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UNITED STATES DEPARTMENT OF AGRICULTURE
    AGRICULTURE MARKETING SERVICE (AMS)
        NATIONAL ORGANIC PROGRAM (NOP)
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        MEETING OF THE NATIONAL ORGANIC
            STANDARDS BOARD (NOSB)
                    + + + + +
                    WEDNESDAY
                APRIL 27, 2011
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                The National Organic Standards
    Board convened at 8:00 a.m. in the Emerald I
Meeting Room at the Red Lion Hotel, 1514 Fifth
Avenue, Seattle, Washington, Tracy Miedema,
Chairperson, presiding.

## MEMBERS PRESENT

TRACY MIEDEMA, Chairperson
COLEHOUR BONDERA
STEVE DEMURI
JOSEPH DICKSON
KRISTINE "TINA" ELLOR
BARRY FLAMM
JOHN FOSTER
WENDY FULWIDER
KATRINA HEINZE
NICHOLAS MARAVELL
ROBERT "MAC" STONE
JENNIFER TAYLOR
C. REUBEN WALKER

STAFF PRESENT
MILES McEVOY, Deputy Administrator, National Organic Program
MELISSA BAILEY, Director, standards Division, National Organic Program
LISA BRINES, Standards Division, National Organic Program
EMILY BROWN ROSEN, Standards Division, National Organic Program
LISA AHRAMJIAN, NOSB Executive Director
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Livestock Committee - ..... Wendy Fulwider, Chairperson ........ 192
Handling Committee -
Steve DeMuri, Chairperson ..... 220
Materials Committee -Katrina Heinze, Chairperson ........ 256
Compliance, Accreditation and CertificationCommittee -
Joe Dickson, Chairperson ..... 293
Policy Development Committee ..... 311
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CHAIR MIEDEMA: Good morning, everyone. Day 2 of the Spring 2011 meeting of the National Organic Standards Board is now back in session.

I'd like to welcome members of the audience who are here today for the first time. Nice seeing so many of you this morning.

And something that a few of us were remarking on, is how many NOSB alums there are in the audience today. So, we wanted to recognize NOSB members who have served in the past.

Would you be so kind as to please stand and be recognized?
(Applause.)
CHAIR MIEDEMA: We've got a full day. And so, we're going to go ahead and get started.

First committee that will be
reporting back to the full Board this morning is the Crops Committee.

Chairman John Foster, would you please proceed?

MR. FOSTER: Sure. So, we've got two hours, correct? Two hours, right? So, we have a fairly thick agenda. Lots of things to cover.

I'm going to ask, Tracy, if you would help mind the time to make sure that we can hit each of the items for some period of time?

There's going to be some materials that take a little bit longer than others. And Crops Committee, we met briefly last night after this meeting, and we talked about some of the materials that are going to require a little bit more time.

So, be mindful of that as we hit the ones that, you know, we have a chance at going through fairly smoothly. Let's hit those.

This is a discussion day, and we have a little bit more time to talk on Friday. We can certainly meet between now and Friday to smooth out whatever wrinkles we still have. So, I just ask that we can be mindful of that. It's going to be tough to get through.

I spent a fair amount of time yesterday trying to encapsulate everything I heard yesterday. And I never get tired of hearing farmers talk about the art of farming.

I love hearing that part. It's actually the neatest part for me, is to listen to that. I really appreciate all the comments that were given.

It reminds me that there's a lot more to farming than just the hard work and just everyone slinging arrows at you.

And you can hear it in the voices, and that was really refreshing for me. Very invigorating. I very much appreciate that.

So, a lot of our Crops Committee
has been focused on sunset review, a couple of petitions and a couple of materials, but a lot of our discussions have been around sunset and I just had a couple things I wanted to throw in here in preparation for discussion.

One is that it's a real opportunity for the community, the industry to really think about renewal and review, taking stock taking chances.

A lot of us take chances in committee meetings, and there's a lot of facets here. A lot of interested parties.

And we've heard from a lot of those in public comment. A lot of the parties, a lot of the facets, and I appreciate that.

One thing I was not hearing that I just wanted to throw out in preparation for discussion was that it's - I think it's really easy to forget that materials exist only in the context of a whole.

And in - that they're used as a -
any single substance, any single material is relatively minor relative to the whole of farming.

And that's what $I$ was reminded of yesterday in public comment, that farming is a big thing. It's a big job. It's a big task, and any one material plays a very small role.

It's not that materials play an immaterial role, it's just that any one plays a minor role. And I think it's important to keep that in context as we talk about it, as we talk about each material, because it's easy to forget when we're talking as we have a lot about molecules and bonds, all important things.

But in the context of the whole, it takes on a new meaning and a richer meaning. And I don't want to lose that, because that was the thing that actually got me into organics twenty years ago is remembering that it's a whole deal and not to
get overly too focused on the too small. That's all.

So, the kind of format here, I'm going to ask each of the committee members that kind of headed up the review, the research, took a point on TR review, developed the checklist, to take each material.

But I would like just for the sake of organization, would like to take them in order on the agenda. And I'm - Crops Committee, please chime in if you see this differently, but my understanding is we're going to probably spend a little more time on tetracycline. A little more time on streptomycin. Likely a little more time on ethylene. Perhaps pheromones, sulfur dioxide.

And then of course my personal favorite, sodium nitrate and corn steep liquor.

Unless there's objections from the Committee, I would just ask, Jay, if you could start on tetracycline.

MR. FELDMAN: Good morning, everybody. Great place to begin the discussion. Dive right in with the hard stuff.

I put a little PowerPoint together to give you a sense of where the Committee was at on this issue when it made its decision, and then sort of reflecting back on the history. And I'll integrate with this, some of the comments that $I$ heard and read.

So, the big issue for this question as John said, this is a tool. It is not sort of the central issue in growing apples and pears, which is what we're focused on with the use of this antibiotic.

It is an input in a system. As we all know, the organic system. So we have, as John said, keep that in mind.

But as we're having this discussion here in this room, what the Committee became acutely aware of was that there's this larger discussion going on around
us in academic and scientific circles about antibiotic resistance.

And you can see that, and this is the cover of a CIBA Foundation symposium on antibiotic resistance.

It's a huge issue, and the Committee struggled with how we related to that as a community.

Were we exacerbating the problem? Were we recognizing the problem and trying to do something about it?

So, basically the conclusion that you come to pretty quickly when you look at the literature, is that antibiotic resistance is an important threat to human health, and that it's costly in society not only in terms of human health costs, but in terms of our ability to protect the public health.

Over time there's been a threefold increase in mortality. I'm not going to go through all these slides, but just I'm picking out the highlights.

And the economic cost to the US is estimated between 150 million and $\$ 330$ billion a year depending on the number of deaths and the way you calculate it.

Antibiotic resistance in human pathogens is increased not only by the pathogen's exposure to antibiotics - so, in other words, our individual exposure that we may get as a result of eating something that may have a residue - but also the pathogen's exposure to other bacteria not necessarily related that become resistant.

So, what we're seeing is this horizontal gene transfer. And once you put this antibiotic out in the environment, you're creating resistant genes that move laterally.

And the movement of the genetic material from one organism to another is the primary mechanism by which bacteria acquire antibiotic resistance.

Spraying antibiotic increases resistance in bacteria exposed such as
bacteria in the soil or on plants.
And here's an article that we looked at, Emergence, Spread and Environmental Effect of Antimicrobial Resistance.

Use of an antimicrobial anywhere can increase resistance to any antimicrobial anywhere else.

And this is the difficult concept to get a handle on that when we're putting this out in the environment, we're causing this - we're escalating the problem that we're struggling with.

So, we put - as you've got in your packet, we put together the environmental the evaluation criteria checklist. And we went through all that. And we can circle back to that if people have questions.

What has continued to allow antibiotic use done for fire blight management in organic apples and pears?

Well, again, depending on your perspective, we have either sort of created
the problem, or we're managing the problem.
I guess what we heard in the testimony is that the antibiotic is managing the problem.

The other perspective to think about for a moment is that we in our decision, may have - may be contributing to the problem. Because what happened is knowing we have this tool, it appears as though it supported this growth of these varieties. And here you can see the growth in Washington State of Fuji, Gala, Granny Smith, which are the big ones.

Regardless of whether it's by consumer demand or grower response to the consumer demand or whatever reason it may be, the fact remains that we have supported this.

This is supported. This transition to these varieties is supported by the fact that these antibiotics are out there.

So, when you look around in the literature -- Purdue has looked at this - you come up with this sort of list of varieties.

We heard referenced yesterday that -- some of the varieties that are highly resistant. And here, they're listing Winesap and Jonafree and all these different varieties.

We heard about some others yesterday as well. One person characterized them as inedible.

So, you know, you're facing this question of whether these resistant varieties are what consumers will buy and how we educate consumers about that.

But the reality is wherever you look in the literature, and I think this was established in the testimony, and nobody sort of disagreed with it, said the varieties we're planting and that are most common in the marketplace are the highly-susceptible varieties. And here, this supports that as well.

So, do organic producers and marketers need to follow the lead of chemical-
intensive growers, or shouldn't we market based on our strengths?

And this is both a philosophical question, but it's a question that we face with a lot of materials in terms of the appropriateness of introducing a material relative to the particular species or the seasonality of food production or whatever we're looking at in terms of manipulating nature responding to problems.

Which would you choose? And this goes to the consumer question that was raised yesterday. I am just as good as Gala, but I'm resistant to fire blight. So, no one sprayed me with antibiotics.

And here's the Gala. You know my name, but you don't know that I'm sprayed with antibiotics.

So, you know, someone came up to me yesterday and said, well, again, this is a very small use relative to all other organic practices. And my consumers understand that

I'm a responsible user of this material, and that may well be. The organic consumer might respond that way.

I think in a larger context where people are more removed from their farmer and shopping in an urbanized area and they go pick up a Gala, I suspect - I don't know what your sense is on this, but $I$ suspect they don't expect it to be sprayed with antibiotics.

So, here's the petition comes along. I want to give you the history.

We received this petition from the Washington State Horticultural Association. And they want to amend the Annotation 205.601 which allows tetracycline for fire blight control only - and for use only until October 21, 2012 .

The Crops Committee requested, but did not receive prior to adopting its recommendation on tetracycline updated $T R$, but what we had was a 2006 TR, we had a 1995 Technical Advisory Panel review.

The Committee proceeded based on its own research pending the receipt of a new TR which will be reviewed, and then I've added to this, and was received and reviewed by all of us on April 1. So, we did actually receive the final updated TR on April 1.

Now, if you feel confused or conflicted about this, I think you'll be supported by the history on this chemical. So, I want to run through the history quickly. First approved in '95, tetracycline and another antibiotic, streptomycin, which we're going to talk about, the issue of engendering antibiotic resistance in human pathogens in workers was raised at that time in the 1995 TAP review. The annotation permitted for fire blight.

Streptomycin antibiotics were to be reviewed again in two years and there was to be a task force to further explore antibiotic use in fruit production.

In '98, the proposed rule would
have allowed antibiotics is pesticides. There was public opposition to that.

When USDA published the next draft rule in early 2000, it removed the NOSB recommendations allowing strep and tetra in order to be consistent with the prohibition of antibiotics.

The two antibiotics were reinstated, however, in the December 2000 final rule. So, that's a pretty interesting piece of history.

The Board discussion regarding the 2006 Sunset included concerns about promotion of resistance - same discussion we're having today - natural substitutes, inconsistency with the prohibition of antibiotics in livestock, inconsistency with organic principles, disagreement with the prophylactic use of antibiotics, the Centers for Disease Control and Prevention opposition to the use of strep and tetra in crop production.

More on the Board discussion
regarding 2006 Sunset included failing to give an incentive for alternatives - we've been discussing that a lot - reaction against organic fruit by consumers, possibility - this is all in the historical record - possibility that antibiotics might be taken up by the fruit - we've actually come across literature which we've cited that shows translocation in the fruit, and low levels in the finished fruit mostly in the core and the peel - need for more research, restrictions on sale of fruit in Europe, disruption of the organic system.

The NOSB in 2006, also discussed the lack of data showing impact on resistance. People, you know, back then it wasn't as clear as it becomes as more literature comes out.

And of course what we hear consistently is dependency of growers on these materials.

The Board vote 2006 after expressing concern about the wish that someone
might petition to remove them sooner than the next Sunset, the two antibiotics were renewed with a vote of seven yes, four no, one abstention and two absent. And you'll note that this is not a two-thirds yes vote.

In November 2008, the Board took up a petition to add a second form of tetra by removing tetracycline annotation that limit its use to oxytetracycline calcium complex.

This would have reset the clock on tetracycline. However, and many of you sitting around the table remember this, however, because there was a general belief that tetracycline could be phased out, the Board voted down the proposal and - sorry, wrong way - and then entertained a motion to reconsider, which resulted in adding the hydrochloride to level the playing field, and ultimately the adoption of the annotation which we have before us today, which is the expiration date of October 21, 2012.

Thus seeking, I mean, this is what
was intended, to prevent any additional extensions of the Sunset period.

So, just imagine sitting - well, some of you don't have to imagine. You can remember. But imagine sitting at the table back then having this very same conversation.

Findings of our committee. The Crops Committee was presented with evidence that tetracycline can contribute to antibiotic resistance. At the same time, additional products are available to use against fire blight.

We heard yesterday about efficacy issues, problems with that. But, nevertheless, they're out there. There's still ongoing research.

The majority of the Committee believes that the first line of defense is the choice of resistant varieties and rootstocks, a concept that the Committee majority believes is a critical organic principle essential to disease or pest prevention in organic systems.

Despite this, the pattern of growth in organic apple and pear varieties in certain areas of the country has been skewed toward those varieties most susceptible.

And that's what's challenging about this. We don't - I don't think anybody wants to do that.

In 2010, the leading organic apples, we've already said this, Gala, Fuji, Granny Smith, 54 percent of apple production acreage highly susceptible.

The leading varieties in organic pear productions were Bartlett - you can see the rest here. Eighty percent of organic pear acreage again most susceptible to fire blight.

On the other hand, there are numerous apple and pear varieties that are not susceptible to fire blight. We heard they're inedible, yesterday.

The majority of the Crops Committee recommends against the adoption of the petition to amend the listing of
tetracycline by removing the expiration date on tetracycline so that the listing could stay tetracycline for fire blight control only, thus allowing tetracycline's use to expire. And that was by the deadline set in 2008. And that was by a vote of five no, because we present these motions in the affirmative, absent two.

Now, of course as John mentioned, there's ongoing discussion as to how we balance all of this. Given what we've heard and what the realities are on the ground, we haven't yet worked that out, but I wanted you all to understand what we had discussed in the Committee.

And I really would appreciate any input from any other Committee members. Thank you.

MR. FOSTER: Thank you, Jay.
I want to go straight to - Tracy, I understand you have a specific kind of question protocol in place, or do you want to
keep this straight presentation at this time?
CHAIR MIEDEMA: Let's just proceed with presentations. And if we start getting into, you know, way over time, then we'll need to impose some of the restrictions.

MR. FOSTER: Okay. Thank you.
We're going to move -
MS. ELLOR: I wanted to add to what Jay said, and there have been further discussions in the Crops Committee about, you know, how much progress has been made since this last deadline was set.

And there definitely has been progress, so, you know, we've been talking in committee about, you know, further steps we can take to possibly give more time.

CHAIR MIEDEMA: Katrina.

MS. HEINZE: I'm a little unclear on our discussion process at this point, I'm sorry, because $I$ know it's a change.

Is the Crops Committee going to present all their things and then we're
discussing everything at the end, or are we discussing them after each one?

How do you want to proceed?
CHAIR MIEDEMA: You know, that's really the purview of the Crops Committee Chair.

MR. FOSTER: I think in the interest of covering everything we should right now, I'd rather go through - go through item by item and I think they'll selfprioritize for discussion.

Is that all right?
Yes, only because it's a long list and I worry that the bottom half won't get covered at all.

MR. FELDMAN: John, I would say if there are any burning clarification questions, it might, you know.

CHAIR MIEDEMA: I have one. Yesterday it was pointed out to us that this material is called oxytetracycline.

Did that come up in your research?

I just want to make sure that for the record we're calling this material MR. FOSTER: Yes.

CHAIR MIEDEMA: -- by its proper name.

MR. FOSTER: That's what we're talking about. Sorry.

Okay. Moving on quickly to nickel, nickel was - this is a petitioned item. It's the second of two petitions in front of the Crops Committee.

Nickel has been petitioned to initially just be added to the National List. It was later - the petition was later amended to add nickel to the existing list, 205.601(j)(6)(ii), to which - a list that already includes the sulfates, carbonates, oxides or silicates of zinc, copper, iron, manganese, molybdenum, selenium and cobalt.

Nickel - I took point on this: Nickel was fairly recently recognized as an essential micronutrient by various agencies
that are all in the petition materials, and wasn't on the list of essential micronutrients at the time that the others were added to the National List.

So, the use has particular utility for pecan orchards. My understanding is that the physiology of pecans, other nuts too, but pecans particularly, is such that the nickel ions do not translocate particularly well.

So, you can have nickel in the soil that doesn't get to the crop itself, causing something called mouse ear and greatly diminish the yields.

All of the petition materials, the actual petition submitted by Rich Theuer, was quite thorough, I thought. And unless there are specific questions for clarity, I'll move to the next item.

Questions?
(No response.)
MR. FOSTER: All right. Then next up was chlorine. Give me a minute to take my thumb off the button and find it. These are now moving into Sunset materials.

Chlorine as a - it's listed on 205.601(a) as an algicide, disinfectant and sanitizer, including irrigation system cleaning systems.

The material - the three materials that are pulled out specifically in the listing are calcium hypochlorite, chlorine dioxide and sodium hypochlorite.

There's a lot of chemistry in the first part of the recommendation, but where most of our discussion focused was, generally speaking, the Committee felt it should remain on the list. However, with an alternate annotation to bring into better alignment with NOP's draft guidance.

Wanting to make those two things more consistent seemed like a good idea to us. And so, the Crops Committee recommended relisting chlorine compounds with a change to the annotation in the following way:

Chlorine materials, and then parenthetically, calcium hypochlorite; chlorine dioxide and sodium hypochlorite, wherein the residual chlorine levels in the water in direct crop contact or as water from cleaning irrigation systems applied to soil should not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

Chlorine products may be used up to maximum labeled rates for disinfecting and sanitizing equipment or tools.

And, again, the intention was to bring this into alignment with NOP's draft guidance. The vote was five yes, zero no and two absent.

Any questions on that? CHAIR MIEDEMA: Nick. MR. MARAVELL: John, on the wording there it said the maximum residual - I can't look backwards and forwards at the same time, but should not exceed.

Is that the proper word or are we looking for "shall not exceed"? I just don't recall how we wanted to portray that.

MR. FOSTER: I'm trying to find it here in the - yes, it does say right now, says "should not exceed." That may not be the most appropriate word.

MR. MARAVELL: Okay. That's fine. Just if you take note of that?

MR. McEVOY: Hello.

CHAIR MIEDEMA: Miles.
MR. MCEVOY: Yes, we have a question concerning this proposed annotation change.

The Livestock Committee has already approved chlorine for 2012 Sunset without the annotation change. So, we'd just like the Board to clarify as you move forward, if you also intend to have an annotation change for chlorine use in livestock.

CHAIR MIEDEMA: Wendy, are you prepared to answer that?

MS. FULWIDER: It's something that we would be happy to discuss in Committee meeting at break.

CHAIR MIEDEMA: Go ahead, John.

MR. FOSTER: Kind of wrapping up on that, some discussion has been had about the use of chlorine in - from 601 in post-harvest handling on farms.

And that's probably something we need to discuss as - when the time comes either in Committee or as a Board as a whole, is clarifying our expectation with respect to which chlorine - essentially which chlorine listing applies to post-harvest use on the farm.

There is some variability in how that's interpreted from various certifiers. And the intention was that if post-harvest use would pull from a handling definition, because this - the listing here on 601 is fairly specific to other uses in our reading. That was our intention, anyway.

Next materials, $I$ believe, are copper. And Jay took point on that.

MR. FELDMAN: Yes. You know, going back to the earliest TAP review on copper, there's concern raised about accumulation of copper in the soil and the environmental
implications of that both to aquatic organisms, but also to toxicity to earthworms and fungi, bacteria and most soil animal life.

And there is a - in addition to that, anyone that's worked around or with this knows that it has to be handled carefully. And that exposure can cause dermal/eye irritation, and can cause health problems, respiratory problems, et cetera.

The labels on these products that are registered with EPA are pretty strict in terms of personal protective equipment and reentry, as many of you know.

So, the Committee addressed these two aspects, the environmental implications of its use, and the worker protection issues, and
proposed a slight change to the annotation.
On the first issue, it's proposing what we have here, coppers fixed, copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance provided that copper-based - what am I missing here - copper-based materials must be used in a manner that minimizes accumulation, which is what's been in the annotation historically, in the soil and documented through - this is the new part - documented through periodic testing and shall not be used as herbicides.

So, it's that documentation that the Committee is suggesting we require. And the same thing for the copper sulfate. Must be used in a manner that minimizes accumulation, which has been the historic wording, and documented through periodic testing.

On the health effect issue, we didn't - we're not suggesting an annotation, but we are suggesting that we work with the

Program to address this as an issue to be aware of in terms of inspections and oversight of organic farms, that is, that there is strict - because of the acute impacts on health to workers, and because of the pretty serious label restrictions that we not just assume that there is compliance and enforcement which is technically regulated by EPA and its delegated state agencies, but that we integrate those enforcement issues through program guidance into NOP's guidance and oversight of inspection certification.

That way, bringing some of the questions of human health impacts to workers into the mind's eye and into our focus. And I think that would go a long way in offering better protection for those who handle and are exposed to this on the farm.

MR. FOSTER: Thank you, Jay.
Clarifying questions?
(No response.)
MR. FOSTER: Okay. Moving on.

Alcohols. This is both isopropanol and ethanol. Again, a Sunset item.

MS. ELLOR: This item actually was one that wasn't too controversial and we are recommending listing - leaving the listing as it stands. 205.601 Synthetic substances allowed for use in organic crop production as algicide, disinfectants and sanitizer, including irrigation system cleaning systems, alcohols, ethanol and isopropanol.

The vote was six yes to keep it on the list, and zero no. We had very little public comment on this.

Again, we had one public comment, as we did last time, about organic ethanol being available and we did discuss that in the Committee, but there's not that much of it available for this purpose.

