all as one block today and not
21 breaking it up, but to vote on the whole.

22 MS. DE LIMA: Emily and then Francis.

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1 MS. OAKLEY: I just want to say that I
2 wholeheartedly agree with that and it's going to
3 be very challenging working on this without Zea,
4 so we're going to be pulling her back in whether
5 she likes it or not.

6 MR. THICKE: And I just want to say too
7 that, thank you, Zea, you did a great job. It's
8 a big task and you did good work, so I'm happy that
9 you got so far as you did before you're leaving.
10 And I agree that we should probably try to vote on
11 the whole thing at one time.

12 MS. DE LIMA: Harriet.

13 MS. BEHAR: And I agree, it's an
14 excellent document. Thank you. Zea, one other
15 thing too, and what you were asking Miles, there
16 was also a colloquy on the Senate floor where
17 Senator Tammy Baldwin did specifically ask for
18 clarity from the co-writer of the Bio-Engineered
19 Disclosure Act, or whatever it's called, that it
20 would not in any way affect the current definitions
21 of excluded methods or any future work that we do.

22 So we not only have it AMS, but we also

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1 have it at the Congressional level, just so we have
2 some safeguards there.

3 MS. DE LIMA: Harold.

4 MR. AUSTIN: Zea, I support
5 everything, even your singing part to wrap-up your
6 statement. One point of clarification I was asked
7 to ask you about on the classical traditional --
8 the classic -- yes, classical traditional plant
9 breeding definition in here, do you see any impact
10 that that might possibly have on the current tree
11 fruit breeding programs being conducted by several
12 of the land grant universities?

13 MS. SONNABEND: Well, there are some
14 methods now that are being used in tree fruit that
15 are GMO, such as our expert panelist at the last
16 meeting who is developing plum trees that bear in
17 one year and then removing the gene, it's called
18 fast-track, and he was from University of West
19 Virginia, I believe, so that is one.

20 And then, the Arctic apple, of course
21 is one which is private sector, not land grant, and
22 not knowing exactly what they're working on, I

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1 couldn't specifically say if they're GMOs or not,
2 but I think it gives us a strong foundation, and
3 having a definition for this term was a particular
4 impetus of the private sector -- public sector,
5 sorry, plant breeders that we worked with, such as
6 Bill Tracy from Wisconsin, who is on our expert
7 panel also, and who was the primary author of this
8 particular definition.

9 MS. DE LIMA: Dan.

10 MR. SEITZ: Yes, I too want to thank Zea
11 and say that I would like to see this passed in its
12 entirety. We often hear about two points, the
13 importance of not letting the perfect be the enemy
14 of the good, in my experience, when someone wants
15 to delay something, they'll always find some piece
16 of it that could be further worked on, and that's
17 absolutely going to always be true of any of our
18 proposals.

19 The other thing that we've heard a great
20 deal about is the importance of the precautionary
21 principle, and I'd like to say that it may be the
22 case that something that is not technically a

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1 GMO-type technique could be -- but is a recently
2 developed technique, could be on this end document,
3 or be put there later on, but I'd rather see a
4 mistake like that made with a modern technique
5 rather than us leaving out something that could
6 cause tremendous harm through its unintended
7 consequences.

8 So I don't feel that we absolutely have
9 to reach purity on this, we just have to use our
10 common sense and good science and expertise to come
11 up with something that really does embody this
12 precautionary principle.

13 MS. DE LIMA: Anyone else? All right.

14 MS. SONNABEND: Okay. Then the motion
15 is on the floor and seconded for the subcommittee
16 to approve Parts 1, 2, and 3 of the proposal, with
17 the removal of DuPont seed production technology
18 from Part 3.

19 CHAIR FAVRE: Okay. Comes as a
20 seconded motion. We'll begin the vote with
21 Carmella.

22 MS. BECK: Yes.

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1 MS. SWAFFAR: Yes.

2 MS. DE LIMA: Yes.

3 VICE CHAIR CHAPMAN: Yes.

4 MR. SEITZ: Yes.

5 MS. RICHARDSON: Yes.

6 MS. BEHAR: Yes.

7 MS. SONNABEND: Yes.

8 MR. RICE: Yes.

9 MR. THICKE: Yes.

10 MR. AUSTIN: Yes.

11 MR. BUIE: Yes.

12 CHAIR FAVRE: Chair votes yes.

13 MS. DE LIMA: It's 14 yes, 1 absent,
14 motion passes.

15 MS. SONNABEND: There isn't that much
16 more to say about the discussion document except
17 that, clearly, we still have plenty of work ahead.
18 I do plan to keep working on one or more of these
19 terms before my term is up in January so that I can
20 leave behind an example of how we will look at each
21 individual term.

22 And I am willing to keep working with

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1 any ad hoc community members who would like to work
2 on this, as many of you have already expressed to
3 me. I will then turn it over to the capable hands
4 of Harriet, who will hopefully feel free to consult
5 with me also as we work through the rest of the
6 terminology.

7 And also, to let you know that, Dan will
8 be taking over the portion about the seed purity
9 to keep that effort moving forward because that is
10 very important to the organic community as well.
11 Thanks.

12 MS. DE LIMA: Thank you, Zea. And I'm
13 going to hand it back over to Tracy who's going to
14 take us through the letter to the Secretary.

15 CHAIR FAVRE: Thanks, Lisa. So I
16 guess it was five years ago now, the NOSB felt as
17 though it was important to advise the Secretary of
18 Agriculture on our work on where we stood on the
19 issues of GMO, and we felt like five years has been
20 enough time to show some progress on both sides,
21 and we wanted to remind the administration that
22 there were some obligations on their side as well.

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1 And so we felt that it would be
2 appropriate to send a letter to the current
3 Secretary, as well as whoever the future Secretary
4 will be, and give them a status update on where we
5 stand on our work.

6 Zea took the first whack at it and asked
7 for some help in blunting the language a little bit.
8 As you might imagine, she's pretty passionate on
9 the subject, as are we all, and so it was a real
10 joint effort. I'm actually really, really proud
11 of the work on the Materials Subcommittee, because
12 in the end, the letter was, I think, reflective of
13 all of our perspectives and was much better with
14 everybody's input.

15 So I won't read the entire letter, but
16 I do want to bring up a couple of points. The first
17 one is that we have heard the public loud and clear,
18 and it's, actually, one of the first paragraphs is,
19 it says, "The public's message is clear. The NOSB
20 has the unique opportunity of having direct access
21 to public comment prior to each of our twice yearly
22 board meetings, and one message has consistently,

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1 repeatedly, and abundantly been made clear:
2 Consumers across the country have expectations
3 there will be no GMOs in their organic food."

4 So we want to make sure that that
5 message is conveyed in no uncertain terms that we
6 stand as a voice for the stakeholders in the organic
7 industry and we want to make sure that the
8 administration hears that loud and clear.

9 We further go ahead and provide some
10 bullet points on the work that we've done on our
11 side, including the fact that we've established a
12 mission statement that states we accept
13 responsibility for making the recommendations
14 aimed to keep GMOs out of organic, and then
15 beginning our work in 2012, we go through some of
16 the points on what those activities have been,
17 including the expert sessions that we've had at
18 multiple NOSB meetings, stakeholder task force
19 that Zea mentioned earlier that we're still waiting
20 on to get some funding for, seed purity issues, the
21 need for data collection, and a statement that we
22 feel that the organic industry alone should not

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1 bear the cost of genetic trespass and incursion.

2 The responsibility should particularly
3 lay with the developers of these technologies that
4 trespass on the integrity of organic production.
5 And in the end, we call for clear leadership from
6 USDA, recognizing that there's only so much that
7 this board can do and that it has to trickle, in
8 this case, upwards through the administrative and
9 bureaucratic process.

10 And we've called for some particular
11 leadership and wrapping it up with, basically, in
12 conclusion, that we want to see a further emphasis
13 on recognition of responsibility for incursions,
14 and develop policies to address the shared
15 responsibilities for GMO contamination,
16 strengthen farming best practices guidance to
17 prevent incursion of biotech seeds, pollen, and
18 products into conventionally and organically
19 managed acreages, and to support funding for
20 research and data collection on threshold testing
21 of organic and non-GMO seeds.

22 So we feel that this is a letter that

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1 should be routinely sent to the administration so
2 that we keep it, one, at the forefront of our
3 squeaky wheel gets the grease activities here, and
4 we would like to submit this, we'll be printing it
5 out and signing it, and submitting it to the
6 Secretary, as well as making sure the future
7 Secretary gets a copy of it, and encourage future
8 boards to continue with that work.

9 MS. DE LIMA: Thanks, Tracy. Any
10 discussion from the Board? All right. Do we have
11 a motion? Is that how we do it?

12 CHAIR FAVRE: Yes, just like
13 everything else, this comes as a seconded motion.
14 The motion to accept this report to the Secretary
15 of Agriculture on the progress to keep GMOs out of
16 organic. We will start the vote with Ashley.

17 MS. SWAFFAR: Yes.

18 MS. DE LIMA: Yes.

19 VICE CHAIR CHAPMAN: Yes.

20 MR. SEITZ: Yes.

21 MS. RICHARDSON: Yes.

22 MS. BEHAR: Enthusiastic yes.

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1 MS. SONNABEND: Ditto. Yes.

2 MR. RICE: Yes.

3 MS. OAKLEY: Yes.

4 MR. THICKE: Yes.

5 MR. AUSTIN: Yes.

6 MR. BUIE: Yes.

7 MS. BECK: Yes.

8 CHAIR FAVRE: The Chair votes yes.

9 MS. DE LIMA: It's 14 yes, 1 absent, the
10 motion passes. And that concludes our portion,
11 Madam Secretary.

12 CHAIR FAVRE: Thank you, Lisa.
13 Because our schedule's a little wonky today, we're
14 going to go ahead and proceed and begin the work
15 on the Crop Subcommittee, but before we do that,
16 I've asked our Deputy Administrator, Miles McEvoy,
17 to read some wisdom into the public record.

18 MR. MCEVOY: Okay. This is from
19 Wendell Berry, wisdom from Wendell Berry, the Peace
20 of Wild Things. "When despair for the world grows
21 in me, and I wake in the night at the least sound
22 in fear of what my life and my children's lives may

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1 be, I go and lie down where the wood drake rests
2 in his beauty on the water, and the great heron
3 feeds."

4 "I come into the peace of wild things.
5 I do not tax their lives with forethought of grief.
6 I come into the presence of still water and I feel
7 above me, the day-blind stars waiting with their
8 light. For a time, I rest in the grace of the world
9 and then free."

10 CHAIR FAVRE: Thank you, Miles. I
11 think that bears remembering as we enter a
12 potentially contentious conversation, and I'd like
13 us to all keep in mind that we're all in this
14 together. Now I'm going to turn that over now to
15 Zea to begin the crops discussion.

16 MS. SONNABEND: Thank you. All right.
17 Well, welcome to the Crop Subcommittee. The first
18 portion of it is our 2018 Sunset Substances, and
19 so the first one of those is copper sulfate for use
20 in rice.

21 We received relatively little comment
22 on this. I --

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1 DR. BRINES: Zea?

2 MS. SONNABEND: Yes.

3 DR. BRINES: Would you like me to
4 introduce the substance for you?

5 MS. SONNABEND: Yes.

6 DR. BRINES: We'll get it down. All
7 right. The first listing under consideration for
8 the Board for crop use under sunset 2018 is copper
9 sulfate, and there are two listings that were
10 considered by the Board. The first is at Section
11 205.601(a)(3), the listing reads as copper sulfate
12 for use as an algaecide in aquatic rice systems,
13 is limited to one application per field during any
14 24-month period, application rates are limited to
15 those which do not increase baseline soil test
16 values for copper over a timeframe agreed upon by
17 the producer and accredited certifying agent.

18 The second listing is at 205.601(e)(4),
19 that listing reads as copper sulfate for use as
20 tadpole shrimp control in aquatic rice production,
21 is limited to one application per field during any
22 24-month period, application rates are limited to

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1 levels which do not increase baseline soil test
2 values for copper over a timeframe agreed upon by
3 the producer and accredited certifying agent.

4 And the most recent technical report
5 for copper sulfate was completed in 2011. Thanks.

6 MS. SONNABEND: Thank you. Okay. So
7 we received relatively little public comment this
8 time. Unfortunately, we received quite a bit of
9 what there was for people who were not focusing on
10 the rice aquatic system, but were focusing on
11 copper sulfate in crops, which we completed the
12 review of in 2017, and my one strong request to the
13 Policy Development Subcommittee is that, in the
14 sunset reorganization, they try and put those two
15 together for future review so we don't have to waste
16 a lot of people's time trying to re-comment on
17 copper and having to read re-comments on copper
18 that we've already just reviewed.

19 So the two copper sulfate listings
20 should be combined in the future if possible.
21 Okay. So that being said, some people did think
22 that there was too much toxicity in rice aquatic

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1 systems, other people pointed out that it is used
2 in really small quantities and the rice water
3 systems, at least the ones I know about in
4 California, have extensive recycling components to
5 them, and tailwater ponds, and things like that,
6 so there's very little chance of the copper sulfate
7 being released into the greater aquatic system.

8 And we didn't hear a lot of strong
9 opposition to re-listing this substance. Also, in
10 the course of preparing the sunset evaluation, I
11 went to the source I had looked at before, which
12 is the California Rice Research Board, they do
13 research every year on alternatives to copper
14 sulfate, and they're not always organic
15 alternatives, because this is used, also, in
16 conventional systems, and I hadn't looked at their
17 report since the five years ago sunset.

18 So I looked at the -- it was four years
19 of reports that have been out since then, and did
20 not find any viable alternatives that they had
21 identified, and also, tried to look for other
22 relevant research for it, and did not find any other

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1 research papers about it.

2 So any discussion? Dan.

3 MR. SEITZ: So a question, one
4 commenter noted that reading the two annotations
5 on the use of copper sulfate could potentially
6 allow for the administration of copper sulfate
7 every 12 months, not every 24 months, if you read
8 these as separate allowances, so I wondering if the
9 Crops Committee looked at that and whether they
10 also have any recommendations around, maybe, an
11 annotation change?

12 MS. SONNABEND: Well, the Crops
13 Committee did not look at it at this particular
14 time, but well, I know a lot about this material,
15 and so it might be too much to go into here, but
16 this is a material that is only used when very
17 particular weather conditions happen in a ten-day
18 period after seeding and before rice emergence.

19 And if those particular weather
20 conditions emerge, they may need to use it two years
21 in a row, but then they may not need to use it for
22 three or four years, and so the board who initially

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1 adopted that as the structure of the annotation
2 didn't really understand that, but changing the
3 annotation is so cumbersome at this point that we
4 have chosen not to change it to something that makes
5 more sense for that.

6 It is monitored, certifiers monitor
7 this very closely. We require that they test for
8 copper on a regular basis and make sure that it is
9 not building up. Okay. We'll put the motion on
10 the floor and the motion, as for all sunsets, is
11 to remove copper sulfate from the National List.

12 CHAIR FAVRE: Okay. We'll be starting
13 the voting with Lisa.

14 MS. DE LIMA: No.

15 VICE CHAIR CHAPMAN: No.

16 MR. SEITZ: No.

17 MS. RICHARDSON: No.

18 MS. BEHAR: No.

19 MS. SONNABEND: No.

20 MR. RICE: No.

21 MS. OAKLEY: No.

22 MR. THICKE: No.

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1 MR. AUSTIN: No.

2 MS. BEHAR: No.

3 MS. BECK: No.

4 MS. SWAFFAR: No.

5 CHAIR FAVRE: The Chair votes no.

6 MS. DE LIMA: It's 14 no, 1 absent, the
7 motion fails.

8 MS. SONNABEND: Thank you. The next
9 material is ozone gas, and I believe that's
10 Francis.

11 CHAIR FAVRE: Needs to go to Lisa.

12 MS. SONNABEND: Oh, Lisa.

13 DR. BRINES: All right. Thank you.
14 This substance is also included at Section 205.601
15 of the National List under Paragraph A, Number 5,
16 and the listing reads as ozone gas for use as an
17 irrigation system cleaner only, and the most recent
18 technical report was completed in 2002. Thanks.

19 MR. THICKE: So ozone is a strong
20 oxidant and it works by oxidizing plant tissue in
21 bacterial membranes. Originally, it was
22 petitioned for use for weed control and then also

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1 for use as an antimicrobial agent to clean
2 irrigation lines. It was not approved for use for
3 weed control. We had comments both times this has
4 been out and it seems there are a fair number of
5 producers who do use it for irrigation cleaning and
6 some have said it's the least expensive option and
7 that they prefer it because it breaks down into
8 oxygen and not leaving toxic residues.

9 However, we did get comments pointing
10 out that ozone has high toxicity, both acute
11 toxicity and chronic health effects, and also, it's
12 an air pollutant. So we have that as well. Are
13 there any questions or comments? Yes, Dan.

14 MR. SEITZ: A couple comments. I mean
15 questions. The first is, is the use of ozone
16 different among different types of producers in
17 soil hydroponic container?

18 MR. THICKE: Well, it's allowed for
19 irrigation cleaning, so I would presume it would
20 be in that application, but I am not familiar.
21 Maybe Zea is familiar with is in the field, are you?

22 MS. SONNABEND: Well, you have to have

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1 an ozone generating machine. It's not something
2 that you go buy off the shelf and use. And so the
3 ozone generating machines can be used in any type
4 of system, but, you know, it has to be one you can
5 put a machine into somehow.

6 MR. SEITZ: And I may have missed it,
7 but are there other equally viable methods that
8 farmers use to clean irrigation?

9 MR. THICKE: There are a number of
10 irrigation cleaning, like, peracetic gas, I
11 believe, is one and some of the ethanols, I believe,
12 can be used as well.

13 MS. OAKLEY: I abstained during our
14 subcommittee vote and I will likely be voting
15 against this for reasons of essentiality. I have
16 concerns without a current TR in terms of some of
17 the issues that you raised, and I don't know that
18 this is an essential ingredient, didn't see very
19 much public comment with respect to it this time.

20 CHAIR FAVRE: Any other comments?
21 Zea, are you ready for a vote?

22 MS. SONNABEND: Put the motion on the

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1 floor to remove ozone from the National List, which
2 was posed by Francis.

3 CHAIR FAVRE: Okay. We'll start the
4 voting with Tom.

5 VICE CHAIR CHAPMAN: No.

6 MR. SEITZ: Abstain.

7 MS. RICHARDSON: No.

8 MS. BEHAR: No.

9 MS. SONNABEND: No.

10 MR. RICE: No.

11 MS. OAKLEY: Yes.

12 MR. THICKE: No.

13 MR. AUSTIN: No.

14 MR. BUIE: No.

15 MS. BECK: No.

16 MS. SWAFFAR: No.

17 MS. DE LIMA: No.

18 CHAIR FAVRE: The Chair votes no.

19 MS. DE LIMA: That's 1 yes, 12 no, 1
20 abstain, 1 absent, the motion fails.

21 MS. SONNABEND: Next we have peracetic
22 acid. Lisa.

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1 DR. BRINES: Thank you. The substance
2 is also included at two sections of Section 205.601
3 of the National List. The two listings that are
4 currently under sunset review, the first one is at
5 Section 205.601(a)(6), and the listing reads,
6 peracetic acid for use in disinfecting equipment,
7 seed, and asexually propagated planting material.
8 Also permitted in hydrogen peroxide formulations,
9 as allowed in Section 205.601(a), at concentration
10 of no more than 6 percent, as indicated on the
11 pesticide product label.

12 The second listing appears at Section
13 205.601(i)(8), as peracetic acid for use to control
14 fire blight bacteria, also permitted in hydrogen
15 peroxide formulations, as allowed in Section
16 205.601(i), at concentration of no more than 6
17 percent, as indicated on the pesticide product
18 label. And the most recent technical report for
19 the substance was completed in 2000. In the
20 report, although, I believe there was a new one that
21 was completed this year. Thanks.

22 MS. SONNABEND: This is Harold.

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1 MR. AUSTIN: Okay. Peracetic acid in
2 organic crop production is used, as mentioned, to
3 disinfect equipment, also can be used to treat
4 seeds or asexually propagated planting materials
5 as a disinfectant. Also can be used to disinfect
6 pruning equipment to help prevent the spread of
7 fire blight bacterium or used in the hydrogen
8 peroxide formulations for control on the tree
9 canopy of the same disease, permitted in those
10 solutions at a 6 percent concentration, and no
11 higher than that.

12 2016 sunset listing for handling and
13 the 2017 sunset listing for livestock uses were
14 both just recently voted on to re-list. Peracetic
15 acid is an unstable oxidizing agent, which is what
16 makes it such an effective sanitizer. We did
17 receive, as Lisa mentioned, a TR on this material
18 on March 3rd, which was not quite in time for our
19 spring meeting to have the information submitted
20 at that time, but nonetheless there were comments
21 submitted on that.

22 The new TRs were also provided to the

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1 Livestock and Handling Subcommittees to provide
2 consistency and also from a cost management
3 perspective as well, even though peracetic acid,
4 as I mentioned, just recently was under review by
5 those.

6 It appears to be a pretty
7 straightforward material, made from and decomposes
8 back to acetic acid, oxygen, and water. Peracetic
9 acid, as I said, is a strong oxidizing agent. This
10 substance was first developed in 1950.
11 Historically, it has been used to treat fruits,
12 vegetables, to reduce spoilage from bacteria and
13 various fungi. It is used to treat bulbs, to
14 disinfect potting soil, clean irrigation
15 equipment, and in seed treatment, to inactivate
16 fungi and other plant diseases.

17 Additionally, in the organic crop
18 production, it is also used as a bactericide or
19 fungicide in wash waters to help decrease E. coli
20 on some of the fruit and vegetable crops. With the
21 recent removal of the two antibiotics, gee, I
22 don't think any of us remember those discussions,

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1 it's become more of a relied upon material to assist
2 in the fire blight reduction process.

3 The use of this substance is part of a
4 rotational control and fire blight prevention
5 program definitely has increased according to the
6 stakeholder comments that we've received. And I
7 can also attest to that from first-hand experience.

8 While there appears to be other
9 materials that could be used as a possible
10 alternative to peracetic acid, this material is
11 selected for use by many of the organic crop
12 producers because it has such strong oxidizing
13 compound. That's what makes it work so well in
14 colder conditions. It does not give off chlorine
15 into the environment and can be used as part of a
16 rotation process in the fire blight disease control
17 program.

18 It's also more benign than most of the
19 other sanitizers and disinfectants. As I said, it
20 reverts back to acidic acid, oxygen, and water in
21 the environment. Public comment at the spring
22 meeting provided 29 written comments, 2 oral

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1 comments via the Webinar, and numerous in-person
2 comments for the spring meeting.

3 Preparation for the fall meeting, we
4 received an additional 13 written comments, two via
5 the Webinar, and three in-person comments here in
6 St. Louis. For the most part, the comments were
7 in favor of re-listing. Some concerns raised
8 during public comment submitted for the spring
9 meeting regarding the various forms of peracetic
10 acid mentioned in the TR.

11 Just for further clarification, we did
12 discuss that during the meeting and it was
13 determined that the majority of those other sources
14 that they were raising the concern over would not
15 be allowed for use in organic crop production or
16 other currently allowed uses, as currently shown
17 on the National List. These were multiple-product
18 formulations of peracetic acid and would not be
19 allowed under the current criteria.

20 Several commenters also mentioned that
21 they felt that all sanitizers and disinfectants
22 should be looked at for determination of need and

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1 prioritization of allowed uses. It was determined
2 that that request was outside of the scope of the
3 specific sunset review process and would need to
4 be addressed as a separate issue and topic.

5 Other public comment mentioned that the
6 implementation of the Food Safety Modernization
7 Act to oversee an enhanced approach to food safety
8 both at the farm and handling levels, places an even
9 higher need and degree of necessity in having this
10 material, and other sanitizers, available for use
11 in crop production.

12 There is overwhelming support for the
13 continued re-listing of peracetic acid for use in
14 organic crop production, while a few commenters
15 took a neutral position, there were no commenters,
16 either during written or oral public comment
17 periods that were specifically opposed to the
18 re-listing of peracetic acid.

19 MS. SONNABEND: Thank you. Any
20 discussion? Harriet.

21 MS. BEHAR: This is a widely used
22 material and we don't have as big a world of

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1 sanitizers and disinfectants as in conventional
2 ag, so I will be supporting this.

3 MS. SONNABEND: Harold.

4 MR. AUSTIN: I think I'd just like to
5 further that statement too, Harriet, that I think
6 with the materials that we have, with the
7 implementation of FSMA, I think we do not have a
8 lot of materials that the conventional side of our
9 industry has. And I think as we hear the comments
10 about the review of sanitizers and trying to
11 prioritize those, I just want to mention that we
12 also have to look at disease and resistance
13 management, and having necessary materials for
14 rotational uses for specific needs out in the farms
15 is very important.

16 And unless you've lived in that life,
17 I've been a certified crop consultant for over 35
18 years, and an entomologist, I've dealt with this
19 issue for the majority of my adult life, we need
20 to be cautious. Resistance becomes a reality very
21 quickly and so having the necessary tools to
22 prevent that, not along with just the sanitation

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1 and disinfection, but to also take and make sure
2 that we protect rotation and disease management and
3 resistance management.

4 So I think this is one that we
5 definitely need to keep.

6 MS. SONNABEND: Okay. We'll put
7 forward the motion on the table to remove peracetic
8 acid from the National List made by Harold.

9 CHAIR FAVRE: We're going to start the
10 voting with Dan.

11 MR. SEITZ: No.

12 MS. RICHARDSON: No.

13 MS. BEHAR: No.

14 MS. SONNABEND: No.

15 MR. RICE: No.

16 MS. OAKLEY: No.

17 MR. THICKE: No.

18 MR. AUSTIN: No.

19 MR. BUIE: No.

20 MS. BECK: No.

21 MS. SWAFFAR: No.

22 MS. DE LIMA: No.

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1 VICE CHAIR CHAPMAN: No.

2 CHAIR FAVRE: The Chair votes no.

3 MS. DE LIMA: That's 14 no, 1 absent,
4 the motion fails.

5 MS. SONNABEND: Okay. Next, EPA lists
6 three inerts of an unknown toxicity. Lisa.

7 DR. BRINES: Thank you. This
8 substance is included at Section 205.601 of the
9 National List under Paragraph M, Number 2, and the
10 listing reads as follows, EPA lists three inerts
11 of unknown toxicity for use only in passive
12 pheromone dispensers. Thank you.

13 MS. SONNABEND: Thank you. This one
14 was mine. As most of you know, we approved a
15 revision to the inerts annotation for list for last
16 fall, which would incorporate this as one of the
17 subclauses of that annotation change. It moves us
18 into the new EPA framework, instead of calling
19 things List 1, 2, 3, and 4, they have actual code
20 sections that each one refers to, and it does change
21 it to the correct citation.

22 We do feel that these materials are an

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1 essential component of passive dispensers and have
2 a long history of use in organic farming. We saw
3 no new information that would cause us to question
4 their safety to human health or the environment.

5 We got public comment from people who
6 said, please take this review seriously. We do
7 fully take it seriously. We are really hopeful
8 that the new system of evaluating inerts will be
9 able to take a close look at all of these inerts
10 and determine which ones are appropriate for
11 organic production.

12 That being said, we did, two years ago,
13 request a TR be done on these, particularly the
14 three inerts in passive pheromone dispensers that
15 had been petitioned for many years ago now, and
16 because we had to request TRs before the actual vote
17 on the change in the annotation, we did do that.

18 Once that annotation change was passed,
19 the Department put aside our request for a TR,
20 waiting, presumably, for the change to be
21 implemented.

22 So we did hear from the original

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1 petitioner who makes some of the pheromone traps,
2 not all of them, and they talked about, obviously,
3 how important pheromones are to agriculture and the
4 fact that they had fully disclosed the ingredients
5 in their pheromone dispensers, and such a very,
6 very small amount of these chemicals are in use and
7 they basically stay in the plastic of the dispenser
8 and do not get released into the soil or the air.

9 So with that, I will ask for discussion
10 on this topic. Harold.

11 MR. AUSTIN: I'd just like to say that
12 how these are used, they're used within a capsule
13 or a twist tie. It's a capsule, it's about the size
14 of a pencil eraser if it's used in a trap or like
15 a bread twist tie if it's used to be hung out into
16 the field itself. These are in, actually, the
17 container. They do not release into the
18 atmosphere. They do not come into contact with the
19 crop.

20 This is our number one pest control
21 capability in organic tree fruit production.
22 Without this, we would not be able to control

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1 codling moth or obliquebanded leafroller, so it's
2 imperative that we do the due diligence, protect
3 this one as it moves forward while it goes under
4 the appropriate reviews, but without mating
5 disruption in tree fruit, we would not have tree
6 fruit, at least not at the volume or the levels we
7 see today.

8 MR. RICE: Coming from the same area
9 that Harold does in Washington, and seeing these
10 in use, I just echo his comments of the importance
11 of this tool to the organic tree fruit industry.

12 MS. SONNABEND: Miles.

13 MR. MCEVOY: You know, this is a very
14 important topic for us to move forward with the
15 safer choice program to implement the
16 recommendations. We have not made much progress
17 on that. Emily Brown Rosen, as a lot of you know,
18 was the lead on that and she retired in the spring.
19 We are in the process of trying to hire additional
20 staff that could potentially take this project on.

21 There is the potential for a hiring
22 freeze to start in January, so I just want to put

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1 out the reality of the challenges that we have with
2 limited resources, with all the different projects
3 that we have to do, this is very important, but it's
4 hard to make progress when we don't have enough
5 resources and have other high-priority demands as
6 well.

7 MS. SONNABEND: Anymore discussion?
8 Harriet.

9 MS. BEHAR: So I will be voting for
10 this. I'm just wondering, you know, if it might
11 make sense for someone to be petitioning these as
12 if there's three that are being used.

13 MS. SONNABEND: They have already been
14 petitioned in 2001. A long time ago. We have
15 three petitions.

16 MS. BEHAR: Well, I'm just, kind of,
17 wondering just to make sure that they don't get lost
18 somehow in the -- because it is --

19 MS. SONNABEND: Well, they didn't get
20 lost because they're incorporated into this.

21 MS. BEHAR: Right, but the list three
22 that that's -- so it's becoming an anachronism now.

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1 Does it really exist? But I think in a way that
2 kind of teaches us that when we tie our regulation
3 to another regulation, we can sometimes have
4 problems.

5 MS. SONNABEND: Okay. Seeing no more
6 discussion, I'll put the motion on the floor from
7 me to remove these from the National List. Now,
8 for new people, I probably should explain that even
9 though we have already passed a change in this
10 policy, if we don't renew them for the list now,
11 the Department is so glacial in their progress that
12 they may be a gap between the time that that change
13 gets adopted and this.

14 So if we renew this, once that gets into
15 place, this will automatically come off the list.

16 CHAIR FAVRE: We'll begin the voting
17 with Jean.

18 MS. RICHARDSON: No.

19 MS. BEHAR: No.

20 MS. SONNABEND: No.

21 MR. RICE: No.

22 MS. OAKLEY: No.

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1 MR. THICKE: No.

2 MR. AUSTIN: No.

3 MR. BUIE: No.

4 MS. BECK: No.

5 MS. SWAFFAR: No.

6 MS. DE LIMA: No.

7 VICE CHAIR CHAPMAN: No.

8 MR. SEITZ: No.

9 CHAIR FAVRE: Chair votes no.

10 MS. DE LIMA: 14 no, 1 absent, the
11 motion fails.

12 MS. SONNABEND: Thank you. Next,
13 calcium chloride. Lisa.

14 DR. BRINES: Thank you. We're in a new
15 section of the National List now at Section 205.602
16 for non-synthetic substances prohibited for use in
17 organic crop production. This listing reads,
18 under Paragraph C, calcium chloride, brine process
19 is natural and prohibited for use except for -- let
20 me start that again.

21 Calcium chloride, brine process is
22 natural and prohibited for use, except as a

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1 full-year spray to treat a physiological disorder
2 associated with calcium uptake, and the most recent
3 technical report for this substance was completed
4 in 2007. Thanks.

5 MS. SONNABEND: Thank you. Carmella.

6 MS. BECK: So as Dr. Brines stated,
7 calcium chloride is listed at 205.602 as a
8 non-synthetic substance prohibited for use in
9 organic crop production. The annotation only
10 allows uses of full-year spray to treat a
11 physiological disorder associated with calcium
12 uptake in organic tree fruit.

13 Calcium chloride continues to be
14 inappropriate for direct soil application given
15 its high chloride content and has solubility,
16 various factors contribute to the inadequate
17 uptake of calcium, which necessitates its
18 continued allowance as a full-year spray.

19 All written spring and fall 2016 public
20 comment supported the re-listing of calcium
21 chloride. The subcommittee did not ask any
22 questions of the public and has no concerns

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1 regarding the continued listing of calcium
2 chloride.

3 MS. SONNABEND: Thank you. Any
4 discussion? Okay. Just for frame of reference,
5 we do use this material. Some varieties are very
6 prone to bitter pit disorder in apples, and it was
7 interesting, the gentleman who spoke here, because
8 he wants it approved for soil use, and he was
9 talking about using 1000 pounds per acre for soil
10 use.

11 And so I thought for those of you who
12 aren't in crop production, I should let you know
13 that we struggle with this because being a small
14 farmer, it's very difficult to get inputs when most
15 farmers are big farmers. So we have to buy a pallet
16 of this at a time, which is 80 40-pound sacks,
17 except, I was able to talk someone, our farm
18 supplier, into giving me half a pallet, which is
19 40 40-pound sacks, and we use two sacks each time
20 we spray, so we use 80 pounds on 10 acres. That
21 might be a little wrong.

22 But anyway, just so you see the

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1 difference in magnitude between the amount of this
2 we're using versus the amount that it would for soil
3 applied, because some people do get concerned with
4 the chloride in this, even though it's a mined
5 mineral, and the chloride really is a very minimal
6 source of chloride when you use it in this way.
7 Harold.

8 MR. AUSTIN: Add further clarification
9 to that, Zea, we'll put on, roughly, 3 pounds per
10 application, for a total of about 30 pounds full
11 year, per season, of the calcium chloride.
12 Calcium, for us, likewise, helps with bitter pit
13 control in the fruit. It's especially essential
14 for us farming organically, because,
15 conventionally, they've got the tools once the
16 fruit goes into storage that they can prevent some
17 of the decay and the breakdown of the cell structure
18 of the apple.

19 The calcium, what it does is, help
20 strengthens the apple's cell structure from the
21 calcium uptake within the fruit itself, and it's
22 hard to get that to initiate. We start that about

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1 when the fruit's about golf-ball size, and then
2 we'll apply it once a week until about two weeks
3 before harvest. But for us, we use it on our
4 conventional fruit as well, but it's definitely a
5 more critical use to have the availability of this
6 in our organic production for sure.

7 MS. SONNABEND: Okay. Any further
8 discussion? Then the motion is on the floor to
9 remove this -- yes, remove calcium chloride, and
10 this is from 205.602, which means that if we remove
11 it, it is allowed unrestricted.

12 CHAIR FAVRE: We'll begin the voting
13 with Harriet.

14 MS. BEHAR: No.

15 MS. SONNABEND: No.

16 MR. RICE: No.

17 MS. OAKLEY: No.

18 MR. THICKE: No.

19 MR. AUSTIN: No.

20 MR. BUIE: No.

21 MS. BECK: No.

22 MS. SWAFFAR: No.

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1 MS. DE LIMA: No.

2 VICE CHAIR CHAPMAN: No.

3 MR. SEITZ: No.

4 MS. RICHARDSON: No.

5 CHAIR FAVRE: Chair votes no.

6 MS. DE LIMA: That's 14 no, 1 absent,
7 the motion fails.

8 MS. SONNABEND: Thank you. Now, next
9 listed on our agenda is the discussion document on
10 strengthening organic seed and is Kiki here? And
11 do you have her presentation? Okay. So the way
12 we're going to work this is, I'm going to just
13 present what we put out there for the discussion
14 document, and then before we have the full
15 discussion, we're going to invite Kristina Hubbard
16 up to give a presentation about the survey on the
17 state of organic seed use, and then we will launch
18 into asking her questions, followed by discussion.

19 So in our three-plus years of work on
20 seed purity from GMOs, it became repeatedly
21 apparent that there were obstacles in creating a
22 sufficient supply of organic seed, partially

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1 because of incursion of GMOs into both our fields,
2 and breeding lines, and things like that, and lack
3 of incentive without strong adoption of organic
4 seed, lack of incentive for plant breeders and
5 growers to source more organic seed.

6 So after getting public comment on this
7 in the seed purity thing, we sort of moved it over
8 into the Crops Committee, where it belongs, with
9 the idea to take another look at the NOP guidance
10 502.9, which covers organic seed in planting stock.

11 This came from a draft which was based
12 on an NOSB recommendation in 2010, and the draft
13 was put out in 2011, so this is quite a few years
14 ago now, and with these very important issues like
15 organic seed, it's always worth taking another look
16 at it.

17 So we did that, we sort of summarize all
18 of the points that had been raised along the way
19 here, and we asked the public to comment on them,
20 and also for more points. Because this is a
21 discussion document and we're going to, I'm sure,
22 have many future board discussions on it, I'm not

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1 going to spend a great deal of time talking about
2 the public comment, except to say that pretty much
3 all the public comment that we got was supportive
4 of us taking up this project and re-looking at the
5 seed guidance because they felt that it was
6 inadequate in a number of key areas, and so everyone
7 does appreciate this effort.

8 Okay. So with that, I will ask Kiki to
9 come up and Michelle is going to put up her slides.
10 So when the subcommittee was discussing this, we
11 thought it would be really good to hear from someone
12 who has their pulse on the state of the organic seed
13 industry and no one better than the Organic Seed
14 Alliance, because they, at the time, it was
15 actually in-between the time the draft guidance
16 came out and the final guidance, they undertook a
17 survey of all of the certified parties who wanted
18 to participate on the state of organic seed in the
19 country then, and then they have repeated the
20 survey five years later.

21 And so I am going to tell you about Kiki
22 before we bring her up here; before she starts. So

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1 Kristina, or Kiki, Hubbard is the Director of
2 Advocacy and Communications for the Organic Seed
3 Alliance. She's worked for 15 years in the
4 non-profit sector on issues of biotechnology, seed
5 industry consolidation, and intellectual property
6 rights.