We looked at the original TR, and we also got an updated $T R$ on this through the Livestock Committee. Which, you know, the Livestock Committee requested it.

So, I think there's not much more to say about this material, but that we would re-list it as stands.

MR. FOSTER: Questions?

Clarifications?
(No response.)
MR. FOSTER: Thank you, Tina.

Barry, newspapers. And I believe you also had plastic mulch covers.

MR. FLAMM: Yes, thank you.

There are three items that I'll make a general statement about this group of newspapers and plastic mulches, but - and then I'll address each one individually.

These three materials were put on the list in 1995 apparently by action of the Board, because there's no record of petitions. I'll have to say the record is fairly scanty on these materials. We did request TRs, but these were not received.

However, saying that, these materials are relatively non-controversial.

And the points of controversy I'll bring up in a moment.

Generally on the newspapers, and I want to first say that newspapers has two listings. The first is under essentially as a weed barrier, herbicide, weed barrier mulch.

And the record although scanty, does not indicate any particular health or environmental problem. It's been used by some in organics for quite a long while. So, there is no adverse comments on the use of that.

The Committee voted six yes, zero no and one absent to continue the listing.

The second mulch item is a plastic mulch. And in this case, we received a number of interesting comments.

I'd like to point out the Act itself prohibits the use of plastic mulch unless the mulches are removed from the ground at the end of the growing season. And that's where we got comments from people who want to leave the mulch on the ground.

We also got a number of comments discussing bioplastics partly for the purpose of being able just to leave them and have them decompose.

And this might be an attractive use at some point, and there's been efforts in the past to try to solicit a petition on bioplastics. But that has not come forward, and I think there are a lot of issues.

For example, one commenter who makes bioplastics, but is using corn, it was not mentioned whether that's conventional corn or not. And of course if it was conventional, it would be GMO, and that raises a whole host of other problems.

In any case, the Committee did vote. Again, six yes, and zero no, and one absent to continue that use.

And, finally, the other use of newspapers is in composting, and that turns out it's mostly in a sort of auxiliary kind of use where papers are mixed with other
compostable materials.
And the public comments agreed with the continued use of that material, and so did the Committee. And the vote was the same as on the other materials.

MR. FOSTER: Questions? Clarification?

It is important to note that the newspapers are two separate listings as Barry pointed out, just to make sure that's clear.

Question, Mac?
MR. STONE: I just point out that there are agronomic situations where the plastic, you could double-crop it and come in with a second crop behind. Or in our climate, we go into winter harvesting the crop up until freeze.
And if it's in good shape, it would be nice to go back in it in the spring without pulling it up and relaying a new sheet.

So, there are some situations
where that annotation is a little bit costly, if you will.

MR. FLAMM: And if I could comment, that is in the Act itself. So, that presents a unique problem.

MR. FOSTER: Thank you. More questions there?
(No response.)
MR. FOSTER: Moving on, Jay, I believe you had pheromones. Let's bear in mind we want to leave as much time for question and answer at the - in front of the whole Board, too.

MR. FELDMAN: Since this is somewhat controversial, $I$ just put a quick PowerPoint - this is quicker than the other one.

Okay. So, what we're talking about here are pheromones. These are alarm pheromones, bring bees to sting an intruder. Aggregation pheromones bring together clusters of butterflies or lady beetles. Ants lay down
trails of pheromones. Many kinds of insects release pheromones to attract a mate.

Now, when you look for actually what we're talking about in terms of pheromones, it's such a vast number of chemicals and I just listed some here.

But if you go to this website Pherobase, you can see the hundreds of different compounds that we're talking about. And then they can be classified by functional group.

I just want to just put these two slides up here to show you the complexity of what we're dealing with here.

Pheromones are volatile, effective in very tiny amounts as varied as the species that produce them.

We use pheromones to attract insects to a trap, which has been quite effective. And as we've heard in public comment, incredibly important to organic production.

Attracting insects works with small amounts that insects can follow to the source. And it's also used to confuse insects. Larger concentrations confuse insects because they can't follow the trail. The pheromones produced by us, these are synthetic chemicals that may be identical to the pheromone produced by an insect or a stereochemical isomer of the chemical produced by the insect, another chemical that the insect recognizes as being the same as the actual pheromone - and this is the key, this next point -- in formulations that usually contain a high proportion of socalled inert ingredients.

So, evaluating pheromone products also means evaluating the inerts. Inert ingredients are not biologically chemical active always. In fact, probably most of the time inert ingredients are those ingredients in the pesticide formulations for which no pesticidal activity is claimed.

That doesn't mean it's not biologically and chemically active, as the next bullet says.

And then, inert ingredients are not disclosed on the product label. So, an individual farmer user doesn't have that information by looking at the label.

Pheromone products then contain a very small amount of volatile chemical that acts like an insect pheromone. A much larger amount of the volatile chemicals that have various uses and effects to dilute, to carry as synergists in many more uses. Other ingredients, as you well know, include glues in cardboard and plastic. So, it's on the National List. It's 601(f) as an insect management tool.

And then we have under - and in that context under 601(m), synthetic inert ingredients are classified by EPA for use with non-synthetic substances or synthetic substances listed in this section and used as
an active pesticide ingredient in accordance with any limitations on the use of such substances. And then one is EPA List 4, inerts of minimal concern, which are allowed. And then we also allow in this annotation, inerts of unknown toxicity. And key to this is that inerts are used in passive pheromone dispensers.

So, that's in our current law. That's the current annotation, inerts used in passive pheromone dispensers.

So, our job obviously in the Sunset is to review these exemptions and prohibitions provided in this section every five years.

If you go back in the history of this category of chemical either active ingredients or so-called inert ingredients, we requested a Technical Review, but it was not performed, which is key to this discussion. Even though the inerts are not up for Sunset now, we need to take them into account.

You would think the Board needs to - needs an appropriate course of action for dealing with huge uncertainties.

So, here are our choices: If the Board chooses to renew the listing with no change, then we are not doing our duty to renew them - to review them. Sorry.

If we delist them all, then we are removing products that have enabled organic growers to avoid much more toxic chemicals.

We need to identify a group of pheromone products that are reasonably sure to be safe. That's our goal here.

Now, when EPA creates its category of so-called $25(\mathrm{~b})$ pesticides, it lists pheromones and pheromone traps, pheromone and identical - these are ones that are exempt from registration. I'm not going to go through that.

And then the Crops Committee recommendation is to amend the current listing
of pheromones to read as insect management pheromones provided that they are in passive dispensers - and this is what we've added without added toxicants and with only approved inerts.

So, let's take that in two sections. Without added toxicants means we're basically holding harmless what is - when pheromones first came out, as you remember probably thinking back, a relatively narrow group of products.

It has exploded, and that's probably a good thing, but we haven't evaluated them.

The question is we need to evaluate them. How are we going to evaluate them? And what should we do in the interim? So, this language is intended to basically hold harmless what's in place until we have a chance to evaluate them rather than letting the market triple, quadruple or whatever during that time frame.

And with only approved inert ingredients, well, all the List $3 s$ are currently approved, but this gives us the ability if and when, through the working group and other actions of this Board, we decide to limit List 3 or re-categorize them in some way as EPA has done, then this language will apply. This language will go into effect.

It will curtail the inerts that we as a Board later on down the road decide to curtail.

There was one comment that came in that - actually, full disclosure came in from Beyond Pesticides and was endorsed by National Organic Coalition -- that would say are identical to or substantially similar to natural pheromones as defined in the EPA exempt from registration. So, that's something we can discuss tomorrow or later today.

OMRI commented on this further. We suggest that you consult with EPA on the
definition of "passive dispenser," because this has been a question.

As many of you may know, OMRI currently understands it to be dispensers that do not come into direct contact with organic crops.

For example, OMRI has been unable to determine if a putty-like pheromone dispenser intended to adhere to the organic tree trunk can be considered passive.

And I talked to some growers yesterday, Washington State growers, and the common use here, apparently, is the - are the ties, which I think most of us think of when we think of those ties that you put on the branches.

Now, this just came in recently from an e-mail conversation with Chris Pfeifer who is the EPA rep on the Inert Working Group.

He said in the original anthropod pheromone rule, EPA defined "passive dispensers" as those in retrievable polymeric
matrix dispensers.
As I understand it, the definition was created to characterize the products that were out at the time, and to guard against eco fate issues, plastics, plasticizers littering the landscape.

That was a big concern historically. Passive dispensers are those which emit pheromones by volatilization rather than by spray, and produce a concentration of pheromones in a limited area.

In that session toward the end of our day yesterday, I asked the question as to whether puffers were being used, these are emitters of materials, as opposed to the ties which create their effect through volatility, volatilization.

And the response I got from the Washington State rep or professor was that they are not used at least to his knowledge in Washington State in organic production. Thank you.

MR. FOSTER: Thank you, Jay.
Clarifying questions? Thoughts?
(No response.)
MR. FOSTER: Moving along, I recall, is sulfur dioxide. We have Tina, I believe.

MS. ELLOR: Yes. And sulfur dioxide turned out to be -- we thought that it wouldn't be a very controversial thing, but once we got the $T R$ and got some new information, we realized that possibly it is. What we found out from the new TR, and I think it will probably be up on the board in a minute, is that the US EPA has not registered sulfur dioxide for use as a rodenticide.

However, US EPA has registered rodent control smoke bombs with the active ingredients sulfur, charcoal, carbon and sodium nitrate or potassium nitrate, saltpeter.

So, what we have on the list is
something that's actually not approved for this use. And, you know, we sort of counted on people giving us comments about, you know, whether they were using them or not. And it turns out they are being used and are a pretty important part of rodent control, you know. However -- and I hope we'll discuss this further because, you know, I find it a little confusing. But since it's not approved for this use, we voted as a Committee not to re-list it for this use unanimously, with one absent.

MR. FOSTER: Clarifying questions on this kind of sleeper of a material?
(No response.)

MR. FOSTER: Okay. Okay. Next up, another material with rodents in mind. Vitamin D3.

MS. ELLOR: Since there are few available rodent controls in crop production, we voted to keep Vitamin D3 on the list. Five yes, zero no, two absent.

We had a lot of discussion within the Committee about collateral damage. And I think it was Nick that looked up some labeling information. And it is very strictly labeled for use in traps -- or as bait.

MR. MARAVELL: Bait stations, to minimize collateral damage to non-target animals.

MS. ELLOR: Right, and that was our major concern in our discussions. So, this one actually, I think, is not all that controversial and we did vote to re-list it.

MR. FOSTER: Any clarification there?
(No response.)

MR. FOSTER: Next, Jay.
Streptomycin, right? Is that right, Jay?
MR. FELDMAN: I'm not going to go through all the issues again because they were already stated. I'll just tell you what we decided based on the information we had.

The Committee took the same vote
on this as it did on the streptomycin and again looked at the - I'm sorry - on tetracycline and looked at the history.

And on the motion to re-list streptomycin on 205.601 for fire blight control in apples and pears, the vote was five no, and two absent. Thank you.

MR. FOSTER: Thank you. Thanks, Jay.

Clarifying questions?
(No response.)
MR. FOSTER: Just worth noting very often -- we talk about streptomycin and tetracycline in concert very often. So, one has effects on the other. So, I assume we'll get some questions on that eventually.

MR. FELDMAN: Yes, I mean, just to clarify that there, they do operate somewhat differently, as we heard yesterday, in that streptomycin is used in a more curative sense. You can use it after the blight is recognized.

Tetracycline has to be used
preventively, in a sense, based on some modeling. And applications occur, in a sense, prophylactically with the assurance based on the modeling that there's a fire blight on the way.

Yes, but the resistance issues seem to be similar. Although, we did hear testimony yesterday that they don't see resistance in Washington state to tetracycline. Although, there is some literature and certainly in the human area, we're seeing resistance to tetracycline along with streptomycin.

So, the resistance issue weighs heavy in both cases.

MR. FOSTER: Just a reminder there, microphones are good.

MR. MARAVELL: Based on what we heard yesterday, I am not exactly confused, but I think that, while the mode of action is different in tetracycline and streptomycin, that actual practices for spraying based on
the models and based on the window of when the crop is most susceptible, the actual practices of spraying are probably fairly similar.

So, if there's any other members of the Committee that could clarify that, but it seems like it can be sprayed preventively in both cases, you know.

It's a fine line. It's a very fine line between what's preventative and what's prudent.

MR. FOSTER: Thanks. Thank you for that.

Next up, lignin sulfonate.
MS. ELLOR: Okay. Lignin sulfonate. If we can get this up so I can see it, lignin sulfonate has two listings on 205.601(j) as plant or soil amendments, lignin sulfonate chelating agent, dust suppressant and flotation agent, and (l) as floating agents in post-harvest handling.

So, it was pointed out in Committee that that's a duplicate listing.

And I guess we could fix that, you know, with this docket.

So, it's listed twice as a flotation agent. So, we could just remove that first one and it would be consistent.

We went back through old testimony on this from the last Sunset, and also I do believe we did get a new $T R$ on this one.

And we did have some public comment on lignin sulfonate as well from a couple people saying that it was just mostly used for pears. And that there's equivalency difficulties, $I$ think it was with Japan, so that, you know, it was suggested we adjust the annotation to say as flotation agent with pears, for pears or whatever. But we haven't discussed that as a Committee, and we might do that later.

The Crops Committee, the big issue that came up in the last Sunset discussion and one that came up in our discussions as a Committee this time, was the fate of the
lignin sulfonate in the environment.
So, addressing that, the Committee recommendation is to re-list lignin sulfonate on 205.601(l) with the amended annotation as floating agents in post-harvest handling subject to wastewater disposal documentation in the Organic Systems Plan to prevent impact to aquatic life.

And the second one is re-list lignin sulfonate on $205.601(j)(4)$ with the amended annotation chelating agent, dust suppressant, just cutting off the duplicate listing for -- as a flotation agent.

The Committee vote was five yes to re-list with the annotation, zero no, and two absent.

MR. FOSTER: Clarification
questions there?
(No response.)
MR. FOSTER: Thank you, Tina.
Next up is magnesium sulfate.
MS. ELLOR: Magnesium sulfate, and

I have to, in the interest of full disclosure, say that $I$ was in the minority on this one. So, if anyone in the majority wants to jump in on this, but the Crops Committee has recommended letting this drop off the list. It's listing is (j) as plant or soil amendments. Magnesium sulfate allowed with a documented soil deficiency.

The Committee vote was two yes to re-list, and three no. So, It's a very split vote.

We did not have the Technical Review in our hand, you know, as we took this vote. And that came up a lot in public comment.

The two of us who voted to keep it on, you know, cited that, without that information -- and we did send it back for additional information, and I can -- I can -we can, you know, look at those questions during discussion -- that it has a long history of use in organic and we'd like to
keep it on.
And I think that the majority, we were kind of told in our Committee deliberations that there were fully natural alternatives to this synthetic.

And that turns out -- we had a lot of public comment saying that that indeed is not true. So, that's what's going on with that material.

MR. FOSTER: Thank you, Tina.
Clarifying questions?
Katrina.
MS. HEINZE: Am I properly
interpreting your last statement to mean that the Committee is now recommending re-listing?

MS. ELLOR: I think we'd have to leave that up to the individual Committee members based on public comment.

So, we didn't go back into Committee and change our recommendation. But based on public comment, you know, it's possible that Committee members might have
changed their mind on that.
MS. HEINZE: Thank you.

MR. FOSTER: Thank you for that.
Next up, Colehour. Ethylene -oh, I'm sorry.

MR. WALKER: You mentioned there were some possible natural alternatives; could you name some of those? Did the Committee come up with possible alternatives to magnesium sulfate?

MS. ELLOR: And that's the
interesting, I guess, the interesting point is, in fact, there are none commercially available, apparently. And OMRI sent that comment through.

MR. FOSTER: Okay. Thank you.
Next up, Colehour. Ethylene gas.
MR. BONDERA: Okay. I will try to be straight and simple, but we'll see. I haven't done this before. So, bear with me.

So, ethylene gas, it's on
205.601(k) for regulation of pineapple flowering.

So, the Crops Committee, we had a Supplemental Information Report on the induction of pineapple flowering. And there's reference in it about various, you know, pineapples are grown only in Hawaii and California in the United States. It doesn't make up very much of the global production. We found the report to be sufficient, but still sought additional information from where pineapples are mostly grown.

I think we talked about scaled operation and impacts on others. Discussed -we discussed alternatives from Africa to Taiwan in terms of the research on this, because there are other methods that are used internationally for induction of flowering in pineapples.

And I think, you know, one of the big things that we talked about really is operation size and location, you know.

Unnatural pineapple flower induction facilitated through synthetic -- this is a synthetic -- synthetically sourced petroleum ethylene gas, we discussed in the Committee how it's inconsistent in a lot of different ways with overall organic standards.

And the motion that we considered was to continue the listing in a positive way of ethylene gas as a plant growth regulator for the induction of pineapple flowering.

So, you know, since then we've had public comment. And I am certain that we will have some public comment tomorrow primarily from Costa Rica. But it essentially comes down to the export from a country where there is an export market that was created about this allowance of ethylene gas being used for the induction of flowering.

I think that, you know, that one case example, in my opinion, is not adequate information in terms of what is -- it's not the whole picture.

I think that, you know, I'll throw out to you the fact $I$ am from Hawaii. And, you know, in terms of a conflict of interest, the truth is I have organic pineapples on my farm.

And not only do I not consider the induction of flowering, I think that the truth is the consumer demand is such that there's absolutely no reason for it.

I think, you know, talking to -and at this point in time and if you look historically, it's not true, but at this point in time there is not very much large-scale pineapple production.

There used to be Dole. There used to be a large scale in the state of Hawaii, but that's no longer the case.

I mean, there's essentially one large-scale, and large in quotations, pineapple producer in Hawaii. And, you know, the goal is to be able to harvest and ship the product for export in volume.

And I think that, you know, I will in a few seconds, wrap this up by trying to address that.

I think, you know, I think that John will tap me on the shoulder when this gets too weary, because I think the truth is that, you know, are we basing -- can organic standards really be exclusively based on the needs of large-scale operations, or do we have to look at the overall -- do we have to look at the bigger picture like John introduced this?

Do we want pineapples, for example, year-round? Pineapples don't grow year-round.

Do we want pineapples to compete in the marketplace with the chemical approaches, or do we look at the whole picture?

Do we look at the environmental and the health and the whole cost with that? And I think that that's a big question.

The Crops Committee recommended against the continued listing of ethylene gas. And I want -- excuse me -- I just want to make a few comments.

You know, you may or may not be that familiar with ethylene gas. But, you know, from a physical perspective, you can look really quickly and there's a long list of many things you are familiar with and many things you may not be that familiar with.

But from apples to honeydew melons, to kiwi, to pears, to plums, you know, to all kinds of other things, passion fruit and papayas, you have a natural release of ethylene gas. It's not that it doesn't exist naturally. It does exist naturally.

However, I just for a second want to say that, you know, based on public comments and on the basic understanding or organic foundation blocks, $I$ really don't think that a decision on, like I said, international and export rationale, we really
need to look, in my opinion, towards a gold standard.

And I think that the question is are we as the NOSB, and I think that this goes back to my personal truth and, you know, is our goal to simply ensure the status quo, or are we looking to make sure that we have a clean and pure crop as much as -- sorry. Excuse me.

Do we want to maintain that present system is one conclusion, whereas the whole goal to maintain and ensure organic integrity, I think, is the other question.

And I think that we have to look at that whole question about compatibility with the system of sustainable agriculture.

And I think that just -- and I am going to wrap up. You know, for me, I think that this is all -- I'm considering this all off-topic in some ways because, you know, am I talking about process here, or am I talking about the subject of ethylene gas?

And I think that we really need to decide -- sorry. I'm just going to read this briefly.

If we're making a recommendation to the NOP and if we're going to make an informed presentation, you know, like I said, are we going to default to the status quo, or are we going to try to resolve the question by saying that there's unanswered questions about this.

In our -- the information we have that we were considering the decision upon honestly and seriously was not sufficient information.

If you look, you can go -- and if you go to African countries, you go to other parts of the world, you know, there's companies like TIFBio who is doing organic farming, compatible flower induction treatment of pineapples without ethylene gas.

And this is not uncommon if you look -- I'm sorry. I think that, you know, we
have to review and look at who is going to testify about this coming up in this context.

Who are we going to get input from? I'm not going to get input from people in Taiwan or people in Africa. They're not going to send -- this doesn't affect them because they're talking about -- we're talking about US expert, essentially, getting pineapples to the United States instead of backing off and looking at the whole picture, and I thank you for bearing with me.

MR. FOSTER: Thank you. Any clarifying questions on there?
(No response.)
MR. FOSTER: All right. Moving on. Last of the 601 Sunset items. Sodium silicate.

MS. ELLOR: I don't have that as one of mine, but I'd be more than happy to talk about it.

MR. FOSTER: Would you, please?
MS. ELLOR: Sure. Yes, I don't
remember who did that. Was that you, Jay?
MR. FELDMAN: I did.

MS. ELLOR: Okay. Do you want to take it?

MR. FELDMAN: Thank you. Too focused on CSO right now.

So, this is 601(l) as a floating agent or floating agents in post-harvest handling. Sodium silicate for tree fruit and fiber processing.

We requested, but at the time we did this we didn't have the TR. And, again, as you pointed out, Tina, we received a fair amount of criticism on that fact that for some of these we didn't have TRs.

But in many cases, we did get a TR shortly after we made the Committee decision. But in this case, we didn't.

But, again, we looked at this and we were hoping to get public comment on this, as we have, as a way of informing the Committee.

But we took the position that lacking the information in this case, at least the majority did that, and knowing what we knew about its use pattern, that we were -five nos, two absents.

So, we're recommending against the continued listing of sodium silicate allowed for tree fruit and fiber processing as a floating agent and post-harvest handling.

And, again, the motion was in the positive. So, again, the vote was five no, two absent.

So, my sense is we'll consider the public comment on this, which we didn't have the benefit of when we looked at this. And I imagine this will be on our agenda when we regroup between now and Friday. And we're looking forward to more public comment on this.

MR. FOSTER: Thank you, Jay.
Any clarifying questions?
(No response.)

MR. FOSTER: Thank you. Moving on to, next sodium nitrate. This is a bit of an oddity in that it's a 602 listing, a prohibited natural, that is up for Sunset.

The current listing is 205.602(g) sodium nitrate, unless use is restricted to no more than twenty percent of the crop's total nitrogen requirement.

This twenty percent was a derivative of pre-NOP -- many pre-NOP private standards.