7 Her Master's research focused on
8 co-existence policy, was published in the Journal
9 of Agriculture and Human Values. Her work is
10 frequently published elsewhere, including two
11 books, Organic Crop Breeding and U.C. Berkeley
12 Press' forthcoming, Food Democracy.

13 She leads OSA's efforts to promote
14 policies that support the development of seed
15 systems that are responsive to the needs of organic
16 agriculture and she's the lead author of Organic
17 Seed Alliance's latest state of the organic seed
18 report. She's from Missoula, Montana. Thank
19 you, Kiki.

20 MS. HUBBARD: Thank you, Zea. I want
21 to thank all of you for inviting me here. Thank
22 you, Miles, for the formal invitation, and thanks

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1 to the Board for your interest in organic seed, this
2 topic, and ongoing work. Thank you, too, to the
3 outgoing members. Zea, you in particular, as
4 stated earlier, have taken a lot of initiative and
5 leadership on organic seed policy initiatives and
6 we're really grateful to you, to your work, and
7 those of your colleague.

8 It's an honor to be here and share an
9 update on our state of organic seed project. For
10 those of you who aren't very familiar with our
11 group, we're a non-profit that works nationally to
12 advance ethical seed solutions to meet food and
13 farming needs in a changing world.

14 And we do this through research,
15 education, and advocacy. We have three plant
16 breeders on staff who work with other breeders and
17 farmers to develop new varieties of crops that do
18 especially well in organic systems, and we host
19 dozens of educational events every year to teach
20 farmers how to grow seed at a commercial scale on
21 their organic farms, as well as how to conduct
22 on-farm variety trials and plant breeding

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1 projects.

2 And then our advocacy program promotes
3 policies that support the development of seed
4 systems that are resilient and responsive to the
5 ever-changing needs of organic growers.

6 Our state of organic seed project is an
7 ongoing one. We are committed to updating this
8 data and our recommendations every five years so
9 that we can measure the progress we're making and
10 increasing the availability, quality, and
11 integrity of organic seed available to growers here
12 in the U.S.

13 Our most recent report serves as our
14 first five-year update, so it's the first time that
15 we're able to track these metrics, and again,
16 measure the progress in the ways that I just
17 mentioned, and we are making progress, as I'll
18 mention and describe to you here shortly.

19 But just quickly, I want to be clear
20 what our overarching goals are, both for the
21 project and as a movement. We envision an organic
22 food supply that is built on a foundation of organic

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1 seed. We all know that when the federal standards
2 were passed, the organic seed industry was barely
3 in existence, and while we've made tremendous
4 progress, we still have a ways to go to having the
5 organic seed supply meet and expand to meet the
6 growing demand of the broad organic food industry.

7 And while we know we have a ways to go
8 to meet the diverse regional needs of growers, we
9 do believe that our long-term goal should be,
10 eventually, to have 100 percent organic seed usage
11 and to meet that goal through measurable and
12 reasonable means.

13 As we work toward this goal, it will
14 never be our intention to promote policies that
15 force growers to use a seed that may be
16 inappropriate for their farms. And we want to
17 advance organic seed to help organic growers meet
18 the regulatory requirement, but more importantly,
19 we believe that the benefits of developing seed
20 systems that serve as an alternative to the
21 dominant seed industry is incredibly important for
22 the health and success of agriculture.

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1 More broadly, I believe that this is
2 especially important as we face three of the most
3 historic seed industry mergers of our time that
4 threatens to further consolidate and privatize our
5 plant genetic resource space.

6 And we believe that it's an obligation
7 as an organic community to create a different path
8 for organic seed so that we have a system that,
9 again, is much more responsive and resilient to the
10 different needs and changing needs of organic
11 farmers, and we believe we can create these
12 alternative systems while still delivering
13 high-quality organic seed that meets growers of all
14 crop types and scales.

15 Lastly, we believe strongly that
16 fostering organic seed systems not only helps us
17 address the issue of availability, it also
18 addresses other concerns in the areas of seed
19 purity and intellectual property rights.

20 So what progress have we made? As our
21 recent findings show, we are making progress, as
22 I'll quickly summarize here shortly, and we arrived

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1 at this conclusion through a number of surveys and
2 other data collection methods. We collected, as
3 Zea mentioned, we conducted a national survey of
4 certified organic crop growers to understand how
5 much organic seed they were using, and again,
6 compare this data to the data published in 2011,
7 understand the perspectives on organic seed and
8 experiences with organic seed.

9 We surveyed accredited certifying
10 agencies, 22 responded, representing about 70
11 percent of certified organic crop acreage in the
12 U.S., to understand how they were enforcing the
13 organic seed requirement, and what their needs were
14 in terms of trainings and more clarity with the
15 guidance.

16 We also surveyed organic seed companies
17 to better understand what challenges they faced in
18 growing their businesses in terms of creating and
19 supplying a more robust supply chain of organic
20 seed. We also surveyed researchers who are
21 conducting organic plant breeding and other
22 organic seed research to understand their

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1 successes, challenges, and ongoing research needs.

2 We conducted a deep analysis of
3 investments, public and private, in organic
4 breeding, and other organic seed research, to
5 understand advancements in this area, as well as
6 gaps. I'm not going to dwell too much on those
7 findings, but I'm happy to answer questions moving
8 forward.

9 So just quickly, as I mentioned, we're
10 making progress. Over the last five years, 27
11 percent of growers responding to our survey say
12 that they're already using 100 percent organic
13 seed, and this represents growers across crop
14 types. Just a slight improvement over our 2011
15 findings, where 20 percent of certified growers
16 said they were already using 100 percent organic
17 seed.

18 More than 30 percent of the organic
19 farmers responding to our survey say that they've
20 increased their use of organic seed over the last
21 three years. Again, this is across crop types.
22 Just quickly, I have a copy of our state of organic

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1 seed report for all of you that I'll provide you
2 this afternoon, and suffice it to say, there's a
3 lot of data in that report, over 100 pages worth,
4 and so all of these findings are broken down by crop
5 type if you want to dig deeper when you have the
6 report in front of you.

7 We also found an improvement in terms
8 of grower satisfaction with the quality of the
9 organic seed they're using. About 75 percent of
10 the growers responding say they have about the same
11 issues with organic seed as they do with
12 conventional untreated, and we also asked specific
13 questions about quality issues, and we saw a slight
14 improvement in, again, the satisfaction growers
15 have with organic seed they're planting in the way
16 of better germination rates, being true to type,
17 as well as weed contamination issues. Again,
18 representing an improvement over our 2011 report.

19 One exciting finding is that farmers
20 responding to our survey demonstrate an increased
21 understanding for the importance of organic seed.
22 In other words, 85 percent of growers responding

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1 to our survey agreed that organic seed is important
2 to the integrity of the products they're growing,
3 and that breeding in and for organic production
4 systems is important to their success and the
5 long-term success of the organic industry.

6 And I think this is an important finding
7 in that we are understanding and research is
8 starting to show the benefits of growing crops in
9 the environment of their intended use.

10 Again, I mentioned we've seen increased
11 investments with both public and private
12 investments in organic plant breeding and other
13 organic research initiatives. Happy to go into
14 detail about the different projects funded by
15 region, the programs funding this research, but
16 again, I just wanted to show this slide which shows,
17 then, the five last years alone, we have seen \$22
18 million invested in these initiatives.

19 In our report in 2011, we reported a
20 mere \$9 million since 1996. We have a tremendous
21 need to increase this funding, of course. This
22 funding still pales in comparison to research

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1 funding going toward non-organic interest.
2 Still, it's exciting to see interest and
3 acknowledgment that this type of research for
4 organic seed is important.

5 So in what areas have we seen little or
6 no progress? First, as we saw before in the chart
7 demonstrating growers increased use of organic
8 seed or lack of sourcing of organic seed, we know
9 that most growers still rely on conventional seed.
10 I think we all know that. About 75 percent of
11 growers use untreated conventional seed for at
12 least part of their operation.

13 This demonstrates, still, a huge need
14 and opportunity for us moving forward. We also saw
15 that while across most crop types, we found an
16 improvement in terms of increased acreage planted
17 to organic seed in field crops, vegetables, and
18 cover crops, we saw a decrease in forage crop
19 acreage planted to organic seed, so this also
20 presents both a lack of progress as well as an
21 opportunity to focus on that particular area of the
22 industry.

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1 As we found in 2011, the largest
2 operations are still using relatively little
3 organic seed and there are a number of reasons for
4 that, including reasons that are the same for
5 smaller operations, whether it's not being able to
6 find a variety in an organic form, or an equivalent
7 variety, not finding desirable traits, even price,
8 and we know price is not an allowable reason for
9 not sourcing organic seed, but according to our
10 survey, and as we all know, price is still a factor
11 for growers at times when not sourcing organic
12 seed, although we found it to be less of an issue,
13 or less of a reason, I should say, in our last
14 survey.

15 When we look at this chart here before
16 you, we see, in vegetables in particular, the
17 significant difference in acreage and scale
18 planted to organic seed. So growers, for example,
19 who have 10 or less acres are planting, on average,
20 75 percent of their acreage to organic seed. We
21 see that acreage planted to organic seed decrease,
22 or the amount of organic seed planted decrease, as

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1 acreage increases.

2 By the time we get to 480 acres, we see,
3 on average, only 20 percent of that acreage being
4 planted to organic seed. Of course, these larger
5 operations have a huge impact on overall acreage
6 planted to organic seed, so this is an important
7 reality to keep in mind as we discuss and improve
8 organic seed guidance and talk as a certification
9 community, and as an organic seed community more
10 broadly, since it's going to take a number of
11 stakeholders to support the increased volume and
12 diversity of organic seed that growers need.

13 Lastly, in terms of ongoing needs and
14 areas where we have seen less progress, we were
15 actually quite surprised to hear from farmers in
16 our survey that they reported less encouragement
17 from their organic certifiers to take extra
18 measures to source organic seed.

19 In 2011, 60 percent of growers
20 responding to our survey said that their certifiers
21 were encouraging them to go beyond three sources,
22 for example, or to conduct variety trials to

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1 identify equivalent varieties. In our last survey
2 published this past June, that number was switched
3 and only 40 percent of growers said that their
4 certifiers were encouraging them to take extra
5 measures.

6 The issues are complex. Needless to
7 say, we know that certifiers play an important role
8 in encouraging the development of organic seed
9 systems more broadly, because as you see in the
10 second graph, I apologize, it's pretty small, we
11 see that for those growers reporting that their
12 certifiers encourage, they take extra measures to
13 source more organic seed, indeed, they responded
14 accordingly, and our data shows that, that those
15 are the growers that actually, indeed, increased
16 their organic seed sourcing.

17 So I'm going to quickly just run through
18 a few ongoing challenges before moving right into
19 recommendations. I want to keep this short and
20 leave plenty of time for questions. As discussed
21 in public comment, thank you, and in written
22 comments, there is inconsistent enforcement in how

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1 the organic seed requirement is being enforced.

2 And so that's one of the reasons why
3 we're so grateful to see this discussion document
4 to strengthen the organic seed guidance, and I
5 think we and others in the community have provided
6 some strong recommendations for how to strengthen
7 it. We're also humble to the fact that we don't
8 have all the answers, and so we're looking forward
9 to ongoing dialog in that regard.

10 We believe there's a need for better
11 data to track organic seed availability. If we are
12 to move toward removing the exemption, say, by crop
13 type and region, as Europe has done, we need better
14 data to understand what organic seed is available,
15 we need reliable data on an annual basis to
16 understand gaps and to also identify where we're
17 making progress, and if and when it is appropriate
18 to close the exemption.

19 We also know that we need more funding
20 and infrastructure for very necessary organic seed
21 work, research, innovation, plant breeding, and
22 other organic seed research, not just to advance

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1 more appropriate genetics that support organic
2 farmers, but to also better support organic seed
3 producers in the field so that they have better
4 resources to support their skills in developing a
5 high quality organic seed crop, whether for their
6 own farm or to sell commercially.

7 We also, on that note, lack a capacity
8 of organic seed producers here in the U.S. This
9 actually remains one of our biggest challenges
10 moving forward, is training more skilled organic
11 seed producers. It takes a special skillset, we
12 know, to produce seed. And yet, there's a lot of
13 interest. Our survey also shows that more than 60
14 percent of farmers responding to our survey are
15 interested in taking trainings in organic seed
16 production.

17 And in fact, about 60 percent are also
18 already doing some seed saving or commercial scale
19 seed production, so there's a huge opportunity to
20 take advantage of the interest and existing
21 knowledge base, and take that to the next level
22 through trainings and education so that we can

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1 build our capacity nationally to support a robust
2 organic seed supply chain, and there's a lot that
3 comes with that training, and I'm not going to get
4 into now.

5 Lastly, of course, there remains, as we
6 talked about this morning, the burden of
7 genetically-engineered crops and excluded
8 methods. I applaud the Board for all of your work
9 to identify areas to improve, from an organic
10 standpoint, areas for preventing the problem to
11 begin with, and to encourage USDA Secretary Vilsack
12 to move forward with policies, to explore policies,
13 that ensure more shared responsibility for
14 preventing the problem and making those players
15 whole who are, indeed, economically harmed at times
16 by the unwanted presence of genetically-engineered
17 material in their organic seed and crops.

18 Intellectual property rights issues
19 are of concern both for advancing organic seed
20 research and to also, at times, inhibiting farmers
21 in their role as seed innovators on their farm, be
22 it through basic seed saving or crop improvement

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1 projects that help to diversify and build, again,
2 a national supply chain of organic seed.

3 So finally, recommendations as they
4 pertain to some of the documents in front of you
5 this week. Our comments are quite detailed, our
6 written comments. I'll point out our three main
7 recommendations as they pertain to the organic seed
8 guidance, which include establishing measurable
9 improvements for organic operations that are not
10 demonstrating improvement year to year.

11 We believe, two, that there are enough
12 organic seed suppliers now to require, at minimum,
13 consulting five sources, as well as encouraging
14 on-farm organic variety trials. Not only are
15 there more resources to support growers in doing
16 so, they can be done in a way that doesn't have to
17 be onerous to their operations, and we look forward
18 to providing those resources or supporting that
19 conversation further as appropriate.

20 We also believe that a stronger
21 guidance should be coupled by regular certifier and
22 inspector trainings. We've collected a number of

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1 ideas through our certifier training, which I'd be
2 happy to share with you following this meeting.
3 Those trainings should be an opportunity both for
4 discussing some of the challenges the
5 certification community faces when enforcing the
6 requirement and understanding organic seed
7 availability issues.

8 It's also an opportunity to emphasize,
9 again, the importance of making more improvement
10 in the area of organic seed so that we can continue
11 to ensure and move toward organic integrity along
12 the entire production chain, beginning with
13 organic seed.

14 And then as I mentioned before, it'd be
15 really great, and I think appropriate, for the NOP
16 to explore a role for establishing a system of
17 reviewing organic seed availability in a
18 systematic way. Ideally, this would be coupled
19 with an organic seed resource, a central
20 clearinghouse of information, such as the Organic
21 Seed Finder Web site, that provides a resource for
22 growers to source organic seed, and certifiers to

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1 better understand through the lists available
2 through such a database, what organic seed is
3 available.

4 Ideally, these resources would work
5 collaboratively so that we can both monitor
6 progress, identify gaps, all the while helping
7 growers find the organic seed they need to be
8 successful. We do not have an easy solution or
9 more creative idea for doing so, but I'm optimistic
10 that there's an opportunity there that we haven't
11 been able to clearly articulate yet.

12 And I want to speak quickly on the issue
13 of excluded methods. I applaud the Board for
14 unanimously passing that proposal. Miles, I
15 strongly encourage you to take seriously the
16 urgency in turning that proposal into a formal
17 guidance.

18 I think it's essential that we now, with
19 this general consensus, are very clear as an
20 organic community, that we have this framework in
21 place that will guide current and future decisions
22 as guidance to help us not just draw a line in the

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1 sand with some of these technologies that are
2 currently excluded, but to have a touchstone moving
3 forward in terms of what those principles are that
4 guide our work as an organic seed community and as
5 an organic regulatory community.

6 So I urge the rapid adoption of that
7 proposal into guidance. And finally, on the issue
8 of seed purity, OSA has provided a number of
9 detailed recommendations on that topic. Again, I
10 applaud the Board's work. I think there's a lot
11 more work that needs to happen to ensure that we
12 are not establishing policies that have the
13 unintended consequence of slowing or even going
14 backwards in terms of ensuring that organic seed
15 is available, especially in at-risk crops like
16 corn, but we are very supportive of the seed purity
17 work in moving forward with exploring a seed purity
18 standard.

19 And I, again, applaud your work on that
20 and look forward to further discussion on that
21 topic. That's all I have for you right now.

22 MS. SONNABEND: Thank you very much.

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1 Are there questions? Harriet.

2 MS. BEHAR: Hi, Kiki.

3 MS. HUBBARD: Hi, Harriet.

4 MS. BEHAR: So in the upper Midwest, we
5 grow a lot of grain, and there is a lot of
6 pre-contracting with growers, and it seems that
7 we're always asking the growers to trial and seed
8 source, but many times it's the handler who's
9 saying, grow this variety. So I'm wondering, too,
10 if there couldn't be some guidance to certifiers
11 to perhaps add a few more questions to their
12 handling inspection checklist, such as are you
13 pre-contracting? Are you looking for organic seed
14 varieties?

15 I mean, because they are, obviously,
16 then selling that product on to others who have
17 specific needs. So I don't want to have the
18 farmers be stuck in the middle that, you know, they
19 are trialing out varieties that they know that
20 their handler is not even going to want to buy.

21 MS. HUBBARD: Thank you for bringing
22 that up, Harriet, because it's on my slide, but I

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1 forgot to mention it, as a recommendation, and that
2 I think it was a mistake with the current guidance
3 that was finalized in 2013, to deliberately exclude
4 handlers. At the very least, handlers that are
5 responsible for directly sourcing seed that their
6 contracted growers use, they should, at the very
7 least, be required to have those organic seed
8 questions as part of their organic systems plan,
9 since as you say, at times, it's these contracts
10 dictating whether organic seed is used or not.

11 Too often, varieties are required to be
12 grown by contracted growers that are not available
13 in organic form or in the quantity they need. And
14 this is an important opportunity that is very
15 doable with collaboration and coordination in
16 terms of communicating, creating a feedback loop
17 with the processor, the handler, the contracted
18 growers, and the seed production companies so that
19 the seed production companies are aware of the
20 varieties and/or equivalent varieties that might
21 need improvement, or to be produced organically,
22 in the quantity they need.

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1 But those conversations, especially at
2 that scale, have to happen well in advance of the
3 growing season, and so those types of questions and
4 guidance need to be a part of this document so that
5 we can make more rapid and impactful progress when
6 it comes to some of the larger operations.

7 It's not always -- sometimes there's
8 concerns with price, of course, but oftentimes it's
9 not a disregard of organic seed or the importance
10 of organic seed, but simply a lack of availability,
11 say, in the quantity, but that requires more work.
12 And so there needs to everybody guidance and a good
13 faith effort on the part of certifiers to be asking
14 those questions.

15 And again, especially for handlers who
16 are either directly sourcing the seed or I would
17 take that further and we would suggest that even
18 those that are dictating a certain variety, even
19 if they are not directly sourcing the seed, I think
20 those handlers too should be responsible for
21 helping to meet the organic seed requirement.

22 MS. SONNABEND: Dan.

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1 MR. SEITZ: A couple questions. Is it
2 conceivable that an at-risk crop could become so
3 widely extensively genetically polluted by GMO
4 seed that you could actually lose that crop or are
5 there ways to ensure that no crop, no matter how
6 at risk, there'll be that option to produce it
7 organically?

8 MS. HUBBARD: Well, there's no
9 threshold in place, so right now, a contaminated
10 crop can still be organic. Does that answer your
11 question?

12 MR. SEITZ: That answers that
13 question, but in terms of the actual genetic --
14 being genetically compromised, could an entire
15 at-risk crop be lost in terms of you not even having
16 the possibility of growing it and it being
17 uncontaminated. Over time. Yes.

18 MS. HUBBARD: I have great faith that
19 our genetic resource base is still diverse enough
20 and broad enough that there are alternatives if we
21 are making investments in different lines, say,
22 different parent lines for producing hybrid

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1 organic seed, field corn, that we would need to then
2 invest in producing crop improvement and seed
3 production in lines that aren't -- that don't have
4 levels of a prohibited substance, of an excluded
5 method.

6 Part of the need here, of course, is
7 monitoring, and testing, and data collection.
8 Seed companies producing at-risk crops, that I
9 talked to you, they're all testing, and at a great
10 cost, and they have internal thresholds. And so
11 part of it is monitoring the problem, but that takes
12 a system for collecting that data, as well as an
13 ongoing conversation about appropriate testing
14 protocols and a possible threshold.

15 MR. SEITZ: And then just a follow-up
16 question, and again, this is just from my
17 standpoint of not being a farmer, and not raising
18 seeds, and so forth.

19 MS. HUBBARD: Yes.

20 MR. SEITZ: If you say something,
21 there's five percent contaminated, you know, bag
22 of seeds or something, what does that mean in terms

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1 of when you sow those seeds, are five percent of
2 the plants that grow have genetic traits that have
3 been modified or all the seeds are slightly
4 producing something slightly different?

5 I mean, I just have no idea what that
6 means when you have contaminated seed and it's
7 actually sowed.

8 MS. HUBBARD: My understanding is that
9 that percentage only represents the sample taken
10 for that testing, so that seed planted would have
11 the five percent content.

12 MR. SEITZ: But what does that mean in
13 terms of the actual plants that grow, would you have
14 a certain number of those being the genetically
15 modified variety of that crop or I just --

16 MS. HUBBARD: Well, it wouldn't be,
17 necessarily, a genetically-modified variety if
18 that presence is unintended and it came through
19 other routes. There are also other routes of
20 contamination, of course, beyond just the seed,
21 beginning with a low level of presence.

22 I'm not sure I'm totally understanding

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1 your question in that it really depends on the
2 situation and perhaps even other routes of
3 contamination if you're asking what the end product
4 would have.

5 MR. SEITZ: And I'm not entirely --
6 okay. Sure.

7 MS. RICHARDSON: Let me try with the
8 answer. I think what Dan is getting at is this,
9 if five percent of the bag is contaminated, is that
10 then going to multiply when you plant it this year,
11 next year, you save some, or whatever it might be,
12 and you plant some more, does it mean that it goes
13 from five percent to 25 percent? They have little
14 seeds, they spread, so to answer it from looking
15 at it from a plant domestication point of view is
16 that what you'll end up with is, it really will
17 depend on the type of gene, or genetic
18 modification, or excluded method that's in that
19 seed line as to whether or not you get an increase
20 and how much that increase is going to be.

21 But there's still enough of a gene pool
22 of most of these varieties that we have now so that

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1 you don't have to be as worried, I think, perhaps,
2 as you might be as to the expansion of that
3 percentage when you plant a field that's going to
4 have a certain small percentage in to start off
5 with.

6 MS. HUBBARD: Can I add one thing, Zea,
7 quickly?

8 MS. SONNABEND: Sure.

9 MS. HUBBARD: Just to add to the
10 alternatives and diversity that exists, there is
11 good genetic diversity out there that we can pull
12 from for breeding new varieties and for seed
13 production generally. However, especially in the
14 case of corn, what we see is that these organic seed
15 production companies, for field corn especially,
16 are pulling from a very narrow pool of germ plasm.

17 A narrow pool because the biggest
18 genetics firms make very few of these lines
19 available in an untreated form that is appropriate
20 for organic seed production. And at times, these
21 licenses for licensing those lines, can even
22 dictate whether you're allowed to test for

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1 genetically-engineered material, which further
2 puts at risk -- further adds cost and further puts
3 at risk, their ability to produce and diversify the
4 organic seed supply for that particular at-risk
5 crop, and that's a reality that just needs to be
6 part of the conversation moving forward with
7 studying the seed purity standard.

8 It's not a reason not to, but it's a
9 reality that we have to be aware of.

10 MS. SONNABEND: Thanks. I'm going to
11 call on myself next because I had my hand up first,
12 then Tom, and then Scott. I did. I had my hand
13 up. And Dan's question is one of the key reasons
14 that we posed having a seed purity task force,
15 because we don't have enough research on what
16 happens to that seed if it's five percent to start
17 with.

18 We've heard indications that it can
19 increase a great deal, but as Jean mentioned, it
20 does depend on the crop, the pollination nature,
21 the conditions, you know, lots of variables, and
22 so that is one of the things we really want the seed

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1 purity task force to study. Tom.

2 VICE CHAIR CHAPMAN: So I had two
3 questions, one, can you speak a little bit more
4 about the measurable improvements recommendation?

5 MS. HUBBARD: Yes, I think, again, we
6 would hope that it applies to operations that
7 aren't demonstrating improvement year to year, and
8 that the guidance document, I think -- or excuse,
9 the discussion document, I think, provides some
10 good metrics to suggest ways to do that, either by
11 percentage of acreage increased planted to organic
12 seed, or number of varieties, so we agree that
13 that's a first good step in terms of
14 recommendations for measuring, again, reasonable
15 progress.

16 We know the issues are complex, but we
17 do believe we need to approach it in a reasonable
18 and measurable way.

19 VICE CHAIR CHAPMAN: And then a couple
20 items today have pointed to the fact that we have,
21 we being, I guess, not me, but the program has
22 limited resources and several items on the agenda

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1 already, moving things forward can be difficult,
2 if you were to, say, prioritize the biggest bang
3 for the buck in terms of your recommendations,
4 where do you think's the best area to focus first
5 for greatest return?

6 MS. HUBBARD: The list of
7 recommendations in front of you right now?

8 VICE CHAIR CHAPMAN: Yes, where of
9 those?

10 MS. HUBBARD: I think improving and
11 clarifying the guidance is a first great step and
12 what easily follows is adding that as agenda items
13 to your annual trainings that already happen, in
14 addition to -- well, I'm not answering your
15 question correctly because I'm giving you all these
16 ideas.

17 Tom, let me just emphasize one thing
18 again, this system for tracking availability,
19 like, the actual seed supply, I can't actually
20 overemphasize that enough because that will
21 support the seed trade and encouraging them to make
22 more investments to understand gaps in progress

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1 we're making. It's going to help growers find
2 organic seed that may be better, just as good as
3 the unconventional untreated seed they rely on now,
4 it'll help certifiers have more faith in their
5 decisions when it comes to enforcing the
6 requirement, and I believe there's a way to create
7 this comprehensive system for tracking and to make
8 that data available to serve all of those purposes.

9 And so in many ways, I think that's most
10 essential thing you can do, although, it'll
11 probably be the hardest.

12 MS. SONNABEND: Scott was next.

13 MR. RICE: Back to your point on
14 encouraging handlers to use organic seed. We've
15 seen that as a challenge in the growers that we work
16 with at our agency, or the handlers. I was
17 heartened, however, a couple years ago, to be on
18 an inspection and going over organic seeds, and
19 speaking with a rather large producer, processing
20 vegetables, had worked directly with an organic
21 seed producer trialing some carrot. It was mixed
22 results, but it was something that they did on their

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1 own accord and showed great interest and look
2 forward to hopefully seeing that expand more.

3 And then with that same producer, being
4 on less of a positive note, standing in a pea field
5 that they'd seeded five times in the spring before
6 they got a stand that could actually produce a crop.
7 And pointing to, as you've repeatedly mentioned,
8 the need for a greater research, so definitely see
9 that as a need and also some bright spots out there.

10 MS. SONNABEND: Emily was next. Oh,
11 Francis was next? And then Emily. Okay.

12 MR. THICKE: Thank you. Relative to
13 the discussion about seed contamination, Dan, you
14 were talking about that, and I had an interesting
15 conversation with Dr. John Fagan of Genetic-ID
16 recently and I heard about a technology I had not
17 known about, and maybe you all know, he said you
18 can clean up a seed supply by -- you can test seeds
19 by scraping a little bit of tissue off and testing
20 them without destroying their ability to
21 germinate.

22 So you could make little lots up and you

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1 could test ten seeds here and ten seeds there, and
2 those lots that are clean, you could grow out again,
3 start over, and have a new clean supply. It'd be
4 a long process, but it can be done.

5 MS. OAKLEY: I just wanted to point out
6 the obvious that when growers don't use organic
7 seed and others do, those of us who do are at a
8 competitive disadvantage to those who don't
9 because we're putting in the investment, both in
10 trialing, and obviously, in the cost of the seed,
11 so I just can't emphasize enough the need to expand
12 this effort.

13 And I also think these conversations go
14 a long way, because they trickle down all the way
15 down to the growers, and certifiers, and emphasize
16 the need that what we do on our own farms is not
17 enough. It's about the wider organic community
18 and the practices that we bring on to our farms
19 reflect that.

20 MS. SONNABEND: So one or two more
21 questions, comments, and then I think we'll wrap
22 it up. Miles.

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1 MR. MCEVOY: Yes. Awesome work.
2 Really good information will help us to move this
3 issue forward. Lots of really good information.
4 There's a lot of things to talk about here. I think
5 the main thing that I'd like to say is that we have
6 the regulatory framework within the regulations
7 that we have to live within, and guidance can
8 provide some help in terms of a way to comply with
9 the requirements, or interpretations, but they're
10 not regulations.

11 And so they can only take us so far, so
12 for instance, on the excluded methods
13 recommendation that was just passed, we will look
14 at it at AMS and determine what's the best path
15 forward for implementation. Guidance may be the
16 best path forward. It's also possible that
17 regulatory change might be another path.

18 So for some of the things that you're
19 suggesting, measurable improvements, that's not a
20 requirement in the regulations. The regulations
21 require that organic producers, that's the
22 producer that is the one that's required to do this,

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1 use organic seeds. And they have to use organic
2 seeds unless they're not commercially available.

3 There's a definition of what
4 commercially available is and that's what the
5 guidance tries to do, is to tease a little bit more
6 what commercial availability is and the procedures
7 for a grower to go through. And specifically, a
8 grower has to have in their organic system plan that
9 they have procedures for determining commercial
10 availability.

11 And it doesn't specify how they do that,
12 they can have many different methods of doing that,
13 the guidance provides one of those particular
14 methods. So the idea that a certifier can
15 encourage the use of more organic seeds or use that
16 measurement of more organic seeds being used as a
17 compliance point, it's just -- it's not part of the
18 regulations.

19 So if that's something that the Board
20 wants to look at as a part of the regulations, then
21 that's going to be a regulatory change.

22 Then the point on the data collection,

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1 great information in the report, maybe we can talk
2 with the Seed Alliance about some ways of
3 incorporating this kind of survey into a NASS
4 survey or the integrity database so we can get even
5 better data on who's using the organic seeds, how
6 much they're using, because I noted you got maybe
7 about 10 percent of organic growers that
8 participated, so, you know, how does that compare
9 to all the organic growers?

10 It would be nice to get better data and
11 I think you're totally correct that having an
12 organic seed database in terms of what's
13 commercially available, that's difficult, but
14 that's probably the best thing that we could do to
15 move this forward, because then you have that
16 information available, everybody has the same
17 information of what's available, what's not, and
18 then a regulatory approach can be taken based on
19 that data.

20 So we've made a lot of improvements or
21 a lot of success with the Organic Integrity
22 Database, maybe there'll be some additional

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1 resources that the next phase could be to help to
2 build a more robust organic seed commercial
3 availability database to complement that. Okay.

4 MS. HUBBARD: Can I ask you a quick
5 question? In terms of some of the recommendations
6 for measuring progress, am I just ignorant in not
7 thinking that those types of suggestions are simply
8 provided as just that, suggestions in a guidance
9 document? Are there other examples in guidance
10 that provide suggested ways to measure such
11 improvement or am I wrong?

12 MR. MCEVOY: Right, so the guidance
13 could provide specific ways to -- could suggest
14 that that's one way to measure success, but it's
15 not part of the regulations, so if someone does not
16 show that success, but they have other ways to
17 comply with the regulations, then the certifier
18 doesn't have any --

19 MS. HUBBARD: I understand what you're
20 saying. I think I misinterpreted it at first.
21 Thank you.

22 MS. SONNABEND: But to clarify what

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1 Miles said, when this does go back to the Crop
2 Subcommittee, the subcommittee could make a
3 recommendation that involves regulatory change as
4 well as additions to the guidance, and so that's
5 something that we'll clearly want to take a look
6 at going forward. Okay. So I think that we'll
7 wrap-up this discussion and, Madam Chair, I request
8 that we have our break now so this Crops Chair can
9 go to the restroom.

10 MS. HUBBARD: I just wanted to thank
11 our funders of our project, the Clif Bar Family
12 Foundation, Seed Matters Initiative, and UNFI
13 Foundation, made it possible for our second state
14 of organic seed report, so I just wanted to
15 acknowledge and thank them.

16 MS. SONNABEND: Thank you very much,
17 Kiki.

18 MS. HUBBARD: Thank you.

19 CHAIR FAVRE: Okay, folks, we're going
20 to take a break here and I'd like everybody back
21 here at 10:45. Thank you.

22 (Whereupon, the above-entitled matter

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1 went off the record at 10:32 a.m. and resumed at
2 10:50 a.m.)

3 CHAIR FAVRE: Okay. We're going to go
4 ahead and resume with the Crops Subcommittee.
5 Zea.

6 MS. SONNABEND: Thank you. Next up is
7 the petition materials and we're going to start
8 with aluminum sulfate, and, Lisa.

9 DR. BRINES: And I'll go ahead and
10 introduce this one before turning it over. The
11 petition for aluminum sulfate was request by
12 Chemtrade Chemicals U.S., LLC, and was received by
13 the program on March 1, 2014. The petition
14 requests the inclusion of aluminum sulfate to
15 Section 205.601 of the National List. There is
16 also a companion request for livestock use as a
17 litter treatment on 205.603 that will be discussed
18 during the livestock section of the agenda later
19 today.

20 In support of the petition review, we
21 did receive a request from the Livestock
22 Subcommittee to develop a technical evaluation

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1 report. That report is available to the public on
2 the Web site and was completed in 2015. Thanks.

3 MS. SONNABEND: Okay. This is
4 Francis.

5 MR. THICKE: Yes, so we're going to be
6 seeing aluminum sulfate twice, once in livestock
7 and once now. It was petitioned in both places.
8 And for livestock, it's commonly used in
9 conventional livestock production as a litter
10 amendment to reduce volatile ammonia.

11 In this case, they also want to petition
12 it for crop use, and actually, it's not limited in
13 the petition to just for manure that's been
14 treated, but actually, just for crop production.
15 And the reason they requested it is, aluminum binds
16 with phosphorus, and if you have too much
17 phosphorus in the soil, you can lose the phosphorus
18 to water resources and cause water pollution.

19 That's a big problem in a lot of places
20 in the Midwest where they put manure on every year
21 and every year, and they have phosphorus builds up
22 and up and up, and phosphorus is a real problem.

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1 But in organic systems, we in the Crops Committee
2 didn't think that was an important thing. Organic
3 producers tend to only put as much phosphorus as
4 they need for sufficiency. We usually are often
5 more short than we are long, and so we don't have
6 that problem that they have there.

7 As far as comments, we had a handful of
8 comments that were opposed to it, saying that it
9 was a hazard, aluminum sulfate is a hazard to human
10 health, it's toxic to poultry, and it becomes a
11 synthetic fertilizer when you apply it because it
12 has the sulfur in it. And also, that the mining
13 of bauxite to get the aluminum sulfate is an
14 environmental issue.

15 So the livestock petition basically
16 summarized, we in the Crops Subcommittee do not
17 think that aluminum sulfate is needed in organic
18 crop production because non-synthetic
19 alternatives to aluminum sulfate are available to
20 control ammonia in livestock facilities.

21 Number two, crop producers normally do
22 not put phosphorus on at their soils levels beyond

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1 sufficiency for optimum crop production, so
2 excessive soluble phosphorus should not be a
3 problem.

4 And number three, adding aluminum to
5 low pH soils could cause toxicity to plants.

6 Any comments or questions?

7 MS. SONNABEND: I do not see any, so
8 would you like to put the motion forward?

9 MR. THICKE: Do you want me to read the
10 motion? Oh, okay. A motion to classify aluminum
11 sulfate as synthetic first, and it's already been
12 a motion and seconded.

13 CHAIR FAVRE: Okay. As a reminder,
14 these are coming in as a seconded motion to the
15 floor. And we'll begin the voting with Zea, is
16 that correct? Yes? Zea.

17 MS. SONNABEND: Yes.

18 MR. RICE: Yes.

19 MS. OAKLEY: Yes.

20 MR. THICKE: Yes.

21 MR. AUSTIN: Yes.

22 MR. BUIE: Yes.

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1 MS. BECK: Yes.

2 MS. SWAFFAR: Yes.

3 MS. DE LIMA: Yes.

4 VICE CHAIR CHAPMAN: Yes.

5 MR. SEITZ: Yes.

6 MS. RICHARDSON: Yes.

7 MS. BEHAR: Yes.

8 CHAIR FAVRE: Chair votes yes.

9 MS. DE LIMA: It's 14 yes, 1 absent, the
10 motion passes.

11 MR. THICKE: And the next motion is to
12 add aluminum sulfate at 205.601. Who's first on
13 that?

14 CHAIR FAVRE: Sorry. Scott's first.
15 Go ahead.

16 MR. RICE: No.

17 MS. OAKLEY: No.

18 MR. THICKE: No.

19 MR. AUSTIN: No.

20 MR. BUIE: No.

21 MS. BECK: No.

22 MS. SWAFFAR: No.

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1 MS. DE LIMA: No.

2 VICE CHAIR CHAPMAN: No.

3 MR. SEITZ: No.

4 MS. RICHARDSON: No.

5 MS. BEHAR: No.

6 MS. SONNABEND: No.

7 CHAIR FAVRE: Chair votes no.

8 MS. DE LIMA: It's 14 no, 1 absent.

9 The motion fails.

10 CHAIR FAVRE: I just want to interrupt
11 here, and as a reminder for everybody to please mute
12 your phones and mute your computers. We're
13 getting some noise and feedback up here.
14 Appreciate it. Thanks.

15 MS. SONNABEND: Did you read the vote
16 already? You did? Okay. So, moving on to our
17 next one is soy wax. Lisa.

18 DR. BRINES: Thank you. This petition
19 was submitted by Beyond Pesticides on September
20 30th of 2015. The petition requests the inclusion
21 of soy wax to Section 205.601 of the National List.
22 This review of this petition was also on the agenda

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1 of the last NOSB Board meeting in April of this
2 year, and there was no technical report developed
3 in support of this petition. Thanks.