Interesting here, it's a little interesting in that it was typically called a restricted material. So, restricted allowance as opposed to how it's structured here, which is prohibited with an exception, and that that exception is a little unwieldy.

So, I just want to make sure everyone is clear on where it falls on the list, and that makes the sunset clause a little more -- a little different in that if the material were to come off of 602 , then it
would -- then the material would be allowed without restriction.

That's a little different than any other of the materials that we have encountered so far. So, I just want to make sure we're all clear on that.

Hold on. I'm scrolling and --
this recommendation was designed also to address the NOP's request that we review it in the context of essentially export requirements.

The Committee spent a fair amount of time discussing that and wanted to recognize the need to respond to the NOP. We hopefully did that in the context of this recommendation.

The consensus was that, since export requirements are not a decision-making criteria in OFPA, or the regulation, that we wanted to be respectful of their request, but chose instead to look at what the -- kind of the foundation principles were that led other
countries to make their consideration that sodium nitrate was not appropriate or allowed in organic production.

That being said, the Committee recommendation was to re-list sodium nitrate on 205.602(g) without an annotation. And this would be a complete prohibition. The twenty percent allowance would no longer be in place.

So, the vote there was seven yes, zero no, and zero absent.

Any clarifying questions?
(No response.)
MR. FOSTER: Okay. Last on our list is again something of a unique situation where the Program asked us to deliberate on the determination of the synthetic or nonsynthetic status of corn steep liquor.

Those of you who have been part of the discussion for some time now are likely aware it's been fairly contentious.

There's been a great deal of public comment on this. All of which we have
listened to and absorbed. I assume this will take some of our discussion time close after.

I would prefer to spend most of our time in discussion on this. So, I'm going to keep the majority opinion on this very brief.

I think also, Jay, if you could keep a minority discussion fairly brief just to allow more time for discussion; is that okay?

MR. FELDMAN: Yes.
MR. FOSTER: Thank you. Real quick: in an Action Memorandum dated April 23rd, the NOP requested the NOSB review corn steep liquor concerning its classification as synthetic or non-synthetic as an input for crop production. This was for the fall 2010 NOSB meeting.

The Crops Committee was asked -asked a number of questions of the Office of Science and Technology, who at the time was, my understanding at the time, the contracted
party for the NOP to answer some of these questions.

We had questions around changes in molecular structure and the significance of those changes, questions about the physical reorientation of atoms, whether or not that constituted a chemical change, what other materials were made from this process that are currently on the National List and how would those be affected if we determine that this process causes chemical change sufficient to be designated as organic, also asking the question, can corn steep liquor be made without the use of prohibited substances, and are there other materials that are more benign that can be used to make CSL or corn steep liquor, and then are there other permitted materials that could be used instead of CSL for its current use?

The Technical Review was received in February of 2010, and did not answer these questions directly. However, we knew we
needed to proceed with discussions.
This determination was discussed over the course of a number of weekly Crops Committee meetings. It took a substantial amount of time, all well worth it.

The eight-page recommendation also includes a number of -- a formal minority opinion which I'll let Jay summarize, a synopsis.

But in the end, the recommendation at this time, this was in January, Crops Committee recommended that corn steep liquor produced via the countercurrent corn wet milling process be considered as non-synthetic and allowed for use in organic crop production. The vote was four yes, three no, and zero absent.

Jay, do you want to summarize the minority?

MR. FELDMAN: Can I have five minutes to go through this just for the -MR. FOSTER: I would prefer
shorter, but also we'll have time for discussion beyond that.

MR. FELDMAN: For the new members, I'd just like to lay this out.

I mean, what happened was we at our last Board meeting, we had a discussion on this and the Committee decided to pull back the decision because we were given new information.

What was presented as new information during the Board meeting, we felt we needed to evaluate that new information.

The TR concluded that there was chemical change occurring. The $T R$ we received as a Committee, concluded that there's chemical change occurring.

CHAIR MIEDEMA: Jay, we can't hear you very well. Can you move your mic closer?

MR. FELDMAN: Yes. And since there's chemical change occurring, we voted -the majority of the Committee initially voted that this was a synthetic process resulting in
synthetic material.
When we received testimony similar to this meeting that was so contrary to that, we pulled the recommendation, the motion to try to get some independent verification of the position that this was in fact not a synthetic process, not a chemical-change process. That was our task as a committee.

So, we found a researcher who works -- basically has worked on the corn wet milling process for about almost two decades. And works, coincidentally, for the Agricultural Research Service in Wyndmoor, Pennsylvania.

And he's written thirty different articles on corn wet milling. He's researched it. He knows most of the plants in the country and he knows the process. So, we felt he was a perfect candidate.

I'm just going to run really quickly through this. So, this is a question of organic integrity for us on the minority
side. We want to see an objective review and transparency.

The process, and this was the conclusion which is in the minority, the process of making corn steep liquor is different from natural practices that are defined in our standards expressly because the process requires adding a synthetic chemical to an otherwise natural steeping lactic acid fermentation process to effect chemical change necessary to the end product being created.

Now, that's not enough, of course. We're not judging the usefulness of whether this could be a useful material for farmers. That's not the question before us. It's a foundational issue of how we define chemical change.

But we can't just say that a synthetic's been added and, therefore, it's chemical change. That's not what this committee or the minority is saying.

We have to evaluate this in accordance with the Board policy, which is three guiding principles, that the classification of materials determined by both the source of the inputs and the process used to make the material, the same chemical can be agricultural, non-synthetic or synthetic, depending on the source.

If a material is processed such that it is classified as synthetic, then the material is classified as synthetic regardless of source.

In the case of corn steep liquor, we have a material whose source is nonsynthetic. However, the source is only the first issue of concern.

The standard requires an assessment of the wet milling process to which the corn is subjected to determine whether it should be classified as synthetic. We have a lot of materials, as you know, in organic that start from an agricultural material or food waste. The
question is, then what happens to it.
So, we have to look at the classification and ask ourselves a series of questions. The source of the material is not from mineral plant or animal matter, and not a substance by naturally occurring biological processes -- this is how our Board policy reads, or the process used to manufacture material is synthetic, or the material contains a significant level of synthetic substance not on the National List of allowed synthetics. This is our policy.

It's our belief that chemical change occurs -- that occurs when an agricultural material is processed by itself or in combination with other agricultural materials, the resulting materials should continue to be classified as agricultural.

Clearly, chemical change happens in these cases if looked at from a purely chemistry perspective. But from a consumer perspective, these materials are agricultural.

So, this was the Materials Working Group. A little bit of history for the new people.

Synthetic, again the definition in our policy is substance as formulated or manufactured by a chemical process, or by a process that chemically changes a substance extracted from a naturally occurring plant, animal, mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes.

So, what you'll hear in testimony is that in fact what's happening to corn steep liquor is a natural process. And this is what we had to ask David Johnson.

So, I'm going to skip over all of this because you'll read in the minority opinion that we met all the thresholds for what our policy says in terms of synthetic chemical change, but who have we heard from?

This is where the crux of the matter is. We get a lot of information on
this Board. Some of it comes from industry, some of it comes from academia, some of it comes from government, some of it comes from public interest, and we have to sort all this out.

What's happened in this particular case is we have two sets of information. We have government information coming from the TR and a government researcher, and we have industry information coming from the manufacturer, the formulator and from the organic -- or the trade groups and the trades. And, basically, those two positions are at odds with each other.

So, we're in a situation where we have to judge this thing on its merits and we have to go through, I think, almost a decision tree. And I hope we have time to do this in discussion or in side conversation.

But when Dr. Johnson met with us, we threw these questions up at him. Is corn steep liquor a different substance? These are
all the criteria that the Board has traditionally used in terms of defining chemical change.

And he's saying as, again, a third-party independent source of scientific information, he's saying he's agreeing with the Technical Report because the sulfur dioxide, the sulfur dioxide, again a synthetic material, is needed to break the disulfide bonds. And that's the mechanism that's working here.

There are new chemicals formed. Again, another criteria established by the Board. There are new chemicals formed due to the addition of the sulfur dioxide. These are formed during the breaking of the disulfide bonds.

And if we go through some of the Other questions, is the breaking of the bonds in the corn matrix a necessary part of the countercurrent wet milling process?

Again, here's a guy who's worked
in this field as a food technologist. It is also clear from these studies, that without the addition of SO , that the protein matrix is not degraded sufficiently to produce good starch yields.

So, I'm going to stop there, but I realize this, you know, we've been at this a long time and I realize people are going to bring different perspectives to this. But if we don't get this right, $I$ think we have a problem going down the road.

We've heard a term that came up in our pre-meeting that we had before the NOSB meeting where somebody said you can't be married to the outcome going into these conversations. Because if you're married to the outcome, then you're going to try to find justification for what you want the outcome to be.

And I think if you read David Johnson's responses, and I urge you to do that before you vote on Friday, it's included in
the Crops Committee comment portion of our packet, you'll see that he's answered every question that the Board has required us to ask in the context of chemical change.

Are we breaking bonds? Are we creating new chemicals? Are there resulting residues? Would this happen naturally? Would it happen on its own? Is it purely a fermentation process? How it is not like adding wine to sulfites. This is not a processing aid. This is a manufacturing process.

And so, if you look at those questions clearly and you're not married to the outcome, I think the minority believes we really don't have a choice. And that's not, again, a judgment as to whether this could be a valuable product, whether it has qualities that can aid in the organic system approach.

I just urge you to take a --
before you vote, sit down ten minutes, read through Dr. Johnson's response carefully and
take it for what it is.

I mean, the guy doesn't have a horse in the race. He's a government researcher and $I$ think he offers us some insights that will help us down the road as we look at these questions, unfortunately, somewhat technical questions that we have to look at when we define chemical change. Thank you.

CHAIR MIEDEMA: Katrina.

MS. HEINZE: I have a process question for John. I'm apparently an old dog who's hard to retrain on the discussion. So sorry.

How do you want to organize the discussion? I was going to suggest perhaps we do petition materials, get those done, then Sunset and then CSL or some sort of order so we're not jumping between everything.

But maybe you could just say how you'd like this to go so that we can respond accordingly.

MR. FOSTER: In general, I would prefer to start with Sunset. We've prioritized things. We've deprioritized things that were not Sunset, in many cases. I want to make sure that we cover those things. I think that's our first, you know.

Now, having said that, obviously some of the issues before us, the most contentious ones are either petition or something else still, but $I$ think our first job ought to be Sunset.

CHAIR MIEDEMA: John, we asked Mr. David Johnson to hang around for us this morning as an expert in-house on oxytetracycline. And I would just ask that respecting his time since we told him we were going to take that one up first thing in the morning, that we get that one to the top of the queue.

MR. FOSTER: With that in mind, I am happy to oblige that. Tetracycline first, then Sunset? Suitable? Sorry, yes. Then CSL
or sodium nitrate.

I mean, we've got a lot to cover. But, yes, tetracycline first, Tracy, to your point.

CHAIR MIEDEMA: Okay. We're not going to have enough time to get through our discussion before we're going to want to take a break, but let's do try to get a couple of these bears wrestled before we take a break.

MR. FOSTER: All right. Questions about tetracycline.

CHAIR MIEDEMA: I have one.

Where did the Committee come up with this information about the blightresistant items tasting just as good or being just as good?

And this is going to be a completely single data point of my household, but the amount of organic apples consumed in our house is pretty extraordinary, and I can't get my kids to eat Red Delicious, Golden Delicious and Granny Smith anymore.

And my apologies to any growers in the room that those are their pride and joy, but they don't taste very good.

And the idea of tossing out all the great-tasting apples is something I'm not very comfortable with as a consumer.

MS. HEINZE: Okay. So, that's really funny because my written note here says exactly the same thing.

So, we eat -- I buy 20 apples every week for our family. And every couple weeks I buy Red Delicious because they're a buck cheaper at my local co-op. And at 20 apples, you know, that's kind of like it actually moves the dial on the grocery receipt, and they won't eat them.

So, if that's all I buy that week, I am eating 20 Red Delicious apples that week. So, that's funny that you said that. So, we have two data points.

So, that being said, I was, Jay, all levity aside, you had one slide in your
presentation that $I$ just wanted to make a comment on. So, you had the picture of the two apples with their little labels, hi, I wasn't sprayed, and, hi, I was sprayed.

The apples aren't sprayed, right? The flower -- we heard testimony that there's virtually no residue of the antibiotics in the apples. So, I just want to remind everyone that we did hear that testimony.

And so, it's a little bit misleading to have had that label.

MR. FELDMAN: The data we received in the TR, again, you know, we're going to hear testimony, but we have to rely on the science that we receive and then balance that, you know, the Committee receives a TR and we base our decision on that.

Now, if we open up the Committee process and disclose the minutes, we might have gotten these comments earlier. But the comment we had was from the $T R$ that the material is sprayed in apple production,
translocates through the plant material, and residues are found in the fruit principally in the core and the peel.

That's the data we received in our Technical Review.

CHAIR MIEDEMA: Katrina.
MS. HEINZE: I understand that that's what the Committee got in their Technical Review. Part of the reason we have public comment is so that people can bring other data.

So, I was just highlighting for people as you make your decision, that we've had public comment that has other data.

CHAIR MIEDEMA: Barry.
MR. FLAMM: As an apple -- previous apple grower and apple eater, I'd like to comment on this quality.

I grew eight different varieties of apples, none of which were Gala or Fuji because I wouldn't plant them, because I knew they had disease problems. And I didn't have
any Red Delicious, because I think that's a misnomer.

I had eight different varieties -(Laughter.)

MR. FLAMM: -- eight different varieties of delicious -- of good-tasting apples, I should use the word. The most common was McIntosh which was the premier apple in Bitterroot and in Montana. And it's been kind of driven off the market and off the market shelves because of the apples being grown elsewhere mostly in Washington and just flooded our market.

But this was a premier apple, and it's a great-tasting apple, so I have to raise objections that there isn't any other good -there's heritage apples out there that are better than anything that -- and these all of a sudden, you know, we're talking about varieties that are really new on the market that you couldn't even find a couple years ago. At least not on any store shelves in

Montana. And now, they have occupied the apple space.

So, I have to dig deep in my root cellar to get the apples that taste good. Excuse me for that.

CHAIR MIEDEMA: I'd like to hear from our experts a brief summary of the research on alternatives. Just again for the benefit of this Board, when we might expect to see some alternatives, promising research, you know.

I don't feel like we have to hold, you know, anybody -- pin anybody's ears back that this is absolutely going to happen, but just a forecast of what's out there.

David Johnson, would you mind approaching the podium?

Ken Johnson. Thank you. I'm sorry. Come on up.

DR. JOHNSON: So, what I crammed in three minutes yesterday was a pretty good summary, but it happened in three minutes.

So, I think that the alternative that people are most interested in is this yeast product. And it is -- currently it is registered in Europe for fire blight control. My understanding is it isn't used that much there because they also have a lot of issues with apple scab in Europe. So, they were putting fungicides on the tree, which of course hurts the yeast.

In the desert climates that we have in eastern Washington, we don't really have apple scab. So, it looks like this yeast product can have a life out there.

The company that's bringing it into the United States is Westbridge, which has a big history in organic materials.

And they have it in EPA review now, and that review is supposed to be completed by August or so of this year, is my understanding. So, we are expecting this material to be useful this coming -- 2012.

There's one issue with the yeast
material, and it's still, I think, needs some research, is that the Germans that developed it are -- you put on like a pound and a half of yeast per acre, which is quite a bit of yeast. But they're also recommending that you put on about nine to ten pounds of this acidic buffer.

And my understanding is the buffer is mostly citrate and skim milk mixed together, but it's nine to ten pounds per acre. So, it's a lot of material. So, you're going to be putting on about 12 pounds of material of this and there really hasn't been any pricing yet on that or what it's going to cost. In a desert environment, do we need that much of this buffer when it goes on? And so, those are some big questions about it.

CHAIR MIEDEMA: Do any other Board members have questions of Ken Johnson while he's still here? Nick.

MR. MARAVELL: Yes, I do. I may have a lot of questions. So, could you give
me some guidance on how we should proceed here?

I find this fascinating.
CHAIR MIEDEMA: Fire away.
(Laughter.)

MR. MARAVELL: Okay. It's a pleasure to have you here, Dr. Johnson.

Is this type of research into alternatives going on in other parts of the country? In other words, are there other research stations working on this in other climates?

DR. JOHNSON: Well, there's about three groups that work on fire blight in the country; our group at Oregon State; Jim Adaskaveg down in Riverside; George Sundin at Michigan State; and Herb Aldwinckle at Cornell.

I guess in terms of alternatives, the eastern half of the United States, because their temperatures and their humidities come up so much faster and it gets warmer so they
can get into these severe risk periods with fire blight quicker in the east, they've kind of soured on these alternative project materials quite a bit.

But when you look at where organic production is, you see it's really concentrated, you know, in the western states here.

So, they don't think about organic production that much. So, there's sort of that two sides of it.

So, in the west here we've had this -- we've had a remarkable growth in the number of organic acres in production. And so, there is interest in these softer products.

I mentioned yesterday we do have growers that are producing under international standards or EU standards, and they are not using antibiotics.

Some of those, again, you would find more apples in that probably than pears,
because pears are riskier. You're going to find those kind of places like in drier climates like in the Okanagan Valley as opposed to, say, the Columbia Basin because it's easier to -- it's a lower risk for fire blight area. It's a little bit cooler and it's a little bit drier.

So, IOP has kind of found its niche out there as opposed to where other growers in higher-risk areas are under the NOP standard.

MR. MARAVELL: So, in terms of the interest in the viability of attracting research funds for doing alternative work, the west would be a more fertile ground.

What can we offer the people in the midwest and on the east coast as potential alternatives?

I realize this is not your area of expertise --

DR. JOHNSON: Yes, well --
MR. MARAVELL: -- but we have to
consider all of our -
DR. JOHNSON: Right. And I don't think anybody has looked hard at the yeast product. I mean, we sort of picked it up a couple of years ago as it came in. And we heard Westbridge was interested in this.

And I was actually in Poland last summer at an international meeting, and I met the Germans that developed this product and so it's really pretty new to us and it was kind of a new way of thinking about fire blight.

We had looked at yeast before, but we hadn't really done any extensive work with them.

And myself and Tim Smith at Washington State in Wenatchee, we were -- we test a lot of products for fire blight control over the years. And we've kind of got this thing like, oh, yes, we'll try it. Probably not going to work, you know.

And but we got this yeast material and we put it on some trees, and we were
pretty impressed with what we saw.
And so, we were just kind of -- it opened our eyes a little bit. And so, we're still really on the learning curve as to really how to use the material.

The first time the company asked us to try it, they said, well, put it on at five percent bloom, 20 percent bloom, you know. So, it was like four treatments. And I said, well, that's a lot of treatments. And I -- and my own thinking about it was as $I$ was presenting yesterday, was it would probably do well in that floral cup because yeast -- I mean, the literature says that's where yeast like to grow.

And sure enough, we've been using it now as a late-bloom product and that's where we're seeing the good benefits from that material.

MR. MARAVELL: So, you would be developing -- you feel the efficacy is there, but you'd be developing information that would
be useful to evaluate cost, protocol --
DR. JOHNSON: Cost, and then I mentioned yesterday the scale-up issue because, you know, I've got four, you know, about half acre to an acre orchards down in Corvallis. And we're out there with highquality materials and the time to, you know, put the sprays on the trees. And we're essentially, you know, as close to as good as you can get when we do our work in terms of research.

And when you scale up now, you start talking about 50, hundred acres and many times blocks are more than one cultivar there. That's not one cultivar.

And what that means is that one cultivar can be at this stage of bloom, and then one, you know, it might be three rows of that, and then three rows over here is another cultivar. And so, the whole thing becomes a little more messy.

And so, what does this mean in
terms of scale-up and how practical this is going to be to somebody that's operating something at that size?

MR. MARAVELL: Let's go to the other alternatives that were discussed, which was resistant rootstocks.

DR. JOHNSON: Right.
MR. MARAVELL: Is that applicable to the three different climates, if you will, the east and the west and --

DR. JOHNSON: Oh, yes. Absolutely. I mean, we've heard the various testimony on the rootstocks yesterday.

Most of the modern apple orchards now are going to very high-density trees. So, you want the rootstock that dwarfs the tree the most.

And then the one that's used most commonly now is called M9 or some variation of M9, and M9 is very susceptible to fire blight.

The problem is, is with the Geneva alternative to M9 is that it's just very,
very, very difficult to propagate. And that's the problem is why the Geneva rootstock that would replace M9 is not getting out there very quickly, is that the nurseries are just struggling with how to propagate it.

MR. MARAVELL: But does it have the dwarf characteristic?

DR. JOHNSON: Absolutely, yes. There's this whole series of Genevas. And so, they would go through the various sizes that you can control an apple tree at.

But the one that makes this small apple tree that's appropriate to the highdensity plantings turns out, of course, as the most difficult to propagate.

MR. MARAVELL: And so, you could use that with Gala and Fuji?

DR. JOHNSON: That's my understanding, yes. Yes.

MR. MARAVELL: In terms of your view -

DR. JOHNSON: Let me just make a -
but a resistant rootstock doesn't make Gala or Fuji more resistant to fire blight. Okay.

So, okay. So, the problem with the rootstock is, is that if you get a little bit of blight up on Gala or Fuji, then as Debbie said, the bacteria moves through the tree systemically and it floats down.

And it - you don't really see disease. And so, you get a strike up here. And then the cells just float down the tree.

And then when they hit the graft union -- because you've changed genetics there at the graft union, so now you're into M9 -M9 is hypersusceptible, and the blight reignites right there.

Well, it's like getting blight around your neck, you know. Your head's going to fall off, right?
(Laughter.)
MR. MARAVELL: But what you're saying is, in effect, even if you have the Geneva rootstock, your rootstock would be
resistant.

DR. JOHNSON: Yes.
MR. MARAVELL: But the Gala and the Fuji apples would - the upper part of the tree would still be high -

DR. JOHNSON: Would still be the same. And as the question was yesterday, in their younger years, you know, their first six to seven years, they're very susceptible to blight.

And then they start to settle down a little bit after that point in time, and blight in apples doesn't become quite so much of a problem.

MR. MARAVELL: Could you envision a strategy on the part of the National Organic program where there are multiple approaches, but one might include restrictions or - I don't know how to put this exactly - the most appropriate time to use antibiotics in terms of - we use stage of development for livestock, for example.

Is stage of development a viable concept for fruit production?

DR. JOHNSON: I think that's true in apples. In pears, it's not really true. Pears settle down a little bit, but pears are almost always susceptible to blight.

And what happens in a big pear tree is that the tree just has a little bit more strength to recover from blight after you've done a lot of cutting on it.

I've got like -- for example, in Corvallis right now, I have an 11-year-old Bartlett block. And this is the first year I've used it for a fire blight experiment. It's 11 years old.

If $I$ went in there before that, it just scares me to death, you know, and I would lose it. So, I'd lose my investment.

I do most of my work in pears in a 55-year-old Bartlett block, and we smash on those things. And they're very susceptible, but the trees are big enough that they'll push
out new growth, and most of the trees will recover over a period of a year or two.

So, pears are always susceptible. Apples tend to settle down a little bit. Though, there are some apples that are out there now like Pink Ladies. I'm not sure they ever really settle down.

But I have a Gala block, and in the first years I used that I would lose trees pretty routinely.

But now that they're also about ten years old now, $I$ go in and do blight experiments in there, and I don't really lose trees. The trees - the resistance in the tree is higher as they get older.

CHAIR MIEDEMA: I have a process question for the Crops Committee.

This material is not being considered for Sunset, is my understanding, because it was up for expiration instead of Sunsetting? Is that correct so far?

MR. FOSTER: Yes.

CHAIR MIEDEMA: Okay. So, just a for instance. If we were to accept the reasoning of this petition or remove the expiration and put the material back into the Sunset process, it would still be renewed, you know, it would still be up for re-listing every five years. And new information would still be imposed upon its existence on the National List, correct?

Am I still correct so far? MR. FOSTER: Yes, that's correct. CHAIR MIEDEMA: Okay. So, given those two things, is it an option for us at this meeting, to accept the petitioner and get this material back into the sunset list process, and can we make this docket? As we've been warned, we have some pretty serious problems on timing.

MR. FOSTER: I believe that's in the realm of possibility. If the Program would care to correct me, that's fine. MR. McEVOY: Well, we're
conferring. We'll have to get back to you. CHAIR MIEDEMA: Okay. Please do. That would be a critical answer in our considerations.

MR. FOSTER: So, I think I'm just going to wait to see if I'm going to get corrected. So, that's fine. That's fine.

Yes, please. Go ahead, Nick.
MR. MARAVELL: We're talking about timeline issues right now. And so, I'd like to get an idea - you've been working on this for 20 years. You've seen development of research strategies over these 20 years.

We're looking at -- our maximum time horizon is five years before things are re-Sunsetted or -- if that's even a word.

All right. But what would five years - what sort of a feeling does five years give you in terms of the research progress?

In other words, you view this over multiple seasons. What does five years look like in terms of your assessment of the
various alternative strategies to get away from antibiotics?

DR. JOHNSON: Yes. So, like I say, I started on this 20 years ago. And I would say that 20 years ago there was more enthusiasm in general about biological control. And then there was a pretty intense effort - this is not just talking about fire blight, but any kind of plant disease in general during the '90s.

And I think what sort of came out of it at the end of it was that, well, we've done a lot of work on biological control. And certainly biological controls do some good, but there seems to be asymptotic limits to how far biological control can take you.

So, that being said, I think that there's a little less enthusiasm these days about biological control in general. But I think in fire blight, we have a unique situation where we're seeing efficacy in with products and strategies.

And when we started on this, there really wasn't anything registered. And so the registration process actually takes, you know, you identify something, you do some science, you start to see results, you convince somebody that, well, maybe this could be a product and then - so, over those 20 years, now we've got the BlightBan A506, we've got Serenade, we've got the Bloomtime Biological which is actually made in central Washington locally, we've got this yeast that's come along now.

So, the list of materials has gone up over time. And so what our strategy right now in research is, is how do we put these things together to do the best that we can?

And so, I would say that in that regard with this yeast material and what $I$ showed you yesterday, you know, we're starting - we're making progress on that, and that's really not that far away, you know.

If that's the rules that people
have to live by to grow organic fruit, then I think that they can be up and running in that in a fairly short period of time. We're not talking about 20 years. We're talking about several years.

So, I do still - I think that the scale-up issues, the pricing issues, the cost issues are still out there. And those really aren't so much about science - the scale-up to some degree, is about science, but some of these other things, they kind of get out of the realm of science.

MR. FOSTER: I have Jay up with -
MR. FELDMAN: Thanks for sticking around and thanks for the work you're doing.

Are your research plots, are they in organic - certified organic production?

DR. JOHNSON: I've got them in what I call transition right now. And, in fact, I really have only ever used manure in there to fertilize them and things like that.

I'm trying to keep the nitrogen as
a susceptibility factor in fire blight. So, if you put the $N$ up in a block of trees, you make it worse.

So, I have very low - I call them low-input orchards. We don't spray the insecticides or anything in there.

I do a little bit of scab control because of our cooler climate.

MR. FELDMAN: I'm just wondering if you've noticed over the years or suspected any changes in cultural or management practices you mentioned the $N$ - or other types of management practices that have reduced the pressure, the fire blight pressure.

DR. JOHNSON: Well, you know, nitrogen is not - I mean, if you're going to grow apples for storage, nitrogen is an important factor for like post-harvest rots and things like that.

So, nitrogen is very carefully managed in fruit trees. You don't want too much of it.

You have to replace the wood, you have to grow the fruit, but you don't want any extra nitrogen in those fruit when they hit the storage. So, it's very, very carefully managed in a commercial orchard.

I would say I'm sub - because I'm not interested so much in producing fruit, that I am suboptimal with nitrogen in my research orchards.

MR. FELDMAN: But can you imagine that there are other factors, say in an organic system, that might contribute to increase tree health, greater resistance, aside from the variety issue, greater tree health, ability to manage, withstand the pressure, the fire blight pressure?

DR. JOHNSON: Yes. Yes. Sure. It's - I mean, the way you look at most modern high-density production orchards right now, I would say that in an organic situation those are minimal.

I've got another project that
doesn't deal with organics at all. It's in conventional. But we're working on systemicacquired resistance, which are synthetics that can manage susceptibility of trees and health. If you do get fire blight, you can slow the run of - but I don't really - I don't think that that would be an organic strategy, but that is something we're actively involved with, as well.

MR. FELDMAN: Thank you. CHAIR MIEDEMA: Thank you. DR. JOHNSON: All right. Thanks. MR. McEVOY: Clarification on the tetracycline question. Tetracycline is not part of Sunset 2012. So, any action that you made on changing the expiration date or the annotation for tetracycline would be a separate rulemaking action by the Program. But we do those kinds of things all the time, but it would not be part of Sunset 2012.

CHAIR MIEDEMA: Thank you. John,
please proceed. Let's try to work through another material or two.

Any more discussion on oxytetracycline?

MR. FELDMAN: I just - I want to sort of integrate some of these issues, because there's some similarities emerging for me in these patterns.

And going back to what Colehour said on the ethylene gas, I heard testimony yesterday, and then follow-up conversation, about this issue of attention to soil health and diversity - biodiversity in the orchard affecting decreased pressures of, you know, in terms of fire blight, which I think we're missing in some of this discussion.

Some of that may go to scale. Again, you know, which we were talking about with the pineapples, you know. So, I don't know how we sort that out.

But it seems to me if we're aware of a scale issue that is creating - scale
meaning size of production - lack of attention to diversity on the farm and plant health, and if that -- if somehow the size of the production is affecting the vulnerability to or the pressures of fire blight, we should know that. We should factor that in to our conversation.

We may want to hear more from the organic fruit tree folks who are here today and tomorrow on that issue. Because if we're dealing with, you know, commercial operations that have converted from -- which is a good thing -- converted from conventional operations, and somehow we're missing something in the management practices that are incorporated into smaller scale operations that have reduced the pressures of fire blight, $I$ think we're missing an important part of the discussion, which we seem to be getting into with the ethylene gas discussion. MR. FOSTER: I'm sorry. What?

CHAIR MIEDEMA: John, I'm going to
give the control of the meeting back to you.
MR. FOSTER: Thank you.
I'm thinking now if we can jump quickly to nickel before the break. I sense a break is not far away, and I suspect that we might be able to cover nickel and be done with petitioned items, hopefully.

That's just a guess, thinking it might happen quickly, if we could do that before our break.

I think some of the more contentious Sunset items are not going to get done before our break. So, I'd rather have a clean break, as it were.

So, questions about nickel petition, a petitioned item. The nickel being added to the list of allowed micronutrients. Katrina. MS. HEINZE: I'm not sure how to organize my questions on this one. I guess I'm confused by the criteria - the material evaluation checklist, I can't remember what we
call it, and some of the Committee's responses.

So - and I just have some examples. I'm not sure you want me to go through all of them.

So, for example, in Category 1 where there's a question about -- is the material harmful. So, Question Number 9.

So, the Committee said yes. But the TR says if this material is used correctly, there are no effects.

And I saw that in a couple places where it appears that what the Committee said is, if the material is used outside of the normal realms, there could be harm. And that feels like a different approach in how we've usually evaluated materials.

So, I was hoping that we could have some discussion on that, maybe first. I have some other questions.

MR. FOSTER: Okay. This did come up and we discussed kind of as background and
foreground a little bit the question about whether we should be using this checklist and considering substances in what $I$ call the more global sense, that is, all of the - in the case of nickel, all of the mining, all of the smelting, all of the refining, or do we look at the checklist in the context of a specific use?

And this - we actually had a fair amount of discussion on this and intend to ask the Materials Committee for direction.

Because I think that when you're looking at petitioned items, particularly on the checklist, there are certain assumptions made by everyone bringing, you know, their expertise to the table.

And whether or not you consider materials in this more global sense -- or this more acute, directed, annotated sense -- will change how the checklist gets filled out. So, that was a question for me.

I was in the minority opinion on
this particular vote, in terms of full disclosure. So, I tend to look at it, I think, a little bit differently than the majority did.

And, hence, the - I don't want to be the one to speak for the majority on this, which - yes, I'll stop there.

Katrina.
MS. HEINZE: Okay. So, I can say
that I think I believe that past practice of the Board has been to review it in the petitioned use.

But I know that we, specifically Jennifer, has agreed to work with the Program and collect some of that historical record to come to the Committee with a recommendation so we can provide some guidance on that.

MR. FOSTER: Yes, that would be helpful.

Does that help kind of somewhat answer your question?

MS. HEINZE: It does. I guess what

I would take from that is it appears that some of these answers are different, or that the majority chose to answer in a way that's different than our historical practice.

That may or may not be material, but just -- folks should be aware of that.

MR. FOSTER: Thank you. More questions on nickel? Jay.

MR. FELDMAN: Well, can $I$ quickly respond to that?

I'm glad the Committee is taking this up, the Materials Committee, in terms of settling this issue, because $I$ believe that the Act, you know, the law really does instruct us to look comprehensively at the impact of products across our environment in terms of organic being a steward and leader, gold standard for how we think about the impact of our practices on the sustainability of our planet.
So, if we're relying on a material
that in some way is harmful in its production
or is harmful in its secondary impacts, organic tells us and instructs us by law to consider those factors.

Because as organic consumers are telling us, we don't want to take an action in terms of the purchasing of food, that could have adverse impact on the sustainability of the planet.

We may be doing something that contributes to global warming, but in ingesting the food commodity that we just purchase as having no adverse affect on us.

Does organic require us to look at the impacts and input we'd be having on global warming? I believe it does.

We should know that, at least. We should consider it, at least, as an adverse affect.

Now, in the case of nickel, we have that issue because of the harmful issues associated with manufacture, production, disposal, etcetera.

But we also do have a material that is a known human carcinogen - and, by the way, there aren't many known human carcinogens identified by EPA.

One of the other - coincidentally, one of the other known human carcinogens identified by EPA is arsenic. And we as a community, regulated arsenic well, well, way, way, way before EPA ever did, because we brought this ethic of harm to our decisionmaking process.

We didn't use another agency standard, which is very different than the Organic Foods Production Act ethic.

And so with nickel being a known human carcinogen and the canopies of pecan trees being 150 - as high as 150 feet, and knowing about drift, volatility, vaporization, movement off target site, it's a very difficult balancing act when you're talking about a known human carcinogen being used in that manner.

I mean, we had the discussion earlier about pheromones and all these inerts which we accept in the context of a very narrow use where we're not emitting sprays, because we know what emitting sprays means. It means it goes off the target site, it has unintended affects, it's not organic in that context.

This is another example of that. This is a product that is a known human carcinogen being used in a manner that you can't control, unfortunately.

MR. FOSTER: Katrina.
MS. HEINZE: I understand that perspective. Mine is more of a procedural question.

So, for example, looking at Category 1, Question Number 9, which says "Is there undesirable persistence or concentration of the material or breakdown products in the environment?"

So, that's one of our criteria.

The Committee answered yes, and then quoted from the TR which says, and I'm reading from what you guys filled out, "When used correctly, the TR notes no such effects."

So, this is - my question is more procedural, so that we're all kind of reading from the same playbook here.

So, I'm glad the Materials Committee is taking this up. It is confusing to me that the TR says there's no such effects, but that you answered yes to the question.

And I know I can pull up other questions like that. And, again, I think not probably material to how people are going to vote, because everyone can read that, but I we probably just need to get aligned on how we're going to answer those kinds of questions.

So, I get your point.

MR. FELDMAN: But read the next sentence. I mean, the next sentence refers -
they refer to an ATSDR document that indicates that the effects are immeasurable because of the way it's used.

So, again, we have to take that into account. Often what we're faced with is a known effect by a cancer-causing chemical that has an exposure pattern that is not fully quantified or even qualified. And, therefore, you don't get the kind of research that you need to answer that question specifically.

But if you read the document that's cited there and linked to by the TR, this Agency for Toxic Disease Registry, it says that "it is impossible to predict nickel's environmental behavior on a general basis."

So, you put - it's a puzzle. And
I think that's our job to put the pieces of that puzzle together. And where there are missing pieces, we have to obviously factor that in as well.

So, unfortunately, none of this
stuff is - you cannot always wrap a tight, easy bow around it, but I think there's enough information there, knowing what we know about the harm of this chemical, knowing what we know about the use pattern, that we can't deny that it's going to have some detrimental impacts.

MR. FOSTER: Thanks. Other voices? I want to make sure we've gotten lots of opportunity for other concerns, other tracks here.
(No response.)
MR. FOSTER: All right. Enough for nickel.

CHAIR MIEDEMA: Thanks, John. We're going to take a break now and come back and address the rest of the Crop Committee's work and have a chance for discussion.

Quick note on Committee deliberations. My comment this morning was that in a spirit of collegiality if we could keep our discussion clipping along, we
wouldn't need to sort of impose the Robert's Rules protocols.

But we're more than an hour off schedule, we're in our first committee. If we multiply this out, we are far from complying with our federalregulations.gov notice of when the meeting would end today.

So, we've got to pull this back into shape here. That means each NOSB member has two turns to speak on a topic or ask questions. And you get your second turn after everyone else has taken the first turn, if they want it.

Okay. So, that's what we'll be that's how we'll be operating when we get back. 15 minutes.
(Whereupon, the proceedings went off the record at 10:15 a.m. and resumed at 10:39 a.m.)

CHAIR MIEDEMA: We have quorum, and we're back in session. Chairman of the Crops Committee, John Foster, please proceed.

MR. FOSTER: All right. We're going to move into discussion of Sunset items. Thought there was a fairly good suggestion about moving through, hopefully trying to catch up a little bit, moving through materials that tend to be less controversial.

There are, as you know, fewer on the Crops docket that are less controversial than more so. So, please bear with us.

And I'm going to base these kind of - the shuffling based on our Committee discussion. So, we'll - I would like to kick it off with chlorine materials.

And, particularly, if we could discuss, Nick, the thing you had mentioned about -- is "should" the right word, and then also if it's apropos to -- well, with -- start with there and see where it heads. Nick, go on ahead. MR. MARAVELL: Yes, it's really semantics here. When you put things in regulation, "shall" and "will" have different
meanings. And "should," and I don't know what "should" has in terms of regulatory. So, I would usually use "shall" or "will."
"Will" is more optional. "Shall"
is mandatory. And "should" is sort of suggestive.

So, you know, I'm just saying, what message are we trying to give here? Minor point.

MR. FOSTER: Now, I assume, is not necessarily the time for Committee deliberation on changes, but we can certainly take that up. And I think there would be a general acceptance of - my sense is from hallway conversations, that that's an appropriate change to make.

Other questions on chlorine items?
(Pause.)
MR. FOSTER: I'm sorry for the hesitation here. I'm just - I'm not the right-handedness to be sitting here, apparently.
(Laughter.)
MR. FOSTER: Thanks very much. Now I know why I sit at the other end of the table at Thanksgiving.

All right. So, I am guessing that copper we're going to spend a little more time on. I'd like to skip down to alcohols and field any discussion questions about that.
(No response.)
MR. FOSTER: All right. Well, that went quick.

I'd like to move on to newspapers, recycled paper, no colored or glossy inks. Both listings for those, any questions?
(No response.)
MR. FOSTER: All right. We'll be back on schedule in no time.

Plastic mulch covers. Barry, you had mentioned a couple things you may want to elaborate on.

MR. FLAMM: Yes, and I neglected to mention a comment we received from CCOF which
-- although they support the continued use of plastic mulches, but raises the question of why it's listed at all.

And I'll just sort of paraphrase what they said. These are not inputs to soil or crops, do not decompose. They are tools that are allowed whether or not listed. And using as examples, drip tapes, tractor tires and so forth.

I just want to point that out -that that's a different question that was raised.

MR. FOSTER: A good question. And in our Committee deliberations, we recognized it as a good question, but probably one that is going to require a little more - a little more digging than just using it in the context of plastic mulch covers, I assume.

Other questions, concerns on that? Mac.

MR. STONE: And, Barry, you mentioned that it was in the Act about removal
of the plastic at the end of the crop.
So, I'm still just curious about double-cropping -- if the quality is there, that it not have to be removed at the end of the crop or the end of the season part of that discussion.

MR. FLAMM: I don't know if $I$ can give you a great answer. But it would seem like as long as you're still farming for that season, I think that's something you have to work out with the certifier, but it would seem like at the end of the season when you got done cropping.

MR. FOSTER: Other questions on plastic mulch?

> All right. Colehour.

MR. BONDERA: I don't know if I have a question, but $I$ just feel like that issue that you bring up, Mac, is pretty important, because $I$ think that perennial crops where people are using that kind of protection, you know, it's hard to define that
seasonal question.
And I think that that's why, you know, "after one year" is in there, because what does plastic do? It starts to get stuck in and be hard to remove, no matter, you know, if it's among trees or not.

And so, I think that that - there has to be something to - I mean, I think it can be interpreted and there can be exceptions, but I think that you have to also have some fine line.

MR. FOSTER: Barry.
MR. FLAMM: The additional language
is "after harvest." So, you can't -- in a perennial orchard, you can't leave the plastic in there, and you have to remove.

MR. FOSTER: All right. It looks like we're good on plastic mulch covers.

I want to move down to Vitamin D3. This is another - something getting rodents in the cross-hairs, as it were.

Any questions on that?
(No response.)
MR. FOSTER: All right. I'm going to go out on a limb and bring up sodium silicate.

Any questions on that?
Yes, Katrina.
MS. HEINZE: Not a question specific to sodium silicate, but, again, a process one.

As chair of the Materials Committee, I am a little bit perplexed by some of the Sunset recommendations. So, sodium silicate is the first of these.

In going back and looking at our procedures for Sunset, there is, you know, a number of things we have to look at. But two of the things are that we're supposed to look at new evidence that is different from the original NOSB review.

And for some of these materials, I guess I need some help from the Committee understanding what that new material is that resulted in a recommendation not to re-list.

And then a recommendation not to re-list - or a recommendation, period, is really supposed to be based on the force of evidence showing that a change to the exemption is needed.

And that includes the fact that the - this Board, or a prior version of this Board, did a full review of the material and, in most cases, considered - well, in all cases unless there's new evidence, considered all the things that the Committee is debating and chose to list.

And, you know, with all due respect to the recommendations of the Crops Committee, it has been our practice as a Board to really try to respect the precedent of prior Boards.

And so, the materials were - I'm just not sure that there is - or it's not clear to me what the new evidence is that is causing the Crops Committee to recommend a change to the exemption, to kind of go against what a prior Board has recommended are sodium
silicate, which we're on now - and I'm doing this one so I don't have to do it again copper, sulfur dioxide, magnesium sulfate and ethylene.

So, perhaps when we get to those, just I would ask everyone the Board to think about that and our responsibilities for Sunset.

MR. FOSTER: Other questions?
Tina.
MS. ELLOR: If I could address that. In the case of this particular material, what we found when we - what came up during our discussions in the Crops Committee is that this not very much used.

Since then, you know, we've learned from public comment that it's an important material probably to keep on, because of its compatibility with chlorine compounds that lignin sulfonate doesn't have.

So, it's not a - it's not as we thought, a complete substitute, you know, that
you can substitute lignin sulfonate completely for this material. So, that's something we learned in comment.

But during the Committee discussions, you know, we looked for people who were using it and we didn't find any. So, that's where that came from.

And it's unfortunate that we don't absolutely capture all of our Committee discussions, you know, in our recommendation. But, you know, I'd like to assure you that due diligence is being done on the Crops Committee.

MS. HEINZE: Oh, I had no doubt of that. It's more the, you know, it is my duty as Materials chair to make sure that we follow our processes.

So, I appreciate the clarification. That helps me as I think through sodium silicate.

MR. FOSTER: Other questions?
Sodium silicate?
(No response.)
MR. FOSTER: All right. I'm going to take a stab at ranking these and move on to lignin sulfonate.

Sorry, Tina.
MS. ELLOR: Someone mentioned to me during break, and I don't know if anyone has any insight onto this, that it actually is not a duplicate listing of lignin sulfonate, because one is under, you know, plant and soil amendments, the other is post-harvest. So, one's pre-harvest and one is post-harvest.

Now, how it would be used as a flotation device pre-harvest, I have no idea. But apparently, you know, it is listed in two different places for two different purposes.

MR. FOSTER: Any other questions on lignin sulfonate?
(No response.)
MR. FOSTER: All right. Moving right along, I'm going to go with magnesium sulfate.

Any questions?
(No response.)
MR. FOSTER: All right. I suspect we might have some questions about the next one, whichever one it is.
(Laughter.)
MR. FOSTER: Let's talk about sulfur dioxide.