4 MR. THICKE: Okay. So, there is
5 already, now, a material called microcrystalline
6 cheese wax that is allowed for use as a production
7 agent for mushroom production on log-grown --
8 mushrooms grown on logs. And this would be in that
9 same usage. However, even if you use organic
10 soybeans to make it, it still would be a synthetic
11 because the process of hydrogenation is a chemical
12 change. So it still is a synthetic material.

13 We had some comments in favor of it.
14 One certifying agency even mentioned that they had
15 some requests from producers who wanted to use it.
16 However, we had one comment from a grower who said
17 he tried it and he was still working with trying
18 to make it work properly. He had seen some cracks
19 in the wax and some desiccation, although he did
20 say he was optimistic that he may be able to make
21 it work if he keeps working with it.

22 So his caution was that we don't take

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1 microcrystalline cheese wax off yet, or whatever,
2 you know, just to caution against that.

3 I think that's mostly what I had. Any
4 questions or comments? Yes.

5 MS. SONNABEND: Well, I have a question
6 first. The petition isn't to take
7 microcrystalline cheese wax off, it's to put this
8 one on. And so is the comment that we received
9 enough in favor of putting this one on that it will
10 eventually substitute for that?

11 MR. THICKE: It was unclear if it would
12 eventually substitute or not, so I think the point
13 they made is that, put it on, but don't take the
14 other one off.

15 MS. RICHARDSON: Francis, do you want
16 to present the reasons why we're going to be
17 changing the actual wording of the --

18 MR. THICKE: Yes, I'm sorry. We also
19 had comments on annotation. And do we have that?
20 We can put it up for everybody to read it. There's
21 a minor change. It really didn't change the
22 meaning, but it just changed the order of what we

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1 said. So if you compare this to what's written
2 before, the new annotation, must be made from
3 organic soybeans, soy wax from non-organic
4 soybeans produced without excluded methods may be
5 used when soy wax from organic soybeans is not
6 commercially available.

7 So we checked with the program and they
8 didn't think it was a substantial change. We just
9 changed the wording around.

10 MR. SEITZ: I was a little surprised by
11 the lack of producer support for this material,
12 given that it's another synthetic going on the
13 National List. We've used that as a justification
14 in other proposals coming forward, like some of the
15 poultry litter amendments. I'm curious to hear
16 what the subcommittee thinks about the amount of
17 grower support for this, or the lack thereof.

18 MS. BEHAR: So, one grower did write
19 in, Joe Krawczyk from Field and Forest in Peshtigo,
20 Wisconsin, and I know Joe, I've been to his farm,
21 and he is very open to this, but so far in his
22 trials, there has been some issue with it cracking

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1 and then allowing unwanted bacteria and mold and
2 fungi to enter into the log, and of course, then
3 inoculating it with unwanted fungi.

4 So, anyway, I support this because I
5 think one of the issues with the microcrystalline
6 cheese wax is that it does not breakdown in the
7 environment. And I have been in forests where
8 there are shiitake logs that are decomposing and
9 there's this whole little snow of little plugs of
10 white cheese wax all over the forest floor.

11 MR. THICKE: It's also made from
12 petroleum.

13 MS. BEHAR: Yes. It's a petroleum
14 product and that's one of the reasons why it doesn't
15 breakdown nearly as quickly. So this would
16 breakdown, the soy wax, so that's why I support
17 having both until we can at least develop a soy wax
18 that is usable, because we do want people to grow
19 shiitakes and not have a significant loss in the
20 production system by not having something
21 effective. So that's what I know about what the
22 growers think.

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1 MR. THICKE: Tom.

2 MS. BEHAR: That they would like to use
3 it, but so far they haven't found it being exactly
4 perfect yet.

5 MS. SONNABEND: Well, Scott said you
6 could go first, Tom.

7 VICE CHAIR CHAPMAN: So I was a little
8 confused about the biodegradability. I read
9 through the petition, and unfortunately, we don't
10 have a technical review on this item. I didn't see
11 any -- I saw items being spoken about in regards
12 to vegetable oil, but not the hydrogenated soy wax.
13 And I didn't see any citations to an ADMS standard
14 or another compostable standard. Did the
15 subcommittee discuss compostable standards?

16 MR. THICKE: No. So, you said
17 vegetable oil, but non-hydrogenated vegetable oil,
18 right?

19 VICE CHAIR CHAPMAN: Yeah.

20 MR. THICKE: Not hydrogenated. Yeah.
21 No, I guess the assumption in the petition was that
22 it was biodegradable.

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1 VICE CHAIR CHAPMAN: Okay. And then
2 in an organic operation, would it be allowable to
3 leave the microcrystalline wax in the environment
4 or would that be considered, you know, degrading
5 the natural system and not be allowed in an organic
6 system? Do we know?

7 MS. SONNABEND: Harriet.

8 MS. BEHAR: When I was inspecting an
9 organic shiitake operation, I mentioned it in the
10 report and there was no further communication from
11 the certifiers that they should clean it up. We're
12 talking about a lot of little plugs of wax.
13 There's many in each log and then they pile the
14 logs, so there's just a lot of it.

15 MR. RICE: Yeah, I was struck by the
16 lack of grower comment, with all due respect to the
17 gentleman that Harriet was mentioning. And I
18 guess I was a little confused as well that he talked
19 about the formulations and he was working on that,
20 but as far as the formulations that end up with
21 other growers, is that something that would be
22 their responsibility for determining or working

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1 with, or are we talking about a product that would
2 be commercially available?

3 I guess I can share some of the concerns
4 of adding another synthetic that may or may not be
5 biodegradable to the List.

6 MS. SONNABEND: Harold.

7 MR. AUSTIN: Well, I've got two points
8 of concern. I actually voted for this in the
9 subcommittee, but I'm going to probably change my
10 vote when we do bring this to a vote. But a couple
11 of concerns. One is about the degradation of the
12 material after being used. And secondly, that we
13 only did have one producer comment coming back into
14 it, and that producer did not have success with this
15 material. So it makes me wonder why we would put
16 a material that the only grower comment coming back
17 was unsuccessful use of it. It just doesn't make
18 practical sense to me.

19 MS. SONNABEND: Anyone else? Okay.
20 I guess we're ready to put it on the floor. It's
21 the motion to add soy wax to the National List, with
22 the annotation --

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1 MR. THICKE: Zea, classification
2 first.

3 MS. SONNABEND: Oh, classification
4 first. Didn't we vote on classification last
5 meeting, and therefore it stands? No, we do it
6 again? All right. Classification that soy wax is
7 synthetic.

8 CHAIR FAVRE: Okay. We have a
9 seconded motion. We'll start with Emily.

10 MS. OAKLEY: Yes.

11 MR. THICKE: Yes.

12 MR. AUSTIN: Yes.

13 MR. BUIE: Yes.

14 MS. BECK: Yes.

15 MS. SWAFFAR: Yes.

16 MS. DE LIMA: Yes.

17 VICE CHAIR CHAPMAN: Yes.

18 MR. SEITZ: Yes.

19 MS. RICHARDSON: Yes.

20 MS. BEHAR: Yes.

21 MS. SONNABEND: Yes.

22 MR. RICE: Yes.

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1 CHAIR FAVRE: Chair votes yes.

2 MS. DE LIMA: 14 yes, 1 absent, the
3 motion passes.

4 MS. SONNABEND: Okay. Now we have the
5 motion to add soy wax to 205.601 of the National
6 List. And is that the changed annotation motion
7 on the screen? Okay. I think we need that up
8 there.

9 CHAIR FAVRE: It's not. This is the
10 original petition -- proposal.

11 MS. SONNABEND: Okay. But we need it
12 with the changed one if I'm going to read it.

13 VICE CHAIR CHAPMAN: Point of order, do
14 we need to make a motion to amend first?

15 DR. BRINES: Oh, thank you. Yes,
16 since this didn't come out of the subcommittee as
17 an amendment, I would suggest that someone make a
18 motion to amend the language, if that's the intent
19 of the Board. That motion can be seconded, and
20 then if the amendment passes, then you can vote on
21 the amendment.

22 MS. SONNABEND: And is it two-thirds on

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1 the amendment?

2 DR. BRINES: No. It's a simple
3 majority.

4 MS. SONNABEND: Can I have a motion for
5 the amendment?

6 MR. THICKE: I'll make that motion to
7 amend the annotation as was read earlier.

8 MS. BEHAR: Second.

9 CHAIR FAVRE: Okay. We have a motion
10 from Francis and a second from Harriet. Any
11 further discussion? Okay. Hearing none, we'll
12 start the voting with Francis.

13 MR. THICKE: Yes.

14 MR. AUSTIN: No.

15 MR. BUIE: Yes.

16 MS. BECK: No.

17 MS. SWAFFAR: No.

18 CHAIR FAVRE: Hey, guys, we're voting
19 on the amendment.

20 MS. SONNABEND: We're only voting on
21 this changed language.

22 CHAIR FAVRE: Yeah, we're voting on the

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1 amendment, the change to the amendment. We're not
2 voting on the main motion.

3 DR. BRINES: So, to clarify the
4 outcome, if the motion to amend the list, the
5 current motion, fails, then you'll vote on the
6 original motion as it came out of the subcommittee.

7 CHAIR FAVRE: So do we want a reboot on
8 that, everybody? Okay. All right. So, erase
9 all those in the spreadsheet. Starting over.
10 Francis.

11 MR. THICKE: Yes.

12 MR. AUSTIN: No.

13 MR. BUIE: No.

14 MS. BECK: No.

15 MS. SWAFFAR: Yes.

16 MS. DE LIMA: Yes.

17 VICE CHAIR CHAPMAN: Yes.

18 MR. SEITZ: Yes.

19 MS. RICHARDSON: Yes.

20 MS. BEHAR: Yes.

21 MS. SONNABEND: Yes.

22 MR. RICE: Yes.

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1 MS. OAKLEY: Yes.

2 CHAIR FAVRE: Chair votes yes.

3 MS. DE LIMA: It's 12 yes, 3 no, is that
4 right?

5 MS. SONNABEND: No, 11 yes.

6 MS. DE LIMA: 11 yes, 3 no, 1 absent,
7 the motion passes.

8 CHAIR FAVRE: Okay. So now we have
9 approval for the revised motion, which it would
10 probably behoove us to have somebody read that
11 revised motion to us.

12 MS. SONNABEND: I can do that, I guess,
13 as Chair. Motion to add soy wax to 205.601 of the
14 National List as production aids. Soy wax, CAS No.
15 8016-70-4, for use in log-grown mushroom
16 production. Must be made from organic soy beans.
17 Soy wax made from non-organic soybeans produced
18 without excluded methods may be used when soy wax
19 from organic soybeans is not commercially
20 available.

21 CHAIR FAVRE: Okay. So that's the
22 motion on the floor. That's the main motion. Do

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1 I have a second? Oh, it's already seconded? All
2 right. Yeah, it's still the main motion. All
3 right. So is everybody clear? Clearly, I'm not.
4 All right. Sorry, guys. All right. So we have
5 an amended motion that's been a motion made and
6 seconded. We've had the motion read. Is
7 everybody ready? All right. So we're going to
8 start the vote with Harold.

9 MR. AUSTIN: No.

10 MR. BUIE: No.

11 MS. BECK: No.

12 MS. SWAFFAR: No.

13 MS. DE LIMA: No.

14 VICE CHAIR CHAPMAN: No.

15 MR. SEITZ: Yes.

16 MS. RICHARDSON: No.

17 MS. BEHAR: Yes.

18 MS. SONNABEND: Abstain.

19 MR. RICE: No.

20 MS. OAKLEY: Yes.

21 MR. THICKE: Yes.

22 CHAIR FAVRE: Chair votes no.

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1 MS. DE LIMA: And that's 4 yes, 9 no,
2 1 abstain, 1 absent, the motion fails.

3 MS. SONNABEND: Thank you. Next we
4 have 1-methylcyclopropene, otherwise known as
5 1-MCP. Lisa.

6 DR. BRINES: Thank you. This petition
7 was submitted by AgroFresh on November 24, 2015.
8 The petition requests the inclusion of
9 1-methylcyclopropene to Section 205.601 of the
10 National List as a post-harvest growth regulator.
11 There was no technical report developed in support
12 of this petition. Thanks.

13 MS. SONNABEND: Okay. This one was
14 mine. I'm just getting to the front of my thing
15 here. Okay. We received a petition to add 1-MCP
16 to the National List as a post-harvest treatment
17 for apples to delay fruit aging and slow down
18 ripening in storage so that they can be stored for
19 a longer period of time.

20 It's especially important to potential
21 end users once the fruit is removed from storage
22 so that it doesn't breakdown immediately and can

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1 arrive successfully at the store and then at the
2 consumer that it was destined for.

3 The product as petitioned is used in
4 sealed storage rooms. It is important to note that
5 1-MCP also has a pre-harvest label, but that is not
6 what we are considering now. We're only
7 considering it for use in sealed storage rooms. A
8 technical report was not requested because there
9 was sufficient information in the petition for
10 review.

11 1-MCP binds to ethylene receptor sites
12 to slow down ethylene activity, and thus, slow
13 ripening. It is a synthetic gas. It has a similar
14 structure to ethylene and does not occur in nature,
15 unlike ethylene. The ethylene receptor sites have
16 a higher affinity for 1-MCP than ethylene, so it
17 is always formulated with a natural sugar to
18 stabilize the gas form.

19 So although the manufacturing process
20 was proprietary, there's enough information to
21 determine that it was a synthetic material that
22 does not occur in nature. We go through the

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1 categories of criteria that we use to look at
2 materials and we have concluded that while there
3 are not alternative materials for its use, there
4 are alternative cultural practices in the broad
5 sense, and some of these practices are -- but none
6 of these -- all right, the alternatives are not
7 designed to deal with once the materials are
8 removed from the storage room until it reaches its
9 final destination.

10 The alternatives noted by the
11 subcommittee included nutritional approaches to
12 enable apples to store longer, such as increased
13 calcium in the fruit, excellent harvest, and
14 post-harvest handling practice, such as picking at
15 the right time for storage handling, timely getting
16 the fruit into storage, and optimal storage
17 conditions. Use of varieties that store better
18 than others, and we've listed a few there. And
19 consumers do have the option to choose fresh
20 organic apples from the Southern Hemisphere, which
21 I know no one thinks is optimal, but it is an
22 alternative.

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1 So the majority of the Crops
2 Subcommittee found that this is not compatible for
3 a number of reasons. It is a synthetic substance
4 that does not fit in the category of exemptions in
5 OFPA. And extending the storage life of a crop is
6 not one of the criteria in OFPA that the NOSB must
7 use. Compatibility is, and if Tom's argument
8 holds about consumer preference, well, consumers
9 probably have preference for Northern Hemisphere
10 apples. If you told the consumers that they had
11 been gassed with methylcyclopropene, I'm not sure
12 that they would have that preference for that
13 apple.

14 And the NOSB also has the opinion that
15 having seasonal crops available year round is not
16 a sufficient reason to add a synthetic to the
17 National List. Discussion? Dan.

18 MR. SEITZ: So, just a question on the
19 decision not to ask for a technical report. It
20 would seem to me that a petitioner would have a
21 vested interest in the course of -- in that petition
22 being approved, and wouldn't it be useful just to

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1 have something that you might say is a more
2 objective, or at least a different perspective on
3 that same substance? And I mean, in some ways,
4 that's a more general --

5 MS. SONNABEND: I mean, the thing is
6 that, the technical reports are really great on
7 talking about how materials are made, and the fate
8 in the environment, and like that, and not so great
9 at talking about how alternatives actually work in
10 the field. But we had expertise on the Crops
11 Subcommittee to be able to evaluate how the
12 alternatives work in the field. And the things
13 like manufacturing process and environmental fate
14 were covered in the petition itself.

15 So, yes, we could, but since it was kind
16 of clear from the outset we were likely to turn it
17 down anyway, it didn't seem worth spending the
18 money to do a technical report for something that,
19 then, we would just turn down. Tom.

20 VICE CHAIR CHAPMAN: Just to clarify,
21 it's not my position that consumer preference
22 matters. It's the 2004 recommendation from the

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1 NOSB that is now in our PPM that uses that as a way
2 to clarify the criteria compatibility with the
3 organic system.

4 MS. SONNABEND: But I did say
5 compatibility. It related to the compatibility
6 criteria.

7 VICE CHAIR CHAPMAN: And I just wanted
8 to make it that it wasn't me. It exists. Yeah.

9 MS. SONNABEND: Harold.

10 MR. AUSTIN: During the -- you know,
11 I've got quite a bit of experience. We do use this
12 in our conventional processing, handling, and our
13 industry quite widely uses this product. It
14 replaced a lot of really bad materials like
15 diphenylamine acid, a lot of these other materials
16 that helps for storageability and rots, things that
17 were not necessarily good for human consumption or
18 the environment.

19 The material actually is a gas that's
20 put into the room that breaks down within a 24-hour
21 period. The manufacturers actually have the
22 responsibility of doing that. The compound itself

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1 breaks down to carbon dioxide and water. We
2 struggled to try to figure out on the Crops
3 Subcommittee where we could possibly fit this
4 material.

5 I've since, since we voted and our
6 proposal got posted, I've gotten a lot of calls from
7 the small growers, because they don't necessarily
8 have the resources and the capability to do some
9 of the horticultural practices that we've
10 discussed within the Crops Subcommittee
11 discussions, to do the due diligence that we do,
12 and they also don't have the access to adequate
13 labor force, at times, depending on the variety of
14 apples that they happen to be farming.

15 I do think that this material, in
16 hindsight, is a better fit in the Handling
17 Subcommittee to review rather than Crops, and I
18 think I would like to take -- at this point, I would
19 like to make a motion to refer this back to the
20 Handling Subcommittee for further review and also
21 to ask for a TR to be performed on it.

22 MS. SONNABEND: Point of order --

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1 VICE CHAIR CHAPMAN: Can I have
2 clarification? I'm sorry. You say Crops or
3 Handling?

4 MR. AUSTIN: Refer it back to the
5 Handling Subcommittee.

6 MS. SONNABEND: Yeah.

7 VICE CHAIR CHAPMAN: Oh, okay.

8 MS. SONNABEND: So I just have a point
9 of order on how we handle a motion coming like this
10 from the floor, whether we have to immediately take
11 it up and address it now and then proceed to a vote
12 or what? Well, I guess it needs a second right now.
13 Anyone seconding?

14 VICE CHAIR CHAPMAN: I'll second it.

15 MS. RICHARDSON: Before we vote on it,
16 I'd be interested to get Dr. Brines' interpretation
17 of whether a material that was sent to the Crops
18 Subcommittee could then be sent forward, as opposed
19 to back, to a different subcommittee.

20 DR. BRINES: Yes. Interesting
21 question. Procedurally, under Robert's Rules,
22 the motion is really to refer back to a

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1 subcommittee. So it could be an existing
2 subcommittee, it could be an ad hoc subcommittee.
3 So you have flexibility under Robert's Rules.

4 I can't recall any similar action the
5 Board has taken of recent years to do that, but
6 certainly, the motion, now that it's been seconded,
7 is a debatable motion. So you're welcome to
8 participate in a discussion before having a vote
9 on that motion to refer back to a different
10 subcommittee. Thanks.

11 MS. SONNABEND: And then does that
12 motion just need a simple majority vote rather than
13 a full vote or the two-thirds vote?

14 DR. BRINES: Yes, similar to the other
15 referrals to subcommittee, there's no additional
16 threshold.

17 MS. SONNABEND: Okay. Emily.

18 MS. OAKLEY: Can you guys hear me okay?
19 I don't know. It feels like my mic did something
20 weird. All right. I appreciate your
21 perspective, Harold, but as I said in the
22 subcommittee, I feel that there are a lot of tools

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1 that come from conventional agriculture that are
2 useful that might also be useful to organic
3 agriculture, but that does not make them
4 appropriate for organic agriculture. And I think
5 this is an example of that.

6 There are things that I might use as a
7 vegetable farmer that, if I had conventional fields
8 as well, I might want to use on my organic fields
9 but wouldn't fit the criteria. And I think this
10 is an example of that, so if we send it back to the
11 Handling Subcommittee, I don't think it changes
12 anything in terms of its applicability or
13 acceptability for organic production or handling.

14 MS. SONNABEND: Lisa and then Harriet.

15 MS. DE LIMA: So, Zea, can you clarify,
16 did I hear you right in saying that it gets applied
17 after storage, but before it ships? No.

18 MS. SONNABEND: Gets applied during
19 storage, I believe at the beginning of storage.
20 But one of its characteristics is it helps the fruit
21 hold up after it comes out of storage. I mean, that
22 could be one month from the time it goes in and it

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1 could be six months from the time it goes in. You
2 know, fruit's stored for variable amounts of time.

3 MR. AUSTIN: Upon the application of
4 the compound it literally stops the ethylene
5 formation within the fruit itself. So,
6 essentially, it's stopping the maturation process
7 during the storage.

8 MS. SONNABEND: I have Harriet, and
9 then Tom, and then Jean. Oh, Lisa had a follow-up.
10 Okay.

11 MS. DE LIMA: So it's basically the
12 opposite of ethylene? Yes.

13 MS. BEHAR: So we do have quite a few
14 materials on the crops list that are post-harvest
15 handling materials, and I think this would qualify
16 as a post-harvest handling material and not as much
17 as a handling material, which seems to be more of
18 a preparing a raw material for market.

19 MS. SONNABEND: Jean.

20 MS. RICHARDSON: Actually, my comment
21 was very similar to Harriet's. I think that the
22 post-harvest handling materials are normally done

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1 in crops and I think that, you know, we haven't --
2 I think we should just vote on the motion and have
3 it stay in crops and not go forward to handling.

4 MS. SONNABEND: Tom.

5 VICE CHAIR CHAPMAN: My question was
6 about post-harvest materials and where they
7 belong, so I think that was answered, unless
8 someone has a different opinion.

9 MS. SONNABEND: Oh, well, I have a
10 complementary opinion and I'm going to call on
11 myself. Historically, although Lisa mentioned
12 that in recent years we haven't had to deal with
13 them, in handling we have ethylene was petitioned
14 for wider uses, gib was petitioned as a
15 post-harvest handling, but in the initial setting
16 up of the National List, almost all the
17 post-harvest materials were voted on by crops,
18 including the ethylene for bananas, and several
19 that we prohibited, such as potassium
20 permanganate.

21 So when the National List came out at
22 first, and then they moved those over into handling

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1 -- and the fruit waxes are another one, that was
2 handled by crops -- and then was moved over to the
3 handling section to the rule when the National List
4 came out. So there is precedence for this. Lisa.

5 MS. DE LIMA: So, I know that in your
6 all's proposal you indicated that you didn't find
7 an effect on human health or the environment, but
8 I'm wondering if anything came back in public
9 comment to the contrary?

10 MS. SONNABEND: I don't recall seeing
11 any public comment to that issue. Harold, do you
12 recall?

13 MR. AUSTIN: Nothing that I can recall.
14 And I just would state that it does -- I mean, within
15 24 hours, it's broken down into carbon dioxide and
16 water. The only concern, I think there was one
17 raised about the application, but it's done by the
18 manufacturer in the room, the room is sealed, so
19 there's no access to this compound.

20 MS. DE LIMA: Just one follow-up. So,
21 I don't know how it's manufactured, but is there
22 a possibility that the way it's manufactured,

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1 there's, like, an upstream negative impact?

2 MS. SONNABEND: The patent, which I
3 looked at, which goes into a great deal of detail
4 about it, does not indicate one. Now, that would
5 be something a TR might identify, but if that is
6 the only criteria your decision hinges on and not
7 the other criteria, then it might be a reason to
8 request a TR. Emily.

9 MS. OAKLEY: I was just going to say,
10 I don't remember the details, but I do believe
11 Beyond Pesticides wrote in relation to
12 environmental hazard with the product, but I don't
13 remember the details.

14 MS. SONNABEND: Tom.

15 VICE CHAIR CHAPMAN: So I got confused
16 -- I was clarified and then I got confused with your
17 complementary comment. I'm sorry, Zea. So are
18 post-harvest handling items on 601, on 605, or on
19 both?

20 MS. SONNABEND: Both. There are some
21 on both. And if you will recall, the Department
22 issued a post-harvest handling guidance not that

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1 long ago which indicates that materials from both
2 lists could be used in post-harvest handling. So
3 it doesn't, in effect, matter, really, which list
4 it's on.

5 Anymore discussion? Then I'm going to
6 call on myself for one last comment.

7 It seems that this motion is just a
8 stalling technique to muster up more support for
9 this material, really, because we have done a
10 complete review of it, and sending it back to the
11 handling committee, I don't see what is to be gained
12 from that, really.

13 So if there's no more discussion, we're
14 going to, first, vote on the motion to send this
15 back to the Handling Committee, which has been
16 moved by Harold and seconded by Tom.

17 MR. THICKE: Quick comment?

18 MS. SONNABEND: Yes.

19 MR. THICKE: I'm a little skeptical,
20 Harold, about their zero left after 24 hours. I
21 mean, I wouldn't take that on faith until we have
22 some -- small residues can be dangerous.

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1 MR. AUSTIN: And there is some testing
2 capability out of Sweden, or Switzerland, I do
3 believe, to look for the residues on that. And I
4 think that's another reason to give this some more
5 time, because I think that's going to be looked at,
6 so that we can try to take and see if there are
7 detectable residues and if that's a viable concern
8 or not. Because, also, I think, because of the
9 consumer perspective of that, I think we owe it to
10 that part of it to take a look at that to make sure.

11 MS. SONNABEND: Harriet.

12 MS. BEHAR: As a post-harvest handling
13 material, it would not appear on any label that a
14 consumer could see. So that's just kind of a
15 hidden use there.

16 MS. SONNABEND: Okay. I think we're
17 ready to vote.

18 CHAIR FAVRE: Okay. The voting will
19 start with Jesse.

20 MR. BUIE: Yes.

21 MS. BECK: Yes.

22 MS. SWAFFAR: No.

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1 MS. DE LIMA: No.

2 VICE CHAIR CHAPMAN: Yes.

3 MR. SEITZ: No.

4 MS. RICHARDSON: No.

5 MS. BEHAR: No.

6 MS. SONNABEND: No.

7 MR. RICE: No.

8 MS. OAKLEY: Okay. I have to say that
9 Michelle was just speaking to me about my mic when
10 you made this comment, so I didn't hear what --

11 CHAIR FAVRE: This is to send it to
12 Handling.

13 MS. OAKLEY: Okay. No.

14 MR. THICKE: No.

15 MR. AUSTIN: Yes.

16 CHAIR FAVRE: Chair votes yes.

17 MS. DE LIMA: 5 yes, 9 no, 1 absent, the
18 motion fails.

19 MS. SONNABEND: Thank you. Now we'll
20 proceed to the original motion. And did we do
21 classification already? No. Okay. So we're
22 going to start with classification. The motion to

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1 classify 1-methylcyclopropene as synthetic.

2 CHAIR FAVRE: We'll start the voting
3 with Carmella.

4 MS. BECK: Yes.

5 MS. SWAFFAR: Yes.

6 MS. DE LIMA: Yes.

7 VICE CHAIR CHAPMAN: Yes.

8 MR. SEITZ: Yes.

9 MS. RICHARDSON: Yes.

10 MS. BEHAR: Yes.

11 MS. SONNABEND: Yes.

12 MR. RICE: Yes.

13 MS. OAKLEY: Yes.

14 MR. THICKE: Yes.

15 MR. AUSTIN: Yes.

16 MR. BUIE: Yes.

17 CHAIR FAVRE: Chair votes yes.

18 MS. DE LIMA: That's 14 yes, 1 absent,
19 the motion passes.

20 MS. SONNABEND: Now, we can have more
21 discussion on the main motion. So, Tom.

22 VICE CHAIR CHAPMAN: Yeah, well, I

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1 wanted more time to review this item. I don't
2 think there's enough information today for me to
3 support it, so I'll be voting no on it. Just wanted
4 to put that out there.

5 MS. SONNABEND: Any other discussion?
6 Okay. So the motion to add 1-methylcyclopropene
7 to the National List at 205.601.

8 CHAIR FAVRE: Okay. We'll be starting
9 the voting with Ashley.

10 MS. SWAFFAR: No.

11 MS. DE LIMA: No.

12 VICE CHAIR CHAPMAN: No.

13 MR. SEITZ: No.

14 MS. RICHARDSON: No.

15 MS. BEHAR: No.

16 MS. SONNABEND: No.

17 MR. RICE: No.

18 MS. OAKLEY: No.

19 MR. THICKE: No.

20 MR. AUSTIN: Yes.

21 MR. BUIE: Yes.

22 MS. BECK: Yes.

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1 CHAIR FAVRE: Chair votes no.

2 MS. DE LIMA: It's 3 yes, 11 no, 1
3 absent, the motion fails.

4 MS. SONNABEND: Okay. Next is
5 ammonium citrate. And we put up one proposal for
6 both ammonium citrate and ammonium glycinate, so
7 I believe we'll be talking about them together.
8 Lisa.

9 DR. BRINES: Okay. And I can
10 introduce them both at the same time as well. The
11 petitions for ammonium citrate and ammonium
12 glycinate were both submitted by Alpha Chelates on
13 March 23, 2016. Since the initial submission,
14 there were three updates to the petition, so three
15 different petition addenda, which are all posted
16 on the NOP website. And those were updates on June
17 13th, 2016, July 25th, 2016, and just earlier this
18 week, November 15th, 2016.

19 For both petitions, the petitioner
20 requests that addition of both ammonium citrate and
21 ammonium glycinate to Section 205.601 of the
22 National List, both as chelating agents. Thanks.

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1 MS. SONNABEND: Emily.

2 MS. OAKLEY: These were my first
3 petitions. And I'll just state upfront that
4 public comment revealed some nomenclature errors
5 in the description of the materials that will be
6 corrected in the final recommendation, but they
7 don't affect the Crop Subcommittee's
8 recommendation on this proposal.

9 So, ammonium glycinate and ammonium
10 citrate are being requested to be listed to the
11 National List at 205.601 to be used as chelating
12 agents. Ammonium glycinate and ammonium citrate
13 are reactive with copper, iron, manganese, or zinc
14 to form a chelate. The petitioner uses liquid
15 micronutrient chelates using -- or cells, liquid
16 micronutrient chelates, using ammonium glycinate
17 as the chelating agent. Chelates are then used to
18 provide micronutrients that are readily available
19 to the plants in deficient soils.

20 Ammonium glycinate is manufactured
21 through a reaction of ammonium hydroxide and
22 glycine and ammonium citrate is manufactured

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1 through a reaction of ammonium hydroxide and citric
2 acid.

3 In addition to the actual materials
4 themselves, the petitioner also put forth a case
5 that the use of the term chelating agent in the
6 regulation needs to be revised. The petitioner
7 requested that the NOP define which bases can be
8 used to neutralize acids to synthesize chelating
9 agents. However, our committee determined that
10 this was beyond purview of our review.

11 In terms of the discussion that took
12 place within committee, we determined that there
13 was insufficient information in the justification
14 statement of the petition necessitating these
15 materials for organic crop production. We sent a
16 request to the petitioner asking for more
17 clarification, but did not feel that the second
18 addendum clarified the need any further than the
19 first, original petition.

20 He then volunteered a second and then
21 third addendum, which Dr. Brines just referred to,
22 but none of those, in our view, attest to the need

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1 for this material.

2 Additionally, we didn't receive any
3 comments from farmers asking for this material, and
4 no public comment from them stating the need for
5 these materials. And we feel that there are
6 already products on the market that adequately
7 address farmers' needs. The petitioner did not
8 provide evidence that chelates made with synthetic
9 glycinate or citrate are needed to replace lignin
10 sulfonate and non-synthetic chelating agents, such
11 as fulvic acids, humic acids, and non-synthetic
12 citrate currently in use by organic growers.

13 So we determined that these materials
14 are not necessary, and I would ask if there are any
15 questions by the rest of the Board. And I also
16 wanted to give Dr. Brines a chance to elaborate
17 further on some of the claims the petitioner is
18 asking for clarification on with respect to
19 chelates and chelating agents.

20 MS. SONNABEND: I also want to clarify
21 one thing, that, although we are discussing them
22 together, we will be voting on them separately.

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1 Lisa, did you want to add?

2 DR. BRINES: Yes, just briefly. One
3 of the items mentioned within the petition was
4 about the, I guess, mischaracterization of some
5 information in the materials for organic crop
6 production draft guidance. So, there is an entry
7 for chelating agents in that document. So,
8 currently it does refer, for example, to citric
9 acid as a chelating agent. And the petitioner has
10 indicated that, really, the chelating agent in that
11 case is citrate, rather than citric acid, so that's
12 something that would need to be corrected.

13 Again, chelating agent isn't defined in
14 the regulations. It is referred to in terms of
15 lignin sulfonate, but in terms of the scope of the
16 petition, I think Emily gave a good overview. I
17 don't know if I have too much to add there. Thank
18 you.

19 MS. SONNABEND: Thank you. If any of
20 you did read the addendums and the public comment,
21 I'm sure you're thoroughly confused because the
22 petitioner tried as hard as he could to obfuscate,

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1 or, you know, try to couch it in a bunch of, sort
2 of, pompous terminology rather than outright state
3 why his stuff is better than the other things we
4 already have.

5 However, if any of you are confused
6 about particular points, Francis and I have been
7 helping Emily with this with a little more soil
8 science background and we could possibly help
9 understand this better. Yes, Francis.

10 MR. THICKE: As Emily mentioned, we got
11 three addendums to the petition and they never did
12 answer the question of why we need new chelating
13 agents instead of the synthetic and non-synthetic
14 ones we already have available. And the last
15 addendum just came in, like, a couple days ago, and
16 there was some research comparing their chelates
17 with zinc without any chelates.

18 And so we know what that's going to do.
19 We wanted information comparing the existing
20 chelates with their chelates, or why it's needed,
21 and we didn't get that at all.

22 MS. SONNABEND: Anyone have questions

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1 or discussion? Okay. I think it is worth at least
2 mentioning, the one comment from Beyond Pesticides
3 about maybe we should really be looking at this,
4 rather than a petition for an individual item, as
5 a change to the micronutrients annotation to
6 include citrates and glycinates.

7 We did talk about this at the
8 subcommittee, but there was no strong desire from
9 anyone on the subcommittee to add those categories
10 to the micronutrient annotation because it seems
11 like the ones we already have on there are working.
12 The petitioner probably would be able to revise a
13 petition and turn a new one in for that particular
14 approach, but we're going to wait and see if that
15 is what happens.

16 Anyone else want to talk about this
17 before we start voting? Okay. So, first up would
18 be ammonium citrate and the motion to classify it
19 as synthetic.

20 CHAIR FAVRE: Okay. It's coming
21 forward as a seconded motion and we will begin the
22 vote with Lisa.

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1 MS. DE LIMA: Yes.

2 VICE CHAIR CHAPMAN: Yes.

3 MR. SEITZ: Yes.

4 MS. RICHARDSON: Yes.

5 MS. BEHAR: Yes.

6 MS. SONNABEND: Yes.

7 MR. RICE: Yes.

8 MS. OAKLEY: Yes.

9 MR. THICKE: Yes.

10 MR. AUSTIN: Yes.

11 MR. BUIE: Yes.

12 MS. BECK: Yes.

13 MS. SWAFFAR: Yes.

14 CHAIR FAVRE: Chair votes yes.

15 MS. DE LIMA: It's 14 yes, 1 absent, the
16 motion passes.

17 MS. SONNABEND: Next would be the
18 motion to add ammonium citrate to the National
19 List.

20 CHAIR FAVRE: Comes as a seconded
21 motion. We'll begin the voting with Tom.

22 VICE CHAIR CHAPMAN: No.

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1 MR. SEITZ: No.

2 MS. RICHARDSON: No.

3 MS. BEHAR: No.

4 MS. SONNABEND: No.

5 MR. RICE: No.

6 MS. OAKLEY: No.

7 MR. THICKE: No.

8 MR. AUSTIN: No.

9 MR. BUIE: No.

10 MS. BECK: No.

11 MS. SWAFFAR: No.

12 MS. DE LIMA: No.

13 CHAIR FAVRE: Chair votes no.

14 MS. DE LIMA: Fourteen no, one absent,
15 the motion fails.

16 MS. SONNABEND: Okay. Next up is
17 ammonium glycinate, first to classify ammonium
18 glycinate as synthetic.

19 CHAIR FAVRE: Comes forward as a
20 seconded motion. We'll begin the voting with Dan.

21 MR. SEITZ: I just want to say this is
22 my favorite type of motion to be the first one to

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1 vote on.

2 (Laughter.)

3 MR. SEITZ: Yes.

4 MS. RICHARDSON: Yes.

5 MS. BEHAR: Yes.

6 MS. SONNABEND: Yes.

7 MR. RICE: Yes.

8 MS. OAKLEY: Yes.

9 MR. THICKE: Yes.

10 MR. AUSTIN: Yes.

11 MR. BUIE: Yes.

12 MS. BECK: Yes.

13 MS. SWAFFAR: Yes.

14 MS. DE LIMA: Yes.

15 VICE CHAIR CHAPMAN: Yes.

16 CHAIR FAVRE: Chair votes yes.

17 MS. DE LIMA: 14 yes, 1 absent, the
18 motion passes.

19 MS. SONNABEND: And next, add ammonium
20 glycinate as petitioned at 205.601.

21 CHAIR FAVRE: Comes forward as a
22 seconded motion. We'll begin the voting with

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1 Jean.

2 MS. RICHARDSON: No.

3 MS. BEHAR: No.

4 MS. SONNABEND: No.

5 MR. RICE: No.

6 MS. OAKLEY: No.

7 MR. THICKE: No.

8 MR. AUSTIN: No.

9 MR. BUIE: No.

10 MS. BECK: No.

11 MS. SWAFFAR: No.

12 MS. DE LIMA: No.

13 VICE CHAIR CHAPMAN: No.

14 MR. SEITZ: No.

15 CHAIR FAVRE: Chair votes no.

16 MS. DE LIMA: That's 14 no, 1 absent,
17 the motion passes. Fails. Motion fails.

18 MS. SONNABEND: All right. Thank you.

19 Next we move to potassium cellulose glycolate,
20 petitioned item. Lisa.

21 DR. BRINES: Thank you. This petition
22 was submitted on June 22, 2016 from Lamberti USA,

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1 Inc. The petition requests the inclusion of
2 potassium cellulose glycolate to Section 205.601
3 as a production aid. And there was no technical
4 report requested or developed for this petition.
5 Thanks.

6 MS. SONNABEND: This was Emily also.

7 MS. OAKLEY: The petitioner requests
8 inclusion of this as a synthetic inert ingredient.
9 Potassium cellulose glycolate, or potassium
10 carboxymethyl cellulose, CMC, is a
11 chemically-modified polymer derived from natural
12 cellulose. The petitioner proposes to utilize
13 potassium CMC as a water retention aid during
14 irrigation and in combination with liquid
15 fertilizers and nutrients.

16 Potassium CMC is being petitioned for
17 its water holding capacities and delivering water
18 more efficiently to the plant's root zone. The
19 subcommittee determined that water usage is not a
20 criteria under OFPA and there was insufficient
21 information justifying the need for this material
22 in an organic production system.

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1 Soil organic matter serves to naturally
2 increase soil holding capacity and retention,
3 water holding capacity and retention. Managing for
4 and fostering soil organic matter is a key element
5 in a good organic system plan. That was mentioned
6 by several commenters as well.

7 Some of those practices include
8 conservation tillage and no till practices to
9 increase soil organic matter, decreasing
10 compaction, minimizing water evaporation, and
11 increasing rain and irrigation water infiltration
12 into the soil. Plant, mulch, and cover crop
13 residues can increase water infiltration and
14 retention by preventing cresting and conserving
15 water.

16 Incorporating residues in compost also
17 improves soil fauna whose activity increases
18 aeration, opens pores, and decreases compaction.
19 All of these, in turn, contribute to increased
20 water penetration and retention.

21 So, our conclusion was that synthetic
22 water filtration and retention materials are

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1 incompatible with a system of sustainable
2 agriculture, that natural alternatives and good
3 soil management practices exist, and water use is
4 not an OFPA criteria.

5 There were commenters on this material.
6 There were several that wrote similar comments as
7 interested parties, but it was unclear if they were
8 those selling the material. They certainly didn't
9 state that they would be people who would be using
10 the material. And then there were a number of
11 comments in support of our proposal not to add this
12 material to the National List, for the reasons that
13 I mentioned in terms of organic matter and healthy
14 soil being a component of a good organic system plan
15 that does create a need for this material. Is
16 there any questions so far?

17 MS. SONNABEND: Okay. Any
18 discussion? All right. Soil chemistry getting
19 the better of us. Let's proceed then to a motion
20 to classify potassium cellulose glycolate as
21 synthetic.

22 CHAIR FAVRE: Okay. Comes forward as

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1 a seconded motion and we'll begin the voting with
2 Harriet.

3 MS. BEHAR: Yes.

4 MS. SONNABEND: Yes.

5 MR. RICE: Yes.

6 MS. OAKLEY: Yes.

7 MR. THICKE: Yes.

8 MR. AUSTIN: Yes.

9 MR. BUIE: Yes.

10 MS. BECK: Yes.

11 MS. SWAFFAR: Yes.

12 MS. DE LIMA: Yes.

13 VICE CHAIR CHAPMAN: Yes.

14 MR. SEITZ: Yes.

15 MS. RICHARDSON: Yes.

16 CHAIR FAVRE: Chair votes yes.

17 MS. DE LIMA: 14 yes, 1 absent, the
18 motion passes.

19 MS. SONNABEND: Okay. Next is the
20 proposal concerning hydroponics and bioponics --

21 MS. OAKLEY: I think we have to vote on
22 the motion.

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1 MS. SONNABEND: Oh, sorry, sorry,
2 sorry. Don't want to jump the gun and get there
3 too soon. The motion to add potassium cellulose
4 glycolate as petitioned to 205.601.

5 CHAIR FAVRE: Comes as a seconded
6 motion and the voting will start with Zea.

7 MS. SONNABEND: No.

8 MR. RICE: No.

9 MS. OAKLEY: No.

10 MR. THICKE: No.

11 MR. AUSTIN: No.

12 MR. BUIE: No.

13 MS. BECK: No.

14 MS. SWAFFAR: No.

15 MS. DE LIMA: No.

16 VICE CHAIR CHAPMAN: No.

17 MR. SEITZ: No.

18 MS. BEHAR: No.

19 CHAIR FAVRE: Chair votes no.

20 MS. DE LIMA: 14 no, 1 absent, the
21 motion fails.

22 MS. SONNABEND: Okay. Now, the

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1 proposal for hydroponics and bioponics. I hardly
2 know where to start. We received just a little bit
3 of public comment about this. I'm still opening
4 my notes here, if you'll bear with me for a second.
5 Okay. I have lots of notes because we had lots of
6 comments.

7 Okay. The hydroponics task force was
8 convened at about this time last year to try and
9 resolve what the NOP saw as discrepancies in the
10 previous NOSB recommendations that related to
11 hydroponic growing systems, or maybe not
12 discrepancies, but deficiencies.

13 They were tasked with making it clear
14 what types of systems were in use and whether any
15 or all of them should be certified organic. They
16 worked through the winter, spring, and summer, and
17 we got their report, pretty much, quite late in our
18 planning process, but we did our best to craft
19 something for this meeting so that we could keep
20 it on the table before you.

21 While we were waiting for the report,
22 we discussed in subcommittee how we were going to

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1 structure it, and frame it, and we also discussed
2 this with Miles. The majority of the subcommittee
3 early on, wanted to prohibit hydroponics without
4 delay. So when the report came out, that is how
5 I set to structure the proposal.

6 Tracy and I had a phone call with Miles
7 to go over the structure before it went to the
8 subcommittee, we are certain that the 2/3 vote
9 should be necessary to approve hydroponics because
10 there already was a 2010 Board recommendation to
11 prohibit hydroponics, so to overturn that should
12 take 2/3 majority.

13 And in the course of reviewing the task
14 force report and crafting the proposal, we realized
15 that, as you all saw from the report, there's a
16 great variety of growing systems in solid substrate
17 using various types of containers, and so we sort
18 of questioned whether it might be possible to have
19 a soil equivalent to a soil-based system in a
20 container with either soil itself or compost, which
21 the 2010 recommendation indicated they were okay
22 with a compost-based system, but they didn't really

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1 specify whether that would be in a container or not
2 in a container.

3 So we decided we would craft a
4 discussion document to talk about the range of
5 issues that have to do with those containers and
6 whether, you know, as soon as you dig up soil and
7 put it in a pot, is that still soil or is that then
8 hydroponic, and how big a container, and what is
9 appropriate for growing media, and what isn't, and
10 the relationship between nutrient sources and how
11 plants get their nutrient.

12 So all of these, you know, very big wide
13 open, sort of, continuum of things. We were, of
14 course, accused of bias, but what we tried to do
15 is have, as open as possible, a discussion on this
16 container growing to see where we could draw a line
17 in the future, and we realized that we could not
18 complete this work easily, so the container
19 discussion document was very, very preliminary.

20 Okay. So we'll discuss a little bit
21 more about that later, but I would like Miles next
22 to address what he sees will happen if this proposal

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1 is passed or failed the way it is, because this has
2 altered our thinking on it since we've been here
3 and so I think it's important for this to get
4 expressed. Miles.

5 MR. MCEVOY: Sure. So we appreciate
6 all the work that's been done by the NOSB on this
7 topic, also, the work that the hydroponic and
8 aquaponic task force did. The task force got setup
9 in September of 2015, took a little while for them
10 to get established, the first concept was that they
11 would have a year to complete their report.

12 The Board had requested that they get
13 the report earlier to move this process more
14 quickly through the process to see if they could
15 get a proposal and a final recommendation out this
16 fall. So the task force did speed up their process
17 and got their report completed in early summer,
18 which was a little bit challenging for them, and
19 some complaints about that, but that was much
20 faster than originally planned when we setup the
21 task force.

22 There's a diversity of perspectives

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1 that are described in that final report and so
2 encourage the Board to look at the whole report.
3 What we had found in the 2010 recommendation, in
4 order for us to move forward in terms of rulemaking
5 or guidance on this particular topic is, there were
6 a lot of questions that we had.

7 So for instance, a clear explanation on
8 the basis of each component of the recommendation
9 that was in the 2010 recommendation, really, where
10 to draw the line in the continuum from a soil-grown
11 to a hydroponic system.

12 I think we've seen a lot of information,
13 both in the task force reports and the public
14 comments of, there's a continuum from a pure
15 hydroponic-type of system to a soil-grown system,
16 and if we're going to go into regulatory framework,
17 it would be nice to have those recommendations from
18 the NOSB, because that's what we like to base our
19 regulations on is, recommendations from the NOSB.

20 We also asked to clarify terms and how
21 the greenhouse and the soil-less organic
22 production systems relate to things like sprout

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1 production, mushroom production, aquatic plant
2 production, water cress, wasabi, orchids, things
3 that don't naturally grow in soil.

4 So first, we want to clarify that
5 organic hydroponics systems are allowed under the
6 current USDA organic regulations if they comply
7 with the USDA organic requirements. So there's a
8 number of innovative producers that have figured
9 out how to do that. It's very similar to other
10 areas of the organic sector, organic community,
11 that have developed certified organic products
12 where there's not specific standards.

13 So we have pet food, for instance,
14 there's no specific standards on pet food, on
15 apiculture, and in mushroom production. Not
16 great. We need to develop standards for these
17 various types of production systems, but they're
18 in the market and they are compliant with the
19 current regulations.

20 So NOSB recommendations guide AMS to
21 issue either guidance or to conduct notice and
22 comment rulemaking to change the regulations.

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1 Depending upon what the recommendation is, we have
2 various things that we can do with those
3 recommendations.

4 So we'll review any recommendations
5 that come from the Board on this topic and we'll
6 determine whether or not we need to move forward
7 with guidance or rulemaking. On this particular
8 topic area, we believe that notice and comment
9 rulemaking will be necessary to clarify this area
10 of the regulations. Nothing changes with an NOSB
11 recommendation, the only thing that happens is that
12 that recommendation goes to USDA, goes to AMS, and
13 then we have to take the appropriate action to
14 implement those changes.

15 So changes to any of the organic
16 regulatory standards are made by AMS through notice
17 and comment rulemaking. Second, you've asked what
18 happens when -- or what would happen when the
19 proposal on allowing bioponics as consistent with
20 organic production is voted upon, so it's a little
21 hard to say because we have to wait for those final
22 recommendations, but if the motion passes, then as

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1 the motion says, then the NOSB would need to develop
2 further recommendations, as they state in the
3 motion.

4 A failed motion is not a
5 recommendation, it's a failed motion, so it would
6 not provide as much clarity as a final
7 recommendation, but a failed recommendation, a
8 failed proposal, a failed motion, would provide AMS
9 with a lot of information about where the Board
10 stands on these particular topics, and it may
11 enable AMS to proceed.

12 What would be better, however, is to
13 have a full recommendation from the Board on all
14 these topics as we move forward to clarify this area
15 of the standards.

16 MS. SONNABEND: Thank you, Miles. So
17 those of you who -- oh, okay.

18 MR. SEITZ: Just a question, Miles,
19 couldn't you -- could you have a failed motion that
20 then was followed by subcommittee work that brought
21 an affirmative set of recommendations along the
22 lines of the failed -- of what was implied by the

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1 motion failing?

2 MR. MCEVOY: Yes, certainly. If
3 there's a failed motion and then the subcommittees
4 go back and do some additional work to provide some
5 additional clarity and recommendations, yes, that
6 would help.

7 MS. SONNABEND: Okay. So I just want
8 to clarify in case any of our audience didn't pick
9 up on this, that what this means is, those who might
10 not want hydroponics to keep going, even a no vote
11 on that motion will not create that situation
12 because the hydroponics are allowed, and we did not
13 understand that properly when we conceived of going
14 forward with this.

15 And then there's other implications,
16 such as, if the motion is voted down, then we don't
17 have the definitions, we don't have a past set of
18 definitions that we're all using to talk about the
19 same thing, and so really, definitions maybe should
20 have been in a separate motion so that that could
21 be universally adopted by the Board, because we got
22 a little bit of criticism on some definitions, but

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1 we're pretty close to being able to have
2 definitions that we can all talk about the same
3 thing with.

4 So we're sort of in a catch-22 here with
5 this. I am going to summarize the public comment
6 that came in, which, of course, it's very hard to
7 summarize 3000-plus pages before lunch, but I'm
8 just going to try, so I beg your forgiveness if I
9 don't address your particular comment, but I feel
10 like we owe it to the public to state what the
11 concerns were about it, and then we're going to
12 hopefully talk about some ways forward, possibly
13 through a resolution or through deciding whether
14 we need to vote or pull this back for more committee
15 work.

16 MS. BEHAR: So I'm just curious, as
17 somewhat as a point of order, if we could take exact
18 wording out of the proposal, like you had suggested
19 as far as some of the definitions, and have that
20 be a partial, so at least we have something to move
21 forward with.

22 CHAIR FAVRE: I'm sorry. That would

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1 be considered as substantive change and would not
2 be allowed at this meeting.

3 MS. SONNABEND: So apparently not,
4 because we didn't -- and we haven't necessarily
5 digested the comment we got on just the definitions
6 portion, for instance, so, you know, there's that
7 too. All right. So I'm just going to proceed with
8 the rest of my presentation concerning the public
9 comment. Hold on, if I get my windows out. Okay.

10 Well, obviously, we got tons of
11 comments, both for and against hydroponics. We
12 got them from all types of people, all types of
13 farmers, all types of individuals. It was way too
14 many for me to prepare slides on or to count, and
15 so I'm just going to sort of mention some of the
16 key arguments on both sides of the issue.

17 And I do want to state at this point that
18 we do accept comments from everybody. Every
19 single organic stakeholder in the room or who
20 writes in has the opportunity to give us their
21 thoughts and it is really not up to anybody to say
22 that anybody else should not be able to talk about

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1 something.

2 So the arguments in favor of
3 hydroponics, first of all, that it is very
4 efficient with water use and we got statistics all
5 over the map, I'm not going to try and quantify that
6 here, you know, it's, maybe, relevant to future
7 deliberations, but really, it's too much for here.

8 Aquaponics, in particular, we got a
9 number of comments. In fact, we got more comments
10 from aquaponics practitioners than are data
11 indicated are certified already for aquaponics, we
12 got a lot, and they think it definitely should be
13 separated out from plant growing hydroponics,
14 because fish and fish waste creates a closed-loop
15 system in which no other inputs have to be added,
16 and there's already an extreme amount of
17 microbiological interaction, and so it should be
18 considered on its own merits.

19 We got concern that, already, organic
20 produce is very limited in supply and having more
21 people have access to a good supply of organic
22 produce is a very important thing and at a

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1 reasonable price, and that by having hydroponics,
2 particularly in cities, it will make transport
3 costs go down and this is really a good thing.

4 We got concern that young farmers have
5 a hard time getting started because of availability
6 of land and since hydroponics is very scalable to
7 both very small and very large systems, it is a good
8 entry point for beginning farmers.

9 Several people mentioned that the soils
10 out there in the world are pretty contaminated and
11 that you can close off the closed-loop systems in
12 hydroponics from contamination from the outside.
13 The comment that it preserves bio-diversity by not
14 farming fields, and so allowing fields to become
15 more natural. Highly questionable on that one,
16 but that is a comment we got.

17 The organic label is about empowering
18 consumers to identify products that match their
19 values, and of course, we got lots and lots of,
20 consumers want this, consumers want that,
21 consumers don't know about soil, consumers choose
22 organic because it's pesticide free and

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1 environmentally sustainable, and then other
2 comments that consumers care about soil, so that,
3 for what it's worth.

4 Okay. Bioponics combines diverse
5 natural activity of the soil food web with the
6 resource efficiency of hydroponic techniques to
7 produce more organic food on less land while using
8 fewer inputs and water resources.

9 The focus of bioponics is not to replace
10 in-ground soil production, but to promote the
11 practice of organic production overall and extend
12 the philosophy of organic beyond the soil to
13 include resource conservation, promote social
14 justice, and increase food availability.

15 Microbe populations aren't just high,
16 they're also diverse. There aren't a great deal
17 of studies that look at the diversity of microbes,
18 but what there is shows a great -- an equal of
19 greater diversity of microbial populations than
20 that found in soil.

21 Mycorrhizae also thrive in
22 hydroponics, possibly even more than they do in

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1 soil. The nutrient cycling processes happen in
2 solution with water whether in-ground soil systems
3 or in contained growing systems like bioponics.
4 The complex organic molecules that are breaking
5 down are the same regardless of the production
6 system.

7 With hydroponics, we no longer have to
8 degrade the land, water, and existing biology to
9 be able to produce crops. Indoor certified
10 organic growing methods are ecological pathways
11 that meet the challenges of sustainability with
12 organic inputs while fulfilling legitimate and
13 original foundation of the organic movement,
14 quotes, although he didn't say where he quoted it
15 from, to use the cycle of biology natural inputs
16 while avoiding prohibited substances.

17 Okay. So a lot of people said these
18 concepts in a variety of different ways. Several
19 people suggested a separate label and that they
20 would be okay with that. One type of label
21 distinction was organic aquatic systems versus
22 organic terrestrial systems. That, of course

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1 then, the seaweed might fall under that aquatic
2 system as well as the water cress and indoor
3 gardening, but we're not dealing with that level
4 of detail now, but I'm just saying, a lot of people
5 brought that up.

6 Okay. Moving on to the arguments
7 against hydroponic systems. Organic farming
8 embraces nature. Farmers produce crops on
9 optimally fertile biologically active soils that
10 are alive, diverse, and nourish plants in subtle
11 ways that we're only beginning to understand.
12 Hydroponic growers exclude nature. Hydroponic
13 growers produce crops in sterile surroundings and
14 douse plants with liquid nutrients that cannot
15 begin to duplicate the biological complexity of
16 fertile soils.

17 Now, in the interest of never letting
18 a good pun go unpunished, we got a lot of comments
19 that said that we would be watering down what
20 organic farming means. Some of them recognize
21 this was a pun and others did not. Feed the soil,
22 not the plant, has been a basic tenet of organic

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1 farming from the early '70s. You cannot supply
2 many diverse nutrients that are present in healthy
3 biologically-based soil through a hydroponic
4 system, even using organically acceptable inputs.

5 As organic growers, we have never
6 considered the organic method, simply one of
7 substitution of inputs for what is used
8 commercially, e.g., fish hydrolysate for NPK
9 fertilizer. It's a system which imitates nature
10 at a fundamental level.

11 Growth and fertilization of crops in
12 the organic community involves a conscious aiding
13 of all the myriad natural and biological systems,
14 which have made the minerals in the crust of the
15 Earth available for use by plants through symbiotic
16 relationship and fueled by sunlight, resulting in
17 plants for food.

18 Part of the certification procedure has
19 always been a statement of the overall plan for farm
20 broad strategies and goals. Central to this has
21 been building the soil accumulation of organic
22 matter in soil, composting of organic residues,

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1 none of these are part of hydroponics.

2 Organic growing was defined by J.I.
3 Rodale and his staff as a system whereby a fertile
4 soil is maintained by applying nature's own law of
5 replenishing it, that is, by adding organic matter
6 to preserve humus rather than using chemical
7 fertilizers.

8 In contrast, to label hydroponics crops
9 grown without soil, i.e., crops that are simply fed
10 continuously in their container with available
11 nutrients that are not the result of the soil system
12 would require a change in the fundamental
13 principles of organic production and would
14 redefine what has been accepted as organic since
15 the beginning.

16 The goal of organic production is to
17 improve the soil with every crop in order to support
18 the natural water cycle, sequester atmospheric
19 carbon, and establish an increase soil till in an
20 attempt to prevent extinction of the naturally
21 occurring soil-based bacteria and fungi which
22 support the nitrogen cycle that make human life

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1 possible.

2 Okay. I also want to point out just a
3 couple of individuals who weighed in. One is Jeff
4 Moyer, who is the Director of the Rodale Institute
5 and the primary author of the 2010 NOSB
6 recommendation. He says, it's also important for
7 your own work to know that future boards won't
8 continually try and undo the hard work you put into
9 decisions or populate the board with votes to undo
10 decisions you make. This is imperative to the
11 success of the entire system.

12 I don't have a quote from him, but I did
13 question some of our commenters about Senator
14 Leahy's intent when he wrote the bill and as the
15 primary author of OFPA, he clearly did not intend
16 for hydroponics to be included in it, and I don't
17 have the exact quote from Michael Sligh about why
18 the initial board passed their recommendation
19 early on, which says, hydroponics could be allowed
20 if the provisions of OFPA can be met.

21 I happened to be there for those
22 discussions and I can second Michael's point of

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1 view, which was, the general feeling that the
2 provisions of OFPA could not be met, which is why
3 they were saying that, because there was no rule
4 at the time, there was no rule at the time to hang
5 anything else on, and so it was just like, we're
6 not ready to develop this, but it's very clear that
7 the burden of proof would fall on whoever develops
8 this to represent OFPA, and it was not felt that
9 that could happen.

10 And then lastly, I think I'm going to
11 have quite a few more comments, and we got a lot
12 of them from international sources, a lot from the
13 U.K., the Netherlands, et cetera, and actually,
14 I'll read two more, one of them from someone who
15 works with IFOM.

16 From one of the early organic farmers,
17 Anne Schwartz, up in Washington, new technologies
18 will continue to influence and change our food
19 system and new defining language should be
20 developed to assist those producers to label their
21 products in a manner that educates eaters and
22 clearly identifies production systems.

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1 I don't believe hydroponics meets the
2 true measure of organic systems that have as its
3 foundation, plants and soil. I understand also
4 that genetic engineering will continue to evolve
5 and challenge everyone's understanding of food
6 production systems, again, we need to continue to
7 educate the consuming public of how this technology
8 affects food quality, soil quality, and ecosystem
9 dynamics.

10 At this time I have grave reservations
11 about considering gene editing to be added to the
12 definition. She is one of only a couple of people,
13 besides myself, who realize how closely these
14 topics are actually related. Genetic
15 engineering, excluded methods, and the core
16 organic principles of soil and the environment at
17 the heart of hydroponics.

18 Okay. So now one of the overseas
19 comments, IFOM formulates it as follows, organic
20 agriculture should sustain and enhance the health
21 of soil, plant, animal, human, planet as one and
22 indivisible. And organic agriculture should be

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1 based on living ecological systems and cycles, work
2 with them, emulate them, and help sustain them.

3 Of course, other systems produce food
4 in a sustainable way, are and will be developed,
5 but not all sustainable production systems should
6 be called organic. Growing organic means working
7 on a sustainable production system within the
8 boundaries of universally applied organic
9 principles and these principles clearly take the
10 living soil as the basis for plant production.

11 Okay. So I'm going to leave it at that.
12 I have more to say from my personal point of view,
13 but I will open it up to discussion from everyone
14 else and chime in at the appropriate time now that
15 we've covered the public comment, so the floor is
16 open. Emily.

17 MS. OAKLEY: I'll be the brave first
18 person to go. I want to talk on two topics, one,
19 voting on this proposal as it is today and my
20 position on hydroponics. First I want to say that
21 when I applied to the NOSB, I actually really didn't
22 know very much about this issue. I came into it

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1 pretty ignorant, which some of my stakeholders
2 might not appreciate hearing the truth of, but I
3 didn't know very much about it and I wasn't immersed
4 in this issue.

5 But since serving on the Board, it's the
6 one issue that I've heard from repeatedly, over,
7 and over, and over again very consistently, and I
8 think I represent the smaller scale, family scale,
9 farmer and a lot of the people that have been
10 involved in this movement from the beginning.

11 I think we're all at this table today
12 because farmers created this label, right? It
13 didn't happen out of a vacuum. Farmers worked to
14 identify and define what organic meant. And I
15 think we've heard from many of those farmers who
16 created this movement and we really run a grave risk
17 if we don't listen to them.

18 I've heard, as a beginning farmer
19 trying to get other beginning farmers to get
20 certified, that they think the standards are
21 already watered down and they use that as an excuse,
22 actually, sometimes to not get certified, and I've

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1 heard comments of hydroponics being a reason for
2 that. I think we need to take that into deep
3 consideration.

4 I know many of the public comments, both
5 from consumers and farmers, reflected this notion
6 of the watering down of the standards. Now, you
7 know, where you stand on that, we can discuss, but
8 we also have to really address the perception that
9 is out there among farmers who might get certified
10 or who might not, and consumers who buy our
11 products.

12 The farmers who get certified at the
13 direct-to-consumer level are the people who are on
14 the front lines. We're the people that interact
15 with those that eat organic food. And we really
16 define in the public's mind what organic farming
17 is, because it can talk to us, because it's not
18 anonymous, because they can ask us how we do what
19 we do, why we do what we do, and a lot of people
20 buy food from direct-to-consumer farmers because
21 they want a piece of that, because that's something
22 that they believe in.

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1 A lot of those farmers are very
2 concerned about this proposal not getting passed.
3 Importantly, there are farmers who are already
4 looking to other labels to identify what they're
5 doing. I really hope that it doesn't come to that.
6 I do not want that to happen to the organic
7 movement, but I want to represent that there is a
8 real risk of a splintering of the movement.

9 Now whether or not we can address that
10 today is not the point, but I want to represent that
11 perspective that I've been hearing, and that I've
12 observed long before coming to the NOSB, there's
13 the farmer's pledge in New York, those are good
14 things, but I don't want to see farmers opt-out of
15 organic certification because they feel it no
16 longer represents their values.

17 We've heard a lot of comments about
18 feeding the world, and those are the exact same
19 words that were used to promote the green
20 revolution in the first place, which was the basis
21 against which organic farming created itself.
22 Organic was created in opposition to this concept

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1 that we need to feed the world and the best way to
2 do that is with lots of chemicals, or now, more
3 recently, GMOs, so organic stands in opposition to
4 a lot of that thinking.

5 A concern that I personally have
6 developed that has nothing to do with the
7 stakeholder comments that people have given me with
8 respect to hydroponics is the input use. The
9 continuous use of inputs to feed the plants. You
10 know, whether we want to discuss soil or not discuss
11 soil, we certainly have to address the fact that
12 the crops are being grown using a continuous supply
13 of fertilizers.

14 If I try to go out and feed all of my
15 crops in the field every day with a backpack sprayer
16 of fish emulsion and kelp, my certifying would not
17 even certify my because that wouldn't be consistent
18 with good organic management, so how can we address
19 that as something that's feasible in water?

20 With respect to voting today, I've kept
21 my comments, basically, to myself up to this point,
22 except through the Crop Subcommittee calls, I feel

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1 extremely strongly that everyone on this Board has
2 been privy to both the task force report, task force
3 presentation at our spring meeting, to the public
4 comments from the spring meeting, on both sides of
5 the perspective, the public comments at the fall
6 meeting, both written and oral, at each of those
7 meetings, to Crop Subcommittee discussions being
8 invited on to those calls.

9 I feel we've all had a chance to hear
10 a great deal about this. I'm so concerned that if
11 we send this back to the subcommittee, the new Board
12 Members are going to have so much catchup to do that
13 it's going to be incredibly hard for them to know
14 where to even get started. I feel this is going
15 to delay us looking at this issue even further.

16 If we vote on it today, while it may not
17 be perfect in everyone's view, I think it sends a
18 message of communication that the stakeholders
19 want to hear, and our subcommittee was strongly,
20 from 5 to 2, in favor of voting for this position,
21 and I hope that you guys will consider that today.
22 Thanks.

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1 MS. SONNABEND: Next. Carmella.

2 MS. BECK: I have a long statement.
3 I'm going to read it. All right. I'll be
4 outlining my reasons for why the proposal needs to
5 go back to the subcommittee. First, because of
6 confusing motion language, in particular, the
7 motion states bioponics as consistent with organic
8 production under the provisions and
9 recommendations to be developed by the NOSB in
10 2017.

11 I cannot vote in favor of a motion
12 without reviewing, analyzing, and understanding
13 the referenced provisions and recommendations.
14 Second, it is clear to me that we are not being
15 consistent with language used to describe
16 soil-less production systems.

17 The proposal is titled, Hydroponic,
18 Aquaponic, Bioponics, and excludes container
19 production. However, I'm concerned that a vote to
20 disallow bioponics could potentially compromise
21 the continued compliance of container production
22 practices in the absence of vetted and accepted

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1 definitions.

2 Thirdly, it's still my belief that we
3 should have issued a discussion document in lieu
4 of a proposal, as was done for the container
5 production topic, in order to have provided the
6 topic equal due diligence and equal opportunity to
7 take both written and verbal comment into account
8 prior to crafting a proposal.

9 Fourth, the hydroponic/aquaponic task
10 force report was issued on 7/21/16, allowing the
11 Crop Subcommittee extremely limited time to
12 review, digest, and debate the 200-page report.
13 In closing, the Board oftentimes works on very
14 tight timelines to get work done. This instance
15 was different.

16 I'd argue that we need to slow the
17 process down, to be very thorough, and very
18 deliberate, which I believe we owe to our
19 stakeholders who are currently NOP-certified
20 hydroponic and aquaponic operations, who, just
21 like other NOP-certified organic growers, adhere
22 to the organic production definition as stated, a

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1 production system that is managed in accordance
2 with the act and regulations in this part to respond
3 to site-specific conditions by integrating
4 cultural, biological, and mechanical practices
5 that foster cycling of resources, promote
6 ecological balance, and conserve bio-diversity.

7 The future steps I recommend include,
8 one, create a discussion document, as reference in
9 Part 3, Page 1, under the introduction heading in
10 the discussion document, two, take into
11 consideration current public comment, and three,
12 discuss the standards needed for bioponic systems
13 to be allowed under the NOP organic rules, along
14 with possible limits on what sorts of systems would
15 qualify as bioponics.

16 Four, outline the breadth of currently
17 certified soil as bioponic practices, as
18 referenced in the task force report, and finally,
19 create separate discussion documents for each
20 individual topic under discussion, as requested by
21 public commenters.

22 MS. SONNABEND: Anyone else? Tom.

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1 VICE CHAIR CHAPMAN: Can someone on the
2 subcommittee let me know why we sped up the work
3 of the task force, especially in light of the task
4 force, members of the task force, objecting to it?

5 MS. SONNABEND: I can address that.
6 There was concern that with a lot of members leaving
7 the Board, including the two liaisons to the
8 hydroponic task force, that something needed to get
9 started while they were still on the Board before
10 a whole new crop of Board Members would have to come
11 in and get up to speed on this subject. That was
12 the primary reason. Anyone else? Emily.

13 MS. OAKLEY: I would just say that my
14 reason a little bit different, was just that I've
15 been hearing from so many people who want to see
16 action on this now, so that was my reason for
17 wanting to see it happen sooner.

18 MS. SONNABEND: Jesse.

19 MR. BUIE: You know, I have a lot of
20 concern, but the question that I would like to pose
21 to this Board is, have we given the NOP the analysis
22 and clarification needed in rulemaking? And it's

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1 my understanding that if we vote it down, that this
2 motion doesn't do anything to give them specific
3 guidance. And so in other words, everything stays
4 the same and that's not acceptable to me.

5 So I think we need to send it back and
6 give specific guidance on what we expect out of it
7 so that we can protect the label.

8 MS. SONNABEND: Tom.

9 VICE CHAIR CHAPMAN: So the task force
10 had three parts, the third part was looking at a
11 labeling option, can members of the subcommittee
12 speak to how that was considered and the outcome
13 of that?

14 MS. SONNABEND: Yes, I can speak to
15 that also. We did have the ability to talk about
16 a labeling option and, how do I put this succinctly,
17 we did, and many people on the task force thought
18 a label was a good idea, but thought the label
19 should not be part of the organic regulations.

20 And so when I had initially talked with
21 Miles about outlining the options for proceeding,
22 we, on the NOSB, are limited to suggesting things

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1 that are within the regulations to be able to
2 change, and if we didn't feel we should change the
3 regulation to have labeling, but we should change
4 OFPA or have them get a new bill to the
5 Congressional level, then that is outside of our
6 scope, and that is how the majority felt. Dan.

7 MR. SEITZ: So I have to just admit that
8 I find this a genuinely perplexing issue. On the
9 substantive end, I feel that hydroponic practices
10 should not get the organic label for the reasons
11 Emily outlined, and the fact that the consumer,
12 from my standpoint, who is, I have to say,
13 schizophrenic on this issue as well, I think, has
14 in the mind the small-scale farmer, the raising of
15 soil on crops, and so forth, so to have for
16 hydroponic methods to have simply an organic seal,
17 I think, would be misleading.

18 If there were some additional
19 clarification about the methods, that may be
20 acceptable, and that's a complex issue in itself.
21 I do think that consumers would prefer that
22 so-called organic hydroponic would consider that

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1 far superior to a conventional hydroponic, and
2 would be heartened by the fact that inner city
3 communities benefit from this, there are
4 employment opportunities, and so forth, so
5 clearly, very worthwhile.

6 But I would have to say on the
7 substantive issue, without there being an
8 additional, sort of, clarification, to just simply
9 give hydroponic practices the organic label would
10 not be in the spirit, nor in my interpretation of
11 how the law is written.

12 What makes this perplexing to me is more
13 the pragmatic issue of what is the right way for
14 us to vote on this because I'm torn between what
15 Emily said and what Jesse said. I think voting as
16 the subcommittee suggested sends a very powerful
17 message. This is where the Board stands and let's
18 just make that clear, and then now let's go back
19 to subcommittee and clarify if we have any
20 additional recommendations.

21 Jesse's point, though, is also a good
22 one, which is, if we want to move this along and

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1 do it expeditiously, sending it back to committee
2 may be precisely the way that we do this, and
3 certainly, we can clarify. We have a subcommittee
4 vote that clarifies where a number of people stand
5 and we may hear other comments about that.

6 So I haven't yet decided yet on the
7 pragmatic side, what is the better way for this
8 Board to go, and I want to keep listening, but I
9 did want to make it clear on the substantive side
10 where I stand on this.

11 MS. SONNABEND: So I have Francis, and
12 then Tracy, and then Tom, and then Ashley, and then
13 Harriet.

14 MR. THICKE: Well, I agree with Dan
15 that I don't think that it should come under the
16 organic label, and, Michelle, do you have that
17 slide? Can you do that? I think that it's not our
18 -- I agree it's not our role to tell them how they
19 should label it, but they should know that there's
20 another umbrella they could create, that we're not
21 going to just kick them out in the street. They
22 can do something.

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1 If you look at this little label that
2 we were able to come up with, I mean, that's outside
3 of organic and they could create their own
4 umbrella, have their own label, and if we could go
5 to the next slide, actually, USDA AMS, you can
6 hardly read that, has a program called process
7 verified program where individuals and
8 organizations can apply to get this system in
9 place.

10 So they could put their own
11 certification system in place, they could create
12 their own standards, and I think that would be a
13 way that they could feel comfortable that they have
14 a place to go if they're not in the organic home.

15 But back to the proposal, I'm in favor
16 of voting for it today. I think that on the
17 continuum, the container discussion document
18 allows us, if we vote for this and turn it down,
19 the container discussion document gives us plenty
20 of space to pull in those gray areas if we need to.
21 Thank you.

22 MS. SONNABEND: Okay. Tracy was next,

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1 and then Tom, and then Ashley, and then Harriet.

2 CHAIR FAVRE: I want to speak to Dan's
3 comments about, sort of, the mechanics of the
4 process. I think when we first started this
5 process, even before the proposal was written and
6 we had conversations in the Crop Subcommittee, and
7 as Chair, I sit in on all those calls, I think the
8 will of the subcommittee was pretty clear.

9 The proposal, and particularly the
10 motion itself, is very troubling to me. I agree
11 with Carmella's comments, I am not comfortable
12 voting for or against a definition that has not been
13 made yet. And so that's my personal opinion, but
14 the mechanics of it are -- and this speaks to Emily
15 and Francis' comments about wanting to vote it
16 through, if we vote it through, let's say we vote
17 today and we reject the proposal, it fails, there
18 is no recommendation going to the program.

19 If we vote for it, it simply means that
20 there's going to be future work. It seems to me
21 that -- and I'm loath to say this because I want
22 be here to work on it, this is my last Board meeting,

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1 so I would prefer to see it go back to subcommittee,
2 I would really like to thrash out the mechanics of
3 it and the definitions, and get everybody
4 comfortable, open it up for further discussion, and
5 have a very well-crafted clean document that
6 conveys our philosophical positions as well as some
7 practical recommendations for the program to make
8 rulemaking.

9 I feel as though, candidly, we've
10 failed in our task, regardless of whether we vote
11 for or against this proposal, of giving them clear
12 recommendation and guidance that they can then use
13 to go forward with rulemaking.

14 VICE CHAIR CHAPMAN: So my biggest
15 concern with this proposal as it's stated is, I
16 don't understand what I'm voting on. And that's
17 really the root of my uneasiness. So for those of
18 you who want to move this proposal forward now,
19 which, I'm looking, I guess, in the directions of
20 Emily and Francis, the task force came out with five
21 production systems. They were labeled A, B, C, D,
22 and E. We can pull out the task force report if

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1 we need to, but it's not clear to me where those
2 five fit in under this proposal.

3 Can I seek my time to you guys to answer
4 that?

5 MR. THICKE: Which five items are you
6 speaking about?

7 VICE CHAIR CHAPMAN: There was five
8 different types of production systems that were
9 reviewed and outlined by the task force.

10 MR. THICKE: Well, in my view, we
11 defined in the motion, bioponics, including
12 hydroponics, aeroponics, and aquaponics, and we do
13 define them in our thing, so they are defined in
14 our glossary, and those are the ones we're defining
15 as not production systems that we want to move
16 forward with.

17 Now, we may have to go back, we probably
18 will, it's not like it's off the table if we vote
19 this down, we could go back and we could be more
20 specific about what we do want in the future.

21 VICE CHAIR CHAPMAN: It seemed to me
22 there was a lot of overlap between that and the

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1 definition of container production as well. I
2 couldn't, myself, understand a difference between
3 what was defined in those. Like, they weren't
4 discreet buckets.

5 MS. OAKLEY: I think that's why we have
6 the discussion document. I mean, Zea can speak to
7 this as well because she's the person who crafted
8 both of these documents originally, and I'll just
9 speak to the fact that when we worked on this in
10 subcommittee, and I know Harold can probably --
11 this addresses some of what he said as well, when
12 we were presented with this committee vote and the
13 motion worded the way it was, we all thought that
14 we were voting in opposition to hydroponics and
15 that action could then be taken on that.