Yes, Tina.
MS. ELLOR: Once again during the break, our audience weighed in on this. And at the Board's discretion, I'd like to have OMRI come up and explain how this ingredient works in rodent smoke bombs. And they gave me a very good explanation over break, which I would like everyone to hear.

Is Lindsay in the room?
MR. FOSTER: If you could come up and state your name and affiliation, please?

MS. FERNANDEZ-SALVADOR: My name is Lindsay Fernandez-Salvador. I'm with OMRI.

So, oftentimes the way that the EPA
registers pesticides is that -- in the case of smoke bombs, the three ingredients that you mention; sulfur, sodium nitrate and charcoal, are the ingredients in the actual thing that you buy at the store. But then when you employ it at your farm, there's a reaction that happens.

The potassium or sodium nitrate decomposes into sodium or potassium oxide, nitrogen gas and oxidant gas.

And then when sulfur is burned in the presence of oxidant gas, it produces sulfur dioxide. And that's what the EPA calls a post-reaction formula.

It's not considered the active ingredients on the label, which is why you discovered that those aren't the registered ingredients.

However, that's the way OMRI would review it -- is that it is in fact sulfur dioxide that is acting on the pest and meets the letter of the law in this case.

And just to give you an example of -- something that is similar is peracetic acid. That is oftentimes listed as acetic acid and hydrogen peroxide on the label, but clearly becomes peracetic acid as the postreaction formula. Very common.

MR. FOSTER: Thank you, Lindsay. Any follow-up questions for Lindsay?

Jay.
MR. FELDMAN: So, you don't think it's necessary or required to look at the compounds that are released into the environment or mixed as a function of using the product?

Because this is - when we looked at this, as you know, I mean, even though they're listing this active ingredient, there are certainly other compounds in here that are seem to be -- should be the subject of review, and we were wondering if we were doing our, you know, due diligence in ignoring those
other compounds.
And you're saying OMRI doesn't evaluate the - I mean, you're looking at strictly what EPA does. And I'm wondering if we have an additional responsibility beyond what EPA does in its registration process, to look at the other compounds that we know to be - because they're certainly not inert ingredients. They're listed. We know what they are. They're identifiable. They're being put in the environment.

So, it was odd to us that we wouldn't be asked to evaluate that.

MS. FERNANDEZ-SALVADOR: Well, I think that's a question for the Board and not for OMRI.

I'm just saying that clarifying the inaccuracy or the misconception that sulfur dioxide is not in fact the case that acts on rodents in this, and that it is common practice that materials will then react to make the final post-reaction formula, which

OMRI considers or interprets to meet the letter of the law in this case.

MR. FOSTER: Thank you, Lindsay I'm sorry. Lindsay, hold up. Katrina has a question.

MS. HEINZE: We received several public comments suggesting an annotation that might clarify some of these.

I don't know if you've had a chance to see it, and if you have any thoughts on that recommendation.

You don't have to answer now if $I$ just put you on the spot.

MS. FERNANDEZ-SALVADOR: I didn't see the public comment. But annotations that clarify for people that don't understand chemistry on the upfront, is helpful.

MR. FOSTER: Thank you very much.
MR. MARAVELL: Well, speaking as a farmer, I would like this - when a farmer picks up a product and looks at the National List, there's got to be some way to determine

- I mean, if it says "sulfur" on there and the National List says "sulfur dioxide," there has to be something here to guide the farmer. That's all I'm saying.

So, perhaps an annotation could handle that. I don't know, but it would be helpful.

MR. FOSTER: Might suggest that would be more appropriate for guidance as opposed to annotations, which generally speak to use restrictions. But, yes, there's a place for clarity, that's for sure, in some way, shape or form. I agree.

Any other questions on sulfur dioxide?
(No response.)
MR. FOSTER: All right. Moving on,
let's go with copper materials.
Are there any questions about
copper?

## Jay.

MR. FELDMAN: Well, just to respond
to some of the comments, I'd be curious as to whether anybody from the certifier or inspector at inspection level sees this as a problem.

I read one or heard one comment that said that the language wasn't specific enough guidance as to how and when this monitoring would take place.

And I guess we were of the opinion that that could be determined in guidance, but that there would be some sort of monitoring mechanism.

And we - I think part of the conversation in the Committee was, we weren't quite sure how one would make the determination as to whether there was accumulation or not, if you weren't monitoring.

So, it was sort of odd to us that there would be a guidance that there ought not be accumulation without any sort of monitoring.

Maybe there is monitoring going on, but that's why we threw it out that way, hoping to get more specific responses.

MR. FOSTER: I think we have a comment from the Program.

Miles.
MR. McEVOY: Yes. This is Miles McEvoy.

Yes, I think in my experience, the certifiers are monitoring the use of copper. And it all depends on the use pattern.

So, if there's a lot of copper that's used in a given organic system, then testing, soil testing or other types of testing would be part of that organic system plan to monitor that the - that copper is not accumulating in the soil.

But it's going to depend upon how much copper is being used, of whether or not you would want to see specific monitoring through testing to monitor the copper levels.

So, my experience is that
certifiers are doing the monitoring currently, because they are checking the use of materials with the existing annotations that are in the National List.

And that, $I$ guess, in addition, that if you did - the clarification for us is, what do you mean by periodic? How often does that mean?

And allowing us to do that through guidance probably makes a lot more sense, so that depending up on the use pattern, then the guidance or the certifier could determine what is the most reasonable monitoring for copper levels.

MR. FOSTER: Jay, a follow-up?
MR. FELDMAN: That raises a really interesting point, Miles, because we - I think the other thing we noted was that there is no use identified for this, you know, like with the antibiotics, we're talking about apples and pears, but the compound, the copper compounds are just allowed.

So, there's no identify-use restriction. Although, I guess, you know, the use restriction would be on the label, presumably.

So, I guess my question is whether we can put something in this language that would enable the Program, or encourage the Program, to develop that type of guidance that would -- based on a specific situation -require and need, require appropriate monitoring.

I mean, you say that the inspectors do that. And I guess, you know, we didn't have that information, and we - I'm not sure if everybody does it, if it's required that it be done, or it's just normal practice.

I mean, it would be nice given how widespread this chemical use is, given that it is a prophylactic use, it's used in a preventive way, given that $I$ often hear a lot Of criticism for all its use in different circles, that we could have - we could have
some readily available information that would show we're really on top of it.

And if you said information already exists and it's trackable and disclosable and monitorable, then that's fine, but we didn't have that information.

MR. FOSTER: Miles, would you like to reply?

MR. MCEVOY: Yes. The part about being measurable, trackable and disclosable is - I'm not sure we can go there on that.

I think you have to keep in mind that there are a huge diversity of cropping systems around the world. Just within Washington State, there's a huge diversity of cropping systems and uses of these various products. There's certainly a need for additional guidance on a whole range of different products.

And we're going to continue to develop draft guidance and final guidance on a variety of different products, but I think
we also need to be respectful and reasonable in regards to the regulations and the recordkeeping requirements for growers, for livestock operators and for processors and handlers, because it can become so burdensome that they're going to start to leave organic production from the record-keeping and requirements.

MR. FOSTER: Thank you, Miles. Mac, you had a question?

MR. STONE: I guess I'd just add as a certifier, it's mostly an issue on perennial crops. Any annual crops, they're in the rotation anyway and there tends not to be that issue.

But if we do see it being used in perennial crops, then it is noted by the reviewer. They ask the inspector to look tighter at the records, how much they're purchasing, what they're using, etcetera.

So, it kind of is naturally - this one has always been on the radar of certifiers
and inspectors because of that.
And the growers are concerned that they're going to get cut off, and then they don't have the tool anymore.

MR. FOSTER: Thank you, Mac.

Any additional questions on copper, copper materials?
(No response.)
MR. FOSTER: All right. Thank you.
I would like to bring up ethylene gas, please. Any questions, clarifications on ethylene?

Tracy.
CHAIR MIEDEMA: I just had one point of discussion.

Colehour, you had mentioned that our materials, I think the way you said it, don't apply abroad and there weren't - you hadn't taken a look at growing practices in other countries.

And my understanding is that all produce coming into this country and labeled
and sold as organic in the U.S. has to comport with NOP standards; is that correct?

That's basic. So, I just want to make sure that we don't go on record ignoring important growing regions' practices for crops that are imported into this country.

MR. FOSTER: Colehour.

MR. BONDERA: Thank you. Yes, I think that my point was more regarding the fact of looking as a committee at the use of ethylene gas in other circumstances, and trying to understand alternatives and understand how the decision processes were made or used or what was being done.

I think, you know, you are absolutely right, that anything that does have, you know, USDA approval on it has been certified.

And I think that - I think that the point was, you know, are we limiting ourselves or broadening ourselves by -- are we looking at the whole picture, or are we just looking
at one little example?
And I think that $I$ was trying to make sure that people keep the whole reality in mind, not the, you know, we had - we tried to look at some examples that were not necessarily, you know, certified for export to the United States, but how did they address this, so that we were looking at various options to some degree.

I don't know if that totally addresses what you're raising. But I think what you're raising is very relevant, because I think that, you know, it goes back to that question of reaction versus action. And I think that that was, I think, part of my point.

MR. FOSTER: Thank you. Nick.
MR. MARAVELL: Yes, something in the back of my mind, and perhaps people here could correct me.

About 20 years ago when this was all sort of rolling around, the producers from

Costa Rica, because I knew one, were saying that there wouldn't be no ability to produce pineapple for import into the United States without ethylene gas.

I'm not at all an expert on this.
I just raise that as, I think, as part of the rationale, perhaps, as to why the Board took action.

So, I don't know if any new information has come to light. That's all.

MR. FOSTER: Tracy.
CHAIR MIEDEMA: Just a point of clarification.

Nick, your friend might have been referring to ethylene gas being used as a ripening agent -- as a handling material -rather than as a crop material.

MR. MARAVELL: No, I think this was to set flower. No, this was very definitely it was a production issue.

I haven't seen him in years, but I remember that. And I've been to Costa Rica
and didn't see him. So, I don't know where he is.
(Laughter.)
MR. FOSTER: Too late now, Nick.
Any other questions, comments on
ethylene?
(No response.)
MR. FOSTER: Okay. If not, I have one.

This is one of the votes for which I was absent. I would have voted a different way than the majority on this.

I'm very reluctant to take tools away from farmers. Just as a matter of practice having been one, I think farming is certainly organic farming is hard enough.

And I really - I understand that a lot of the NOSB job is about materials and I'm just generally very reluctant to do so.

What I saw in the way of public comment and what $I$ saw in past Board decisions, seem, to me, to be still valid.

And my sense, and this came up in Committee discussion, was that there's an undercurrent of scale issues around this material.

And that's fine and appropriate. And, Jay, I think it was you that mentioned scale being certainly a point to consider.

I want to make sure that whatever dialog happens, that $I$ think the scale question is a good one, but that's probably a question beyond the realm of just ethylene.

It's been an undercurrent since I've been attending NOSB meetings. In my work in certification, inspection, farming, it's always an issue, and $I$ think it's a worthy one.

And if we want to take it up as an independent issue, I think that's fine. But I want to make sure that votes on materials are based on the merits of materials and not a vote about scale.

And everyone's got their own, you know, way to make that determination and I
trust that. But I do want to call it out because ethylene, the discussion, this is one of the first places that when pushed on rationales to defend a particular vote, the comment about scale came up more and more readily.

And to me, that means an undercurrent that's a little stronger than other undercurrents that may have been present in discussions around other materials.

A very important discussion to have, and it's one of actually the most invigorating discussions in the public discourse as far as $I$ can tell.

I just want to make sure that while that has a bearing on ethylene, $I$ get that. I don't want to - I want to make sure that it's couched in the right way and given the appropriate weight in everyone's decision. That's all.

Jay, yes.
MR. FELDMAN: Yes, and it comes up
in some instances more than others. It's just in this case it wasn't a question of whether and this goes to the question of essentiality, right?

Because when we looked at it, it wasn't a question of whether it could be done with ethylene gas. The answer was, yes, it can be done without ethylene gas.

And then the question - next question was, can it only be done on a small scale with ethylene gas?

So, we were faced with having to answer that question. It wasn't - we didn't go searching for that question. It came to us.

And so, I don't know how - I mean, that's why I raised it earlier because it, you know, in Hawaii it seemed like it was only affecting one grower and it wasn't going to be a substantial impact.
I'm not sure - I mean, you may remember that better than I do, Colehour. But
in the case of Costa Rica, it seems like it would have, you know, a major impact on largescale production.

Whereas around the world it looks like the answer is, no, it wouldn't, at least as far as we can tell.

MR. FOSTER: Thanks, Jay.
Any other questions?
Mac.
MR. STONE: Is the issue about uniformity of ripening time so they can harvest like once through the field? They don't have to harvest more than once through the field?

MR. FOSTER: All right. Any other questions, comments on ethylene?
(No response.)
MR. FOSTER: All right. Moving on,
I'm going to again rank. Let's try pheromones.

Any questions on that issue?
Tracy.

CHAIR MIEDEMA: I had one.
Jay, you had mentioned that the inerts would need to be approved inerts and a proposed annotation for these mating disrupters, and you and $I$ are both sitting on this Inerts Working Group.

We know the pace of that work is going to be pretty slow. It's not going to be aligned with what we're voting on here today.

So, I didn't understand what you were referring to when you said "approved inerts."

MR. FOSTER: Jay.
MR. FELDMAN: The intent there is to try to be respectful of whatever pace that moves at, but to recognize that whatever is legal, can be used.

So, if we - if we as a Board respect List 3 until we get the working group resolution on this, it would remain allowable.

I mean, the intent is to not take away any tools here. The intent is to hold
harmless everything that's in use currently.
But just as in other areas, we're not - we've asked petitioners on a number of products, EDDS and some others, to withdraw their petitions pending our discussion on inerts.

As things stand now if $I$ come up with a new inert, it could possibly be added to a pheromone formulation the way it's written.

So, this would keep us in line with that, the resolution that we come up with in the working group and allow current uses to remain in use.

And then when the new determination is made on what we do with inerts, it would incorporate those inerts into the pheromones.

MR. FOSTER: Katrina.
MS. HEINZE: I am not the expert on inerts, but my understanding was that if someone comes up with a new inert, they can't use it because we're kind of frozen right now,
right?
So, I guess I don't understand what you just said.

MR. FELDMAN: Well, we've asked them to withdraw - the petitions that are before us have been withdrawn.

It's not clear that they can't use it, you know. It's not clear that they even have to petition, because they don't have to disclose inerts. There's no requirement for disclosure of inerts.

CHAIR MIEDEMA: I recognize the Program.

MR. McEVOY: Yes, that's not correct. They have to disclose all the ingredients that are in these substances that are used in organic farming systems.

That's part of the process. That's what certifiers, that's what OMRI and WSDA do.

When they review substances for allowance by organic producers and handlers, they look at a full disclosure of all the
ingredients, including the inerts.
So, the only things that can be used are the things that are on the National List if they're synthetic, which would be Lis 4 inerts and List 3 inerts for passive pheromone dispensers.

And the other question the Program has is what does the Committee mean by without added toxicants? It's undefined in your proposal.

MR. FELDMAN: The intent there well -

MR. FOSTER: Yes, go ahead, Jay.
MR. FELDMAN: So, we, when we're looking at individual - when we're looking at a pheromone product, a formulation, we don't know what's in that formulation.

We know it has a pheromone and an inert. It could be on List 3. It could be on List 4.

Are you saying that if a manufacturer comes up with a new inert, the

Program is not going to recognize it if EPA accepts it, until this working group can finish its work?

Is that what you're saying?
MR. McEVOY: Yes, the List 3 and List 4 inert lists are frozen. They're not being changed. EPA is not modifying those lists.

So, there's no way that EPA is going to be adding other substances to those lists at this time.

MR. FELDMAN: Okay. Well, we should talk about this at Committee then. I mean, if it's a finite list and we're not adding any toxicants, then it's redundant - what you're saying is it's redundant of what is currently the status quo, correct?

MR. McEVOY: Well, I'm not sure if it's redundant. We don't understand what you mean without added toxicants. You haven't defined that.

And the current list, the current
way that pheromones have to be formulated to be approved is that they can use List 3 inerts. And that has to be disclosed as part of the process that a certifier would use to allow a certain substance to be used in organic production.

MR. FELDMAN: Yes. The problem in this area is that we're told something is a pheromone. It can have any number of ingredients in there.

All we're told is it's a pheromone. And when we look at pheromones that are available in the market - I apologize that my back is to you. It's just hard to - we are the Board - OMRI may have this information on a Confidentiality Agreement, but we don't know what's in that formulation. All we know is it's a pheromone. So, the process - explain the process to me.

OMRI then would evaluate it and determine whether it's a pheromone and a List 3 or List 4 inert. And we're saying that
there should be no other poisons mixed, no other active ingredients or biologically chemically-active ingredients, which would be toxicants, mixed in with that formulation. In other words, we've authorized this huge category of all kinds of formulations. And I guess what you're saying is that $O M R I$ is monitoring that the - and maybe we could get OMRI up here, which would be helpful to me - that they are evaluating all the constituent compounds in that thing that we call as a class, pheromones

MR. MCEVOY: Yes, it's true for all things that are used, not just pheromones. So, any kind of pest control input that an organic producer is using, all the ingredients in that product are evaluated and have to comply with the list.

So, the active ingredient has to be on the National List or a non-synthetic. And the other ingredients have to be List 3 or List 4 ingredients. That's part of the
process.
It seems like possibly the Board could use a more in-depth review of both the material evaluation process in pheromones in particular, and what are the compounds that are in these substances.

MR. FELDMAN: Yes, it just covers hundreds and hundreds of different compounds, as I put up on that slide. I put up -

CHAIR MIEDEMA: Jay, just we're going to stick to protocols here. We're at the two limit for you.

Does anyone else have a comment?
MR. FOSTER: Question, Steve?
CHAIR MIEDEMA: Steve.

MR. DeMURI: Would it be possible to get somebody from OMRI up here to explain their process for pheromones specifically?

CHAIR MIEDEMA: Lindsay, would you be willing to come back up?

MR. FOSTER: Just for the record, name and affiliation. Thank you.

MS. FERNANDEZ-SALVADOR: Lindsay
Fernandez-Salvador, OMRI. And just for the record, Mac stole my standards manual. So, I'm without my bible right now.

Okay. So, when OMRI would get a pheromone dispenser application at our feet, what we are interested in knowing is the manufacturing process of any ingredient that they're claiming to be non-synthetic. And otherwise, we would be reviewing all the other ingredients like the inert ingredients, which the EPA has established for us.

We don't establish that they are inert or pheromones. The EPA has established that for us.

And what we would do is then ensure that those ingredients, those inert ingredients are in fact on List 3 and that we can consider the dispenser as a passive dispenser, and that the pheromone in it is indeed classified as a pheromone by the EPA.

So, we rely heavily on the EPA
mainly because the regulations in terms of pesticides and what are pesticides and what are pheromones are referenced in the rule and in terms defined. That's how we do it.

MR. FOSTER: Steve, did that get at what you were looking for?

MR. DeMURI: Yes. Thank you.
MR. FOSTER: Okay. Thank you, Lindsay.

Steve.
MR. DeMURI: I get two. So, let me direct another question - separate question maybe to Mac who's our certifier representative here.

When you certify a farming operation that's using pheromones, do you require a certificate or something that shows that they were OMRI-approved?

MR. STONE: OMRI or the other list that's - the variable lists that are around, but each certifier has their own list of approved materials, if you will.

There's kind of a sharing of lists and agreement sort of thing, but, yes, the inspector does look to see that they are legit, if you will.

MR. FOSTER: Thank you, Mac.

All right. Other questions on pheromones?
(No response.)
MR. FOSTER: All right. Moving to by my reckoning, the last of the Sunset items for Crops Committee. Streptomycin.

Any questions there?
(No response.)
MR. FOSTER: Wow. Perhaps I had ranked them inappropriately.

MR. MARAVELL: Well, just a piece of information. I did talk to Dr. Johnson about effectively when you spray with streptomycin, are you just treating a tree or two that has broken out with a strike?

And he says in reality when you're at that point and you see the need to spray,
you spray the whole orchard. I mean, that's what he advised, anyway.

So, I just thought I was confused about that, and he has sort of said that you pretty much - if you see the - and he said this does not happen every year. He said you could go five years and not have - at least in his area, not have a fire blight problem.

But when you need it, you need it, is what he said.

MR. FOSTER: Thank you, Nick.
Are there questions on streptomycin?

Mac.
MR. STONE: We heard some testimony yesterday about that possibly it could be used post-strike, if that's the right term.

And in conversation, in some climates you can plan on that, not use it unless, first, if the modeling tells you or then if you see an incident, then you could react.

But in certain climates because of weather patterns, you may not be able to react in time if we just required it post-incident, if you will.

MR. FOSTER: Other questions?
(No response.)
MR. FOSTER: All right. Moving on then, we'll look at Sunset 205-602 for sodium nitrate.

Any questions there on the recommendation?

I believe Katrina has one. Okay.
Katrina.
MS. HEINZE: Someone else can go first. I'm still trying to find -

CHAIR MIEDEMA: I have a question, John.

MR. FOSTER: Tracy.
CHAIR MIEDEMA: Which new
information came to light in the reconsideration other than the Program's specific request that we reconsider the
annotation?
MR. FOSTER: Well, I'll start the response. It's not intended to be the end all and be all, but the - some of the discussion has been that there have been the entry of additional agricultural materials that are more prevalent.

There has been a tremendous growth in liquid fertilizer, fish based, soy based, et cetera, other materials that were not in place 15 years ago.

As, actually, a function of number of things, the development of liquid fertilizers, and that's what we're looking at here primarily, fertilizers that deliver what's been described as a shot of nitrogen fairly rapidly.

There weren't as many other alternatives, agricultural alternatives as there is now. That was part of the discussion.

I think there was also sensitivity
to - and other Crops Committee, feel free to jump in here - sensitivity to having a material that came into the NOP program as a basically, what you -- like I said, used to be called a restricted material. And it's been in place a long time. And, however, you know, everyone recognizes it's on 602 for a reason, that there's at least a not insignificant dissatisfaction with the material. Hence, it's listing on 602.

And in effort to further encourage that also in light of additional alternatives, that kind of started to move the needle a little bit, if you will.

And if other Crops Committee members have more to add, you're certainly welcome.

Katrina.
MS. HEINZE: Thank you. Sorry for the delay there.

My understanding is that this is a Sunset review. And so, this is - if that is
true, this is one where the Committee took two votes. One to re-list without the annotation, and one to re-list with what, I think, is the current annotation.

Could you give a little bit of background on the thought process there?

MR. FOSTER: I'm going to have to ask a clarifying question.

The thought process beyond wanting to have a backup recommendation?

MS. HEINZE: Yes, since you didn't do that on any of the other Sunset recommendations.

MR. FOSTER: MY recollection -again, Crops Committee members, correct me if I'm wrong - was that recognizing ahead of time this was going to be a particularly contentious issue, we were attempting to respect that.

And, well, as you know, this actually constituted a fair amount of discussion among Crops Committee.

And I'm not certain of this, but I am remembering that there was discussion, we can check the minutes if you want, that that was part of the rationale.

MS. HEINZE: Okay. So, two thoughts. One, I appreciate that you on this one, that you were transparent on following last fall's recommendation on annotation changes in Sunset. And I would encourage you to do that on other annotation changes.

And then would $I$ be correctly interpreting these two votes then to say that while the Crops Committee is recommending relisting - so, if you re-list without the annotation, that means it becomes prohibited.

These two votes seem in conflict. So, that's fine. I'll think about it some more before Friday.

MR. FOSTER: Tina, and then Nick.
MS. ELLOR: I think in this case, this is a prohibited material that's a prohibited natural.

So, if it didn't get re-listed, it would be open for all use everywhere.

MR. FOSTER: Hold on a second. Nick.

MR. MARAVELL: Well, I'm going to go way out on a limb here because I was on the call, but not a member of the Board. That was the day before.

And I can't remember, but it made more sense to use when we did it. And we really had a hard time - we knew we had to do it right and we really had a hard time with it, and we may have voted - the way they appear here, sequentially, we may have voted on them in the reverse order. I don't even recall.

So, they're re-listed as is, but then do it again with - but we were trying. (Laughter.)

MR. FOSTER: Thank you, Nick.
Katrina, and then Barry.
MS. HEINZE: Okay. That was all
super helpful. So, I think I got it now.
I don't think we've done a prohibited since I've been on the Board. So, these two are not in conflict.

What they mean is you want to keep it on the prohibited list. Your recommendation is to prohibit completely. But if that can't pass, you want to keep it with the current.

So, this all makes sense to me now. So, you guys did a great job.

MR. FOSTER: Thank you for the record. (Laughter.)

MR. FOSTER: Barry.
MR. FLAMM: Been all said.
MR. FOSTER: Excellent. Any other questions on sodium nitrate?
(No response.)
MR. FOSTER: All right. Well, look at the time. Last item on the agenda is corn steep liquor.

Might we have some questions about that?
(No response.)
MR. FOSTER: Wow. I seem to have ranked these inappropriately then. I'll give a moment for everyone to pull them up. Load up, as they say.
(Pause.)
MR. FOSTER: Is anyone afraid to go first? Is that the deal? I can't say I blame you.

I can just start calling on people. If there's no discussion, that's fine with me too.

Katrina.

MS. HEINZE: I just figured everyone was sick of my voice.

I wanted to thank Jay for giving a brief overview of the November 2009 classification document. That will save us some time this afternoon during the Materials presentation.

That being said, you did due to lack of time, not intentionally, skip the definition of chemical change. So, as people go through this, I just want to bring that to the Board's attention.

So, I'm summarizing, but today during my Materials Committee recommendation, you'll get to see the full thing, that the definition of "chemical change" says that chemical change is where the identity of a substance is modified.

And then there's a subsequent definition for "substance," which is a compound which possesses a distinct identity.

And that's really critical to these - okay. So, that was Materials chair, and now we're moving to Katrina's thoughts. That is really an important point as we think about any classification.

So, my specific thought on CSL, and I've always been confused by this, is we have a process that takes corn, kind of digests it
through some biological processes, and then results in a material that has, as long as I can tell in organic, been classified as an agricultural. And that's cornstarch.

And then the very same process, like the other half of the stuff, is synthetic. And I just struggle with that.

So, that's a comment. It doesn't need an answer, but $I$ do want folks to remember those definitions of chemical change and substance as they consider this really, really complicated topic.

MR. FOSTER: Thank you, Katrina. Good reminder.

Other thoughts?
Yes, Tina.
MS. ELLOR: Yes, this is such a scary thing because it's so contentious.

From the beginning, we've had sort of dueling experts. And from my point of view, and I'm probably going to take some fire for this, I think both have horses in the
race. And we have comments from Dr. Johnson that are posted, and we were handed comments from the other side yesterday.

So, I would urge everyone to look at both sides very carefully. And it really comes down to is there a chemical change, and what causes that chemical change? Is it biological, or is it chemical? And that's the issue.

So, you know, it's a tough and complicated thing. And Jay has done an amazing amount of work on this, as has John. And we looked at it for a very long time now.

And, you know, with fear of being accused of not doing my job, I'd really like to see the back of this one.

MR. FOSTER: Thank you, Tina.
Other comments or questions?
Tracy.
CHAIR MIEDEMA: The only thing I have to add is that after the Crops Committee concludes their deliberations, we are going to
break for lunch.
And I just want to make sure that Board members, new members, existing members or current members, I should say, old members, that we really air out our differences, our philosophical opinions if we have them, now, and there are some judgments to make that are just on the other side of science. We take science as far as we can, and then we have philosophies and judgments.

Let's make sure we get those aired out today. Because when we get to voting tomorrow, we will have more time for discussion - or, sorry, on Friday.

Let's not start philosophical discussion out of the blue on Friday.

MR. FOSTER: Thank you, Tracy.
Additional philosophical thoughts on corn steep liquor?
(Laughter.)
MR. FOSTER: Well, new Board members, you're in for a treat because you're
going to see some interesting - I mean, this has really been a pivotal - I would say a pivotal conversation in a number of ways, and I'm just going to leave it there.

Pretty much everyone knows my opinions about it. So, I don't need to reiterate them. Although, I could, but no need to.

But I really - it sounds like if there's no more discussion on corn steep liquor, I'll wrap up.

Okay. This corn steep liquor has kind of been - it's been such a touchstone and a fire brand and a burning hot stove and a number of other things.

But through two iterations of Crops Committee, I never - although I have opinions about it, as does everyone, $I$ really, and $I$ mean this sincerely, it was a real privilege to see everyone working so hard in so many ways and bring their A game all the time day after day after day, call after call after
call.
And this includes past - the previous iteration of Crops Committee members, which we're buffeted by this just as much as the current iteration.

Jeff Moyer here, I'll just call you out and embarrass you, carried a lot of water on this for a long time, as did Kevin Engelbert in the prior iteration. And the whole group deserves a whole lot of credit. And it was a real privilege. So, thank you for that.

Having said that, I'll wrap up on Crops Committee and close that out, and thank the Board and the Program and the general public for the indulgence of extra time.

CHAIR MIEDEMA: Thank you, Crops Chairman, John Foster.

For those of you in the audience who planned on hearing Livestock Committee before lunch, you'll have to hold tight until after lunch.

And one note to Board members with our two-thirds majority for decisive votes that we are making sure we adhere to from the OFPA, we're going to have some challenges.

So, let's make sure we don't get to Friday and have a lot of conundrum-type votes where we can't get to ten and have to grapple and debate endlessly.

In other words, when you're a lead on a material, round up your votes and figure out where people are at now. And let's sort some of that stuff out over the next couple of days so we know what we're heading into on Friday.

Last announcement is we've been provided by - with a list of farm-friendly food by the Tilth Producers of Washington.

There's a nice map and menu options on the back table. I just want to note that.

And I want to extend an invitation that they made to all of you and all of us on the Board and the Program, that they're
hosting an event tonight starting at 5:30 at the Palace Ballroom. And there's more information on the back table from Tilth Producers of Washington. So, 5:30. Palace Ballroom. Everyone invited. Let's be back in an hour at 12:45. (Whereupon, the proceedings went off the record at 11:44 a.m. and resumed at 1:03 p.m.)

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1:03 p.m.

CHAIR MIEDEMA: We now have quorum and are back in session. We are ready to begin deliberations of the Livestock Committee.

Chairwoman Wendy Fulwider, please proceed.

MS. FULWIDER: Okay. We have two proposed recommendations that we will be discussing today. And these were requested by the National Organic Program to be part of a comprehensive animal welfare program.

The Livestock Committee has been working on this issue for several years. The conventional dairy industry has just recently started a program that they have in place that they can point to when there is a problem that hits the media.

And the goal of the Livestock Committee is to propose a program that is in the best interest of the livestock and the
farmers that will also assure consumers that animals are well cared for and are allowed to exhibit their natural behaviors.

We have reviewed several animal welfare guidelines, and we have worked with Temple Grandin.

The Livestock Committee has spent countless hours discussing and revising these documents. We have made revisions per public comment at this time, and we will review those with you today.

We plan to present outcome-based standards and species-specific guidance documents at the full meeting.

A proposed sheep guidance document was provided to all of you yesterday during the public comment.

And so, now Lisa has a PowerPoint that I want to go through quick, and then we will go through the edits on the documents.

One of the public comments was about tie stalls and free stalls, and we have
made edits. That was an unintentional omission in the edits when we were revising documents.

So, tie stalls, we put the language all back in the way it was intended to be there. And for those of you that are not familiar with tie stalls and free stalls, I have a few pictures here.

And so, this is a traditional dairy tie stall barn that is very common in the industry. Especially on small, family farms. And this would be the rear of the cows in the tie-stall facility. And as you can see, they are well bedded and clean and comfortable and it's fine. And it's more about management than it is about facility.

The free stall, this is a typical well-designed, well-bedded free stall barn with a mattress over the concrete. And this is what we were talking about in the chart.

This is a loose-housing facility
here. And we want to make sure that everyone
understands that there is no housing system better than any other when they're properly managed.

And the next photo is also the inside of this loose-housing facility. And I just happened to be here on a day when a calf had just been born.

So, the next one, this is some of the numbers we looked at for dairy. The Humane farm program requires 20 to 50 square feet per cow in a loose-housing facility. And our proposed document for organic would be up to a 220-pound animal would require 15 square feet in the bedded space.

And then we have all the other numbers listed there. You can see up to 50 square feet for a dairy cow.

American Humane, they require 20 to 40 square feet per cow. And the Federation of Animal Science Societies, they require 40 square feet in a bedded facility for a dairy cow.

This is a swine document. This has our original proposal. And I was very pleased to see all the care and concern that there is out there for organic hogs.

So, we did increase the numbers for indoor space, as you can see here in the document.

And for outdoor space, we changed it to be in line with other welfare organizations that require sufficient size to allow all pigs to lie down at the same time and to lie apart from one another in the outdoors.

And this one shows the Certified Humane and American Humane numbers. And our numbers are greater than both of these, but our outdoor requirement is the same.

The Soil Association and the Canadian documents are here, and we are very similar to these. But for the largest finishing hogs, we're at 16 square feet for indoors, and they are at 14.

And Global Animal Partnership, we wanted to recognize their standards as well. They don't use numbers, but they require sufficient size to allow all pigs to lie down at the same time and apart from one another on the indoors.

And of course their program is very different because they're all about improvement. Gap 1, Gap 2, Gap 3. And on each time you'd make an improvement, you require greater enrichments or space.

And this is Broilers. It's a little hard to see, but Humane farm requires six pounds per square foot in a building. Gap 3 requires that chickens must be able to express natural behavior; standing, spreading their wings, turning around, flapping their wings and preening, without touching another bird.

Birds must have access to the outdoor area, and 25 percent of the total floor space of the house is the outdoor area,
from four weeks of age. And that is the third level in the Gap program.

Our proposal is that there is one square foot per bird indoors, and one square foot per bird outdoors.

American Humane requires 6.2 pounds per square foot indoors, 7.4. Six pounds, 1.2 square feet. And 8.7-pound birds would have 1.4 square feet.

The Federation of Animal Science Societies would see a six to seven-pound bird have 1.1 square feet. And of course with those, there is no outdoor access required with any of those.

Laying hens, Humane Farm requires 1.5 square feet in a single-level house, and six inches of perch space for 20 percent of the birds. If they're outdoors, then 2.5 acres per thousand birds.

Our proposal is 1.5 square feet, and perch space for 20 percent of the birds. And that would be a six-inch perch per bird.

If you have six inches of perch space for every bird in the building, then it would be at 1.2 square feet per bird. And we would require two square feet per bird outdoor access.

American Humane requires one to 1.2 square feet per bird, and two square feet outdoors for five percent of the birds in an outdoor facility.

The Federation of Animal Science Societies requires 1.75 square feet per bird if you have white leghorns, and two square feet per bird if you have medium-laying hen.

This document is what was proposed in 2009 by the Livestock Committee, and I just included it here so that you would be aware that this has been put forth previously.

So, with that, if we would go to the animal welfare document, and I believe the first change that we made is in the Discussion section.

We deleted "contact with the soil."

And down in the next paragraph in indoor stocking density, we added tie-stall and free stall operations that have individual stalls are not included in the stocking density table to clarify that issue.

Then in the Outdoor Stocking Density paragraph, we deleted "frostbite" here, and I will read the entire sentence. "Calves, lambs, kids and other young animals require protection from extreme weather conditions and threat from predators."

The next change is in the Poultry paragraph. We deleted "paddock rotation." It created a lot of confusion. So, we just deleted it.

And we changed the next sentence down there, "Porches or other areas with floors and solid roofs will count toward indoor space, if birds have unlimited access to the space."

In Definitions, we added on poultry to clarify toe clipping and dubbing. And we
added a definition for "beak removal." That would be the removal of more than the beak tip.

And in Outdoor Access, we deleted "bedding" in the one sentence, and made another add in the previous. I will go through those.
"Animals have contact with soil when seasonally appropriate and the sky overhead and without a solid roof or walls. Fencing that does not block sunlight may be used as necessary."

We deleted the Access to the outdoors part of the definition and just made the one Outdoor access definition.

We added a definition for perches that would be a rod or branch-type structure that would serve as a roost.

We deleted "an abundance of animal
life" in the Soil definition, and we also added that that would be a medium in which plants may grow roots.

Then in the Livestock Health Care Practice Standard, we made a few edits. We eliminated the "competent" word and replaced it with "trained" for folks that are doing physical alterations to young animals.

And we also added beak tipping is allowed and must be done no later than ten days old.

In the following practices that are prohibited, we changed the first sentence to beak removal, desnooting, caponization, dubbing and toe clipping of birds. And these would be prohibited.

To further define tail docking in sheep, we added that they should not be docked short than the distal end of the caudal fold.

In year-round access, we deleted "simultaneously" from the feeding sentence so that it now reads "the area shall be large enough to allow all ruminant livestock occupying these spaces to feed without crowding and without competition. They do not
need to feed simultaneously."
Then we added shelter would be designed to allow for -- and down here below that are the additions - at least one feeding space per animal in loose housing.

Then five here, at least one stall per animal in the group or pen at any given time, that was already here, but we just made a clarification.

We also added in Six, that calves over two months of age shall not be tied. And we eliminated the "until weaning" part of that paragraph.

Then we added the language here for the tie-stalls and free stalls that was lost in the 2009 edit. So, that's not new language. It was just unintentionally omitted, and it's been replaced.

Then in the Avian section, we deleted some language that's already in the rule. And we did add "Broilers will be provided outside access by four weeks of age."

So, just a language change.
And the last sentence was changed
to "Direct outdoor access to outdoor areas will be provided during daylight hours when temperatures are above 50 degrees."

In Suitable Flooring we added that pellets could be used in drinking areas. And this is primarily for smaller farmers. And then they wouldn't need to do a major overhaul of their facility.

And in the doors on the poultry buildings, we deleted "appropriately distributed around the building." And we moved the door language from below, up into this section.

Then in Five, we changed the wording a little bit. "Complete clean out of a poultry house is required if there have been adverse health issues with the previous flock; otherwise a clean layer of litter should be provided between flocks to maintain a sanitary environment."

In Space Allowance, the only change we made here is "stretch their wings." And the only difference this would make is that all the birds would not have to be able to stretch their wings at the same time.

Then before the space charts, we added a bit of language here. It says the values presented in the following charts are minimum amounts only. Producers will be required to comply with outcome-based standards to be developed and ordered to comply with the regulation. Tie and free stall barns are exempt from the space requirements in the chart, and they must provide one stall for every animal.

We changed the stocking rate to minimum space requirements, in the chart. And we changed some of the numbers for sheep. And this is primarily because sheep are only confined when they are lambing. And so, it's just a very temporary situation.

And then in the growing pigs, we
increased all of the numbers. And we took all of the numbers out for outdoor space and changed it to sufficient space for animals to all lie down and apart from one another. And that would be at the same time.

And in the mobile poultry units, we deleted all of the numbers in maximum number of birds per acre.

So, those would be all of the edits in this document. So, if anyone has any questions or discussion about the changes in this document?

CHAIR MIEDEMA: I have one. You mentioned outcome-based measures and said that operators would be required to comply. Yet, we don't have those developed yet.

So, I was just confused by what you meant there.

MS. FULWIDER: We plan on presenting those in the fall.

CHAIR MIEDEMA: I wonder if instead of saying that people are required to comply
with something that we don't have developed yet, it might make sense to just kind of let people know that those are in development.

MR. DeMURI: Not being close - not being close to it, it appears to me like you have addressed most of the public comment we received yesterday that were opposed to your original document.

Is there anything you're aware of that has not been addressed at this point or anything you do not agree with the public commenters on?

MS. FULWIDER: The Committee feels that we have addressed the comments that we have received.

So, any other questions on this document or -

CHAIR MIEDEMA: John.
MR. FOSTER: Sorry. Because of the size of the file, it just took me a while to get it. I know I'm going to have questions about basically taking into comment public
comment, but a couple of specifics I have concerns about. It's just going to take me a minute to round them up.

I actually, I hate to admit it in public, but I have a hard time seeing clearly that far away.
(Laughter.)
MR. FOSTER: So, there it is on the public record. I'm going to need a couple minutes. If we can round - circle back at some point, that would be nice. Thanks.
(Off-record discussion.)
MS. FULWIDER: So, Lisa, if you would like to go to the handling and transit, and then we'll circle back with any questions?

CHAIR MIEDEMA: Mac, go ahead.
MR. STONE: Wendy, we raise - we have birds on pasture year round and I drain the numbers. And on the Broilers, we're like, whew, right at 1.2 square feet per bird by a system that works for us.

But if we don't move those birds
twice a day, then we can get into coccidia problems and such as that.

Is there - is it assumed here that these birds are moving, or they can have that one square foot per bird and not move?

MS. FULWIDER: Well, this is the floor that we put in, you know. And if people have more than that, I mean, that's better. That's great, you know, but this is to be the base in the floor.

And so if they have more space, that's wonderful.

MR. STONE: I guess I'm not sure how they could do it organically with these numbers if they're not moving or intense bedding management, $I$ guess, is part of my question on the poultry specifically.

MS. FULWIDER: Well, I believe a lot of organic producers, these are the numbers that they are using.

Okay. So, Lisa. So, in this document, the first edit we made here is in
the discussion and we moved the terms defined that applied to handling, transport and slaughter, from the other document. There's no change to the definitions. We simply moved them here.

Fitness for Transport, we added some clarifying language here. And this is in the discussion.

Livestock that are likely to be condemned or become downers, should not be shipped. And that's what the language in this statement is about. Because it talks about blind animals and people are saying, you know, they still need to be transported. And that's true, and we don't have any problem with that.

But if it's likely that they're going to be shipped to slaughter and they would become downed or condemned, then they should not be shipped to slaughter, because it becomes a problem from the slaughter plant.

In Transport Condition, we deleted "consumable" in the bedding, and changed it to
"ruffages used as bedding must be certified organic."

And we deleted the certification of transporters. We'll let the Program handle that.

And we added a sentence down in Slaughter. Plants generally allow at least 20 minutes to two hours of rest time for animals between electric prod attempts to get them up if they're down due to exhausting.

And then in the recommendation, here's where we added the terms defined. We just brought them from the other document. There are no changes to the definitions.

And then there was a lot of clarification in the handling and transport. And so, I will go through the adds that we made.

Organic livestock will be transported in pens with the livestock clearly labeled for organic use and be contained in those pens for the duration of the trip.

In Number 1, it is the responsibility of the organic producer to ensure that calves have a dry navel cord and are able to stand and walk without human assistance if they are being transported to a slaughter or auction facility. The livestock trailer or shipping container and slaughter plant must provide season-appropriate ventilation to protect against cold and heat stresses.

Number 3, bedding must be provided on trailer floors and in holding pens to keep livestock clean, dry and comfortable during transportation and prior to slaughter. When ruffages are used for bedding, they must be organically produced and handled by a certified organic operation.

In Number 5, slaughter plant management shall coordinate with transporters to ensure that waiting time once the livestock trailer or shipping container arrives at the slaughter facility, is no more than one hour.

In Number 7, slaughter plants and livestock trailers, shipping containers, must have nonslip flooring.

Number 12, humane treatment procedures for handling immobile and fatigued animals upon arrival at the slaughter plant are in place. Handlers may use sleds and place livestock in the bucket, but may not push them up against a wall, gate or any object.

Number 15, euthanasia equipment must be properly stored at slaughter plants and maintenance records must be available. Slaughter plants must meet all FSIS requirements, including the Humane Slaughter Act.

And that was the last edit. And in this document, facilities are already being audited to these guidelines by the American Meat Institute guidelines.

So, any questions on the edits to this document?

MR. FOSTER: I have one.
MS. FULWIDER: John.

CHAIR MIEDEMA: Go ahead, John.
MR. FOSTER: Thank you. A number of those things you just described sound more like guidance to me. And I have just enough certifier left in me to be nervous about how to verify some of those things and, I guess, enough of an inspector in me to be very worried about that.

So, did you address that in discussion?

MS. FULWIDER: Well, the auditors do certify to this. The meat plant inspectors.

So, our intention is that the organic certifiers can just, you know, document that these have been met by the other auditors that have been in the plant.

MR. FOSTER: Okay. So, all of these things are - all of the things you just listed are already required by other agencies; is that correct?

MS. FULWIDER: Yes, these are all current industry standard.

MR. FOSTER: Okay. So, I guess then my next question is do we need to redo that?

MS. FULWIDER: No. No, we are not requesting that it be redone. We just accept the documents that are already in place, the audits that have already been done, because these are done on an annual basis for these plants.

MR. FOSTER: I'm sorry. Maybe I missed something. I was trying to go over the last stuff, too, but it sounded to me like there was a list of things that were going to be required of these operators, the transportation, the handling, et cetera.