16 So I know some of us were surprised to
17 learn that that was not necessarily the case, and
18 the reason for the container discussion document
19 was to allow us to elaborate further out what that
20 might mean. And I don't think that voting on this
21 now precludes, given the fact that Miles has stated
22 that it's unlikely that they will take this and form

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1 this into regulation, voting on it today because
2 we can send a message of where we're headed.

3 Clearly, based on Miles' comments, we
4 have more work to do regardless of what we do today,
5 but I don't think voting on this stops where we're
6 headed. And I think that any confusion over terms
7 and containers, et cetera, can be fleshed out in
8 the future.

9 MS. SONNABEND: Ashley.

10 MS. SWAFFAR: Okay. So you know this
11 one's a tough one for me, so I don't particularly
12 agree that the giant hydroponic industrial photos
13 that we've seen from some public commenters, you
14 know, should be allowed in organic production, but
15 I do feel that some levels of containers should be
16 allowed, and I'm just not comfortable voting on a
17 motion that says that we're allowing or not
18 allowing a certain type of production under the
19 provisions and recommendations to be developed by
20 the NOSB in 2017.

21 I'm not comfortable saying that just
22 because I look at other huge bodies of work that

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1 this Board has done and if we would have done the
2 same thing in animal welfare, you know, look at this
3 giant things, I just don't see where it would --
4 you would have gotten anybody to vote on that
5 either.

6 You know, I think this is a huge issue
7 and I'm not comfortable voting on something that's
8 not yet been developed, so that's my point.

9 MS. SONNABEND: Harriet was next and
10 then Scott.

11 MS. BEHAR: Okay. So I stand with that
12 and I think there's a little bit of a misnomer about
13 whether it's organic production or whether it
14 should have the privilege of carrying the organic
15 label. That's because we have seen that the
16 national organic program has at least interpret our
17 regulation that hydroponic using acceptable inputs
18 is organic production.

19 But our law is a labeling law and
20 truthfully, does it meet all aspects of the law?
21 And is hydroponic just input substitution, which
22 is what I think it is, and that's not, any of us

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1 that have been organic inspectors, we know that
2 that's really the weakest organic operation we can
3 go on, is one that just changes a conventional input
4 for an organic approved one.

5 And then that we're always pushing
6 people, right, to approach things from a
7 systems-based viewpoint, and that, truthfully, the
8 most sustainable organic production systems, and
9 those that are privileged to carry the organic
10 label, are those that rely very little on inputs;
11 their own seed, recycling their own nutrients, and
12 of course, in the upper Midwest, we see this all
13 the time, trying to encourage people to bring
14 livestock back on the farm. All of those things.

15 And so I can go -- I had a whole little
16 speech, but I don't think I need to. I think I've
17 said where I stand and where I think we need to go.
18 So I want to talk to Dan's pragmatic point.

19 I think it's extremely important that
20 we send a message where we stand, I know there's
21 been some discussion how to do that, that we, as
22 a Board, do not feel that input substitution has

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1 the privilege of carrying the organic label, that
2 really looking in a holistic way and that we are
3 not giving up on soil-based agriculture, that we
4 need to be working on systems that are not just not
5 degrading the environment, that are not just
6 environmentally benign, but we need, we must, and
7 organic is the promise of environmentally
8 beneficial, that we are actively turning around the
9 system.

10 It's in the hope of organic where we can
11 mitigate climate change. We don't mitigate
12 climate change with hydroponic systems, so this is
13 a loftier goal where I think all of the pro
14 soil-based people are coming from.

15 And I'm also concerned that if we don't
16 send a strong decision out to the public on both
17 sides, that hydroponic people will continue to
18 invest in huge factory, industrial operations,
19 that are huge investments, with the promise of the
20 privilege of carrying the organic label.

21 And those in soil-based agriculture
22 will be frustrated and say, I cannot compete

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1 because this is a year-round, right, we know
2 grocery retailers, they want to buy year round,
3 it's a pain in the neck to deal with this little
4 guy, and that little guy, and so we are then, in
5 a way, promoting the industrial model of
6 agriculture to carry the organic label, and that
7 would actually stifle people from either going into
8 soil-based organic production or going the extra
9 mile, as we all know it is, to carry the organic
10 label.

11 So I would like to vote with a secondary
12 resolution that makes it clear that we are going
13 to continue working on this, that our plan is to
14 work closely with the NOP in developing something
15 that gives him, Miles or whoever's sitting in his
16 seat, the tools that they need to make it clear,
17 and I am actually not so sure that we need that much
18 of a regulatory change because it's been an
19 interpretation of the NOP that has allowed the
20 hydroponic to proliferate without really having a
21 standard behind it that justifies that organic
22 label.

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1 MS. SONNABEND: Thank you. Scott was
2 next and then I'm going to call on myself. Oh, and
3 then Tom. Well, do you want to go before me? Oh,
4 all right. Well, Scott, and then you, and then me.

5 MR. RICE: Thank you. I share some of
6 the sentiments of my fellow Board Members here of
7 just not being certain of what I'm voting on here.
8 I think, you know, I started my experience in
9 organic production on a small farm, moving to a
10 teaching farm that was based in the soil, but I also
11 worked with young folks that were innovating and
12 trying new things on that farm that both included
13 that soil and included hydroponic types of
14 operations of many kinds.

15 And I hesitate voting on something that
16 doesn't allow for some sort of middle road that
17 permits that innovation in a way that honors the
18 organic principles that we all hold dear. And as
19 a certifier, you know, it's hard to vote on
20 something that says it'll be developed later and
21 doesn't have, sort of, careful, thoughtful, clear
22 parameters. That's difficult for us to work with

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1 and certainly difficult for organic producers to
2 work with.

3 And so it's hard for me to then support
4 this without some greater definition of it.

5 MS. SONNABEND: Tom.

6 VICE CHAIR CHAPMAN: So Harriet said
7 that the rulemaking process could be quite easy and
8 Miles' comment that rulemaking would be necessary.
9 I was wondering if Miles could go a little bit more
10 into what the rulemaking process is; the steps it
11 would have to go through?

12 MR. MCEVOY: Sure. Well, from our
13 perspective, this seems like it would be a
14 significant rulemaking action, that there'd be
15 quite a bit of work that would need to be done to
16 really define and have an enforceable standard of
17 what is allowable in organic production. It's not
18 as simple as just saying it's soil-based. It's
19 like, okay, what is soil? How much soil?

20 You know, the container piece of it, we
21 want to resolve and provide standards in this area
22 as quickly as possible, but this is complicated.

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1 I think we've learned that over the last year, that
2 it's not an easy fix. So rulemaking involves
3 developing the proposed rule. There's a lot of
4 different elements of that.

5 There's the regulatory text, is the
6 easiest part of that, and then you have to justify
7 why the rule is written in a certain way, and then
8 this, I would imagine, the Office of Management and
9 Budget would consider this a significant
10 rulemaking action, and so then we have to do the
11 cost-benefit analysis, which is called a
12 regulatory impact analysis, and Regulatory
13 Flexibility Act, which has to do with the Small
14 Business Administration in making sure that it
15 doesn't adversely disproportionately affect small
16 businesses.

17 There's the civil rights impact
18 analysis that's also conducted as part of the
19 rulemaking process, so it takes a fair amount of
20 time to develop the proposed rule, the regulatory
21 text, the preamble, the regulations, and all the
22 additional components. It then goes through

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1 various stages of clearance, first is with the
2 Office of General Counsel, next it goes through
3 departmental clearance, which involves the Office
4 of Tribal Relations, the Civil Rights Office, the
5 Office of the Chief Economist, the Office of Budget
6 and Planning Analysis.

7 And then when that is complete, then it
8 goes over to the Office of Management and Budget,
9 the Office of Information and Regulatory Affairs
10 for interagency -- yes. Yes. It's a lot of fun.
11 It's a long process, but it's a very important thing
12 that we do. There's a lot of different areas of
13 the organic standards that need to have the
14 standards more clarified and it needs to be in the
15 regulatory text because guidance is not going to
16 get us to where we want to go on this particular
17 topic.

18 We can't use guidance to enforce the
19 regulations, the regulations are the only thing
20 that are really enforceable. Guidance provides us
21 with information of how to comply, but not the
22 regulatory ability to take enforcement action.

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1 So that's a brief overview of getting
2 a proposed rule out. We also, you know, one thing
3 to keep in mind, there's a new administration
4 coming in, this is a significant -- I mean, it's
5 quite a controversial topic, there's a lot of
6 interest from Congress on this particular topic,
7 the new administration's going to take a while to
8 get settled in, there's no way that AMS is going
9 to be able to move forward through the departmental
10 clearance process until we would have
11 clarification from the new administration in terms
12 of their priorities.

13 MS. SONNABEND: Okay. I had called on
14 myself next, and then Lisa, and then Jean. Okay.
15 This is my personal statement regarding this. We
16 heard, really, all kinds of things raised in public
17 comment, soil is only one factor in our
18 deliberations, but the soil is the most important
19 component. The water is only one factor. The
20 water is the most important component. The
21 microbes are one factor. The microbes are the most
22 important component.

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1 The inputs are only one factor. The
2 inputs are the most important component, et cetera.
3 Zeroing in on core principles of organic leads me
4 to recognize that all these things are important
5 and more. Organic farming involves working with
6 nature and nature cannot be controlled easily.

7 Organic soil farmers face the
8 significant challenges of the natural world by
9 working within natural systems of soil, water,
10 climate, pests, diseases, and other environmental
11 stresses to provide crops that have co-evolved in
12 harmony with the natural world.

13 Now, I'm not an agrarian elder, but I
14 am getting elderly by the minute, this has, maybe,
15 accelerated that. And so I believe that
16 controlled environmental agriculture is designed
17 to remove the unpredictable side of the natural
18 world by controlling as many of the factors above
19 as possible and maximize crop production.

20 It's therefore an inherently
21 artificial environment. For those who currently
22 use organic inputs and develop microbial systems

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1 to provide nutrition, it's admirable in its
2 technological approach to providing healthy food
3 with significant reduction in water use, more
4 efficient use of some resources, and ability to be
5 reproducible on small scales, and in a wide variety
6 of locations.

7 And I want to emphasize this again, this
8 is not an issue of scale. We heard from very small
9 hydroponic producers, and of course, we know there
10 are all sizes of crop producers. Elimination of
11 the natural forces that influence co-evolution is
12 not working in co-harmony with nature.

13 It's true that the natural world is
14 becoming more contaminated and there are many
15 threats to organic integrity out there, however,
16 it's the premise of organic farming to work within
17 that environment to prove the soil, and through
18 that, improvement to improve the crops.

19 The concept of improvement is really
20 missing from this hydroponic discussion. Now, the
21 concept of improvement, as Miles stated on the seed
22 issue, is questionable in the whole of the

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1 regulations, but that's maybe something that needs
2 to be looked at further because I think every single
3 organic farmer out there -- well, once again, that
4 is an over-generalization, some don't try to
5 improve anything, but most of them do seek to
6 improve their systems in whatever way they think
7 is right.

8 So I certainly have no desire to put
9 anyone out of business and sincerely hope that
10 whatever position we can take now and in the future
11 will be implemented in such a way that the effected
12 parties can take whatever steps they need to to
13 align with whatever regulations evolve. If this
14 means trying to adopt a seal, such as Francis
15 suggested, with the processed-based verification,
16 then that's a good way.

17 I think the notification has to happen
18 soon so that that is the direction we're headed so
19 we're not putting people out of business and we're
20 giving them the chance, if they're in a liquid
21 substrate system in particular, to promote
22 themselves, and their own qualities, and their own

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1 objectives in their own right.

2 I do think that the seeking a new label
3 is something that, at least we on the current makeup
4 of the Crops Committee, and possibly the whole
5 NOSB, feel is beyond our ability to request in the
6 existing regulations and so that it has to be
7 pursued outside of the NOP regulations.

8 So we're going to -- procedurally,
9 however, I apologize because I think that our best
10 efforts have failed in trying to achieve in what
11 we wanted to achieve in setting up the proposal.
12 I did my best at what I could figure out to do at
13 the time. Perhaps it was a little rushed. I'm
14 completely torn between sending the clear message
15 now is far better than waiting to send that same
16 clear message later on.

17 And so I really would like us to send
18 some clear message now, either through resolution
19 or through voting on the motion, and I think I'm
20 going to have to abstain on whether to send the
21 motion back to the committee. Thank you. Lisa
22 was next.

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1 MS. DE LIMA: So like Dan, I have a hard
2 time with this one and I still don't really know
3 where I stand. I know that when I started in
4 organics 20-something years ago it was because I
5 thought it was the largest way that I, as an
6 individual, and that society as a whole could have
7 a positive impact on organics.

8 And as things -- so I tend to want to
9 stick to that ideal, but, you know, Harriet talked
10 about, in organics, and Zea talked about the
11 wanting to improve things, that this is the best
12 way to go about it, but then I'm also torn from,
13 sort of, being a, I don't know, would it be a
14 pragmatic or a realist environmentalist as to
15 what's really going on out there in the world.

16 Now I'm not saying that I want to
17 consider every alternative system, but I guess I'm
18 not ready at this point to rule, like, make a
19 blanket statement and rule them all out if there's
20 something out there that we think is compatible and
21 that could help us in some select situations, like
22 urban farming and making organics available to more

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1 people.

2 So I'm super torn, but not ready to so
3 no to everything.

4 MS. SONNABEND: I think Jean was next
5 and then Harold.

6 MS. RICHARDSON: I'm from Vermont, you
7 know, so it's always a challenge, since I know Pat
8 Leahy quite well, so soil is the foundation, and
9 that's really where I come from. I'm looking for
10 consensus to see if there's anything around this
11 Board amongst the 15 of us that we can move forward
12 to send the appropriate type of message to the NOP
13 at the present time.

14 I don't think that this motion does it
15 for me for a number of reasons, not just, as Lisa
16 was saying, is that maybe there's something in some
17 of those hydroponics things that are okay. I
18 personally wouldn't want to see us have the organic
19 label on that lovely lettuce over there that was
20 grown 100 percent in a liquid and maybe we could
21 find consensus around 100 percent non-liquid as
22 being -- non-water-based, or whatever the material

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1 is that they're growing in. Maybe that would be
2 an area for consensus.

3 I think the aquaponics, as we've heard
4 this week and in some of the written material,
5 public comment, does have to be looked at
6 differently and pulled out because it is a
7 different system. It's a closed system. I would
8 rather see us see if we could work on a resolution
9 that would give us a consensus basis to send a
10 message.

11 Obviously, this is going to go to the
12 subcommittee regardless of what we do, whether we
13 vote up this motion or not, back to the
14 subcommittee. It's going to go on in subcommittee
15 where they're going to have a great deal of work
16 to do over the next few months.

17 And I certainly would agree with
18 Francis that the idea of those fabulous systems
19 that they've invented out there should have their
20 own clear label because they're very worthwhile and
21 amazing systems that allow high-quality foods to
22 be available to a broad population and in urban

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1 areas. They have their, you know, amazing points
2 and I was very impressed with so many of those
3 presentations.

4 So they shouldn't be discounted, it's
5 just that I'm not sure that they should be labeled
6 as being organic, but they should have their own
7 separate label, or whatever it's called, a seal,
8 a different type of seal, so I personally, I would
9 have to abstain on this motion the way it's written
10 because I don't want to vote on something that then
11 says based on what's going to be developed in 2017
12 when I don't really have much of an idea of what
13 that's going to be, and it may have kept some
14 things, or thrown out some things, I can't vote on
15 that.

16 So I would rather see us have a
17 resolution and I know we have one that's floating
18 around amongst us that we've been thinking about
19 for the last day or two.

20 MS. SONNABEND: Harold.

21 MR. AUSTIN: Okay. I won't belabor
22 this too much longer, but I've grown-up in farming

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1 my entire life, so I know what it takes to take and
2 nurture the soil to take and get our crops to
3 produce what they need to do. I'm 100 percent
4 behind that. I mean, I've done that, I've worked
5 with growers, and I know what it takes. I know what
6 our guys take to take and get our crops, especially
7 our organic crops, because of the obstacles and the
8 challenges that we have.

9 It's difficult. It takes a lot of
10 time. It takes a lot of energy. But I also know
11 how aggressively progressive our growers are. You
12 put a challenge in front of a grower, especially
13 an organic grower, and they're going to find a way
14 to accomplish the next to impossible task.
15 They're innovative.

16 Just like Henry Ford, you know, when
17 we'd be driving a 1928 Model A, look what we're
18 driving today. Things develop. Things evolve.
19 Things change. Organic's no different. The
20 forefathers that developed the organics principles
21 were revolutionaries. Those that are a part of
22 this industry today are revolutionaries, and we

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1 continue to be, whether you're soil-based or
2 whether you're looking at other options.

3 The cost of acreage today, when I was
4 a kid growing up, you could have bought, in our
5 area, an acre of ground for \$500. You got out now,
6 you're going to spend \$20,000 and you're still
7 going to have to do all the necessary improvements.
8 Urban sprawl's taken away valuable farm ground.

9 So you look at some of the new
10 innovative technologies and the things that these
11 people are doing to try to provide a sustainable
12 product to the consumer. Populations are
13 continuing to grow. Let's not stymie the
14 forethought and the outward thinking that these
15 revolutionaries that call themselves organic are
16 all about.

17 I think we should embrace it. Maybe we
18 don't want to accept all of the processes that
19 they're bringing forth, maybe we want to bring some
20 of them, I think we've got an overlap between the
21 bioponics discussion and proposal that we're
22 looking at as well as the container discussions.

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1 I think we've seen within the public testimony that
2 there's confusion.

3 So I think we need to do the due
4 diligence, not only for the program, to give them
5 solid defined definitions on what we're
6 anticipating, what these things look like, and what
7 they should be basing their rules and regulations
8 upon, but I also think that we owe it to our organic
9 stakeholders to take and send a clear message and
10 give them the opportunity.

11 And I think right now, if we were to move
12 forward with this, it's too fast. We didn't get
13 the information back until mid-summer. We really
14 truly haven't digested it and we sure in the hell
15 haven't digested all of the comments that have come
16 in from the different perspectives and the
17 different possibilities.

18 We know the languages don't hold to be
19 the same, the definitions, in the different
20 certifying bodies around the world. We need to
21 clarify this. We need to put these things
22 together. We need to step back, take a hard look

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1 at where we really truly want to go, and then let's
2 go there, embrace, and let's do it together. Let's
3 not have the division, let's not have the
4 divisiveness, we're better than that, but we need
5 to do it and we need to do it right.

6 Having said that, I would like to make
7 a motion to refer this back to the subcommittee for
8 further work and further review.

9 MS. SONNABEND: Is there a second?

10 MS. SWAFFAR: I'll second.

11 MS. SONNABEND: More discussion
12 focused on that motion. Oh, Emily.

13 MS. OAKLEY: Well, I know Zea invited
14 everyone to join our subcommittee calls when we
15 were discussing this and a couple of people took
16 the CS committee up on that, but I want to say that
17 if you all -- you are essentially saying you're
18 going to come into our subcommittee calls and work
19 on this issue, because we did work on it, and we
20 did spend, what I believe was, our due diligence,
21 and we didn't get any indication until this meeting
22 that the rest of the Board didn't agree with what

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1 we'd done.

2 So I think you're putting the shoulder
3 of responsibility on yourselves as well to assist
4 us in this process. I also just want to say, you
5 take a risk when you're the first person to speak.
6 If you're going to blow your thunder at the
7 beginning or save it for the end.

8 I just want to say that I feel like I'm
9 probably one of the few people on this Board that
10 is going to hear from the smaller scale farmers and
11 the pioneers of this movement more than, maybe, the
12 rest of the Board will hear, so I just ask you to
13 consider that, and I might be passing some of their
14 comments on to you so that I don't feel like the
15 sole ear for those comments and everyone else can
16 understand that important perspective.

17 MS. SONNABEND: Don't forget there are
18 five new Board Members we could foist it off on.
19 Dan was next and then Harriet.

20 MR. SEITZ: So I wish we were in a place
21 where we could send a clear message that this Board
22 does not consider what you might call pure

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1 hydroponic to be acceptable under the organic label
2 and I really like the distinction that Harriet made
3 that it isn't technically whether something's
4 organic but it's really about the privilege of
5 carrying the organic label.

6 My concern if this is not sent back to
7 subcommittee is that we have heard that there
8 really is a genuine split on this Board, as Harold
9 pointed out, and we may actually, we who want to
10 send a strong message, be risking that this motion
11 would actually pass, which would be the opposite
12 of what would serve that goal that a number of us
13 have of, excuse the pun, containing this new
14 production method in a way that is clear to
15 consumers and clear, and in line with the spirit
16 and the letter of the law.

17 So I'm wondering whether now it really
18 might be the most pragmatic thing, even though,
19 again, I would like to send a pure strong message
20 that by sending it back to subcommittee, we don't
21 risk actually, potentially, having a worse outcome
22 of this motion potentially passing. And I just

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1 can't read my fellow Board Members well enough
2 right now to know whether that might be a
3 possibility.

4 MS. SONNABEND: We have a mostly formed
5 resolution that we can put on the floor for
6 discussion after this vote is taken, and I think
7 while it's been going around in email, I think we're
8 pretty close to agreement on it, and that could be
9 entertained after we deal with the initial motion,
10 so that if it does go back to subcommittee, or for
11 that matter, even if it fails, we can have the
12 resolution to go along with it.

13 And a resolution, it'd be nice if it was
14 unanimous, and we can talk about it to see if we
15 can get unanimousness, but even if it's not, we can
16 still vote on it and majority would carry it, right?
17 Okay. Harriet was next.

18 MS. BEHAR: So I think the strongest
19 message would be to vote down the resolution. That
20 said, I don't think actually whether we vote it up
21 or down, or sideways, it would make any difference
22 because we've heard from the NOP that they can't

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1 really move forward with anything.

2 So it's really, in my mind, mostly the
3 message, that I don't want new hydroponic
4 operations to move forward on what I feel is pretty
5 thin ice, frozen hydro, and I don't want new
6 soil-based operations to feel marginalized in
7 where they should feel most embraced.

8 So I am probably not going to vote to
9 send it back to subcommittee, but I'm probably
10 assuming that the entire Board, there'll probably
11 be a majority that will vote it back, and I'm
12 offering -- I know Jesse has offered to be the lead
13 and I'm offering to work with you, Jesse, to try
14 to put some regulatory language together based on
15 all the public comments and to keep informed, the
16 rest of the Board while we are working, so when we
17 come to the next meeting, everyone will be onboard,
18 there won't be any confusion about what we're
19 trying to say, and I hope that will be a message,
20 that there is a way forward.

21 Of course, we don't know how long that
22 trip will take, but I do think that -- well, I guess

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1 I've said what I said.

2 MS. SONNABEND: Point of order. At
3 this point, I'll be calling you in a second, can
4 we vote this motion now? If the motion doesn't
5 pass to send it back to committee, can we vote the
6 original motion in the Board, then take lunch, then
7 come back after lunch with the resolution so we have
8 time to get it to Michelle, and get it up on the
9 screen, and then discuss that motion, either right
10 after lunch or later in the deferred motions
11 portion?

12 CHAIR FAVRE: Yes, it's my intent for
13 us to take a vote on this issue before we go to lunch
14 and then we will have an opportunity to thrash out
15 the details and if we so choose, bring it back
16 immediately. If we need more time, we do have that
17 sloppy spot in the schedule a little bit later for
18 deferred votes.

19 MS. SONNABEND: Discussing the motion
20 to send it back to committee and then we'll vote
21 on that, and then if we need to, we'll discuss the
22 full motion. Jean.

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1 MS. RICHARDSON: Yes, I would support
2 having it go back to the subcommittee. I sort of
3 agree with the original intent of the way in which
4 the motion was developed in subcommittee. I'm not
5 on the Crop Subcommittee, but I did sit in on the,
6 I think, probably, all of the discussions that were
7 had on hydroponics in the subcommittee.

8 I think that we didn't really -- we
9 rushed the task force. I mean, the papers that
10 they wrote, I wouldn't really give them a terribly
11 high grade, actually, that came out of the task
12 force. They did need more time, it turned out, I
13 wished they'd don't it faster, but they were slow,
14 and there wasn't -- since, you know, we pushed them
15 to get as fast as we could for very logical reasons,
16 so that those of us going off the Board could have
17 had the opportunity to at least begin to clarify
18 the issues and move them on for the necessary detail
19 to make rulemaking work.

20 And we've certainly found, in looking
21 at the task force report, and I read all of that,
22 and attached documents, that we still didn't really

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1 have enough detail and information necessary for
2 us to make the high level of professional decision
3 making that we really owe it to all the people and
4 all the stakeholders out there, whether they're in
5 hydroponics or in solid soil-based farming.

6 So I think that the time is necessary
7 for us to do a much better job. We also heard some
8 really eloquent presentations from all sides here
9 at this meeting, and we need time to be able to
10 absorb that information in order to do our due
11 diligence in really having a high-quality document
12 coming out of the subcommittee next fall.

13 And it's a great disappointment to me
14 that it is taking so long, but I think it's better
15 for us to be on time at the right place. And so
16 I think that we should send it back to subcommittee,
17 and as I said earlier, I would have to abstain on
18 the present motion the way it's set.

19 And I did, as you probably recall,
20 Emily, express my concern on this recommendation
21 to be developed -- making our decisions based on
22 provisions and recommendations to be developed

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1 next year. I still find that a very weird way to
2 do things. Okay. So that's my bit.

3 MS. OAKLEY: I just have a question.
4 So I understand that Jean and Ashley have both
5 expressed a concern regarding this motion being
6 premised on provisions to be developed in the
7 consecutive year. Are there other specific
8 comments and problems that people have that they
9 want to see addressed? Because I'm not hearing a
10 tremendous amount of detail that would give us
11 guidance that needs clarification.

12 So before you vote to send it back, I
13 think we need to hear some of the very specific
14 problems that you feel exist with it.

15 CHAIR FAVRE: I actually think I've
16 heard quite a few specific concerns. In my case,
17 I'm not clear on where we draw the line, if there
18 is a line to be drawn, in that spectrum between pure
19 water to container with heavy percent of organic
20 ingredients. So I think we need more clarity
21 around what would be acceptable in that spectrum
22 of production, if any of it, and if it's none of

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1 it, I think we need to say categorically, no form
2 of what is currently being called hydroponics is
3 acceptable.

4 That is predicated on having very clear
5 definitions of where those spectrum points exist.
6 I also think we need very clear mandate from the
7 subcommittee, or language back from the
8 subcommittee, on what constitutes a container.
9 The discussion document, I think, is a great effort
10 and when I said earlier that I felt we failed in
11 our task, that is not to denigrate the work that
12 has been done.

13 I think this was a Herculean job that
14 the subcommittee did, and, Zea, you were an
15 incredible workhorse on getting that done. I
16 think I have deep concerns about the timeframe as
17 well, I think it was rushed. I know that I didn't
18 get to fully digest the task force report and I was
19 terribly disappointed in the results of the task
20 force report.

21 I feel like they should have been locked
22 in a room and said, you're not leaving here until

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1 you give us some feedback on where you have
2 consensus, instead, they took their toys out of the
3 sandbox, and went and pouted in different corners,
4 so I'm sure I'm going to hear that.

5 MS. SONNABEND: There is absolutely no
6 consensus to be had.

7 CHAIR FAVRE: Yes, there was
8 absolutely no consensus.

9 MS. SONNABEND: And no amount of them
10 staying in a room together, except for termination
11 of life, would have changed that.

12 CHAIR FAVRE: Well, that could have
13 probably been arranged. So having said that, I
14 just feel as though we need more clarity around
15 those specific things. I think we need some
16 further in-depth detail about containers and, you
17 know, I think we do have consensus on certain things
18 on this Board and I would like to see that further
19 articulated in anything that comes forward.

20 MS. SONNABEND: Before I call on
21 Francis, Emily, one of the other things that I heard
22 brought up a couple times is that aquaponics should

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1 be separated out from the proposal as being the
2 closed-loop system. Okay. Francis.

3 MR. THICKE: Well, as far as the
4 motion, the way we understood it in the Crops
5 Committee, you can tell me if I'm wrong, is that
6 a yes vote means we will go ahead and develop
7 provisions and recommendations. A no vote means
8 we will not. And so it's not like if we vote no,
9 we don't know what we're doing, or if we vote yes
10 we don't know -- I mean, if we vote yes, we're voting
11 that we're going to make recommendations for a
12 provision, if we vote no, we're not going to do
13 that, and then we assume that that means that no
14 on hydroponics.

15 So it was clear to us then, I think.
16 And as far as the thing about definitions, we have
17 the line drawn in that motion. We have the
18 definitions of those items in there. And so I
19 don't see that's a problem myself, but I can see
20 where the votes are, so I'm not going to belabor
21 it.

22 But the only thing I want to mention is

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1 that I'm worried about kicking the can down the road
2 is that we'll get another generation of new
3 hydroponics coming and then we'll have to deal with
4 that too.

5 MS. SONNABEND: Did I skip over you,
6 Dan? Okay. Thank you. Carmella.

7 MS. BECK: I'm trying to keep track of
8 my thoughts here. In terms of kicking the can down
9 the road, I think that certification bodies have
10 done a really good job. I can't speak -- I've seen
11 notifications from a handful of them that have
12 references that this is a current hot topic. I've
13 seen it in certification letters and it says, you
14 know, keep in mind that this is a hot topic at the
15 NOP and you should know that at some point there
16 could be changes.

17 So what I'm saying is that certifiers
18 are following this very closely and I think they've
19 been communicating to their impacted growers that
20 there could be changes that may take place, which
21 would be helpful in the decision making of whether
22 or not they're going to do future investments. So

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1 that's just one thing, I think, that is important
2 to keep I mind.

3 And then, Emily, with regards to your
4 question about what's missing, I think Miles
5 outlined some of the items and if you look at Page
6 2 of the actual proposal, the hydroponic/aquaponic
7 proposal, the last, you know, healthy chunk is
8 dedicated to the information that's missing.

9 And so, you know, this is what we
10 decided not to necessarily go into heavy detail on
11 when we issued the proposal because we understood
12 that the will of the subcommittee was not to move
13 it forward, so it's pretty comprehensive, and it
14 is paraphrased, and so, you know, we can probably
15 go to the original document and find precisely
16 what's needed.

17 MS. SWAFFAR: So one other things,
18 Emily, I would like to see is, if this gets sent
19 back to subcommittee and you bring it forward at
20 a future meeting, I would like to see the container
21 document brought forward at the same time as the
22 proposal. Yes.

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1 MS. SONNABEND: So I think we need to
2 call a question and we're all getting hungry, and
3 therefore, a little groggy, and so we could vote
4 on sending it back to the committee and then see
5 what our next step is, which might be towards lunch.

6 CHAIR FAVRE: Okay. Is it the will of
7 this Board that we will proceed with the motion to
8 send it back? Okay. So let's see, where did we
9 leave off voting? Scott. You have the dubious
10 distinction of beginning the vote on, this is the
11 motion to send this proposal back to subcommittee
12 for further consideration.

13 MR. RICE: While Dan may have preferred
14 the vote that he had, I get this one. Yes, I move
15 to send this back to subcommittee.

16 MS. OAKLEY: No.

17 MR. THICKE: No.

18 MR. AUSTIN: Yes.

19 MR. BUIE: Yes.

20 MS. BECK: Yes.

21 MS. SWAFFAR: Yes.

22 MS. DE LIMA: Yes.

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1 VICE CHAIR CHAPMAN: Yes.

2 MR. SEITZ: Yes, with a caveat, which
3 is, I hope that we see a resolution coming out after
4 lunch that makes a strong statement on behalf of
5 the points made by a number of us.

6 MS. RICHARDSON: I agree with Dan.

7 MS. BEHAR: No, but I'll work on it.

8 MS. SONNABEND: Abstain.

9 CHAIR FAVRE: Chair votes yes.

10 MS. DE LIMA: That's 10 yes, 3 no, 1
11 abstain, 1 absent, the motion passes.

12 CHAIR FAVRE: Okay. I appreciate
13 everybody's patience. I'm actually proud of the
14 way that we handled this. I know that there's lots
15 of strong feelings about this and I think the good
16 news is, I do believe we're going to have a
17 resolution that will be able to present a united
18 clear message going forward.

19 At this time, it's 1:15, and I'd like
20 everybody back here at 2:30, please. Thank you.
21 We'll pick back up where we left off.

22 (Whereupon, the above-entitled matter

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1 went off the record at 1:13 p.m. and resumed at 2:32
2 p.m.)

3 CHAIR FAVRE: Okay, folks. I hope
4 everybody got caffeinated, and energized, and fed,
5 topped up, whatever. We are going to re-commence
6 with the discussion around a possible Board
7 resolution. We're working on it. It'll come to
8 you as soon as possible. Zea, as Crops
9 Subcommittee Chair, do you want to start the
10 conversation off?

11 (Off mic comments.)

12 CHAIR FAVRE: Okay. Then I'll at least
13 speak to it philosophically. So when we first
14 started floating the idea of a Board resolution
15 when we thought there might be a chance that this
16 proposal for hydroponics was going to go back to
17 subcommittee, at least my intent behind the
18 resolution was to find consensus on those items
19 that we could all agree on, and one, to bring the
20 Board together so that we had a unified message
21 going forward.

22 I think we're actually,

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1 philosophically, we have some differences of
2 opinion, but there are things that we have common
3 ground on and I wanted to make sure that was
4 conveyed, not only to future Board, but as well as
5 to our stakeholders in the audience and in the
6 official public record.

7 And so what we've done is, we worked
8 really hard to try to state, philosophically, what
9 our position is on hydroponics, recognizing, at
10 least in my case, in my cohorts that are going out
11 after this meeting, we won't have a voice in the
12 future discussions except through public comment,
13 and we wanted to have a chance to leave a legacy
14 of our philosophical position for the future Board
15 to work on.

16 There have been plenty of times in my
17 tenure on the Board, particularly, I know, around
18 sunset, for instance, when we were doing sunset
19 analysis, when we're going back and looking at
20 documents from a long time ago, sometimes the
21 nuance of the philosophical positions are not
22 always captured, and so we don't always know and

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1 we don't have a breadcrumb trail, if you will, to
2 follow.

3 And if those of you that were here in
4 the past, I felt very strongly, for instance, what
5 we call the aquaculture legacy document, we needed
6 to leave some sort of philosophical breadcrumb
7 trail behind us as we go forward, and that's what
8 we're attempting to do here.

9 And so with that, I'm going to turn it
10 over to Zea for any further discussion.

11 MS. SONNABEND: Well, so I think it's
12 fine if we just go into the discussion document on
13 containers to mostly show what our first future
14 workload will involve and then come back to the
15 areas where we have common resolution.

16 So, you know, one of the things,
17 clearly, about sending it back to committee is it
18 means that we have not adopted any definitions and
19 we tried to put the same definitions in both
20 documents, but what we want to -- where we're trying
21 to get to, and I think I said this at the outset,
22 in first considering how we could deal with it, we

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1 had the whole continuum of, you know, dig up some
2 ground and put it in a pot, and add some compost,
3 and then you have a container, and is that okay for
4 growing plants in?

5 And then all the possible nuances
6 in-between that and growing in totally liquid. So
7 my intent from the very beginning was to limited
8 this discussion to solid substrate containers.
9 That was somewhat of a mouthful to put in the title,
10 but I thought it made it clear in the first
11 paragraph, and that is still our intention, is to
12 proceed with discussion on whether some parameters
13 can be reached for what the constituents would be
14 of solid substrate in containers.

15 This is a particular gray area from the
16 2010 recommendation because the recommendation
17 says it must be in a compost-based system, but does
18 compost-based mean 20 percent compost, 100 percent
19 compost, 50 percent compost, and it even -- there
20 was a component of it where the Board at that time
21 said, we determined that compost is equivalent to
22 soil in these systems.

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1 Well, that was challenged by several
2 public commenters saying compost is not equivalent
3 to soil and you need to take another look at that.
4 So there definitely are quite a few issues
5 unresolved and this was just throwing it all out
6 there, along with citing some portions of the task
7 force report where they talked about these issues
8 and also, some other standards from a few
9 countries, such as Canada and Sweden, who do have
10 standards for container production.

11 So basically, we sorted it out into --
12 the first portion was to make it clear what would
13 be covered by this particular thing. And because
14 this was only discussion and not a position thing,
15 but it was never our intention for sprouts or
16 seedling transplants of annual crops to be
17 prohibited.

18 And I think everybody agrees with that
19 and that is one of the areas we have consensus.
20 Second, we try to make it clear that mushrooms and
21 other things that don't naturally grown in soil
22 would need their own set of standards and so would

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1 not necessarily be covered by that.

2 Wild aquatic plants are covered in the
3 wild crop section, but cultivated aquatic plants
4 are a gray area, but they're kind of outside the
5 scope of this exact document, and there are
6 seaweeds that are being certified, I believe, from
7 farm situations, although I'm not totally sure
8 about that.

9 But anyway, we're not probably going to
10 get that far because that's a non-container
11 environment, but might be okay for certification.
12 So what are the considerations besides what is in
13 the scope and what is out of the scope of this
14 document?

15 Well, obviously, land considerations
16 is a key one. Land considerations have to do with
17 the land underneath where a container system might
18 be growing and we recognize that container systems
19 encompass everything from a rooftop garden, for
20 instance, where you built raised beds on a roof and
21 then bring actual soil up there, and then maybe
22 amend the soil with compost and other additives,

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1 but you're still on soil that is not touching the
2 Earth's crust, and so we would consider that a
3 container of sorts.

4 Greenhouses, where they have to dig out
5 the soil and put an impermeable layer between that
6 and the Earth for various reasons, and then put the
7 soil back in, that is then considered a container.
8 And there's everything on down the line to, you
9 know, individual tiny plugs where the roots are in
10 this tiny plug and then the rest of the root is in
11 water and that gets much closer to the pure
12 water-based system.

13 And so there's every single thing
14 in-between that, and we saw pictures of a lot of
15 them since we've been here.

16 So we're going to have to decide to draw
17 the line and unlike this morning where the line is
18 drawn, the line is not yet drawn here, but we're
19 going to consider whether, like, if you're having
20 a rooftop garden, whether the soil would have to
21 be three years away from prohibited materials, just
22 like it is on the land, whether land that has a pot

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1 put on top of it or that underlying land has to have
2 three years.

3 And also, the effect on natural
4 resources, and so how are you meeting the natural
5 resources clause in the rule that includes
6 bio-diversity, the effect on wildlife, and all of
7 those other components, because those, of course,
8 are a very important part of an organic system plan.