It sounded to me like these were a number of changes that were made to
expectations on operators in their transportation and handling of livestock.

And if those things are already if those activities are already required by
other agencies, then why are we codifying them here again, or is that not - maybe that's not happening.

MS. FULWIDER: Just want to make sure that when our organic certifier goes in, they check the audit to make sure that it has already happened.

MR. FOSTER: Thanks.
MR. DICKSON: Just a quick clarifying comment.

Many of these measures aren't technically, completely regulatorily required by other federal agencies, but they are required by industry standards to which most producers are currently verified.

CHAIR MIEDEMA: Mic, please.
MR. DICKSON: A lot of these measures are not technically regulatorily required by other agencies. But in practice, they are parts of standards to which many producers are verified.

So, these could be covered by a
certifier review of other audit documentation, but they're not necessarily redundant with other federal regulations in every case.

MR. STONE: So procedurally, where do adjustments or changes or amendments because, frankly, I see a lot of things that aren't normal practices, bedding and chickens in coops and some of that, that wouldn't follow with what $I$ see in what we certify now. So procedurally, what happens to this document or changes from here?

MS. FULWIDER: Well, we were planning on doing the guidance to go with that. And I know chickens in chicken cages, I mean, that's a normal thing. They don't use bedding. That's understood, and we don't have any language in here that requires that for chickens.

Any more questions on these documents, or discussion?

MR. FOSTER: Yes, I - to what extent did you kind of assess the affect on the two
square foot per bird requirement, and what's that going to do to folks in general?

MS. FULWIDER: That's been through public comment several times. And there are many in favor. And it is what consumers expect that we have outdoor access. And most of the organic producers are already providing at least that much.

Other discussion?
MS. ELLOR: I just wanted to say
that I looked it up this morning, and Kathleen Merrigan addressed this Board in November of 2007 asking us to do this work. And it's been a long road and through a lot of series of public comments.

And we spent countless hours on the phone. And I know, you know, Jeff is sitting here and he did a lot of the foundational work on this issue as well.

So, I really think it's a good baseline and we're not saying that - and we're calling it a minimum because we had many
comments that thought we didn't go far enough, and many comments that thought we had gone way too far.

MS. FULWIDER: Joe.
MR. DICKSON: Yes, to play off of what Tina said, you know, every single value on that chart was the subject of, you know, hours of discussion and conversation within this Committee. And a really important thing to note on the record about those numbers is that they were developed with the expectation that they would be part of an overall system that also included outcome-based measures of animal welfare.

And that, you know, for many of us who are comfortable agreeing to those specific densities knowing that, again, they were part of a much more holistic system that would take into account other measures, and we do plan to include those in our fall recommendation.

MS. FULWIDER: And that is correct. And a space requirement does not in itself
equal good welfare.
Any other discussion?
(No response.)

CHAIR MIEDEMA: Okay. That
concludes the deliberations of the Livestock Committee. Next up is the Handling Committee and Chairman Steve DeMuri.

MR. DeMURI: Thank you, Tracy.
First of all, I just have to comment I think this is my ninth NOSB meeting on the Board, and a few before that. This is the first one $I$ haven't seen Grace at. So, she must be out celebrating still.
(Laughter.)
MR. DeMURI: We have a number of petitioned materials and Sunset materials to review this week. We have three petitions for attapulgite, calcium acid pyrophosphate and sodium acid pyrophosphate.

We did have a petition to remove silicon dioxide. That is still in our hands. We had it on the agenda originally. And
because of the public comment we received that indicated there were some other uses of silicon dioxide that we needed to be careful of when we made a decision, that we have decided to table that one until the fall.

So, we will continue to look at those public comments, listen to the ones that we might get tomorrow, and would ask the industry for additional public comments over the next six months or so, and we'll be ready to make our recommendation on that petition to remove in the fall.

Then we go into four Sunset items for this - five, actually, for this meeting. We have enzymes and potassium iodide on 205.605(a), and nutrient vitamins and minerals, potassium iodide and tocopherols for 205.605(b), followed up by a chlorine materials annotation recommendation.

The nutrient vitamins and minerals recommendation that's on the agenda, we are going to pull that for the time being as well.

So, the way we hand materials on the Handling Committee is that we assign a lead person to each material whether it be Sunset or a petition. The first one is attapulgite, and John Foster had that one. So, John, do you want to take us through that petition, please?

MR. FOSTER: Sure. Thank you, Steve.

The petition was to add attapulgite as a processing aid in the handling of plant and animal oils.

I understand it also was petitioned to the Livestock Committee for another use, which we did not consider.

We ran through the checklist as described. And, Steve, I maybe should have asked a little, first, how much detail do you want from checklist information as we go through these?

MR. DeMURI: I would just hit the highlights and maybe explain why we decided to
list it, or recommend to list it or not to list it, and then ask for discussion at the end.

MR. FOSTER: Great. Thank you.
Attapulgite is a clay material.
It's mined in large part, in the southeastern US. It has similar properties - similar properties as bentonite on the National List.

It would be used as a processing aid in decoloring, deodorizing or otherwise filtering animal oils or fats.

It's a mined material. It is refined using a - what the petitioner put forward and the TR, I believe, confirmed was a non-acid activation.

We determined that the impact on human health and environment was - the criteria was satisfied, as was the essentiality availability, and the compatibility and consistency.

We did have - so, we determined it to be a non-synthetic material. And it has
some overlap with bentonite, which is already on the National List, but not precise overlap. It has some utility because of its molecular structure. It's somewhat more functional in some applications. Also, as I mentioned, the lack of an acid activation requirement was a positive.

At the end of the day, the Committee voted. The recommendation was to add attapulgite to the National List, 205.605(a), with the annotation allowed as a processing aid in the handling of plant and animal oils, which is consistent with the petition request.

The vote was five yes, one no, and one absent. That's all I have to say about that.

Any discussion?
MS. HEINZE: So, I was the No vote.
So, I just thought I'd highlight for folks I voted no, because one of our criteria is essentiality, and it was not clear to me from
the petition that we had met that criteria.
I've looked at the public comment. I may have missed some. So, correct me. I think we only had one comment on this. So, I'm not sure my position has changed, but certainly we have all day tomorrow for public comment.

So, really, that would be useful information, you know. We have a practice on handling, or have in the past when we don't have enough information, to make sure we get that.

So, if someone has essentiality information, that would be really useful in making our determination on Friday.

MR. DeMURI: Thank you, John.
And I'll add by saying that we did take a vote on this material prior to whether we should list it or not, as to whether it was synthetic or nonsynthetic.

And it was voted five for synthetic, no - five yes - for synthetic, five
yes, zero no's, two absent.
So, we deemed it a synthetic material - well, I take that back. Let me backtrack. I'm looking at the wrong paper here. Hang on a second. I apologize.

Nobody said anything. Okay. That was a test. It's just the opposite, actually. We voted at six for nonsynthetic, zero no, one absent. So, my apologies. I was looking at the next one.

Okay. The next petition material is calcium acid pyrophosphate. And that was one that I reviewed.

It was petitioned to the Board to be added to the list $206.506(\mathrm{~b})$, for use as a leavening agent in baked goods. So, it's calcium acid pyrophosphate. It is manufactured via a reaction of phosphoric acid produced from phosphate rock with calcium oxide.

There was some discussion in the TR about the possibility of some heavy metal
contamination from the mining operations that were used to produce the substance.

We didn't believe that the petition provided compelling evidence that the material was essential for organic production.

Sodium acid pyrophosphate is already listed for use as a leavening agent in baked goods. The premise of the petition was that this could be an alternative for lowsodium products, possibly.

And the petitioner did make some comments back to us after seeing our recommendation trying to explain that a little more.

So, I would implore the Board to take a look at those comments. Those are really the only comments that we received from anybody in reaction to - in a negative reaction to our recommendation. Everybody else that commented, agreed with it, and that would be to not list.

There are also some other listed
items that can be used as a leavening agent. Those would be calcium phosphates. Those are already listed on the National List. So, we just didn't feel like this material was essential for organic production.

So, we took a vote. And, first, for synthetic versus nonsynthetic. And the vote for that was five yes for synthetic, zero no and two absent. And as far as listing, the vote was zero yes, five no's and two absent.

So, the Committee recommendation is to not list calcium acid pyrophosphate to the National List for use as a leavening agent.

Any questions at this point?
(No response.)
MR. DeMURI: Okay. As I mentioned, the original agenda showed silicon dioxide was going to be considered today.

We're not going to consider that today. So, that will be postponed until the fall.

The next item would be sodium acid
pyrophosphate or S-A-P-P. And sodium acid pyrophosphate is already listed on the National List, but it's only listed to be used as a leavening agent. The expanded petitioned use was as a sequestrant on cooked and uncooked produce.

The TR mentioned that no data was found on the material itself that indicated that it posed any potential negative impact on human health and the environment, which coincided with what the previous Board had found when it was listed years ago.

The petitioner did not really provide any compelling evidence that it was necessary or essential for organic handling.

The petitioner for this item, was the same as the petitioner for the calcium acid pyrophosphate that was presented a few minutes ago.

As a matter of fact, $I$ was a reviewer for this material. I contacted some of the potential users of this, and I could
find no one in the industry that would use it if it was listed.

So, based on that information, we took a vote. We voted that it was synthetic. Six yes, zero no, one absent. And as far as a vote for listing, it was zero yes, six no and one absent.

So, the Committee recommends that an expanded use for sodium acid pyrophosphate not be made on this petition.

Any questions on that one?
(No response.)
MR. DeMURI: All right. That
concludes the petitioned materials, those three. Now, we move into some Sunset 2012 items. The first two are for 205.605(a) listings. The first one is for enzymes.

Enzymes were originally listed back in 1995. They've been through a couple of Sunset reviews already.

There was really no evidence that
was brought forward or that we found that
anything had really changed with enzymes since they were listed and re-listed a couple of times.

There is an annotation for enzymes that was inadvertently left off of the recommendation that we posted on the website and that all of you saw. And that annotation is that they must be derived from edible, nontoxic plants, nonpathogenic fungi, or nonpathogenic bacteria. So, that's an important annotation for enzymes.

Enzymes are widely used throughout the food processing industry. There are some nonsynthetic - there are some synthetic chemicals that could be used in place of enzymes, but enzymes are an important tool for organic processors because it gives them some tools to use other than chemicals to enhance some reactions in their plants.

For instance, when an apple juice manufacturer is making clarified apple juice, enzymes is an important input as a processing
aid to that process to clarify apple juice, as an example.

Many sources of enzymes, hundreds of different kinds of enzymes from a variety of plants and microbes.

And in most cases, they are physically extracted. So, it's a fairly simply extraction process.

So, the Committee took a vote on re-listing enzymes on the National List on 205.605(a). And for those of us that were there, it was a unanimous vote. Five yes, zero no and two absent.

Any question on enzymes?
Let me mention also there is another listing for enzymes, but it's for animal enzymes. It's a separate listing.

This one is only for the listing on 205.605(a) that just says enzymes with the annotation behind it. This does not include the animal enzymes.

Okay. The next item for Sunset is
another 205.605(a) item. That's potassium iodide. And Joe Dickson was the lead on that substance.

MR. DICKSON: Just as an overall clarifying comment, there are actually two listings for potassium iodide. One on $605(a)$ and one on $605(\mathrm{~b})$. So, we have two separate recommendations here.

On the first listing on 605(a) -and the reason for this listing is that there are natural sources of potassium iodide that can be derived from seaweeds and from brines. Although our research show that that isn't a very common practice, it's theoretically possible.

Potassium iodide is used as a source of iodine and table salt and in other fortification contexts where iodine is called for.

It was originally added to the National List in 1995. Our review of that original Technical Review and discussion as a

Committee found no substantive changes to the way that it is used or the information in that original report.

We did request a Technical Report last year to help us understand the nature of the two separate listings. That, again, with regard to the $605(a)$ listing, didn't reveal any new information that would be material to its listing here.

The Committee voted unanimously with six in favor of re-listing potassium iodide to 605(a), no votes against, and one member absent.

MR. DeMURI: Thank you, Joe.
Any questions for Joe on the 605(a)
listing of potassium iodide?
(No response.)
MR. DeMURI: Okay. Very good.
We'll move into $205.605(\mathrm{~b})$ Sunset materials. The first one is nutrient vitamins and nutrient minerals.

You've all heard the iterations
that this has gone through the last month or so. We had it on the list - on the agenda. We took it off because of public comment received.

We got word from the Program that that was going to be an issue from a timing perspective with the Sunset process. So, we put it back on for this meeting.

So, I apologize to everybody who had to make flight arrangements and comments, and there was a lot of confusion around that.

So, we on the Committee apologize for that, but we feel like it's the right thing to do right now to consider this for relisting. And then come back in the fall with probably a different take on it.

So, Tracy, you handled this one for us as the lead person. So, Tracy, I'll hand over the discussion to you.

CHAIR MIEDEMA: Thank you, Steve.
And Vice-Chair Joe Dickson, I'll hand the gavel over to you.

Thanks for the synopsis, Steve, of this winding path that nutrient vitamins and minerals has been on.

To go back just a little bit further on the recap, at the April 2010 meeting we first presented the $605(\mathrm{~b})$ item for re-listing. And we recommended the re-listing of the material as is.

And at that meeting, the Program requested that we reconsider/reevaluate our recommendation essentially to pull it, and we did.

We were also advised that day from Miles - from - sorry - Miles McEvoy, our deputy administrator, he said this is a big deal. This is going to take a lot of your time to take a look at this. It may even require additional meetings to take a look at this. There's a lot of products that include substances beyond what is on 104.20.

So, we really did go into this journey, if you will, with the expectation
that we had several meetings to work on it.
We have been proceeding along
gathering public comment, and we have - this Board has never received more public comment on a single material or issue than it did in advance of this meeting on this one issue.

So many that we, as a Board, just received the summary of the comments yesterday morning.

So needless to say, we have not digested your comments, and we absolutely must as part of this process of doing the right thing by you all and by the material.

However, we were implored yesterday in an extraordinary comment for, I think, four minutes by our Deputy Secretary of Agriculture, that we must vote at this meeting.

So, vote we must. Vote we will.
And now, the question becomes vote on what?
We were asked by the Program, not to vote on the material with the current
annotation. We proposed an annotation that has had a very mixed bag of responses, like I said, that we have not even began to incorporate into our thinking.

And we have been assured by the Program, that business as usual will proceed so long as we vote at this meeting.

I think it sounds very important that there's a lot of hesitancy and nervousness out there in the industry that we could really flub up essential vitamins and minerals if we don't vote at this meeting.

So, in playing through the scenario that the NOP proposed, this material would get bundled on the Sunset docket for 2012 with, I believe it was - was it over 200 materials? 212? And it would start writing off into the land or rulemaking.

And comments would begin to - I guess rulemaking would be promulgated. Comments would be coming in.

As a compromise, what I have spoken
with, at this point, five of my fellow committee members about -- is a compromise.

You all are seeing this happen in very much realtime. You saw the information from the Deputy Secretary yesterday at the same, exact time we did.

So, we are - we're working this out in realtime. And what we do not want to get in a -- find ourselves in a situation is that next fall we come back with the annotation that makes sense based on the feedback we receive from you all, and we have dueling annotations out there. One that we have recommended at this meeting, and one that we recommend at the next meeting, that are both out there soliciting public comment.

So, as a compromise, I am suggesting, and five of us of seven of us have agreed that a sound course would be to re-list the material with no annotation at this meeting.

It's a placeholder, it's clean, it
doesn't change anything because the CFR stands as it is until October 21st. And the Program has assured us that we have plenty of time to create the annotation that makes the most sense.

So in this way, we protect business as usual the Deputy Secretary Merrigan has said we needed to do, we keep our placeholder - Katrina, I know you've referenced a need for that placeholder - we honor the intent and the spirit of what the NOP first sent us on this journey, which is we've got a flawed annotation and we don't, as a committee, plant a flag by recommending a flawed annotation, and we're able to take a measured, prudent approach, read all 3,000 or so pages, digest that and come back with an annotation in the fall that makes the most sense.

MR. DeMURI: Thank you, Tracy.
So, to follow up on that as a Committee, we have to meet again to put that recommendation on paper. We'll have that for
you on Friday with a vote, but Tracy did a good job of explaining to you what we're thinking right now.

So, if anybody has any questions, we'll entertain those at this point.

Nick.
MR. MARAVELL: Yes, I was just wondering did we get a reaction out of the Program on this, Tracy?

CHAIR MIEDEMA: It has not been solicited. We have heard from the Program quite a bit over the last few weeks. So, at some point we will have to, on our own as a Committee, pick a lane.

MR. MARAVELL: I'm just - I just would like to know can $I$ solicit that as a I just want to know what the Program's reaction is just so that, you know, I get an idea how this is going to play out because supposedly we're doing this to meet the requirements of the Program, correct?

CHAIR MIEDEMA: We're voting at this
meeting to meet the requirements of the Program.

MR. MARAVELL: The timing requirements is what I'm talking about, yes. I wasn't talking about substance. I was just talking about the timing requirements, yes.

So, I would like to get a reaction from the Program if that's okay.

MR. MCEVOY: Yes, this is a complicated issue. We did bring this - you did have a recommendation in April of 2010 to re-list nutrient vitamins and minerals. We provided some new information and asked you to withdraw that, and to re-look at that to see if there was some other way to go.
We were expecting to get
information, clarification information from FDA in a more timely fashion. That has only been provided very recently. So, the timing has been very problematical throughout this process and we need to move forward with a Sunset 2012 proposed rule.

In order to not disrupt the trade, we need you to make a determination on nutrient vitamins and minerals at this meeting. And that in terms of the proposal to re-list without the adaptation, I think that sounds like a reasonable way to proceed recognizing - it kind of recognizes that there is a problem with the current annotation.

You have a lot of public comment to get through. Gives you the time to then review that during the summer and come back to this issue in the fall that - but also gives the Program the information that we need to continue to move forward with what needs to be done so that this can move forward in a more orderly fashion.

So, sounds good to us.
MR. DeMURI: Thank you, Miles.
Any other questions?
Jay.
MR. FELDMAN: To clarify, is this no annotation, or no annotation change?

MR. DeMURI: We would drop the current annotation that is on the listing as it presently stands.

Joe.
MR. DICKSON: Just for the clarity of the record, would you or Tracy just read what that listing would say without the annotation?

CHAIR MIEDEMA: It would be annotation change in that the striking of the annotation would be in and of itself a change.

So, it would simply read "nutrient vitamins and minerals."

MR. DICKSON: Katrina.
MS. HEINZE: Certainly this is
something we should handle in handling, but $I$ thought we were re-listing as is. So, that's okay. I'm just confused, but maybe we could talk about it when we finalize our recommendation.

MR. DeMURI: We'll talk about it some more, but it was kind of an ad hoc
committee meeting that we did - not a committee meeting, but a poll, we should say. So, we will talk about it in committee. That's just one of the options. Jay.

MR. FELDMAN: I think that would constitute an expansion of use which we can't do under Sunset, I believe.

MS. HEINZE: Give the Committee a chance to talk about it.

MR. DemURI: Good point, and we'll take that into consideration. Thank you.

CHAIR MIEDEMA: Yes, the thinking was that this is a clarification based on the Program asking us for clarification.

So, the big picture here is, I guess, laddering us to the fall and an annotation that makes sense, and not setting us up for dueling annotations that are out there both soliciting public comment.

MR. DeMURI: I wouldn't mind getting the Program's input on that on Jay's comment,
if you guys would care to comment at this point.

MR. McEVOY: Yes, that's something that we need to look at of whether or not it would be an expansion of the list or not.

Give us a little bit of time to think that through and get back to you on that.

MR. DeMURI: Okay. We'll give you 24 hours.
(Laughter.)
MR. DemURI: Any other questions on Sunset of nutrient vitamins and nutrient minerals?

Okay. Thank you, Tracy.
The next Sunset is another
205.605(b) item and it's again, potassium iodide. Joe Dickson.

MR. DICKSON: Thank you. So, this is the other listing for potassium iodide. This is the listing on $605(\mathrm{~b})$ that sort of raised a red flag and caused us to ask the
question last year why are there two listings and, you know, let's dig a little deeper.

The listing on $605(\mathrm{~b})$ is essentially redundant because potassium iodide being the primary form of iodide used for supplementation as iodine, is already covered under the listing for nutrient vitamins and minerals with or without the annotation.

So, this listing which lists it separately and restricts its use to made with organic products for the synthetic form of potassium iodide, seemed to the Committee to be completely redundant as it's already allowed under another listing.

So, in the interest of the tidiness of the list and this sort of discrepancy, we voted to remove it or allow it to Sunset off of $205.605(\mathrm{~b})$-- I'm sorry. We voted to relist it under our procedures, and the vote was zero in favor of re-listing, six not in favor of re-listing, with one person absent.

Any questions on that?

Katrina.
MS. HEINZE: As I was looking through public comment, we received one public comment expressing concern that iodide is an important sanitizer. And I don't know which listing that has to be under.

And I was wondering - I don't - I just don't remember talking about that in Committee. So, I don't know which listing we need to keep that.

MR. DICKSON: I'd like us to review that comment and add that to our Handling discussion.

CHAIR MIEDEMA: Any more questions?
(No response.)
MR. DemURI: Okay. Hearing none, we'll go to the next item. Another Sunset for 205.605(b) is tocopherols.

These were originally listed back
in '95. They've been through a couple of Sunset reviews now. This is the third one.

And we have identified on
additional or new information that wasn't brought forth in those previous reviews.

Tocopherols has an annotation which is derived from vegetable oil when rosemary extracts are not a suitable alternative.

Tocopherols are used as an antioxidant, as is rosemary extracts. And sometimes rosemary extracts just aren't suitable for certain uses. And also, rosemary extracts are not all that easy to find at times either.

So, tocopherols were put on the list as an alternative when the rosemary extracts were not a suitable, viable option.

They're made through a vacuum distillation of edible vegetable oil products used as a source of Vitamin E at times, and also as an antioxidant and a pretty wide range of processed organic products.

So, the Committee took a vote on re-listing this material and it did pass, five yes, zero no, and two absent, to re-list on
205.605 (b) .

Any questions?
(No response.)
MR. DeMURI: Okay. Thank you.
The next agenda item is a recommendation on nutrient vitamins and minerals. We obviously have pulled that one for the time being. We'll come back in the fall with something on that probably tied up with the Sunset process.