9 Rotations is another aspect.
10 Rotations, right now, there are a number of
11 cropping systems that are allowed to have a
12 modified version of rotation to achieve the same
13 goals as a physical rotation. Perennial orchid
14 systems, for instance, have a rotation that usually
15 involves cover cropping and hedgerows to attract
16 beneficial insects and things like that, and how
17 would that look in a container situation?

18 We got quite a lot of comments back that
19 just changing the growing media consisted of a
20 rotation. We haven't talked about any of these in
21 any level of detail yet and, you know, while some
22 members of the subcommittee may already have a

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1 position one way or another, I think most of us do
2 not have an exact position of where that line is
3 going to be drawn to prohibit all the containers,
4 even the ones that contain soil.

5 Okay. Then of course, container size
6 and growing media are issues and I go into different
7 ways that people are trying to assess what size of
8 container is appropriate and the characteristics
9 of growing media.

10 The Canadians have done more work on
11 this than us, but they don't grow as wide a range
12 of crops in containers as we seem to, and so their
13 standards alone would not be sufficient. We have
14 to continue taking more looks at it.

15 The of course, there's the issue of
16 nutrition and nutrition involves not only the
17 source of the fertility, but how that nutrition
18 finds its way into the plant. This is often the
19 crux of the dissension, whether it's from liquids,
20 whether there's microbes, whether there isn't
21 microbes, and I very purposely did not make
22 microbes its own topic because it is very much tied

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1 in with the whole broader concept of nutrition and
2 soil.

3 So we did hear back quite a bit of
4 comment on, we should have made microbes its own
5 topic because microbes is the distinction or not
6 between these systems. We'll take a look at that.
7 We got some interesting comments on, you know, one
8 of the reasons that microbes isn't its own thing
9 is because measuring what a sufficient diversity
10 or amount of microbes in it is not something that
11 we have very much expertise in and the task force
12 didn't address it particularly.

13 We got several citations in in public
14 comment of some literature we could read on this
15 subject. We got the suggestion that we setup an
16 expert panel for spring with experts on microbial
17 conversion of mineral nutrition into plants and
18 soils, and that's a possibility of what we could
19 do.

20 The other issues which I did not address
21 in detail, but we heard a great deal about some of
22 them right now, energy use in sustainability and

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1 then electric and natural lighting. While the
2 gentleman was talking, a couple people who showed
3 their warehouses with plants, and I recalled a
4 recent article from Scientific American about the
5 hazards from LED lighting, which I circulated to
6 my fellow Board Members, but there are some very
7 real issues to consider with lighting sources,
8 especially when we get into these
9 highly-artificial environments.

10 And people brought up some other issues
11 also, which the subcommittee will have some time
12 to digest and work further on this no matter what
13 resolution we adopt, because it is still on the
14 subcommittee work plan and these things will be
15 tackled in the future. That's it.

16 CHAIR FAVRE: Okay. So that leaves us
17 with the opportunity to discuss the Board
18 resolution, yes? Yes, Michelle, let's go ahead
19 and put it up on the screen if you would, please.
20 Okay. So let me see if I have the latest copy here.
21 It's kind of hard for me to read that far away.
22 Okay. So we've been working on this since,

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1 actually, the day before yesterday, I think, just
2 in case, and here's where we currently stand.

3 I'm going to read the resolution and
4 then we are going to open it up for discussion. And
5 the first thing I want to say is, this resolution
6 is not intended to say what we specifically on the
7 issue of soil-less media, whether we do or do not
8 support soil-less media. Again, this is an
9 attempt to find where we have common ground, and
10 there's plenty of discussion on even what the
11 definition of soil is, and we weren't prepared to
12 try to hammer that out in the last hour and 15
13 minutes or so after many months of trying to work
14 it out.

15 So this is not all-inclusive and I think
16 it's important for both sides of folks on this issue
17 to recognize that there's still lots of work to be
18 done and lots of details to be worked out, but
19 here's what the resolution says as it is right now
20 and then we're going to open it up.

21 It says, "The National Organic
22 Standards Board brings forward the following

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1 resolution. The NOSB respects the efforts of the
2 former NOSB that led to their 2010 recommendation
3 on terrestrial plants in greenhouses. The NOSB
4 recognizes that the foundation of organic
5 agriculture is based upon a systems approach to
6 producing food in the natural environment which
7 respects the complex dynamic interaction between
8 soil, water, air, sunlight, plants, and animals
9 needed to produce a thriving agro ecosystem.

10 "At the heart of the organic philosophy
11 is the belief that our responsibilities of good
12 stewardship go beyond the production of healthy
13 foods and includes protection of natural
14 resources, bio-diversity, and the ecosystem
15 services upon which we all depend. We encourage
16 the future NOSB to consider the wider perspective
17 as the Board undertakes the challenges of assessing
18 and defining innovations in agriculture that may
19 or may not be compatible in a system of organic
20 production.

21 "In the case of the hydroponic,
22 bioponic, aquaponic issue, it is the consensus of

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1 the current members of the NOSB to prohibit
2 hydroponic systems that have an entirely
3 water-based substrate. Although that was the
4 original intent of the proposal before us today,
5 the current proposal, as structured, does not
6 achieve this objective.

7 "While the NOSB does not believe that
8 the liquid substrate systems should be sold under
9 the USDA organic label, these growers deserve the
10 chance to promote their very own commendable
11 qualities and objectives in their own right."

12 So that's where we stand right now and
13 I'd like to open this up for discussion. Harriet
14 then Francis.

15 MS. BEHAR: Just looking at the very
16 last sentence, I'm just wondering if we could add,
17 just make it clear that -- and add the words, with
18 a different label if they so choose. Just to make
19 it clear that it's a different label, or seal, or
20 whatever. To me, it does say that it doesn't
21 deserve the organic label, but I don't know. I'm
22 just looking for clarity.

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1 MS. SONNABEND: Francis and then
2 Emily.

3 MR. THICKE: I don't think I'm going to
4 be able to support this resolution. It doesn't
5 endorse the 2010 NOSB recommendations. It only
6 wants to take a consensus on prohibiting
7 water-based substrate and that sort of implies that
8 the other ones are -- you know, we're okay with the
9 other ones. I don't see the value of it, frankly.

10 CHAIR FAVRE: Emily.

11 MS. OAKLEY: I was wondering if you
12 could clarify to the audience what I heard in the
13 room, that you're trying to send the message to
14 growers who are growing in water, and simply water,
15 like the lettuce next to Michelle, that the NOSB
16 does not -- can agree that that is not allowed, at
17 least agree that that is not allowed.

18 CHAIR FAVRE: There is a statement in
19 here that says, "It is the consensus to prohibit
20 hydroponic systems that have an entirely
21 water-based substrate." That's what that
22 statement means. Zea and then Harriet.

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1 MS. SONNABEND: I mostly want to point
2 out to Francis that we haven't decided that it needs
3 to go further as a group and so we don't have
4 consensus on that. This is an attempt to find
5 common ground of those areas that we do have
6 consensus on, and so if we can all agree that we
7 should prohibit the water systems, in no way, I
8 think, does it endorse the other systems. I mean,
9 it clearly just says, we are going -- we agree that
10 we're not, you know, in favor of the water systems.

11 We have to send the clear message to the
12 practitioners of those systems that it is time to
13 start pursuing their own label, if that's what it's
14 going to be, and that's why I tend to support the
15 resolution.

16 CHAIR FAVRE: Yes, go ahead, Francis.

17 MR. THICKE: I guess, then, I still
18 feel that there's a strong implication. I think
19 anybody who looks at the deliberations probably
20 could assume that water-based systems are not going
21 to be approved. If they can't get that from what
22 we've done so far, we haven't done much, but we had

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1 an opportunity to take a stronger stand and we did
2 not want to take that, and now we're going to back
3 off and take a very weak stand, and I think it sends
4 the wrong message.

5 CHAIR FAVRE: Harriet, did you have a
6 comment?

7 MS. BEHAR: So I just want to make sure,
8 Francis, that you saw the addition of the may or
9 may not, because I'm not sure you can see the
10 screen, and the original one --

11 MR. THICKE: I did hear that, yes.

12 MS. BUTLER: Okay. So I am not happy
13 with this 100 percent either, I'm very concerned
14 that it's not clear about soil-less systems,
15 however, I will vote with the majority here because
16 I feel that it does send not a strong a message,
17 but it gives the next people on the NOSB an
18 understanding of maybe not where we're -- of the
19 consensus where we're at and also the gray areas
20 where we are not, because there are many on this
21 board that, and I don't know exactly how many, but
22 many that would want to find a place for, perhaps,

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1 soil-less, and that's why we can't find that
2 consensus.

3 And so I think we need to have
4 something, because right now, we have nothing, and
5 so this is a starting place. I think on the public
6 record there's very strong discussion that will
7 help, also, the new people coming on as well as the
8 public, that we do want to work this through, and
9 that we don't want to drag our feet on it.

10 CHAIR FAVRE: Dan and then Zea.

11 MR. SEITZ: So for me, this is not a
12 perfect statement, but I can live with it for three
13 reasons. First, that for the point that Harriet
14 just made, that it really absolutely is clear that
15 purely water-based systems are not acceptable.
16 Second, I don't think that the statement does
17 endorse anything short of that. It really leaves
18 that as an open question, so I think you'd have to
19 really read into this something that's not there
20 to say that it does endorse, say, container, or
21 whatever. That leaves an open question.

22 And then earlier in the statement, it

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1 does reiterate the importance of an integrated
2 system, not one that's based purely on inputs and
3 substitution, so at least the statement embodies
4 that holistic approach that I think so many of us
5 consider to be absolutely at the core of organics.

6 So again, not perfect, but I feel better
7 than not having a statement and make some strong
8 assertions that may serve us.

9 MS. SONNABEND: I was next and I just
10 want to point out that if we don't come up with a
11 statement that we can all agree to, then we are left
12 with a motion to send it back to committee with no
13 other statement, and that's a lot weaker message
14 than sending just this statement.

15 MR. THICKE: I guess I don't see it that
16 way. Sorry.

17 CHAIR FAVRE: Fair enough. Harold.

18 MR. AUSTIN: Like everything else that
19 we've tried to work on around this topic, we've
20 struggled with trying to find commonality with
21 putting together a resolution, but I think this is
22 probably as defined of a resolution as we're going

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1 to get when we've got 14 different perspectives
2 sitting around the table.

3 I think we represent all the different
4 factors that evolve to constitute and make what the
5 organic family and the organic community is all
6 about. This isn't perfect and I don't think any
7 side of this debate is going to accept the fact that
8 this is a perfect resolution.

9 But I think it's a resolution that's
10 been developed from a point of what we can try to
11 at least come together and agree upon to some point
12 of commonality, and send a message, and leave a
13 message for those that are going to follow in our
14 footsteps so that everybody that sees this is going
15 to understand that we have taken at least the first
16 step in trying to resolve this issue.

17 CHAIR FAVRE: Jean.

18 MS. RICHARDSON: Yes, I'll just echo,
19 really, the comments that Dan was saying. It's not
20 perfect, I don't think it reflects exactly what
21 anyone of us wants, so to speak, based on the level
22 of information we have right now, but I do think

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1 that compromise is incredibly important, and it
2 does contain, I believe, the essence of what, I
3 think, all of us feel in our hearts as can be
4 captured in there in terms of the ecosystem
5 approach that's being described there.

6 So I would ask that this be one of those
7 times when you try to compromise, if you will, your
8 most purest of feelings on this and have it be a
9 consensus of all the 14 of us, because I think it's
10 really, really, really important to send forward
11 a message that's capture on paper for the Board
12 starting in January next year when we are, as we
13 all know, going to be in a very different
14 administration.

15 CHAIR FAVRE: Emily.

16 MS. OAKLEY: I have a couple of
17 thoughts on this. First is, my hesitation is that
18 this has been crafted in a short amount of time and
19 there was so much hesitation to vote on a proposal
20 that had been given at least more time to be looked
21 over and considered, that I have a very hard time
22 voting in a such a short amount of time on something

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1 without being able to get feedback from the
2 constituents that I represent on how they feel
3 about this position.

4 I certainly agree and want to take a
5 statement that this Board does not want water pure
6 hydroponics to be allowed and that we don't agree
7 with that, at the same time, my reason for not
8 wanting to vote for this is that when I read it the
9 first time, I read ambiguity.

10 While it might be clear to everyone here
11 what you all mean, it may not be clear to the people
12 that read it, so if I read it and felt ambiguity,
13 I have concern that others would do the same, so
14 it's going to be hard for me to vote.

15 My final comment is that if Francis and
16 I are the only two that don't vote in support of
17 it, I certainly don't think the rest of the world
18 is going to wonder, you know, where the Board feels
19 on this position, or how the Board feels on this
20 position, I think they're going to understand that
21 Francis and I would be voting no simply out of
22 concern for the broader potential implications of

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1 voting yes. Does that make sense?

2 CHAIR FAVRE: Zea.

3 MS. SONNABEND: I just ask you, Emily,
4 how much ambiguity is there if we don't vote for
5 this and then it just is a motion to go back to the
6 committee?

7 MS. OAKLEY: Yes, I wish we had
8 discussed that further when we were deliberating
9 this earlier. I feel that, you know, the motion
10 that we had before is that we send back to
11 subcommittee actually said this, in essence, so I
12 mean, I didn't have the confusion with that
13 proposal that others did, so I can't speak to, you
14 know, where you all are coming from, but for me,
15 I felt we were making a similar statement with that
16 proposal.

17 I feel there's -- if this is, like, the
18 basic form of consensus that we could reach right
19 now, it also leaves me, just to be perfectly frank,
20 disheartened and a little bit concerned about what
21 the future discussion of this is going to mean as
22 we try to hash out all the details since we all have

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1 such nuanced perspectives on what should or
2 shouldn't be allowed.

3 MS. BEHAR: So what this statement says
4 is the consensus of this Board right now, and the
5 consensus is no pure water, and it leaves
6 everything else up to those of us that will still
7 be here to work on it, and so I'm seeing this
8 somewhat of a poker game. This is the cards we
9 have, there's five cards leaving, we will get five
10 new cards, and we will see what happens from there.

11 CHAIR FAVRE: I'm okay with that as
12 long as I'm a queen.

13 MS. BEHAR: So I guess I don't see --
14 I'm not as disheartened with this statement because
15 at least it gives us a very strong basis, and to
16 me, the ambiguity is where, then, those of us who
17 are staying will have the chance to then convince
18 our current and future Board Members to move
19 forward in the way that we would like them to, but
20 this at least sends a very strong foundation that
21 water-based -- that pure water-based, is not where
22 we want to be.

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1 CHAIR FAVRE: Tom.

2 VICE CHAIR CHAPMAN: Compared to the
3 points already raised, mine is fairly minor, but
4 if we can't achieve consensus on this statement,
5 but we still want to vote for it, I would want us
6 to remove that word consensus.

7 CHAIR FAVRE: Francis.

8 MR. THICKE: On that point, Tom, I was
9 just looking in the dictionary on the online and
10 it says consensus means a majority opinion, so you
11 could do it either way if you want.

12 CHAIR FAVRE: Jean.

13 MS. RICHARDSON: Emily and Francis,
14 are there any words that you want to add to this?
15 I mean, are there any words that you would like to
16 see in there that would encourage you to broaden
17 our negotiating pie here so that we can be in a
18 win-win situation?

19 MS. SONNABEND: Better consensus
20 words, not, you know, really extreme position,
21 because we clearly don't have that as consensus.

22 MS. OAKLEY: Well, I was going to ask

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1 Francis that question, but I mean, my main concern,
2 beyond that, is just not knowing how this is going
3 to be interpreted by the wider community, and in
4 particular, the community that I feel I represent.
5 So if I support it and I'm met with great
6 disappointment for doing so, then I will not have
7 achieved my objective as a representative of their
8 feelings on this Board.

9 So it's just something that's come up
10 without the ability to get any other perspective
11 or feedback.

12 MS. RICHARDSON: But I mean, I
13 represent consumers and there's a million of those
14 that agree or disagree with everything I say every
15 day. That's normality.

16 MS. OAKLEY: And that's true, and
17 that's a good point, and I would like to discuss
18 with Francis for just a moment.

19 CHAIR FAVRE: Do we need a huddle
20 moment over there in the corner? Huddle up. In
21 fact, I'll tell you what, we have the option -- let
22 me make this statement, then I'll listen to you,

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1 Francis. We have the option to table this until
2 we have the deferred vote at the end of the day,
3 and so if you guys feel like you want a little bit
4 more time to chew on it, that's fine.

5 MR. THICKE: Sure, and I could just
6 make one suggestion, you asked if there's anything
7 we could, I would go back to what Harriet had put
8 in earlier after, too, that, prohibit hydroponic
9 systems that have entirely water-based substrate,
10 and here, or are wholly dependent upon liquid
11 fertility inputs. I would be okay if you put that
12 in there.

13 CHAIR FAVRE: I think we've had some
14 -- let's hash that out. Yes. So what do we think,
15 guys? We want to defer this for a little bit more?
16 Get through the livestock, come back. No pun
17 intended, ruminate on it a little bit. Come on,
18 did nobody get that but me? Okay. All right. Do
19 I have to have a motion to summit that?

20 All right. So we're going to table
21 this and let's go ahead and we're going to move on
22 in our agenda. We do have that space at the end

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1 of the agenda to come back and discuss this as part
2 of a deferred vote. So, Ashley, are you ready to
3 -- oh, it's PD, I'm sorry, I don't have my agenda
4 open in front of me. I've got all sorts of things
5 piled on it. Okay. Yes.

6 MS. SWAFFAR: Were we going to discuss
7 the container document at all or just -- Zea
8 presented it, but we didn't have any discussion on
9 the container document.

10 CHAIR FAVRE: Do you feel as though
11 there's more need for discussion on containers?
12 Okay. All right. Well, let's do it now before we
13 move on then, before we move on to PDS, let's go
14 ahead. You had a comment on the -- sure. Carmella
15 has a comment on the container production.

16 MS. BECK: All right. Let's get to
17 this statement here. All right. So it's not
18 going to be new information, but currently,
19 NOP-certified container production growers have
20 relied on the NOP regulation and the 2010
21 production standards for terrestrial plants in
22 containers and enclosures proposal as the basis for

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1 their certification.

2 Organic container production growers
3 consider themselves to be legitimate organic
4 farmers. They have applied for and obtained
5 organic certification by an NOP-accredited organic
6 certification agent.

7 They, like all certified organic
8 farmers, adhere to the organic production
9 definition as stated, a production system that is
10 managed in accordance with the act and regulations
11 in this part to respond to site-specific conditions
12 by integrating cultural, biological, and
13 mechanical practices that foster cycling of
14 resources, promote ecological balance, and
15 conserve bio-diversity.

16 Since substantive public comment was
17 submitted that addressed the Crop Subcommittee
18 question regarding container size, amount of
19 compost, or soil, and growing media, liquid versus
20 solid, nutrition sources, and varying requirements
21 for different crop types. The farmers who
22 submitted detailed feedback offered to provide

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1 ongoing support and data to the Board when
2 requested.

3 I'd encourage the Board to consider
4 these farmers as a resource for additional
5 information in the future. There will more likely
6 be a need to request information from a broader
7 swath of impacted organic container production
8 growers in the future.

9 I make the following suggestion for the
10 Board's consideration. I would suggest that the
11 Board consider issuing a subsequent discussion
12 document in lieu of a proposal in order to re-review
13 the detailed hydroponic-aquaponic task force
14 report, which was 200 pages, gather additional
15 data, research the current Canadian container
16 production proposed regulation changes, to learn
17 from their experience of working with very
18 prescriptive requirements, and in order to allow
19 the five new Board Members ample time to review all
20 background materials, the task force report, and
21 previous deliberations. That's my comment.
22 Thank you.

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1 CHAIR FAVRE: Thanks, Carmella. Any
2 other comments about the container discussion
3 document? Okay. So we will circle back around to
4 the resolution after we get finished with the other
5 subcommittee. So at this time I'm going to turn
6 it over to Tom Chapman for the Policy Development
7 Subcommittee.

8 VICE CHAIR CHAPMAN: Okay. We have
9 two items on the PDS agenda, one is proposed
10 revisions to the Policies and Procedures Manual and
11 the second one is the proposal on reorganization
12 of Sunset 2017 materials. Which one are you
13 popping up first? Let's go with the PPM.
14 PowerPoint.

15 We can switch to the sunset proposal if
16 you have that ready. I think I can talk about the
17 sunset procedure without it being on the screen.
18 So the sunset proposal is a proposal to break up
19 the 2017 materials, all 207, I believe, of them,
20 and distribute them over the course of the next few
21 years; over the course of four years.

22 The response this time mirrored the

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1 response that we received in the spring to the
2 proposal, which was support across all
3 stakeholders. There was two questions raised.
4 One was, in the previous proposal we had proposed
5 several different ways of reorganizing the sunset
6 grouping materials together, and sought feedback
7 from the community on groupings we may have missed
8 or other suggested groupings.

9 And then the question was, how did we
10 actually -- what was the methodology used to decide
11 on this final grouping. We basically chose every
12 grouping we possibly could do, grouped them
13 together, wherever the first material on that
14 grouping lied, then we sequentially renumbered the
15 items, and wherever the first groupings first item
16 hit on that sequential numbering, all those
17 materials got pulled up into that grouping.

18 The other question was around confusion
19 into the numbering system on the chart on the very
20 first page. I acknowledge that the numbering
21 system is quite confusing. Using 2000, 2000,
22 2000, 2000 all next to each other is not a very easy

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1 way of describing this, but in an attempt to make
2 it much clearer to the stakeholders are being
3 reviewed, when we're going to be adding the items
4 to our work agenda, and you'll see in the upcoming
5 work agendas later on in this agenda, all the items
6 have been added to the next cycle of review, and
7 so that should make it quite clear which items got
8 pulled up into where, but the appendix at the end
9 of the chart also shows what review cycle they're
10 being lumped into.

11 The subcommittee supported this
12 proposal and voted on it unanimously. Any
13 questions? Zea.

14 MS. SONNABEND: I'm probably a little
15 late to this discussion, but what would be the
16 procedure to change something, as per my request
17 today, that we try to combine copper sulfate for
18 rice in the future with the regular copper sunset
19 review? Is there a procedure setup for that?

20 VICE CHAIR CHAPMAN: So are those in
21 different years -- they're in different years of
22 sunset, right?

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1 MS. SONNABEND: Yes.

2 VICE CHAIR CHAPMAN: We chose not to
3 deal with that piece.

4 MS. SONNABEND: Well, you just chose
5 not to mess with this whole batch because, you know,
6 it was out of cycle, but is there a procedure so
7 that in a future round we can add that to each other?
8 And maybe if not, which I'm assuming there isn't
9 yet, but maybe do you want to discuss going forward
10 on policy how committee chairs could make requests
11 for something like that?

12 VICE CHAIR CHAPMAN: Yes, we did
13 briefly discuss that in the committee, in relation
14 to this specific proposal, because there's other
15 items, like peracetic acid right now is across the
16 list, but it's broken up for one of them.

17 MS. SONNABEND: Right.

18 VICE CHAIR CHAPMAN: I think also water
19 is coming back, so that might breakout now.
20 There's several. Those are two examples.

21 MS. SONNABEND: Yes, it just makes so
22 much sense to try and do that going forward.

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1 VICE CHAIR CHAPMAN: Yes, I agree. I
2 agree. So we had chosen not to do it as part of
3 this proposal, but thinking of a way to deal with
4 that in the future, I think, is a good idea and I
5 can bring that back to the subcommittee.

6 MS. SONNABEND: Thank you.

7 VICE CHAIR CHAPMAN: Yes. Any other
8 questions? Seeing none, Madam Chair.

9 CHAIR FAVRE: Okay. We've got a
10 seconded motion on the floor to accept this
11 proposal. We're going to start the voting with
12 Emily.

13 MS. OAKLEY: Yes.

14 MR. THICKE: Yes.

15 MR. AUSTIN: Yes.

16 MR. BUIE: Yes.

17 MS. BECK: Yes.

18 MS. SWAFFAR: Yes.

19 MS. DE LIMA: Yes.

20 VICE CHAIR CHAPMAN: Yes.

21 MR. SEITZ: Yes.

22 MS. RICHARDSON: Yes.

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1 MS. BEHAR: Yes.

2 MS. SONNABEND: Yes.

3 MR. RICE: Yes.

4 CHAIR FAVRE: The Chair votes yes.

5 MS. DE LIMA: That's 14 yes, 1 absent,
6 the motion passes.

7 VICE CHAIR CHAPMAN: All right. Next
8 up is the PPM. All right. So following the
9 revisions to the PPM in the spring meeting, we
10 received a lot of public comment. There was items
11 raised at that time were not addressed to those
12 revisions, so we took that back to the subcommittee
13 and coming forward with these proposed revisions.
14 It's a brief 132 slides, so it's early in the day,
15 I think we should be fine.

16 The first change we proposed was a
17 change to the administrative team. There was
18 questions about what the team did and how it
19 functioned, so we added a sentence clarifying that,
20 that the team basically makes no decisions, and
21 that if there's anything that needed to be decided,
22 it would be elevated to the executive subcommittee.

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1 We did receive an additional question
2 after this was published about whether it was the
3 DFO or the ACS on the admin team and both are able
4 to come. When the ACS is the only representative,
5 they are the acting DFO, so we didn't think
6 additional clarification was needed.

7 We made changes to the record-keeping
8 section to update the old reference to Schedule 26,
9 which has been updated by archives to Schedule 6.2,
10 and this is cited also in our charter, and we
11 provided a weblink to that document as well.

12 We also had received public comment
13 asking that a record request, that we cite the GSA
14 memo from March 14, 2000, and we did that here,
15 again, with a weblink to its location. We also
16 received comments that our record-keeping
17 requirements, which specified several things that
18 need to come out of this meeting, the meeting of
19 the Board, we missed documents provided to the
20 Board at the meeting, which is a FACA requirement,
21 so we added that here as well.

22 And then we also made it clear that the

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1 voting summary that we accumulate as we make votes
2 will be part of that public record that gets
3 published with the minutes.

4 We received several other comments
5 related to FOIA FACA disclosures, several around
6 having the NOSB enforce or act to get FOIA FACA
7 requests to be fulfilled more thoroughly or
8 quicker. The subcommittee thought that was out of
9 our purview. We do not do the mechanism of
10 releasing FOIA and FACA requests. That's a
11 function of the government.

12 And so we recommend those people use
13 their administrative and legal means to seek
14 whatever answers they may need.

15 On the substance material review
16 process and the process of going through the
17 environmental item, which will be coming up on the
18 agenda, we noticed that there wasn't a procedure
19 for the NOSB to propose removal of a substance where
20 there isn't already a petition. We thought it
21 would make a lot of sense to be able to have the
22 Board make proposals to remove a substance.

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1 And so we laid out procedures in which
2 we could do that and all these changes here, this
3 outlines that process and places it in the correct
4 order of priority.

5 We had received questions around
6 precedence of our rules that we operate under,
7 since it's a mixture of legislation, our PPM, the
8 regulation, and custom, and Robert's Rules, and so
9 here we outlined the order of precedence.

10 Lastly, when we were looking at the
11 voting of members, we noticed that there was
12 actually an inconsistency in the way our officers,
13 we noticed there was an inconsistency that in one
14 section it required a majority vote, while below,
15 it required a plurality to win the officer
16 elections, and that makes it quite unclear what is
17 required to be an officer.

18 Luckily, the last few elections had
19 been uncontested, so this had not been an issue,
20 but after discussion on the subcommittee, we
21 thought it would be best to have a majority system,
22 and so revise the words below to allow for a

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1 majority system.

2 I think there was a question about doing
3 instant runoff voting, but we didn't think we had
4 the sophistication to implement such a process, so
5 we have a classic runoff voting system setup here.

6 We also made it possible for votes by
7 acclimation, although there was a typo in that
8 word. We'll fix that. And anyone who gets
9 nominated can withdraw in case the weight of the
10 office scares you a little too much.

11 Lastly, we put in words around the open
12 docket procedure, the practice that we used here
13 to open the meeting docket as early as possible to
14 allow for a forum to solicit public input on items
15 that may or may not already be on the agenda. We
16 received comment on this as well saying that it
17 didn't fulfill the full intent of the open docket
18 procedures.

19 I do think it fulfills most of that
20 intent and we can go into detail if we need to, but
21 oftentimes as we implement these procedures, they
22 don't always come out as perfect, and I do think

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1 this is a great compromise to open up this channel
2 of communication.

3 Lastly, there was several comments
4 about the way the PPM revisions were presented and
5 that they didn't follow the procedures for
6 proposals. I wanted to point out that in the last
7 revision we added a Title IX to the section, which
8 outlined the process for revising the PPM, which
9 was the process we followed in this case.

10 Lastly, we received, again, new items
11 were raised, both by the public and we had an item
12 referred internally from the Executive
13 Subcommittee, and that will be items that the
14 Policy Subcommittee will work on in the future, if
15 they can.

16 One was the clarification of our
17 conflict of interest policy, which seems to be
18 related to special governmental employees versus
19 representatives, which we are, however, that is in
20 there today because that's how it was written in
21 a memo from the NOP, a mechanism by which the public
22 can raise conflict of interest issues with members

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1 and the process by which we review ancillary
2 substances as part of our material review process.

3 So that's it for the PPM. I joke, there
4 was only nine slides. Any questions? Ashley.

5 MS. SWAFFAR: Appreciate the cut down
6 on the slide number, but the font size, I think
7 there was just as many words.

8 VICE CHAIR CHAPMAN: Yes. It's copy
9 and paste. Any other questions? Seeing none,
10 this came from the subcommittee as a motion to
11 approve unanimously.

12 CHAIR FAVRE: Okay. We've got a
13 seconded motion. We'll begin voting with Francis.

14 MR. THICKE: Yes.

15 MR. AUSTIN: Yes.

16 MR. BUIE: Yes.

17 MS. BECK: Yes.

18 MS. SWAFFAR: Yes.

19 MS. DE LIMA: Yes.

20 VICE CHAIR CHAPMAN: Yes.

21 MR. SEITZ: Yes.

22 MS. RICHARDSON: Yes.

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1 MS. BEHAR: Yes.

2 MS. SONNABEND: Yes.

3 MR. RICE: Yes.

4 MS. OAKLEY: Yes.

5 CHAIR FAVRE: Chair votes yes.

6 MS. DE LIMA: It's 14 yes, 1 absent, the
7 motion carries.

8 VICE CHAIR CHAPMAN: And that
9 concludes Policy.

10 CHAIR FAVRE: Thank you, Tom. I'd
11 like to turn it over to Ashley to discuss Livestock.

12 MS. SWAFFAR: Okay. So starting the
13 Livestock Committee, we didn't have any sunsets
14 this year, but we did have four petition materials.
15 We'll start with Jean on the ivermectin removal.
16 Wait. Sorry. Dr. Brines.

17 DR. BRINES: Thank you. The petition
18 for ivermectin was submitted on June 26th of 2016
19 by Board Member Dr. Jean Richardson. The petition
20 requested the removal of ivermectin from Section
21 205.603 of the National List as a parasiticide.
22 The last technical report for ivermectin was

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1 completed in 2015 in preparation for the Sunset
2 2017 review, which was completed last year.
3 Thanks.

4 MS. RICHARDSON: Thank you, Dr.
5 Brines. So we have here an issue for which there
6 is broad stakeholder support to remove ivermectin
7 from the National List as a parasiticide in
8 livestock production.

9 The criteria upon which the petitioner
10 asked for this to be removed are criterias 2, 5,
11 6, and 7 in Section 6518(m), the toxicity of the
12 mode of action of the substance as breakdown
13 products or contaminants in their persistence and
14 areas of concentration in the environment, the
15 effect of the substance on biological and chemical
16 interactions in the agro ecosystem, including
17 physiological effects of the substance on soil
18 organisms, the alternatives to using this
19 substance in terms of practices or other available
20 materials, and its compatibility with a system of
21 sustainable agriculture.

22 The reason this petition is being

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1 submitted is that during our work on sunset, the
2 last round of sunset, we determined that we wanted
3 to make some changes to the parasiticides that were
4 on the list and we had three parasiticides on the
5 list and they were all approved during our -- or
6 retained on the list during our sunset review last
7 year, but with the caveat that we knew that we were
8 going to -- we had the discussion document, as you
9 know, as you recall, followed by the proposal in
10 which annotations were made to two of the
11 parasiticides on the list, which would, we thought,
12 make it easier to be able to remove the third one,
13 ivermectin.

14 We received an enormous amount of
15 public comment to remove ivermectin from the list,
16 along with all the other comments that we had on
17 the other parasiticides, although we didn't get as
18 many comments this time on this petition because
19 obviously people had commented last year, and those
20 comments are sort of carried forward into our
21 analysis of this petition.

22 Because we didn't, at the time, have the

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1 mechanism in the Policy Procedure Manual for the
2 NOSB itself to petition, as you understand, I
3 therefore, as an individual person, submitted a
4 petition just by the normal procedure that is setup
5 for any other person to send in a petition, which
6 is why we did this cumbersome thing.

7 So I wrote the petition and the NOP
8 responded to me just -- in terms of you all
9 understanding the methodology so that we followed
10 precisely those procedures that are set out by the
11 NOP and by the NOSB in our steps toward bringing
12 this to the Board.

13 So the petition came to the Board, we
14 determined it didn't need -- in subcommittee, we
15 determined it didn't need an additional technical
16 report and we went straight to a proposal, which
17 I'm presenting to you today.

18 We made changes to the other
19 parasiticides that would allow for veterinarians
20 to be able to use the -- sorry, for producers to
21 use the fenbenzadole without a prescription
22 directly from the veterinarian and we made

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1 modifications, as you all recall, in the parasite
2 control that we passed.

3 If I can read them out to you, all
4 parasiticides, I remind everybody, were continued
5 to be prohibited from any slaughter stock, that the
6 milk withholding period after treatment with
7 fenbenzadole or moxidectin be changed from 90 days
8 to 2 days for dairy cows, and as you know, it's
9 almost never used in dairy cows at all, and 36 days
10 for goats and sheep, and that the listing for
11 ivermectin remained as it was presently listed with
12 a 90-day withdrawal period, which is how it is now,
13 that moxidectin be allowed for both internal and
14 external use, that was a change, and that fleece
15 and wool from fiber-bearing animals be allowed for
16 certified organic, even if use of parasiticides was
17 necessary at some time in the animal's life, and
18 that fenbenzadole be allowed without written order
19 of a veterinarian.

20 So that then meant once those changes
21 were made, it would mean that the most egregious
22 of the three parasiticides could be removed from

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1 the list. Those other materials had been added
2 originally in the hope that ivermectin could fall
3 off the list, and so that's our process that we're
4 doing now. As I say, it's strongly supported.

5 One of the primary reasons why we need
6 to remove ivermectin is that it has a negative
7 impact on dung beetles in pasture. And obviously,
8 good pasture management really requires that we
9 have the dung beetles there in order to deal with
10 all the manure. It's very logical and obvious that
11 if you have the -- if you decrease the ability for
12 the manure to get taken away, you have negatively
13 impacted your pasture.

14 Also, the ivermectin is a much more
15 powerful material, it has also demonstrated some
16 resistance, and we know that all of the uses for
17 which it has been used can be handled by the choices
18 of the other two materials that are remaining on
19 the list. Again, but however, to remind
20 everybody, that the first line of defense is
21 obviously good management practices and it's not
22 to use any of the parasiticides, or you can use

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1 homeopathic, et cetera.

2 So it's not the intention of the new
3 parasiticides -- that we're not looking to increase
4 the use of parasiticides, but instead, to try to
5 decrease them. And I will remind everyone at this
6 point, as I'm sure you're aware, is that, we had
7 hoped to bring to this meeting another proposal to
8 further clarify emergency treatment, what it
9 actually means for parasite control, that will be
10 coming up at the April meeting.

11 So we've received -- let's see, what
12 else? So we determined when we reviewed the
13 science on this material that it is toxic to the
14 environment, so it meets criteria -- fails Criteria
15 2, that is, that is has a negative impact on dung
16 beetles, critical component of pasture management,
17 and of course, pasture management is a requirement
18 for organic farming, that there are two alternative
19 synthetic parasites which can be used as
20 alternative medications, that high-quality
21 pasture and range management grazing techniques
22 can reduce the need to use any parasiticide, and

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1 that there are many alternative herbal remedies,
2 Criteria 6, and that the use of ivermectin is
3 incompatible with a system of sustainable
4 agriculture.

5 Public comment received for this
6 meeting comes from a limited number, but a good
7 range of representative samples of stakeholder,
8 all supportive of removing ivermectin, including
9 individual farmers, certifiers, several of whom
10 pointed out that ivermectin is rarely used. This
11 is, you know, individual certifying agencies
12 pointing this out.

13 The Organic Trade Association
14 recommended removing. Beyond Pesticides
15 commented that it's not essential and it should be
16 removed. And a couple of other individual
17 farmers. We did have one concern that was
18 expressed, actually two, from people that were
19 concerned that it might have a deleterious effect
20 if ivermectin was not available for swine breeding.
21 These were two from the Midwest.

22 And I followed up by contacting three

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1 different veterinarians who work with pig farmers,
2 and the response was that ivermectin has little
3 value for internal parasite control in swine, but
4 can help for lice and mange, but that the other
5 materials would be just as effective. They felt
6 that it was perhaps that the swine producers had
7 not yet taken up the use of the other parasite
8 controls and that this would not be -- have a
9 negative impact on the swine industry.

10 So I would, therefore, recommend that
11 we remove this ivermectin from the National List.

12 MS. SWAFFAR: Thank you, Jean. We'll
13 open it up to the Board for comments. Emily.

14 MS. OAKLEY: I just wanted to thank
15 your subcommittee's efforts on this, and you in
16 particular, Jean. I'm really happy to see this and
17 I'm going to be glad to vote for it. Thank you.

18 MS. SWAFFAR: Tracy.

19 CHAIR FAVRE: I'm also very happy about
20 this, although I struggle, I know that livestock
21 producers have so few tools in their toolkit, and
22 I'm loath to take some away from them, but to me,

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1 surmounting that is the desire to make sure that
2 we have healthy ecosystem function in our pastures,
3 and I think the impact on dung beetles, I can see
4 it, I don't use any parasiticides in my flock, but
5 I do have healthy dung beetles and I know that that
6 makes a huge difference in how quickly the manure
7 cycles in my pasture, so I'm happy to see this.

8 MS. SWAFFAR: Harold.

9 MR. AUSTIN: Jean, would there be any
10 concerns about resistance buildup to the other
11 parasiticides with the removal of this one from the
12 toolbox?

13 MS. RICHARDSON: Not based on the data
14 that we presently have. That is one of the sets
15 of questions that we did talk to with scientists.
16 There's some for ivermectin right now, actually,
17 but, you know, the other ones, they get used, not
18 a great deal in organic farming, but management of
19 the pastures and range lands and selection of
20 breeds is a far more common approach.

21 You know, goat farmers, a little bit
22 tougher for them, but again, management, so no, I

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1 haven't seen data that would support that at the
2 present time.

3 MS. SWAFFAR: Harriet.

4 MS. BEHAR: I support the removal of
5 ivermectin, but I am just a little bit concerned
6 that not everyone who might wanted to have
7 weighed-in would have gotten the chance, although,
8 ivermectin has been on the list since the
9 beginning, and every time it's come through for
10 sunset, they have heard the frustration of the
11 Board of not being able to get rid of it, and then
12 having to keep it.

13 So I support it, but I wish there would
14 have been a few more producers. I think there will
15 be many producers out there that will be surprised
16 and I hope that the certifiers get the word out,
17 if we do vote this off, right away, so they're
18 starting to put in, you know, the 18 months or so
19 that it'll take by the time it actually is no longer
20 allowed, that they will be prepared, and it won't
21 be a burden for them.

22 There's actually even more than just

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1 the dung beetles. If there's manure that goes into
2 an aquatic environment, it will live in the water
3 for -- you know, in, like, the mud and such for a
4 long time, and that, well, I did some research
5 myself, my dear, and I had to be convinced, and
6 there was a -- when the manure is not incorporated
7 into the soil, then it really remains active for
8 a long time, and of course, in a pasture situation,
9 soil incorporation is not an issue.

10 So there's some issues there, so I am
11 going to support this.

12 MS. RICHARDSON: Yes. Just to clarify
13 your comments, we received hundreds of comments in
14 2015, before you were on the Board, that came from
15 farmers and producers, and from dairies, and a wide
16 range, so we actually have not only sent out the
17 message in two different presentations that we did
18 during sunset over that entire year when we
19 received a large number of comments, but the
20 message has clearly gone out that this was going
21 to be going off the list.

22 MS. SWAFFAR: Tracy.

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1 CHAIR FAVRE: I want to comment on
2 Harold's question about resistance. I don't
3 remember the specifics of it because it was during
4 the sunset review that I dug into this pretty
5 heavily, but I seem to recall that both moxidectin
6 and fenbenzadole are inherently less likely to
7 develop resistance because of the class of drugs.
8 And like I said, I don't remember the specifics of
9 that. You remember that too?

10 Yes. So that actually was a big
11 convincing factor for me as well.

12 MS. SWAFFAR: Scott.

13 MR. RICE: Just a quick comment from
14 the concern about getting the word out on this
15 material from certifiers, we, with every renewal,
16 every year, be it livestock, or crop, or whatnot,
17 our producers are submitting a list of materials
18 and while certain not -- inspectors find sometimes
19 that not all materials made it on that list, more
20 often than not they do, and that gives us the
21 opportunity to catch those at that time of renewal
22 and alert them, in addition to the alert, or rather,

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1 notice that we give them when this is posted in the
2 Federal Register.

3 MS. SWAFFAR: Jean.

4 MS. RICHARDSON: That's a good point,
5 Scott. The other thing that I've noticed as an
6 inspector for a number of different certifiers, is
7 that certifiers frequently send out, I think they
8 always send out, a letter saying, hey, guys,
9 notice, this one's coming up, and so producers
10 directly get letters with their annual renewals and
11 things like that so that they can be forewarned long
12 before it gets taken off the list.

13 MS. SWAFFAR: I'd just like to thank
14 you, Jean, for your leadership on this. This was
15 important for me to also get off the list, so I'd
16 just like to thank you for that. Any other
17 discussion? We'll hand this back over to you,
18 Tracy. This motion comes to remove ivermectin.

19 CHAIR FAVRE: Okay. We're going to
20 start the voting with Harold.

21 MR. AUSTIN: Yes.

22 MR. BUIE: Yes.

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1 MS. BECK: Yes.

2 MS. SWAFFAR: Yes.

3 MS. DE LIMA: Yes.

4 VICE CHAIR CHAPMAN: Yes.

5 MR. SEITZ: Yes.

6 MS. RICHARDSON: Yes.

7 MS. BEHAR: Yes.

8 MS. SONNABEND: Yes.

9 MR. RICE: Yes.

10 MS. OAKLEY: Yes.

11 MR. THICKE: Yes.

12 CHAIR FAVRE: Chair votes yes.

13 MS. DE LIMA: That's 14 yes, 1 absent,
14 the motion passes.

15 MS. SWAFFAR: Okay. Moving next into
16 all the fun litter amendments. First up we will
17 talk about aluminum sulfate. So aluminum sulfate
18 has -- I'm the lead on all these too, also, sorry.
19 Sorry, Dr. Brines, real quick.

20 DR. BRINES: Thank you. Yes, this is
21 the same petition for aluminum sulfate that was
22 considered earlier under the Crops portion of the

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1 agenda, so the petition was submitted March 1, 2014
2 by ChemTrade Chemicals, U.S., LLC, and requests the
3 inclusion of aluminum sulfate at Section 205.603
4 of the National List. The technical report for
5 this substance was completed in 2015.

6 And just a point of order for the Board,
7 since the material was classified previously
8 earlier this morning, you don't need to redo that
9 vote on the classification for the livestock use.
10 Thanks.

11 MS. SWAFFAR: Thank you, Dr. Brines.
12 So aluminum sulfate has been petitioned as a
13 poultry and livestock bedding amendment. The
14 manufacturing process for all forms of aluminum
15 sulfate included in the petition involves reacting
16 liquid sulfuric acid with either bauxite or
17 containing aluminum hydroxide and hydrated
18 aluminum or synthetic hydrated aluminum previously
19 refined from bauxite.

20 So aluminum sulfate is applied in two
21 forms, a dry or wet form. Dry aluminum sulfate is
22 applied using drop spreaders and slinger

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1 spreaders. Liquid aluminum sulfate is applied
2 using a vehicle designed with a storage tank, a
3 pump, and a PVC sprayer wand equipped with
4 stainless steel nozzles.

5 Typical dry product application rates
6 range from 50 to 200 pounds per 1000-square foot
7 and liquid product application rates range from 20
8 to 55 gallons per 1000-square foot. Some of the
9 public comments that we received in was because the
10 petitioned use of aluminum sulfate does not meet
11 OFPA criteria of absence of harm to human health,
12 environment, essentiality, or compatibility with
13 organic production, the petition should be denied.

14 And then we did not receive any public
15 comments in support of listing aluminum sulfate.
16 So open it up for any discussion. Francis.

17 MR. THICKE: I would just add that the
18 aluminum is a concern for me because it's going to
19 go back into the soil. And as I mentioned earlier,
20 aluminum can be phytotoxic, especially in low pH
21 soils, so of the three, this is the one would be
22 giving me most concern.

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1 MS. SWAFFAR: Harold.

2 MR. AUSTIN: I would just take and
3 concur with what Francis just said. That would be
4 my concern too, is the impact on the soil.

5 MS. SWAFFAR: Any other discussion?
6 All right. Turning that over to you, Madam Chair.

7 CHAIR FAVRE: Okay. This motion comes
8 as a seconded motion, and we'll start the vote with
9 Jesse.

10 MR. BUIE: Yes.

11 MS. SWAFFAR: This is to classify.
12 This is a classification. I'm sorry, we do not
13 have to do classification. The motion is to add
14 aluminum sulfate as petitioned.

15 MR. BUIE: No.

16 MS. SWAFFAR: Because we did
17 classification in Crops via Dr. Brines.

18 DR. BRINES: Yes, so thanks. So once
19 again, this is the same material that was
20 petitioned under the same petition earlier today
21 and discussed during the Crops portion of the
22 agenda, and since the Crop Subcommittee and

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1 Livestock Subcommittee both brought forward, sort
2 of, the same proposals to classify, the whole Board
3 did have the opportunity to discuss and vote on the
4 classification during the Crop section of the
5 agenda.

6 So presuming that classification
7 decision has not changed, the material continues
8 to be classified as synthetic, so you don't need
9 to vote on it separately at this time. Thanks.

10 CHAIR FAVRE: Okay. We clear? Okay.
11 Let's reboot that. Jesse.

12 MR. BUIE: No.

13 MS. BECK: No.

14 MS. SWAFFAR: No.

15 MS. DE LIMA: No.

16 VICE CHAIR CHAPMAN: No.

17 MR. SEITZ: No.

18 MS. RICHARDSON: No.

19 MS. BEHAR: No.

20 MS. SONNABEND: No.

21 MR. RICE: No.

22 MS. OAKLEY: No.

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1 MR. THICKE: No.

2 MR. AUSTIN: No.

3 CHAIR FAVRE: Chair votes no.

4 MS. DE LIMA: 14 no, 1 absent, the
5 motion fails.

6 MS. SWAFFAR: Okay. Moving on, sodium
7 bisulfate. So the petition purpose of sodium
8 bisulfate is to control ammonia in poultry houses
9 --

10 DR. BRINES: So, Ashley, before I --

11 MS. SWAFFAR: Oh, sorry, sorry.

12 DR. BRINES: I'm not in your sight
13 line. All right. So this petition for sodium
14 bisulfate was submitted on May 13, 2014 by Lehigh
15 Valley Organic Growers, Inc., on behalf of
16 Jones-Hamilton Company. The petition was also
17 updated on August 19th of 2005 with a petition
18 addendum, so both the original petition and the
19 addendum are posted on the NOP Web site.

20 The petition requests the inclusion of
21 sodium bisulfate at Section 205.603 of the National
22 List as a litter treatment and a technical report

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1 was requested and developed in support of the
2 review of this substance, and that report was
3 completed in 2015. Thanks.

4 MS. SWAFFAR: Sorry about that, Dr.
5 Brines. Okay. So sodium bisulfate is petitioned
6 for use to control ammonia in poultry houses. It
7 is intended as a topical litter and dirt pad
8 treatment. It stated that it was not intended for
9 use in feed, food, or drinking water, and according
10 to the petitioner, a litter amendment such as
11 sodium bisulfate minimize ammonia volatilization,
12 improving poultry health, and maximizing the
13 litter's ergonomics, environmental, and financial
14 value.

15 Sodium bisulfate is used as a top
16 dressing to poultry litter to control ammonia. It
17 is widely used in the conventional commercial
18 poultry industry. Sodium bisulfate is typically
19 added to poultry litter prior to placement of
20 chicks. The high temperatures during breeding
21 enhance ammonia volatilization at a time when chicks
22 are most susceptible to health challenges.

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1 And sodium bisulfate is applied at
2 rates of 93 to 100 pounds per 1000-square foot.
3 Today there are two methods for producing sodium
4 bisulfate. One involves mixing sodium hydroxide
5 with sulfuric acid which will react to form sodium
6 bisulfate in water and another way involves
7 reacting sodium chloride in sulfuric acid at an
8 elevated thank you to produce sodium bisulfate in
9 hydrogen chloride gas.

10 According to the petitioner, the liquid
11 sodium bisulfate is then sprayed in cooled so that
12 it forms solid beads. The hydrogen chloride gas
13 produces dissolved in water to produce
14 hydrochloric acid, which may be sold as a
15 byproduct.

16 So we had extensive public comments on
17 sodium bisulfate. Some of those include that
18 because the petitioned use of sodium bisulfate does
19 not meet OFPA criteria, the petition should be
20 denied. There were other comments from several
21 veterinarians that said that they have seen organic
22 producers suffer needlessly when the use of sodium

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1 bisulfate could most likely have prevented
2 conditions in the barn.

3 There is also a food safety benefit of
4 salmonella control to consider from the use of this
5 product. And then one veterinarian wrote in and
6 said that currently over 50 percent of the organic
7 flocks they oversee, care for, are breaking with
8 necrotic enteritis at 12 to 15 days of age, with
9 double or triple the normal amount of bird stein
10 in that timespan. They felt like they were playing
11 Russian roulette every time they placed a flock of
12 birds because they were worried about succumbing
13 to infections with no tools to prevent or treat.

14 And we also heard from a couple
15 producers during public comment state that they're
16 having ammonia issues in which the OMRI list of
17 products were not successful in reducing, and they
18 also stated that they were having disease
19 challenges also.

20 And during public comment we heard from
21 two different manufactures of OMRI-listed products
22 that stated, one stated they had 2 million birds

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1 currently using their products and they had not
2 seen or heard of any grotesque mortality and they
3 have seen reduced ammonia levels. Quite the tough
4 one. So I'll open that up for discussion. Jean.

5 MS. RICHARDSON: Ashley, you're a
6 poultry expert for many years, and as an inspector
7 I've been in lots of poultry houses, so what, in
8 your experience, and from the research that we've
9 received, are the range of alternatives for dealing
10 -- the alternative materials that would make this
11 something that we didn't want to add?

12 MS. SWAFFAR: The alternatives for
13 ammonia control or necrotic enteritis control?

14 MS. RICHARDSON: Well, both, although
15 it was petitioned for ammonia control, right?

16 MS. SWAFFAR: Yes, it was petitioned
17 for ammonia control. You know, the proper wind
18 rowing and house prep of the litter, you know, it
19 is important to raise broilers -- we're talking
20 about broilers, not layers, this is not really a
21 layer issue, it's a broiler issue.

22 You know, proper buildup of litter is

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1 very important. You can't change litter, per se,
2 every flock, because, you know, we did hear from
3 those veterinarians that you need that buildup, and
4 plus, you need that base for heat too. I'm not
5 saying you got to leave it in there for 15 years,
6 but, you know, proper wind rowing, plenty of time
7 between flocks, things like that.

8 And then in ammonia, you know, you do
9 have to run your fans a little bit. You know, we
10 can't just naturally ventilate 40,000 birds in a
11 house and expect everything to be okay. There's
12 lots of alternatives. You know, there's a couple
13 OMRI-listed products that we did hear people say
14 they were using successfully. Francis. Yes, I'm
15 sorry, I meant to go to Francis first.

16 MR. THICKE: Because we had a lot of
17 comment on this I asked if I could put up a short
18 PowerPoint just to look at what's going on with
19 these three materials. And on the left is ammonia.
20 This, of course, is what comes out of the litter
21 from, basically, the protein of the chickens eating
22 and then in their manure.

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1 And all three of these products have the
2 acid, and when you combine an acid with that
3 ammonia, it makes it ammonium, and then it's no
4 longer a gas, because ammonia is a gas. And so now
5 it's precipitated in the matrix. And so the next
6 slide, Michelle, please. Oh, I got it. I'm
7 sorry. Right here.

8 If you look on the upper right-hand side
9 of this slide, what you see is that that's ammonia
10 at high pH, where that red arrow is, at high pH,
11 the balance between ammonia and ammonium is highly
12 towards ammonia. As you bring that pH down to
13 about 6, you get down to about almost 0 ammonia.

14 So a key thing is to get that pH down,
15 and which all three of these products do, so that's
16 kind of important to recognize that. And so it can
17 be done with synthetic materials, it can be done
18 with non-synthetic, of course.

19 And another thing is, some of the
20 materials have, like, the acid bentonite, which
21 we're going to talk about next, have a clay
22 particle. Oh, I'm sorry, I moved my own and not

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1 yours. The clay particle, and this is, bentonite
2 is a highly-charged, negatively-charged, clay
3 particle. And so ammonia was a plus charge thing,
4 so the ammonium will get sucked right into that clay
5 matrix and held.

6 And that's beneficial because then it
7 keeps it there, and then when you put the manure
8 on the field, it works as a nitrogen fertilizer,
9 it'll be released to the soil from there. And so
10 that is another feature, so really, these products
11 have, some have, two features, one is, they acidify
12 it and make ammonium out of the ammonia, the other
13 one it to put it in the matrix and hold it until
14 it gets out in the field.

15 So that, I think, is important to
16 recognize. And I'm not an advocate, but I wanted
17 to look at how we can do that naturally. Well,
18 first of all, these are the three. You can see
19 aluminum sulfate, the aluminum turns into hydrogen
20 when you put it in the soil. Aluminum turns into
21 the aluminum hydroxide, and it releases a hydrogen
22 ion, so that becomes acidic.

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1 The sodium bisulfate has that H in the
2 middle, that's the acid, and that will acidify it.
3 The acid-activated bentonite, which we're going to
4 talk about next, it's a clay, bentonite is a clay,
5 treated with sulfuric acid. So it's acidified and
6 has the clay that could suck it up.

7 Now, one of the natural materials
8 that's been talked about here is this Activated
9 Barn Fresh, which has citric acid to acidify it,
10 to bring it from ammonia to ammonium, it has a clay
11 to take it up and hold it, then they add
12 diatomaceous Earth, I think, as a carrier, and
13 maybe to dry out the litter a little bit.

14 So I think those are the concepts that
15 we need to keep in mind, that it can be done in a
16 natural system, and I'm not advocating for this,
17 but we have natural material or non-synthetic
18 materials that can do the job.

19 MS. SWAFFAR: Harold.

20 MR. AUSTIN: I think one of my concerns
21 with this material, with the sodium bisulfate, from
22 the one comment that we heard, you know, I grew up

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1 around dairy cows, so chickens are not my cup of
2 tea, but I do think the basic fundamental
3 principles of what we try to accomplish organically
4 in anything that we do, the one statement that just
5 stuck with me and was that the material, they were
6 able to take and keep their bedding, or their
7 litter, for 15 years.

8 Good God, if we did that in a dairy, Lord
9 have mercy. It just seems like that type of a
10 material, that type of a process, is just bad
11 stewardship and bad -- you we're just populating
12 and giving them a tool to practice bad farming
13 practices. And I mean, that's just my personal
14 opinion, but I can't support this one moving
15 forward.

16 MS. SWAFFAR: Tracy.

17 CHAIR FAVRE: So I have to say, after
18 the public comments yesterday, I was horribly
19 confused and, you know, rather than clarifying
20 things, I walked away very confused, because on one
21 hand, we heard from one group of public comments
22 that this material was absolutely necessary and on

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1 the other hand, we heard that it can be managed
2 without it, based on management.

3 So I hesitate to even use this word
4 because it has been my albatross, but I feel as
5 though, based on conversations with people who know
6 this industry better than I do, that in some ways,
7 the opportunity to adjust, if I should say it,
8 methionine, in the future -- sorry, might be struck
9 by lightning for even mentioning the M word.

10 The fact that we have made some progress
11 on flexibility around the use of methionine, not
12 that I'm in favor of increasing use of methionine,
13 but part of this is a problem that we've created
14 by having to overfeed protein and form a soy in
15 order to get the essential amino acids up has
16 created greater ammonia in the barns.

17 And so I'm a big fan of a systems
18 holistic approach and while we have certain tools
19 to look at individual problems, it might have been
20 better for us to look at this as a whole system,
21 as Francis and Ashley, and others, have mentioned,
22 management without, you know, having one silver

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1 bullet, and so that is something to consider.

2 And I guess in the end, I am still a
3 little ambivalent about where we need to go on this,
4 but I feel as though we need to make a decision.

5 MS. SWAFFAR: Appreciate you stealing
6 my thunder on the methionine, because that was what
7 I was going to talk about. Harriet.

8 MS. BEHAR: So I did my own little
9 survey, you know, informal survey of many of the
10 certifiers here to find out if there was kind of
11 a rampant mortality of chickens in organic chicken
12 houses around the country, and I did not hear from
13 -- and there was, you know, a lot of certifiers
14 here, and I'm not hearing that anywhere, so it's
15 hard.

16 I'm very sympathetic to the producers,
17 and of course, to those poor chickens that are
18 dying, but it seems to be somewhat isolated and not
19 that there -- across the country, there are very
20 large and very small chicken houses that are
21 producing broilers successfully with 5 percent or
22 less mortality, and anybody around chickens knows

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1 that that's an acceptable -- I mean, chickens just
2 tend to kind of sometimes keel over, but not -- we
3 don't want to have the large mortality.

4 So I have to lean towards the opinion
5 that perhaps something can be done at a management
6 level that can fix this problem without adding,
7 kind of, an enabling synthetic, as Harold has said,
8 so I will be voting against this.

9 MS. SWAFFAR: Francis.

10 MR. THICKE: I have one more concern,
11 and this is sodium. We heard from a number of
12 commenters that the acid is what's important for
13 killing the bacteria. We heard from one that the
14 sodium was important. And we found out that there
15 was an association with that person with the
16 manufacturer.

17 But never the less, it's put in -- they
18 put it on at rates of 93 to 100 pounds per
19 1000-square meter, and in multiple applications,
20 and there would be a huge amount of sodium going
21 in there, it seems to me, and that's going to go
22 back in the soil.

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1 And in some soils in particular, the
2 saline sodic soils, which Harold's familiar with,
3 it would disastrous to put that on there, so that's
4 an issue for soils I'm concerned about.

5 MS. SWAFFAR: Emily.

6 MS. OAKLEY: I echo Harold's comments
7 and I also feel like the public commenters in
8 support of this product were those who were growing
9 conventional chickens and then moving into the
10 organic industry and wanted to, maybe, bring this
11 tool with them, and so I think that we have
12 alternative methods and we don't need this.

13 MS. SWAFFAR: Dan.

14 MR. SEITZ: I was struck by just one
15 thing, in the operation where the birds were dying
16 like flies, excuse my mixed metaphor there, I was
17 just struck by the huge size of that operation, and
18 I just wonder if anything that huge is compatible
19 with organic.

20 MS. SWAFFAR: Emily.

21 MS. OAKLEY: I'll just echo that.

22 MS. SWAFFAR: Okay. So my thoughts on

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1 these issues is, you know, I grew up around a
2 conventional industry. Obviously, living in
3 northwest Arkansas, which is home to three of the
4 top ten broiler producers, I have a lot of friends
5 and family that produce conventional broilers, so
6 I've been around some of this and the one thing that
7 just kind of reaches out to me is, this is a little
8 bit of an enabler-type material that is
9 continuously reapplied throughout a flock and that
10 just really concerns me that we're not encouraging
11 people to deal with things a little more naturally,
12 but we're giving them synthetics as band-aids.

13 And as Tracy said, you know, I really
14 think a whole lot of this problem with ammonia is
15 because the broiler producers, and layer
16 producers, are having to overfeed protein because
17 their birds are not getting enough methionine, and
18 I would really urge the program to act swiftly on
19 the averaging that our Board passed last year
20 because we are seeing issues with that and, you
21 know, if we do see the animal welfare, our
22 recommendations do come out next year, there are

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1 guidelines in there that state ammonia levels need
2 to be below 10 parts per million and corrective
3 action must occur if it is above 25 parts per
4 million.

5 And so this, you know, helping
6 producers by giving them a correct diet can also
7 help them with this. And then one thing I wanted
8 to state on the disease challenges that some of the
9 producers were talking about, you know, I did a
10 little light reading last night before I went to
11 bed on necrotic enteritis, and, you know, read
12 several scholarly journals, and Poultry Health
13 Today, and things like that, and, you know, there
14 were a lot of reasons that point to why producers
15 have necrotic enteritis outbreaks.

16 And it seems that all antibiotic-free
17 poultry do have these outbreaks because
18 traditional industry has just used a lot of
19 antibiotics in the past to help control this.
20 There were, you know, several things that these
21 articles states, you know, vaccinating your birds
22 for coccidiosis, reducing pathogens, such as good

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1 bio-security and sanitation procedures, and then
2 modifying the diet and feed additives.

3 So I read several articles that talked
4 about some of the cereal grains can really effect
5 and you see these disease challenges in birds, and,
6 you know, there was a lot of talk about probiotics
7 and prebiotics also helping this.

8 So I think there is a toolbox for
9 producers with necrotic enteritis. They just need
10 to start using them. Even essential oils were
11 mentioned, so there's a lot of great stuff in there.
12 Got to think outside the conventional mindset
13 sometimes. So any other discussion? Madam
14 Chair, this comes to you, a motion to add sodium
15 bisulfate. Classification. Move to classify as
16 synthetic.

17 CHAIR FAVRE: I'm sorry, say it again,
18 please, Ashley.

19 MS. SWAFFAR: Sorry. I'm confused.
20 A motion to classify sodium bisulfate as synthetic.

21 CHAIR FAVRE: Okay. It comes as a
22 seconded motion. We'll start the voting with

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1 Jesse. Sorry. Bad information, Carmella.

2 MS. BECK: Yes.

3 MS. SWAFFAR: Yes.

4 MS. DE LIMA: Yes.

5 VICE CHAIR CHAPMAN: Yes.

6 MR. SEITZ: Yes.

7 MS. RICHARDSON: Yes.

8 MS. BEHAR: Yes.

9 MS. SONNABEND: Yes.

10 MR. RICE: Yes.

11 MS. OAKLEY: Yes.

12 MR. THICKE: Yes.

13 MR. AUSTIN: Yes.

14 MR. BUIE: Yes.

15 CHAIR FAVRE: The Chair votes yes.

16 MS. DE LIMA: That's 14 yes, 1 absent,
17 the motion passes.

18 MS. SWAFFAR: Okay. Next motion is to
19 add sodium bisulfate as petitioned to 205.603.

20 CHAIR FAVRE: Okay. And we'll start
21 the voting with you, Ashley.

22 MS. SWAFFAR: No.

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1 MS. DE LIMA: No.

2 VICE CHAIR CHAPMAN: No.

3 MR. SEITZ: No.

4 MS. RICHARDSON: No.

5 MS. BEHAR: No.

6 MS. SONNABEND: No.

7 MR. RICE: No.

8 MS. OAKLEY: No.

9 MR. THICKE: No.

10 MR. AUSTIN: No.

11 MR. BUIE: No.

12 MS. BECK: No.

13 CHAIR FAVRE: The Chair votes no.

14 MS. DE LIMA: It's 14 no, 1 absent, the
15 motion fails.

16 MS. SWAFFAR: Okay. Let me pull up my
17 next one. Okay. Next one, Dr. Brines.

18 DR. BRINES: Yes, the final item on the
19 Livestock portion of the petitions is
20 acid-activated bentonite. This petition was
21 submitted on March 9, 2015 by Trinico Ag, Inc.
22 There was also a petition addendum that was

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1 submitted on April 17, 2015, and both the petition
2 and addendum are available on the NOP Web site.

3 The petition requests the inclusion of
4 acid-activated bentonite to Section 205.603 of the
5 National List as a litter treatment. There was a
6 technical report requested in support of the
7 committee's review of this material and that report
8 was completed in 2016. Thanks.

9 MS. SWAFFAR: Thank you, Dr. Brines.
10 So last one, acid-activated bentonite has been
11 petitioned as a litter amendment to control
12 ammonia, so acid-activated bentonite is prepared
13 by treating naturally occurring bentonite clay
14 with sulfuric acid. The product is manufactured
15 by spraying 46-weight percent concentrated
16 sulfuric acid onto a pre-weighed bed of bentonite
17 clay granules as they are tumbled in the mixer.

18 Their rate of addition to a poultry
19 house is typically 100 pounds per 1000-square foot
20 of litter surface area, but can range up to 200
21 pounds per 1000-square foot, depending on the age
22 and depth of litter. The product is applied to the

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1 poultry litter only once at the beginning of each
2 new grow-out cycle.

3 Application is typically done three
4 days prior to bird placement in the house, but can
5 be done up to the day of placement. The product
6 can also be applied to bare ground after old litter
7 is removed, but before new litter is added. New
8 litter would -- I'm sorry. And then the TR also
9 states that the petitioner described
10 re-application methods in cases where ammonia
11 levels may exceed 25 parts per million.

12 The re-application is intended to occur
13 while birds are present and at an application rate
14 of 100 pounds per 1000-square foot. We didn't
15 really receive very many public comments on this
16 material. One stated that because the petitioned
17 use of acid activated does not meet OFPA criteria,
18 the petition should be denied and we did not receive
19 any public comments in support of acid-activated
20 bentonite.

21 So is there any discussion? All right.
22 None. Okay. So I'll turn this over to Tracy.

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1 The first motion would be to classify
2 acid-activated bentonite as synthetic.

3 CHAIR FAVRE: Okay. This comes as a
4 seconded motion. We'll start the voting with
5 Lisa.

6 MS. DE LIMA: Yes.

7 VICE CHAIR CHAPMAN: Yes.

8 MR. SEITZ: Yes.

9 MS. RICHARDSON: Yes.

10 MS. BEHAR: Yes.

11 MS. SONNABEND: Yes.

12 MR. RICE: Yes.

13 MS. OAKLEY: Yes.

14 MR. THICKE: Yes.

15 MR. AUSTIN: Yes.

16 MR. BUIE: Yes.

17 MS. BECK: Yes.

18 MS. SWAFFAR: Yes.

19 CHAIR FAVRE: The Chair votes yes.

20 MS. DE LIMA: 14 yes, 1 absent, the
21 motion passes.

22 MS. SWAFFAR: Okay. Next motion is to

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1 add sodium -- or I'm sorry. No. Acid-activated
2 bentonite at 205.603.

3 CHAIR FAVRE: Start the vote with Tom.

4 VICE CHAIR CHAPMAN: No.

5 MR. SEITZ: No.

6 MS. RICHARDSON: No.

7 MS. BEHAR: No.

8 MS. SONNABEND: No.

9 MR. RICE: No.

10 MS. OAKLEY: No.

11 MR. THICKE: No.

12 MR. AUSTIN: No.

13 MR. BUIE: No.

14 MS. BECK: No.

15 MS. SWAFFAR: No.

16 MS. DE LIMA: No.

17 CHAIR FAVRE: Chair votes no.

18 MS. DE LIMA: It's 14 no, 1 absent, the
19 motion fails.

20 MS. SWAFFAR: Okay. That wraps it up
21 for the Livestock Committee. I really wish we
22 could have, like, talked about methionine or

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1 something really controversial.

2 CHAIR FAVRE: Gee, I'm so sad that we
3 didn't get a chance for that. Okay, folks, we're
4 going to take a 15-minute break. I have, by mine,
5 we'll call it 10 after, so everyone will be back
6 here at 25 after, please, and we'll be starting back
7 up with the discussion of the resolution for
8 hydroponics, so don't miss it.

9 (Whereupon, the above-entitled matter
10 went off the record at 4:08 p.m. and resumed at 4:28
11 p.m.)

12 CHAIR FAVRE: Okay, everybody. Let's
13 get back started again. All right. So once
14 again, we are going to open up the discussion on
15 the Board resolution in regards to hydroponics.
16 Zea, do you want to start the conversation, or how
17 would you prefer to do it? No?

18 Okay, all right. So we'll just jump
19 into discussion and debate. So Emily, go ahead.

20 MS. OAKLEY: I just wanted to clarify
21 that we left it with Francis reading Harriet's
22 original proposal and adding into the sentence, "It

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1 is also the desire of the current members of the
2 NOSB to prohibit hydroponic systems that have an
3 entirely water based substrate or," this is what
4 would be added, "are wholly dependent on liquid
5 fertility inputs."

6 So we sort of discussed that, and then
7 we got to the point where we needed to probably
8 discuss that in front of everyone. So I don't know
9 how people feel about that.

10 PARTICIPANT: Can you read it one more
11 time?

12 CHAIR FAVRE: Yes --

13 PARTICIPANT: Do it very loud and very
14 slowly.

15 (Off microphone comments)

16 CHAIR FAVRE: Yes, bigger font or
17 something, I don't know. It's hard to see it from
18 here.

19 MS. OAKLEY: All right, Michelle --

20 CHAIR FAVRE: In fact, why don't you
21 read the paragraph in its entirety in which it would
22 belong, Emily, if you would please.

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1 MS. OAKLEY: Yes, where is that? Is
2 that up further, higher? Why am I missing that?

3 (Off microphone comments)

4 MS. OAKLEY: Okay, okay.

5 CHAIR FAVRE: So read it what it goes

6 --

7 MS. OAKLEY: Right. Or, are you ready
8 now Michelle or whoever? In caps. "Or are wholly
9 dependent on liquid fertility inputs." Correct,
10 yes. On liquid fertility inputs.

11 (Off microphone comments)

12 MS. OAKLEY: Right, that's it. So
13 what do people think about that?

14 CHAIR FAVRE: Okay, so the way I
15 interpret that, Miles just was asking for
16 clarification, let me speak to this to make sure
17 we're all on the same page, is that we're saying
18 here that it's hydroponic systems we would be
19 strongly, we are conserving funds, we are
20 prohibiting hydroponic systems that have an
21 entirely water based substrate and are, or are
22 wholly dependent on liquid fertility inputs.

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1 Okay? Ashley?

2 MS. SWAFFAR: I would just like a
3 little bit of discussion from everyone on this, on
4 that added in, you know, I'm a little concerned
5 about containers.

6 CHAIR FAVRE: Emily, did you have a
7 comment? Or --

8 MS. SWAFFAR: Yes, I would like to, you
9 know, how would that affect some container
10 production, you know, and even transplants. I
11 think you could maybe even make a case there.

12 MS. OAKLEY: I think transplants are
13 covered separately and are not part of this
14 conversation. So --

15 (Simultaneous speaking)

16 MS. SWAFFAR: -- containers then.
17 Well, I would like to just kind of open that up.
18 Just people that are a little more educated on
19 containers than I am, if that would really affect
20 them.

21 CHAIR FAVRE: Carmela?

22 MS. BECK: So we're getting into a

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1 level of specificity that I'm not necessarily
2 willing or interested in going to. I was, I feel
3 that the entirely water based substrate I'm okay
4 with.

5 But now what we're doing is we're going
6 back to the discussion document where there was six
7 areas for us to define, nutrition being one of them.
8 And you know, we didn't vote, or we're going to be
9 talking about this in the next semester.

10 So I'm not comfortable that in there
11 because we discussed wanting to vet this, taking
12 the public comment into consideration. So again,
13 I'm okay with the water based, but beyond that,
14 that's a level of detail that I would rather wait
15 to discuss.

16 CHAIR FAVRE: Francis?

17 MR. THICKE: One problem with the
18 entirely water based system means that there could
19 be no substrate at all with just water and liquid
20 nutrients. The plant could just be held up by a
21 wire or something and it could just be in a liquid
22 bath which is what that implies is possible. So

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1 that's not very good.

2 CHAIR FAVRE: We're prohibiting that.

3 MR. THICKE: That's what I'm saying.
4 That's a very low bar.

5 CHAIR FAVRE: Harriet?

6 MS. BEHAR: I'm not sure who to ask. So
7 the reason why I originally suggested this when I
8 had read the IT was that I felt that at least I don't
9 think this gets rid of containers but it gets rid
10 of containers that basically get no nutrition from
11 whatever substrate they are in.

12 So this is, the word could be 100
13 percent dependent, it could be primarily
14 dependent. This is, to me, that this is strictly
15 input substitution. But you could still have
16 something in a container as long as it does not get
17 100 percent of its nutrition, those plants in that
18 container, from a liquid fertility input.

19 Then we're not against it. That's
20 also, to some of us, it's not saying that we're all
21 for it either. But if this says that we're against
22 anything that is dependent on 100 percent of its

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1 nutrition, at least to me, wholly, from an outside
2 input with those roots not taking in any nutrition
3 from whatever substrate it's in.

4 Now we know that the water doesn't have
5 any nutrients in it and is relying on liquid
6 fertility. This is saying basically any other
7 substrate that has no fertility whatsoever would
8 not be allowed.

9 CHAIR FAVRE: I'm going to call on
10 myself first and then we'll go down there. The one
11 thing that is still to be ascertained or thrashed
12 out is that there are certain water liquid
13 fertility inputs that do not come in a plant
14 available source and that then must be converted
15 by the microbes growing on either the substrate or
16 in the root zone.

17 And for me, I'm not against liquid
18 delivery of nutrients. But that's a subtle
19 nuanced distinction that I think that somehow we
20 have to make clear. So if some, we're talking
21 about a fish emulsion for instance that is not
22 immediately plant available, it has to be converted

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1 by the microbes in the root zone, I would find that
2 an acceptable form of liquid input.

3 But the ones that are wholly synthetic,
4 immediately plant available, that's what that says
5 to me. And I'm not sure, I don't know how everybody
6 else feels about that. Scott and then Zea.

7 (Off microphone comments)

8 CHAIR FAVRE: It's acceptable to me if
9 it's interpreted in the way that I just explained.
10 But you know, that's why it gets a little squirrely.

11 MR. RICE: And that was precisely my
12 point in the way that that is, with the addition
13 of this I think and the fact that it took Harriet,
14 you know, several paragraphs to explain what that
15 means is sort of problematic to me. And as well,
16 for you to continue to explain it. So that's what
17 gives me some discomfort on that, and the addition
18 of that.

19 PARTICIPANT: How about any plant
20 available liquid fertility inputs?

21 CHAIR FAVRE: Zea?

22 MS. SONNABEND: Thank you. While I do

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1 support that language on a personal level, I feel
2 that it is more important to have a statement with
3 full consensus. And if we don't have a full
4 consensus, then I will bow to that.

5 CHAIR FAVRE: Okay. So it seems to me
6 from the three or four comments that I've just heard
7 that that statement actually pulls us further away
8 from consensus on the Board, is that what I'm
9 hearing? Despite our best efforts? Speak up.
10 Dan, go ahead.

11 MR. SEITZ: Well, let me say I
12 actually, I prefer having that in there, and it
13 seems to me it's pretty clear shorthand for what
14 Harriet explained. So for me it doesn't pull me
15 away from consensus. But again, if we -- whatever
16 statement we can get with the most votes that says
17 something that actually has some substance, you
18 know, I think that's preferable.

19 CHAIR FAVRE: Tom and then Harriet.

20 VICE CHAIR CHAPMAN: I echo Scott's
21 comments. I'm more confused by this than the
22 previous statement and am not supportive of it.

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1 CHAIR FAVRE: Harriet?

2 MS. BEHAR: I just wanted to know if
3 Emily and Francis were okay with it?

4 MS. OAKLEY: Yes.

5 MR. THICKE: I'm okay with it as it is
6 written.

7 CHAIR FAVRE: Okay, so unfortunately I
8 fear as though we have reached an impasse, an
9 insurmountable impasse at least in regards to this.
10 So I'm not exactly sure where that leaves us,
11 although it seems to me that we've had some
12 defections from the support of this with that
13 statement in there. Although we gained two, we
14 lost four. So I don't think that got us any closer.
15 Zea?

16 MS. SONNABEND: We could still put the
17 resolution forward without that and vote, and then
18 just have it be a majority/minority situation.
19 And if Tom wants to change the word consensus to
20 say majority.

21 CHAIR FAVRE: How do we feel about
22 that? Scott?

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1 MR. SEITZ: In my opinion, that's
2 better to have something than nothing.

3 CHAIR FAVRE: Scott and then -- what's
4 her name.

5 MR. RICE: As Francis pointed out, we
6 could still leave the consensus in there and we have
7 a majority of us without this language. We would
8 be in agreement. But if it's smoother not to have
9 that, I'm not going to have that hold it up either.

10 CHAIR FAVRE: Jean?

11 VICE CHAIR CHAPMAN: Can I speak to
12 that real quick? Just, I looked up the Webster
13 definition and it says an idea or opinion that's
14 shared by all the people in a group. So I think
15 it's actually, again, confusing what consensus
16 means if it's not all.

17 CHAIR FAVRE: Just for the record, we
18 can wordsmith things like nobody's business up
19 here. I just want to mention that. Jean?

20 MS. RICHARDON: I think if we take out
21 the yellow highlighted phrase and then we vote on
22 it as a non-consensus document as Tom suggested,

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1 and but at the bottom that we have then the
2 dissenting opinion if you will, or whatever we want
3 to call it, there are two persons dissenting, would
4 have preferred the addition of, and give the phrase
5 wholly dependent on liquid fertility. And that
6 way we're sending forward the opinion of all 14 of
7 us are captured there so that the minority
8 perspective which is then, is captured in the vote
9 going forward.

10 CHAIR FAVRE: This will become the
11 world's largest board resolution.

12 MS. RICHARDON: No, it's
13 straightforward.

14 CHAIR FAVRE: No, I agree. It is
15 important to me that everybody's voice be heard on
16 this. I just want to reiterate one more time, this
17 board resolution was intended to show where we
18 could be united and leave the more sticky issues
19 for further debate as it goes forward and back to
20 the subcommittee. But I respect the positions of
21 others on the board that feel as though they can't
22 budge on that. Francis?

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1 MR. THICKE: I'm fine with that, but I
2 think that we should then do a poll of how many
3 people support that other language because if you
4 say only two people support that language, it's
5 really not necessarily the case. There could be
6 more people who support that other language.

7 CHAIR FAVRE: All right. So I think we
8 are of the opinion that we've gone as far as we can
9 go, as far as people are willing to support.
10 Everybody's voice has had a chance to be heard.
11 Some people say compromise means nobody gets what
12 they want. This might be a very good example of
13 that.

14 So Michelle, if you will back out that
15 section in yellow. Yes. And if you, I was going
16 to say put it down below but you've already deleted
17 it, unless you can get it back. There you go. So
18 cut it and paste it down below.

19 And then I would seek a motion from the
20 Board to move this forward.

21 PARTICIPANT: Question, Tracy.

22 CHAIR FAVRE: Okay, so Miles is just

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1 saying it's unclear and that we're going to have
2 to do something with it. So nothing like making
3 sausage in public. So what do we suggest here
4 folks? How do you want to do this?

5 MS. SWAFFAR: Could you put a paragraph
6 on the bottom, the last paragraph that says there
7 was a minority opinion that stated that they were
8 concerned --

9 MS. SONNABEND: That that phrase
10 should be inserted.

11 MS. SWAFFAR: Yes, yes.

12 CHAIR FAVRE: Okay, so we've gotten
13 some guidance on procedure here. What Dr. Brines
14 has advised us is that we actually go through the
15 process of making a motion, putting forward the
16 motion without the controversial language, put it
17 forth for discussion.

18 Then if someone wants to put forth a
19 motion to amend the resolution with the language
20 which we'll put up there and then we'll vote on,
21 and then we'll have it all fully documented,
22 everybody will be happy. And then in the end,

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1 we'll end up with the vote however we end up.
2 Everybody okay with that? Okay.

3 MS. BEHAR: I have --

4 CHAIR FAVRE: Yes?

5 MS. BEHAR: So my question is could I
6 vote for both?

7 CHAIR FAVRE: Yes, of course.

8 PARTICIPANT: Yes, vote first for the
9 amendment and --

10 CHAIR FAVRE: Okay. So first of all,
11 all right, so as a reminder to everyone on the Board
12 as well as in the audience, this is a non-binding
13 Board resolution. This is not a recommendation
14 that will go forward to the program that they then
15 have to act on. But our hope is that this does
16 provide some sense to future Board that works on
17 this controversial issue where this current Board
18 feels and stands philosophically on the issue. We
19 all clear?

20 MR. THICKE: I'm confused with what
21 we're doing here. We're voting twice? Two
22 different -- can you explain again?

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1 CHAIR FAVRE: Okay, so first thing
2 we're going to do is vote on a main motion for the
3 resolution as it stands without the controversial
4 language. And then --

5 PARTICIPANT: Someone's going to move
6 the main one --

7 CHAIR FAVRE: I'm sorry. Yes,
8 someone's going to move, I spoke incorrectly.
9 Someone's going to make a motion to move this
10 forward, we'll take a second, then we'll have
11 discussion. If at that time someone wants to bring
12 forward a motion to amend the current resolution,
13 then that would take a motion and second, then
14 we'll have discussion on that. We'll take a vote
15 on the amendment, and then that will resolve the
16 issue.

17 Yes, and then we will vote on the main
18 motion.

19 PARTICIPANT: Whether to amend it or
20 not.

21 CHAIR FAVRE: Whether amended or not,
22 yes, correct. Okay? Clear as mud? All right, so

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1 I will entertain, I would entertain a motion for
2 this Board resolution.

3 MS. BEHAR: I'll move.

4 CHAIR FAVRE: I have a motion from
5 Harriet. Do I have a second?

6 MR. THICKE: I'll second.

7 CHAIR FAVRE: I've got a motion and a
8 second. Further discussion?

9 MS. DE LIMA: Madam Chair, just a
10 question real quick. That does not include the
11 yellow portion?

12 CHAIR FAVRE: That's correct.

13 MS. DE LIMA: That's just hanging out
14 on the bottom?

15 CHAIR FAVRE: It's hanging out. It's
16 hanging out at the bottom until we get this all
17 straightened out. And when we get to the point of
18 if there is a motion to amend the resolution, we
19 will type it up with the full, you know, language.
20 Everybody will be clear before we move forward.

21 MS. BEHAR: Could I amend my own
22 motion?

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1 CHAIR FAVRE: Yes, sure. Is there any
2 further discussion first on the main motion?

3 Okay, are we ready to vote? Okay, so
4 far so everybody's clear I do not have a motion to
5 amend.

6 PARTICIPANT: Looking to the language
7 because we didn't have it memorized.

8 CHAIR FAVRE: Okay.

9 MR. THICKE: Can I --

10 CHAIR FAVRE: Yes, sir.

11 MR. THICKE: Thank you, ma'am. I
12 would like to move to amend this motion with
13 inserting the words, "or are wholly dependent on
14 liquid fertility inputs." And you know where that
15 goes.

16 CHAIR FAVRE: And do I have a second?
17 In the record, in the record.

18 MS. OAKLEY: I second that.

19 CHAIR FAVRE: Okay, is there any
20 further discussion? Harriet?

21 MS. BEHAR: I support that amendment
22 having made the original motion.

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1 CHAIR FAVRE: Any further discussion?
2 Harold?

3 MR. AUSTIN: We will add further
4 definition to explain what that yellow highlighted
5 is though so that when people see this in the future
6 they understand actually what it's stating.

7 CHAIR FAVRE: Yes, if the motion
8 passes.

9 Yes, the discussion will be retained,
10 but it won't be retained in the final motion, in
11 the vote unless that motion to amend passes. Zea?

12 MS. SONNABEND: Well, I do support that
13 language in the amendment. I'm not going to vote
14 for it because as I said, I think it's more
15 important to we get more consensus on the original
16 motion.

17 CHAIR FAVRE: Harold and then Ashley.

18 MR. AUSTIN: I guess point of
19 clarification. This is a motion to amend to
20 reinsert these words, not put in the-- okay.

21 CHAIR FAVRE: Yes.

22 MR. AUSTIN: Sorry. Now we're clear.

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1 CHAIR FAVRE: Yes. Ashley?

2 MS. SWAFFAR: Yes, I will not be
3 boating with this because I am concerned on how this
4 could affect container production. So I can't
5 support this amendment. Sorry.

6 CHAIR FAVRE: Is there any further
7 discussion?

8 (No audible response.)

9 CHAIR FAVRE: Okay, seeing none, we
10 have a motion to amend the Board resolution to
11 insert the phrase, "or are wholly dependent on
12 liquid fertilizer inputs, and after the paragraph
13 that includes that have an entirely water based
14 substrate.

15 Can I have a motion and a second? We
16 will begin the vote with Dan.

17 MR. SEITZ: Well let me say there is
18 justice or balance in the world.

19 CHAIR FAVRE: Karma is a bitch, isn't
20 it?

21 MR. SEITZ: Karma, okay. Next time
22 when there's something I like, I'm just going to

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1 be mum about it. So I will vote yes for this
2 amendment.

3 MS. RICHARDON: Yes.

4 MS. BEHAR: Yes.

5 MS. SONNABEND: No.

6 MR. RICE: No.

7 MS. OAKLEY: Yes.

8 MR. THICKE: Yes.

9 MR. AUSTIN: No.

10 MR. BUIE: Yes.

11 MS. BECK: No.

12 MS. SWAFFAR: No.

13 MS. DE LIMA: Yes.

14 VICE CHAIR CHAPMAN: No.

15 CHAIR FAVRE: Chair votes no.

16 MS. DE LIMA: It's seven yes, seven no,
17 one absent. The motion fails.

18 CHAIR FAVRE: Okay. This is sort of
19 the exact opposite of consensus that we just --

20 (Laughter.)

21 CHAIR FAVRE: Okay, so the motion has
22 failed. Now we will be voting on the main motion.

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1 And that motion for the resolution is, yes?

2 VICE CHAIR CHAPMAN: I move to amend
3 consensus to majority.

4 CHAIR FAVRE: Okay, I have an
5 additional motion to amend the word consensus to
6 majority. Do I have a second?

7 PARTICIPANT: Second.

8 MR. RICE: I'll second it.

9 CHAIR FAVRE: Was that a second from
10 the audience? I thought it was from out there.
11 Okay, I have a motion from Tom and a second from
12 Scott. Any further discussion?

13 Okay, seeing no further discussion, we
14 will start the vote on the motion to amend the word
15 consensus to change it to majority with Jean.

16 MS. RICHARDON: Yes, I guess so.

17 MS. BEHAR: Yes.

18 MS. SONNABEND: Yes.

19 MR. RICE: Yes.

20 MS. OAKLEY: Abstain.

21 MR. THICKE: Abstain.

22 MR. AUSTIN: Yes.

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1 MR. BUIE: Yes.

2 MS. BECK: Yes.

3 MS. SWAFFAR: Yes.

4 MS. DE LIMA: Yes.

5 VICE CHAIR CHAPMAN: Yes.

6 MR. SEITZ: Yes.

7 CHAIR FAVRE: The chair votes yes.

8 MS. DE LIMA: That's 12 yes, 2 abstain,
9 one absent. The motion passes.

10 CHAIR FAVRE: Okay, now we have an
11 amended resolution to include the word majority
12 instead of consensus with the original language
13 without the first proposed amendment. We have a
14 motion and a second. We will start the voting on
15 this resolution with Harriet.

16 MS. BEHAR: Yes.

17 MS. SONNABEND: Yes.

18 Statement of Reasons Yes.

19 MS. OAKLEY: No.

20 MR. THICKE: No.

21 MR. AUSTIN: Yes.

22 MR. BUIE: Yes.

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1 MS. BECK: Yes.

2 MS. SWAFFAR: Yes.

3 MS. DE LIMA: Yes.

4 VICE CHAIR CHAPMAN: Yes.

5 MR. SEITZ: Yes.

6 MS. RICHARDON: Yes.

7 CHAIR FAVRE: Chair votes yes.

8 MS. DE LIMA: It's 12 yes, 2 no, 1
9 absent. The motion passes.

10 CHAIR FAVRE: Okay, ladies and gents,
11 that's the way you do it. Thank you very much for
12 your patience as we work through that. I
13 appreciate the civility in which this discourse
14 took place.

15 Okay, it somehow seems like we need a
16 break, but we're not going to take one. The world
17 goes on. Okay. Next on our agenda is the
18 subcommittee work agendas.

19 Okay, as most of you know who are the
20 die hards that are still here after all of this
21 discussion, at every fall meeting we present a work
22 agenda plan that the subcommittees have generated

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1 and we have presented and had discussion. So we're
2 going to start with CACS with Carmella.

3 MS. BECK: All right, so you'll see
4 then that we have, should be moving towards a
5 proposal for the infield annual evaluation of
6 inspectors, and then a discussion document on the
7 eliminating incentives to convert native
8 ecosystems into organic crop production.

9 CHAIR FAVRE: Okay. Any of the Board
10 members have questions about that? Okay, next up
11 is crops. Zea?

12 MS. SONNABEND: Okay, all those things
13 up there are on the work agenda. I thought we had
14 a more, like, easier to read list. Okay, well
15 anyway, we have petitions that are going through
16 the process of TR development, and a few of them
17 are so new we haven't commissioned a TR yet.

18 But we have fatty alcohol and aerobic
19 digest state, polyoxin d zinc, sodium citrate,
20 natamycin, and ammonium nonanoate.

21 Then on our continuing projects is
22 trying to keep going the work of the inerts working

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1 group, and we will need to appoint new members since
2 June and I are the current members, both of us are
3 retiring, or maybe just, no me and Jessie are. So
4 Jessie will keep going and a new member will be
5 appointed.

6 Contamination issues and farm inputs
7 which Harriet is working on what the next step will
8 be. I don't think biodegradable mulch is a
9 discussion document because we commissioned a new
10 TR for it. And so who knows what, it's actually
11 slated as a 2019 sunset and I think that is what
12 is going to happen to it. So something might come
13 in the spring, but it might not.

14 The NPEs in the inert sanitation is on
15 hold until the rulemaking is done for the change
16 in inert sanitation, but then I would like to bring
17 it right forward again. I won't be around, but
18 hopefully you guys will remember.

19 And then anaerobic digestate we already
20 discussed above under the food waste. And then,
21 I mean, under the TRs. And then the container in
22 greenhouse production proposal and of course the

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1 overall proposal that just got sent back to the
2 crops subcommittee concerning hydroponics.

3 CHAIR FAVRE: Oh, there's more?

4 MS. SONNABEND: Good thing I'm getting
5 out of here. So we're going to look and see if we
6 need to do anything based on the public comment that
7 came in about the marine algae listing on crops.

8 We have a TR for a newspaper annotation
9 change in development about the hydroponics thing
10 and container thing. I don't know why they're on
11 there twice.

12 We hope to advance the seed,
13 strengthening the organic seed guidance to a
14 proposal. And then there's a long list of sunset
15 2019s which I'm not going to read them all, except
16 for you will notice that the biodegradable
17 bio-based mulch is among them.

18 Is there more below that? And look,
19 there's copper again, isn't that special. So
20 there you have the list of the subset materials.

21 CHAIR FAVRE: That's a pretty big list.

22 MR. AUSTIN: Okay, for handling,

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1 you've added a couple of things that I didn't have
2 on my list. That's good. Okay, so for our work,
3 for the handling, we've got the sodium chloride for
4 generation of chlorine dioxide gas that was
5 referred back during this session, sodium
6 dodecylbenzenesulfonate.

7 I didn't think I was going to say that
8 one again, SDBS, that will continue forward. That
9 one we're just waiting for a TR to get back.
10 L-methionine for handling, we've got a petition to
11 add that so we'll be looking at that, short DNA
12 tracers.

13 Other projects, packaging substances
14 used in organic handling including BPA, phosphates
15 document, we'll be looking to continue work on
16 that, nutrient vitamins and minerals, the
17 annotation change is temporarily on hold but we
18 will leave that in case we end up moving forward
19 with that.

20 Marine algae listings, we'll continue
21 the work on that as a result of this meeting.
22 Magnesium chloride reclassification, that one is

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1 temporarily on hold while we're waiting for the
2 classification guidance to become finalized as
3 well as we do have a TR requested for that one as
4 well.

5 Both of the tocopherol proposals that
6 we were working on, those have both been referred
7 back, so those will continue to stay on our work
8 plan. Then the sunset 2019 materials, the
9 attapulgate, bentonite, diatomaceous earth,
10 nitrogen sodium carbonate, active sodium chloride,
11 borite, calcium hypochlorite, carbon dioxide,
12 chlorine dioxide, magnesium chloride, potassium
13 acid tartarate, sodium hyperchlorite, sodium
14 phosphate, casings, and pectin. And that
15 concludes our work agenda materials.

16 CHAIR FAVRE: Ashley, livestock?

17 MS. SWAFFAR: Okay, so livestock we've
18 had three petitions here lately that we are
19 currently waiting on TRs, sulphur glycolic acid and
20 hypochloric acid. We still have all the
21 aquiculture stuff that's listed in our work agenda,
22 but we are waiting on the aquiculture rule which

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1 we hear might come out.

2 We have sunset '19 materials which you
3 see there. Our other projects is defining
4 emergency treatment for parasiticides, we're
5 committed in the subcommittee to bring this forward
6 in the spring, so do look at that.

7 Other project also is the organic
8 poultry task force that we ask the program, we had
9 sent this to the program, and that would be the
10 intent of that is that the organic poultry working
11 group could be created for the purpose of
12 identifying issues around organic poultry
13 production that are barriers to achieving the
14 objectives stated in the NOSB spring 2015
15 resolution around synthetic methionine.

16 And let's see. We do have a couple
17 other things. No, no. Marine algae, we are just
18 monitoring the work by the crops and handling
19 committee on that. Probably going to add some
20 other poultry stuff.

21 CHAIR FAVRE: Okay. Lisa?

22 MS. DE LIMA: So other than the usual

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1 petition into your tracking, we'll be continuing
2 to work on the excluded methods discussion document
3 and see how far we can get that, maybe into a
4 proposal by spring, maybe not. We'll see. That's
5 it.

6 CHAIR FAVRE: Tom, development?

7 VICE CHAIR CHAPMAN: We have PPM
8 updates, that's an ongoing item.

9 CHAIR FAVRE: Okay, any discussion and
10 debate from the Board? Okay. Yes, Miles, go
11 ahead.

12 MR. MCEVOY: Yes, just looking at the
13 list, it looks like some subcommittees don't have
14 very much on their agenda, and the crops one just
15 looked incredibly long. So --

16 CHAIR FAVRE: That's sunset.

17 MR. MCEVOY: Yes. Just, that's a lot
18 of very intense topics on the crops area. So good
19 luck.

20 CHAIR FAVRE: Zea?

21 MS. SONNABEND: Since it's open for
22 discussion, what did you think of Bill Wolf's

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1 suggestion of having the NOP staff write some of
2 the proposals and we just review them?

3 MR. MCEVOY: Well, it's possible, in
4 certain areas.

5 MS. SONNABEND: Paid staff, unlike us
6 volunteers.

7 MR. MCEVOY: Right. If the Board was
8 interested in that happening, you might want to
9 pick a particular topic to see how that goes, a
10 trial/pilot type of thing.

11 CHAIR FAVRE: No, he's not touching
12 that one. Okay. All right. Emily?

13 MS. OAKLEY: I want to echo Miles'
14 comment and just suggest that our new chair,
15 whomever that might be, add additional people to
16 the crops subcommittee because we do have a big work
17 agenda.

18 MR. MCEVOY: Yes, actually we have
19 presented things to the Board, for instance the
20 peer review proposal. It was the procedure for
21 conducting the peer review. We presented it to the
22 Board for their review and recommendation on that

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1 particular one.

2 So if there are topics that fit into
3 that kind of a format, then that might be more
4 appropriate for a pilot of that kind of concept.

5 CHAIR FAVRE: Okay. Thanks,
6 everybody. All right, so now we are going to move
7 on to the election of next year's NOSB officers.
8 And yes, okay. We're going to start with
9 nominations for chair. Do I have a nomination?
10 Yes, Jean?

11 MS. RICHARDON: Tom Chapman.

12 CHAIR FAVRE: I have a nomination,
13 there's a nomination for Tom. Do I have a second?

14 MR. RICE: Second.

15 CHAIR FAVRE: I have a nomination from
16 Jean, second from Scott Rice. Any discussion? Do
17 we feel as though we need to make a vote or can we
18 do it --

19 Oh, excuse me, yes. Are there any more
20 nominees?

21 (No audible response.)

22 CHAIR FAVRE: Going once. All right.

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1 Yes, encourage competition. Tom's
2 encouraging competition. All right, so I believe
3 that we can then elect Tom with proclamation. Are
4 we in agreement? Acclimation, proclamation.
5 Acclimation, thank you. Okay, so Tom,
6 congratulations. Next year's chair.

7 Okay, next up we'll be seeking
8 nominations for vice chair. Do I have a
9 nomination? Yes, Harold.

10 MR. AUSTIN: I would like to nominate
11 Ashley.

12 CHAIR FAVRE: I have a nomination, a
13 motion from Harold. Do I have a second?

14 MS. DE LIMA: Second.

15 CHAIR FAVRE: Second from Lisa de Lima.
16 Any discussion? Are there any further
17 nominations?

18 (No audible response.)

19 CHAIR FAVRE: Okay, I believe we can
20 declare Ashley vice chair with acclimation.
21 Congratulations.

22 Next we'll be seeking nominations for

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1 secretary. I would like to nominate Jesse Buie for
2 secretary. Do I have a second?

3 MS. RICHARDON: I'll second.

4 CHAIR FAVRE: I have a motion by me,
5 second by Jean. Any discussion. Any further
6 nominations? Francis?

7 MR. THICKE: I nominate Harriet.

8 CHAIR FAVRE: Okay, I have a nomination
9 for Harriet. Do I have a second?

10 MS. BEHAR: I'll second.

11 CHAIR FAVRE: Okay, so we have a
12 nomination and a second. So it looks like we have
13 a contested vote. So Tom is passing out ballots.
14 Per our PPM, the way it works is if there is a
15 contested position it goes to secret ballot from
16 the Board. And then Tom will collect the votes,
17 give them to Michelle.

18 All right, no, we'll do it to the vice
19 chair. Secretary and vice chair. All right, so
20 those two will figure it out, give us a count.

21 (Pause.)

22 CHAIR FAVRE: Okay, all right. The

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1 votes have been counted, and the majority vote
2 shows that Jesse Buie will be our new secretary for
3 2017.

4 Okay, whew. I'm happy that's over.
5 I'm going to now turn it over to our new Chair, Tom
6 Chapman with the ceremonial passing of the gavel,
7 which I didn't even get to whack this time.

8 VICE CHAIR CHAPMAN: So next item on
9 the agenda is farewell to outgoing members. Is
10 this you first?

11 MS. RICHARDON: Point of order. Do we
12 need a motion to remove? We're sunseting off the
13 board.

14 VICE CHAIR CHAPMAN: I think that's by
15 acclimation as well. I think we need a
16 classification vote first.

17 (Laughter.)

18 MR. MCEVOY: Okay, I think we did honor
19 the five members that are leaving the Board on
20 Monday, I don't even know what day it is.

21 Okay. On Wednesday, it's now Friday.
22 There's very few people left, so I think it's very

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1 important in these meetings when we have people
2 leaving the Board that we recognize and celebrate
3 them on the first day when there's lots of people
4 here to recognize all the work that they've done.

5 So certainly want to honor and
6 celebrate the work of the five NOSB members that
7 this is their last meeting. They still have a
8 couple months of work left, however, until the,
9 what, January 25th or something, 3rd, 4th?

10 Something like that. So a couple of
11 days into the new administration, you'll get to
12 experience that and then you'll be off into the
13 sunset.

14 PARTICIPANT: No pun?

15 MR. MCEVOY: No pun. So they have
16 contributed hundreds of hours to the organic
17 community, listening to comments, developing
18 proposals, making recommendations. We owe them a
19 debt of gratitude for the service they've provided.

20 I would like to actually read a poem
21 that sort of to me in some ways represents to me
22 the value of these people, the value of these

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1 people, the value of their contributions.

2 So this is a poem by Marge Piercy, To
3 Be of Use. "The people I love the best jump into
4 work head first without dallying in the shallows,
5 and swim off with sure strokes almost out of sight.

6 "They seem to become natives of that
7 element, the black sleek heads of seals bouncing
8 like half submerged balls. I love people who
9 harness themselves, an ox to a heavy cart who pull
10 like water buffalo with massive patience, who
11 strain in the mud and the muck to move things
12 forward, who do what has to be done again and again.

13 "I want to be with people who submerge
14 in the tasks, who go into the fields to harvest and
15 work in a row and pass the bags along, who are not
16 parlor generals and field deserters but move in a
17 common rhythm when the food must come in or the fire
18 be put out.

19 "The work of the world is common as mud,
20 botched, it smears the hands, crumbles to dust.
21 But the thing worth doing well done has a shape that
22 satisfies, clean and evident.

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1 "Greek amphoras for wine or oil, Hopi
2 vases that held corn, are put in museums, but you
3 know they were made to be used. The pitcher cries
4 for water to carry and a person for work that is
5 real."

6 And the work that they've done here, the
7 recommendations, the proposals is very real work
8 that will really move the organic community
9 forward. So thank you so much to each and every
10 one of you.

11 (Applause.)

12 MR. MCEVOY: So I think we have letters
13 and plaques, right? Do we want --

14 Okay. And so I think that each member
15 may want to make a few statements. So you want to
16 start with you, Tracy?

17 CHAIR FAVRE: Thank you, Miles. I
18 just want to say that I have, it has been a true
19 honor to work with this outstanding group of
20 people. In the course of five years, I can truly
21 say that this has been the most rewarding
22 professional experience of my life to date, and

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1 it's mostly due to the give and take and the back
2 and forth and the things that I've learned from this
3 Board experience.

4 I have to say I'm learning, I've learned
5 things, I've learned a lot but I've learned things
6 that I didn't really expect to be the things that
7 I've learned, primarily about consensus building,
8 true leadership by example, and the nobility of
9 fighting for a just cause with civility.

10 And I want to thank everybody for that.
11 I think it's very true to say that there are very
12 few easy decisions that come before this Board.
13 There are some which we celebrate. But more likely
14 that they're mostly difficult decisions, and
15 primarily they're shades of gray.

16 There's very few discussions that we
17 have when there's only one single right answer.
18 And so I do appreciate, and I've said I think
19 repeatedly in my time on the Board that the
20 discussion actually ends up with a stronger and
21 better final outcome than we would have come from
22 individuals.

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1 And if I can finally say one last thing
2 for the future Board, I would like to recognize that
3 there are diverse perspectives on the Board, and
4 that we need to make sure that we always rigorously
5 debate the issues and make sure that our
6 constituents know how seriously we take the issues,
7 and finally again recognize that there is rarely
8 one single right answer.

9 And again, I just want to thank
10 everybody for the opportunity and the honor to have
11 worked with you. Thank you.

12 MR. MCEVOY: Thanks, Tracy, for all
13 that you've done as being a passionate and
14 professional and a very effective Chair, ensuring
15 that all voices are heard, moving us along, and
16 holding NOP accountable. So thank you so much.

17 CHAIR FAVRE: I would like to make one
18 last presentation. Jean had the wand. Somebody
19 said to me earlier that I had the Texas Bullwhip,
20 and I am hereby bequeathing a tool to the new chair
21 to be used at his discretion. And I'll let him
22 decide if he wants to open it now or not.

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1 VICE CHAIR CHAPMAN: I actually own a
2 machete made out of metal. So I'll bring that in
3 next time.

4 CHAIR FAVRE: Yes, this is just in case
5 anybody's alarmed, this is plastic. It won't do
6 any real damage, but it is just symbolic.

7 PARTICIPANT: Good luck with TSA.

8 MR. MCEVOY: Okay next, Jean. To me
9 she has been an amazing leader and really brought
10 us together after some trying times. And her
11 granddaughter wrote a little thing about her that
12 I think is just perfect, so I want to quote her
13 granddaughter.

14 "Grandma is a good leader. She cares
15 about other people. She puts other people before
16 herself. For example, she takes a lot of time to
17 serve on the Organic Standards Board. She is kind
18 and giving. She is a good example of a strong
19 leader." And this is from her eight year old
20 granddaughter that recognizes how valuable Jean is
21 to the organic community. So thank you, Jean, for
22 everything.

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1 MS. RICHARDON: I wasn't going to say
2 anything, but I will, very, very briefly. So these
3 are sort of words of wisdom from the old lady. So
4 always strive for consensus, always, always. Try
5 to make your pie bigger, negotiate it larger so that
6 there is a piece for everyone. And you can have
7 everybody around the table.

8 Remember, everything in nature is
9 interconnected. So if you get really fixated on
10 one tiny thing, never, never lose sight of the
11 context because everything is interconnected and
12 we all have to take care of the commons.

13 And last but not least, be kind and
14 loving. Oh, you see, I shouldn't have read that
15 thing out, it makes me weepy. Be kind and loving
16 and very forgiving towards each other all the time.
17 Thank you.

18 MR. MCEVOY: Next, Carmela. As the
19 chair of the Certification, Accreditation, and
20 Compliance, right, subcommittee? I always get the
21 CACS thing confused. First Latina on the National
22 Organic Standards Board.

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1 That's very important, very much an
2 honor to be at the forefront of that. Very careful
3 and deliberative and always appreciate that your
4 ability to listen to all sides of the debate and
5 bring those perspectives forward. So thank you,
6 Carmela, for your service.

7 MS. BECK: I'm going to read my
8 statement. So I would like to first thank the
9 National Organic Program, especially Miles McEvoy,
10 Emily Brown Rosen, Dr. Brines, and Michelle
11 Arsenault, among many others for your indisputable
12 commitment to the organic program and community.

13 I would also like to thank previous,
14 current, and future NOSB members for their service.
15 I especially want to thank the outgoing class
16 including Dr. Jean Richardson, Zea Sonnabend,
17 Tracy Favre, and Harold Austin for your phenomenal
18 work ethic, for your willingness to teach. I'm
19 sorry. Slightly embarrassing. Excuse me. For
20 your willingness to teach, share your knowledge,
21 plus model the way, and lastly for your friendship.

22 Lastly, I would like to thank the

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1 organic community for your active participation in
2 this highly interactive and complex process. This
3 has been an incredible honor to serve the organic
4 community, and has been a phenomenal learning
5 opportunity for which I am very grateful.

6 My hope for this community is that we
7 focus on being inclusive, collegial, and that we
8 continue to encourage broader participation from
9 the very diverse US demographic including younger
10 generations and people of color. I thank you and
11 I look forward to participating on the other side.

12 MR. MCEVOY: Okay. Next, Harold, a
13 man from Washington, a place close to my heart that
14 I don't spend enough time in anymore. Handler
15 Chair extraordinaire. Very organized, handled
16 very challenging issues with a very open mind, with
17 grace, and with thoroughness.

18 Survived a very difficult time in San
19 Diego and the recovery of that, so it seems like
20 you should get some additional medal for that or
21 something. So thank you, Harold. So you have the
22 medal, yes you have the medal, okay.

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1 PARTICIPANT: A titanium medal.

2 MR. MCEVOY: Yes, so thank you, Harold,
3 for everything and look forward to continuing to
4 work with you in Washington State.

5 MR. AUSTIN: Wow, where do you start?
6 It's been an interesting five years. Didn't know
7 what to expect when I came and accepted this
8 position. Definitely didn't have any idea
9 whatsoever the amount of time, energy, how many
10 hours that was going to be needed to take and do
11 this job to the level that I tried to do it.

12 I appreciate the support from all of the
13 stakeholders. I've tried to be as fair and
14 balanced and as non-combative as possible,
15 listening to both sides of the debate. And I
16 appreciate both sides of the debate in everything
17 that's come before us because it helps us to grow,
18 those of us up here that represent the stakeholders
19 and I think the community when they hear us in these
20 discussions, and for that I thank all of you.

21 For those that we've had the pleasure,
22 I can't say enough about them. Kind of miss

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1 listening to Calvin crunching and walking as we
2 were on a subcommittee call. And you knew he was
3 out walking somewhere because you could hear it.
4 Crunch, crunch, step, step, the gravel and the
5 distance.

6 For those that are going to be
7 sunsetting with me, love you guys to death. Good
8 group. For those of you that this is your first
9 year, heaven help you and give you the strength and
10 the fortitude. Be thankful that we've broken up
11 the Sunset 2017 group.

12 Yes, it was something else, Skyping in,
13 voting on L-methionine, that fall and trying to
14 recover. For those of you that don't know it, I
15 spent six weeks in a convalescent home recouping
16 once I got back home before I actually was able to
17 go home.

18 So it's been challenging. But through
19 it all, I tried to stay as involved and as active
20 in this process as I humanly could. And I hope that
21 you all understand that I might not have been there
22 all of the time, but I was there as soon as I could

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1 get back up and running, I was back on the calls.

2 I just hope that those that take our
3 place can understand that there's two sides to
4 every discussion that comes before us. The
5 decisions that you all will make when we are gone
6 will have an impact on people's livelihoods, on the
7 organic community, and more importantly on the
8 future of what organics truly is.

9 We've come too hard to go back -- too
10 far and worked too hard to go backwards. So I just
11 hope that you, you know, you guys can embrace the
12 examples that we've tried to lead with while we've
13 served our five years on this Board.

14 We've worked hard to be as fair and as
15 balanced as possible. We've tried to represent as
16 many people in the organic community as we possibly
17 could. I appreciate the honor to have served all
18 of you. I look forward to staying engaged and
19 involved in the future. Thank you all.

20 MR. MCEVOY: And last we have Zea, our
21 crops chair, NOSB historian. It's going to be
22 challenging not to have that history on the Board.

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1 We do the best we can to remember things that
2 happened a long time ago. But Zea, hopefully
3 you'll continue to attend the meetings afterwards
4 as you have before you served on the Board.

5 But just your incredible, thorough
6 analysis, your knowledge of the history of the
7 Board, your principles that you bring, and your
8 amazing depth of knowledge of all things organic,
9 really appreciate that, the passion that you bring
10 and we'll miss you a lot. Thank you.

11 MS. SONNABEND: Well, this is my last
12 chance to say as much as I want to for the past five
13 years. And so I thought I would show 45 or 50
14 slides and talk thoroughly about every proposal.

15 But instead I decided to sort of give
16 you a glimpse into my very convoluted mind. And
17 I will say that singing this morning was so
18 exhilarating that I'm going to end my presentation
19 with a sing-along. So stay tuned.

20 Thank you all so much for the
21 opportunity to serve on the Board for the last five
22 years. And by all I mean the NOP staff, my fellow

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1 Board members, most if not all of the audience, most
2 if not all of the time. And everyone who ever
3 communicates with us on issues from the greater
4 community. It's been an honor to be able to serve.

5 My favorite thing being here has been
6 being able to talk as much as I want. My least
7 favorite thing has been the hate that members of
8 the audience express towards us and each other
9 around the topics we cover.

10 I'm going to talk about a few
11 perspectives I have on the process and the world
12 today, and then offer some wisdom and opinion for
13 the new members.

14 First of all, I don't see how anyone
15 could do this endeavor without passion and without
16 a muse or two. My muses are pretty clear to the
17 people who know me. I'm going to list them here
18 in these remarks, Jerry Garcia and the rest of the
19 Grateful Dead as well as the Nobel Laureate Bob
20 Dylan.

21 So for those of you who it's totally
22 over your head, most of the rest of this is quotes

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1 from the muse. "Picture a bright blue ball just
2 spinning, spinning free dizzy with eternity.

3 "Paint it with the skin of sky, brush
4 in some clouds and sea, call it home for you and
5 me. A peaceful place, or so it looks from space,
6 a closer look reveals the human race. Full of
7 hope, full of grace is the human race, but afraid
8 we may lay our home to waste."

9 I undertook during my term to move the
10 organic community ahead a notch or two. Here are
11 some of my experiences in trying to do that. "Some
12 folks look for answers, others look for fights.
13 Some folks up in treetops just looking for their
14 kites."

15 Michelle, can you put up the slide?
16 Oh, I have the slide. Okay, thank you. I almost
17 brought my costume but it was too bulky so I decided
18 to just show a picture of my costume at the farmer's
19 market with my helper.

20 And another experience, "If this ain't
21 the real thing, than it's close enough to pretend.
22 I sure don't know what I'm going for but I'm going

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1 to go for it for sure." And last but not least,
2 "Once in a while you get shown light in strangest
3 places if you look at it right."

4 So then when I sit down to prepare my
5 presentations, usually just the night before the
6 talk, I say to myself, "Inspiration, move me
7 brightly, light the song with scents and color,
8 hold away despair. More than this I will not ask
9 faced with mysteries dark and vast, statements just
10 seem vain at last. Some fought rise, some fall,
11 some climb to get to terrapin."

12 And then, "Maybe you'll find direction
13 around some corner where it's been waiting to meet
14 you." So I feel like we have accomplished some
15 things worthwhile in my term on the board, and now
16 we're nearing the end.

17 "So there's nothing to tell now, let the
18 words be yours. I'm done with mine." But here's
19 what my muses have to say in closing, "History's
20 page will thus be carved in stone. The future's
21 here, we're it, we are on our own. If the game is
22 lost then we are all the same, no one left to place

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1 or take the blame. We can leave this place an empty
2 stone or this shining ball of blue we call our
3 home."

4 And now my message to the continuing and
5 new members, and I am going to try and sing this,
6 and will you please sing along. "May your hands
7 always be busy, may your feet always be swift. May
8 you have a strong foundation when the winds of
9 changes shift.

10 "May your heart always be joyful, may
11 your song always be sung. May you stay forever
12 young." I can't sing. Thank you very much.

13 VICE CHAIR CHAPMAN: All right, thank
14 you, outgoing members for your service. You will
15 clearly all be very, very missed. With that, we'll
16 move on to other business and other closing
17 remarks.

18 (No audible response.)

19 VICE CHAIR CHAPMAN: Seeing none, I
20 will hand it over to you.

21 MR. MCEVOY: Okay, thank you very much.

22 The, where are we now, St. Louis November 2016 NOSB

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1 meeting is adjourned.

2 (Whereupon, the above-entitled matter
3 went off the record at 5:34 p.m.)

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