The next item on the agenda that we will discuss is chlorine materials annotation recommendation. And John Foster will handle that one for us.

MR. FOSTER: Thank you, Steve.
After all the chlorine discussions, I'm feeling quite sanitized, actually.
(Laughter.)
MR. FOSTER: So, in a nutshell, this is just a standard review, again, and similar to crops.

The general direction was to try
and align the annotation more closely with the NOP's draft guidance that came out fall or winter, I believe, to read - this is actually a fairly long annotation.

I don't believe it's any more restrictive. It is - it will have the same net effect, or at least that as the intent. It will be more of a codification of what's already present in the industry.

And a lot of operators have been looking for some regulatory support wherein it's been - that support has been somewhat fluid since the start of the NOP.

So, the annotation recommends the following: Chlorine materials, open parentheses, calcium hypochlorite, chlorine dioxide and sodium hypochlorite, end parentheses, may be used up to maximum labeled rates for disinfecting and sanitizing food contact surfaces. Chlorine materials in water used in direct crop or food contact is permitted at levels approved by FDA or EPA for
such purpose provided the use is followed by rinse with potable water that does not exceed the maximum residual disinfectant limit for the chlorine material under the Safe Drinking Water Act. Chlorine in water used as an ingredient in organic food handling should not exceed the maximum residual disinfectant limit for the chlorine material under the safe Drinking Water Act.

The vote on this was six yes, and zero no, and one absent. I would also say that we got some very good public comment that spoke to perhaps a revision to the second paragraph in there that instead of requiring the language of a rinse to speak to an intervening act to accommodate other means of clearing out processing equipment other than water rinse, which is appropriate.

And I suspect in our Handling Committee meeting, we will bring that up, as well as, Nick, the use of the word "should" again is replicated there. I suspect we will
handle it the same way as the Crops Committee would.

That's it in a nutshell.
MR. DeMURI: Thank you, John.
Anybody have any questions for John or the Committee?

Jay.
MR. FELDMAN: John, you said this policy brings us into conformance with the NOP guidance, right?

And so can we hear from the Program that it does that?

MR. FOSTER: I believe it's draft guidance at this point and I - it's fine with me to hear from the Program.

MR. McEVOY: Yes, we published draft guidance last October on the use of chlorine in organic production and handling. And the final guidance will be out relatively shortly that will reflect the draft guidance and incorporate the comments that we received on the draft guidance.
(Laughter.)
MR. McEVOY: What was the question?
MR. FOSTER: I think we just wanted to hear from the Program. So, I - you done good, I think.

MR. FELDMAN: So, Miles, does this language, does it conform with -

MR. McEVOY: Yes, it does.
MR. FELDMAN: Thank you.
MR. DeMURI: Any other questions?

Katrina.
MS. HEINZE: Okay. I have to apologize before $I$ say this. I had public comments mixed up in my head. So, this was a more appropriate comment during Crops.

But in some of our written public comment, we got some comments that supported these changes to annotations for pouring, but wanted corps being changed to match handling. I thought it was handling being changed to match crops.

So, totally my mistake, but could
you give us a background on why they're different and what needs to match what or why they don't have to match?

MR. FOSTER: Yes, but I need to ask you what you mean by "they." Why they are different between crops and handling or between the old versions of crops versus new of crops, old of handling, new of handling?

Sorry. I -
(Laughter.)
MS. HEINZE: The two proposed new annotations matching, are not matching.

MR. FOSTER: Yes, I can do that. The context in which chlorine might be used as a sanitizer is a little bit different. And that the context in which chlorine in water would be used on 601, it is very different. So, there's that reason.

The other underlying assumption here, the reason they're not closer is that the, as I mentioned in the Crops section this morning, the operating assumption -- and this
could very well have been just my operating assumption. So, if it's wrong, I'll shoulder that - is that post-harvest water use on a farm would be using the chlorine annotation from 605 because of its post-harvest utility. So, it wouldn't need to be the same if that caveat is in play. Does that make sense?

MR. DemURI: Any other questions on the chlorine materials annotation recommendation the Committee is making?
(No response.)
MR. DeMURI: Okay. That concludes our presentations. We're back on schedule. CHAIR MIEDEMA: Well done, Chairman Steve DeMuri of the Handling Committee.

I think we have time to forge ahead and let's move on next to Materials Committee and Chairwoman Katrina Heinze. Thank you.

MS. HEINZE: I'd be happy to forge ahead, but we're probably going to take all 45 minutes. So, do you want to forge ahead, or
do you want to give people a break since the break is scheduled in the middle of that 45 minutes?

CHAIR MIEDEMA: I hear the whispered word "break."
(Laughter.)
CHAIR MIEDEMA: So, we'll break.
Let's really try to be back and seated in 15 minutes. That gets us at 32 minutes after the hour.
(Whereupon, the proceedings went off the record at $2: 18 \mathrm{p} . \mathrm{m}$. and resumed at 2:36 p.m.)

CHAIR MIEDEMA: We're back in session. We have quorum. Next up is the presentation and deliberations of the Materials Committee. Chairwoman Katrina Heinze, please proceed.

MS. HEINZE: Thank you very much, Tracy.
Lisa is going to bring up a
presentation I have, and I would be happy to
provide this to Board members. I should have thought of that ahead of time and e-mailed it to you guys, but I wasn't that smart.

We have 45 minutes for this topic. I am very grateful to livestock and handling for getting caught up, because I think we're going to use it.

So, my plan is I'm going to do an overview of kind of the history on the topic, our grounding recommendation, and then I'll discuss the specific document up for review at this meeting.

And the reason for that is this is a really, really complicated topic that has a ton of history. And I know when I was new on the Board and I was asked to work on this, my head spun for about two years.

So, I want to make sure that I help those of you who are new, to get a little bit grounded.

So, before I get to the presentation, at our fall meeting, we said -
or I said that I had hoped that the Materials Committee would have worksheets on classification ready for this meeting.

Despite a lot of effort by the Materials Committee and a lot of discussion, we were not able to do so. So, I apologize.

I know that the public has been very anxious for those worksheets, and I am committed to continuing our work and really do hope that we will have something by the fall. And I know the Committee is very committed to that.

There were several topics that were sticking points, but really the big sticking point was how to approach determining if a significant level of a synthetic input remained in the material being reviewed for classification.

And that sticking point took all of our discussion time. So, really we ran out of time.

But the good news is, is after all
that discussion, we were able to reach proposed guidance on that topic. And that's what we're presenting today.

So, classification has been a perennial topic for the organic movement and this Board and has varying perspectives.

You're going to hear me say this a number of times, but all perspectives are very valid.

You can go - I'm still on Page 1. So, I am very grateful for the folks on the Materials Committee for your continued engagement and being willing to bring those different perspectives to the table while we have this discussion. We have had vigorous, but very gracious debates, and I appreciate that.

Okay. So, classification of materials. There is a lot of detail on all the specific history in the November 2009 recommendation. But the crux of it is that as an organic group, we agree on classification
for the bulk of all materials.
There's a small number, our current poster child is corn steep liquor, but there have been others over even my brief time on the Board, where we could not get to agreement. And so, the public has asked the NOSB to provide greater clarity.

There have been years of efforts kind of starting in 2005, moving through 2006, going on and on and on and culminating in the November 2009 recommendation.

Okay. So, next slide. So, I think that captures it, but - so, this presentation is really highlights. It's not every slide, but it's highlights from the presentation I did in November 2009.

So, the reason we're doing classification is because it really matters, right?

It tells us whether things are allowed or prohibited in our various production and handling and because of these
inconsistencies.
Next slide. So, some thought starters. You've heard me say this before.

All perspectives are valid and there's no decision on classification that's going to keep it - have everyone's agreement. And there hasn't been since time immemorial.

Our job on the Board is to make the really tough decision and move forward, because our public has asked us to do that.

That was true in November 2009 after two years of industry and stakeholder debate, and it is true today.

Okay. Next slide. So, this is the slide I showed that November. This is really to highlight the work of the Material Working Group.

So, I think in 2007, the Materials Committee had proposed a recommendation on classification. It was wrong. The public told us it was wrong and we needed help.

And so Kim Dietz and Gwendolyn Ward
came together. They pulled together a broad group of stakeholders. And for a year and a half, those folks met every week and they debated, and they debated, and they debated and they brought examples and they went through examples, and they came up with recommendations that we could base our work on.

So, all our work has been done based on that group and they will deserve thanks for many years for their commitment to that.

Okay. Next slide. Okay. So, what we recommended. The meat of the matter. Okay. Next slide. So, we had three guiding principles, and thank you, Jay, for going through those. I will just highlight them again. Source and process both count. Because of that, the same material can be classified as apicultural non-synthetic or synthetic, depending on source and process.

So, there are examples in the

November 2009 document that show a certain material, call it Material A, that is both synthetic and non-synthetic. Our example today was potassium iodide, right, where it can be both.

And then finally if a material is processed such that it is classified as a synthetic, then the material is synthetic regardless of source. And this really had to do with agriculturally-sourced materials that had been processed to the point where they were synthetic.

And there had been quite a bit of discussion about, well, should we have apicultural synthetics or what did that mean? So, this was the Board saying, no, they're synthetic.

Okay. Next slide. So, and this is a really important slide. So, I'm going to spend some time on it.

We considered two perspectives in November 2009. You'll see that mirrored by
the recommendation that we have today.
So, partly for consistency and partly because this is a topic that you could spend a lot of time on, I am just going to read exactly what $I$ said in the transcript from November 2009.

So, in preparing for this, I just went and copied and pasted what I said, on this slide. And I'm doing that because I don't want folks to think that we haven't had these conversations and that both of these perspectives have not been perennial perspectives.

So, here we are a year and a half later. We still have these, you know, these just different ways of looking at what we do.

I'm also reading from it because this is a complicated topic and - anyway, I'm going to read.
"Okay. So, let me explain our rationales." I'm explaining the majority recommendation, which is the information on
the left side - before $I$ do that, let me explain what it is.

So, the recommendation was if used as synthetic in a process, but there is no chemical change and the synthetic is not present in the final material at a significant level - so, remember that. That's why we're here having this conversation - then the resulting material is not synthetic.

That recommendation maintains what has been the current practice in the industry, the majority felt it was least disruptive, and it was consistent with the Material Working Group recommendation.

The other perspective is that use of a synthetic not on the National List of approved synthetics automatically results in the material being classified as synthetic. So, now let me read. "So, let me explain the Committee's rationale a little bit.

We went with this recommendation
for several reasons. One, it's the recommendation most closely aligned with what's been happening in the industry today, and has been pretty much since the beginning. If you look back at early Boards, this is how they made decisions about synthetic or non-synthetic starting around 1995, and is very consistent with how decisions had been made in the industry. It maintains a status quo. So, it's the least destructive to the list, both to the list and to the practices. Because if you'll remember, most classification decisions are not made by the NOSB and they don't show up on the list. They happen every day in crops and livestock.

When someone is looking at whether a material is nonsynthetic and can be used in crops or livestock, this recommendation matches what's been happening in those decisions.

But we - okay. But we do have a
minority opinion, and $I$ want to highlight it because it reflects a lot of discussion that happened at the Material Working Group, and a lot of discussion that happened in the Committee. And I want to make sure the Board has time to discuss it as well.

The minority opinion is that if a synthetic is used, then the material should be classified as synthetic, period. And, really, the argument for this is transparency.

The minority opinion approach to classification is black and white. It's very clear to consumers.

We are not going to have a lot of disagreement if you go with that minority opinion, but it has a really significant impact.

There would be a lot of materials that would be reclassified that are in use today in crops and livestock, and it would be reclassified from nonsynthetic to synthetic.

So, at the end of the day while
something this clear is very attractive, the majority of the Committee at the time, and subsequently the Board, did not feel that the minority opinion was practical and it would reverse years of practice in our industry.

Okay. So, that's what $I$ said in November 2009. So, we had a lot of discussion on the Board at that time.

I would strongly encourage folks, especially folks who weren't there during those discussions, go back and read the transcripts. Each of you will individually have a connection to either the recommendation or the minority opinion. And you need to understand that, and you need to understand the debate to inform your opinion.

So, after all that, the vote for the final recommendation in the - at the time, it was a joint Handling/Material Committee committee - was five yes, one no, one abstained, one absent. And then this recommendation passed the full Board with 12
yes, one no, and two absent.
So, I gave you a friendly nudge to read the transcripts. And I would - next slide. Okay. So, that recommendation came with a number of definitions. Can't see it real good on this slide, but the ones in bold italicized are recommended additions to the definitions in the final rule. So, take a look at those.

Next slide. And then we had some discussion about what this means in the real world. So, what it means is that extraction with a synthetic not on the National List -doesn't mean a material's classified as synthetic unless there's chemical change or the synthetic remains in the final material at a significant level. We'll be back to talk about that. Extraction was broadly defined to include mechanical physical separation in addition to solvent extraction, chemical change - so, if chemical change happens, it would not necessarily include - oh, sorry.

Chemical change would not necessarily include processes like ion exchange or pH adjustment if the final material is not a different substance from the initial substance, and significant levels should be determined with reference to the applicable regulatory limits in addition to technical and functional affects. So, that's what we were looking at, at the time, for significant.

Next slide. And then we talked about formulated products. So, for example, a vitamin for livestock - I'm making this up. Remember, I'm not a crops or livestock person. A vitamin for livestock that had some flow agent in it, if that flow agent is a synthetic, it's obviously there at a significant level -- that makes the resulting combo synthetic, is kind of what this slide means.

Okay. Next. So, some other things just for the new folks who weren't there, that you should know that were in the
recommendation. They're not material for today. The recommendation also includes discussion of agricultural and nonagricultural. So, in the fall when we're back to talk about our worksheets, this is going to be important.

Next slide. There was also quite a bit of discussion of products of naturallyoccurring biological processes. At the time, the material of interest was yeast and where did it belong and could we make it commercially - require commercial availability. The recommendation really kind of defers discussion of these because they're so complicated.

Okay. Next slide. And then we had some NOSB practices that we recommended. Specifically, two votes on materials. So, that's where the voting for classification and then voting for allowance came up.

And then reminding the Board to say we might need to use better annotations for
some of these to really focus on source and process.

And then reminding the Board that we really had to get technical and really dig into these materials, because sometimes this is really complicated.

Okay. Next slide. And then I reviewed -- we had received quite a bit of public comment at that meeting. So, I had a slide that went through all the public comment. There was general support. There was a concern about scope. I highlight that because this question of what about a material that is 95 percent organic agricultural inputs and has five percent things on 605? Is it synthetic or is it nonsynthetic? How does that happen? This question led to our April 2010 addendum, which I'm also - is up for vote today.

Okay. Next slide. And then we had some next steps. The key one here was the guidance document, which is these worksheets,
which we're still trying to get to a year and a half later.

Okay. Next slide. Okay. So, thank you for indulging me in that history. Please, please, please go read that recommendation. I know it's 18 pages. I know it's a long read. For those of you who this is your first meeting, you're going to need it for the next five years. So, it's a worthwhile investment.

So, turning to this meeting's proposals, because I know that - I've been working on this for a long time. I'm sure it's much more interesting for me than it is for you. We have two voting items for our meeting. Lisa, if you can go down to the proposed - the proposed action? So, remember the 95 percent agricultural - organic agricultural inputs and the five percent - it's Page 1, Lisa. That was a topic of great discomfort, I would say, in the public comment in November 2009.

So, the Committee went back and proposed an addendum to the definition of chemical change. So, you can see it in the recommendation. November 2009, chemical change was one sentence: an occurrence whereby the identity of a substance is modified such that the resulting substance possesses a different distinct identity. And then says, see related definition of "substance."

To try to address this 95 percent product, the Committee recommended a second sentence which I'm not going to read. There was a lot of discussion at that meeting. At the time, our counsel from NOP, it was right when Miles was coming, our counsel had been that everything we did on classification had to go into the final rule. So, this idea of having guidance and working on it hadn't really come into being.
So, after - oh. So, after April

2010 where this second sentence passed, 12 yes, two no, one absent, the Program came back
and said, we don't like that. So, did a bunch of the public.

So, the Committee has gone back and what we're proposing for this meeting, is that we rescind the second sentence.

We think we overstepped. We think we can handle it in guidance. We are much happier with that approach. I think that's the feedback we've gotten from the Program. So, we want to pull it back. We need to do that, because it was a proposed recommendation.

So, we want to send a clear signal to the Program that we overstepped, we think we can handle this 95 percent through guidance. Okay. So, that's the first thing we're going to vote on.

Then if - I don't think you have to pull it up. Okay. Then the second thing we're voting on is proposed guidance really to address this idea of what is a significant amount or level of synthetic input remaining
in a material to be classified. So, you saw when I went through it, that word "significant" comes up a lot.

We have - we looked at two approaches. We talked about them for a long time. And these perspectives really mirror the minority and majority perspectives that were the subject of so much discussion at the November 2009 meeting.

One approach that we considered -this is a minority approach -- but one approach we considered would evaluate any known level of a synthetic substance in the final material or in the environment as a result of the substance's manufacture, use and disposal as significant or as a significant level.

Proponents of this approach suggest that consumer trust is paramount. So, it gets back to the transparency. And we need assurance that organically labeled products meet a consistent standard in compliance with
the statutory standard on synthetic agents and their allowance.

They go on to say that standard of review really requires that we look at harm of every synthetic substance, regardless of level.

So, under this approach, all synthetic inputs or residues have to be examined. So, that is very consistent with the original minority opinion.

The second approach we considered, and which ultimately is the recommendation that you'll be voting on, is that a significant level of a synthetic substance in the final material means a level exceeding any applicable regulatory limits, where in effect for the material being classified, and a level without any technical and functional effects in the final material.

So, this is an evolution of the Material Working Group recommendation. Proponents of this approach believe that it's
more consistent with past NOSB practice and precedent, is consistent with the Material Working Group recommendation and really reflects the bulk of public comment we've gotten over the years on this topic.

Additionally, the majority of the Materials Committee was really concerned with using an approach of any known level, knowing that technology allows any known level to change smaller and smaller over time.

We did have discussion that any applicable regulatory limits, that a certain material may or may not have them. And so in that case, our guidance would be that technical and functional effects of any remaining synthetic would need to be evaluated.

Okay. So, as a final thought, this guidance is intended to apply only in cases where a synthetic input is removed from the final material with the intention of fully removing the synthetic input, but where
complete removal is not possible.
So, this doesn't mean we added a synthetic and it's going to stick around and so then you look at regulatory limit. It's really a case where it's intended not to be there, but, you know, the reality is you can always measure something at some level.

So, this is, for example, extraction of a natural with a synthetic solvent.

The Committee voted for the second approach as proposed guidance with a vote of four yes, two no.

We have received public comment on both of these voting items on the -- pulling back the second sentence of chemical change, that passed the Committee, six yes, zero no. All public comment supported it.

For this proposed guidance on the significant level approach, we had a number of public comment with the minority opinion supported by a number of comments from
consumer groups and consumer comments. And the majority supported by several certifiers and folks who were really concerned with the disruption that would come from going with the minority opinion.

So, finally, one last thought, and then you can ask questions and debate and whatever. We wanted to provide an update. In the midst of all this, we had a lot of discussion about classification versus allowed.

So, just a reminder that classification is a separate process from allowed or prohibited. All right. So, just -- this is really a critical distinction. So, a material manufactured with a synthetic may be classified as nonsynthetic. However, we have a further obligation to determine whether that material is consistent with organic practices.

So, in the review for classification that a committee should
determine -- oh, they may determine that a material is nonsynthetic, but it should be prohibited, and we have an obligation to act on that.

So, that is the Committee's recommendations. So, one is just a reminder, and then we have the two voting items; one to rescind chemical change, and the proposed guidance on an approach to significant level.

What I would suggest is that we handle chemical change first, and then move to the approach to significant level.

So, any questions on chemical
change?
(No response.)
MS. HEINZE: Okay. It doesn't look
like we have any. So, moving on to the approach for - approach to significant level, any questions or discussion on that?

Yes, Nick.
MR. MARAVELL: Yes, this is just to show my ignorance, because this is going to be
with me for quite a while, my ignorance.
In a level without any technical and functional effects in the final material. I know what functional effects are. I don't know what technical effects are, and are you suggesting that those two need to be met, both technical and functional effects?

So, just explain it to me. I really don't know.

MS. HEINZE: Okay. I'm going to try.

So, a functional effect might be where it has an effect in -- right. So, like a pesticide.

A technical effect might be where it's there to -- as a flow agent or a sticking agent or something like that.

And, yes, both need to be met. And I'm really glad you asked the question. So, thank you.

MR. MARAVELL: Okay. In my mind, they both -- those both sound like functional
effects. So, what I'm wondering is what does technical add to it?

You had something else in mind, and I'm just trying to find out what it is.

MS. HEINZE: No, I'm really glad. Ask that -- you're right. You're going to live with this for a long time.

We included both. And really when
I say "we," the Material Working Group included both because they wanted to cover both of those in case someone chose not to interpret functional as including technical.

So, it was to make sure that both were included, right. Because as you all know, we can all choose what a word means, and so they wanted to cover both bases.

Other points?
Yes, Colehour.
MR. BONDERA: I'm going to have a hard time with this question partly because I don't have your presentation to verbalize it correctly.

So, I'm wondering if you can go back to about the third one. I'm not sure. I'll call you when you go, because I want to read something from there as my question.

If that's the third one, it's not it, it's the one with two side-by-side - is it that one? I think - that is the one I have a question on.

And where it says "our recommendation," so I'll just read it from here to ask my question.

It says, if the use of a synthetic in a process did not lead to chemical change -- and I am a teeny bit concerned about the word "chemical" there, but that's not my question -- and -- and that word is - and the synthetic was not present in the final material at significant levels, then the resulting material was not synthetic.

My question is -- and maybe you just need to help me with a little bit of English grammatical details and then it will
be clear.
Both of those things have to be true for the conclusion, is that correct?

So, it's not that it did not lead to chemical change, and it's not that it did not do it, it's the "and" word, both of those things have to be in place, is that accurate?

MS. HEINZE: You did a remarkably good job asking that question. After your info that you said you weren't going to word it right, that was very good. Yes.

So, two things on this. You are interpreting that exactly correctly. Both of those conditions have to be met. And a reminder, this is not what you're voting on today. This is passed the NOSB.

What you are voting on today is how we, as a Board, are choosing to move forward on how we approach what is a significant level.

Yes, Tracy.
CHAIR MIEDEMA: I understand your
committee did some work trying to understand the use of the term "significant" in other context of governmental agencies, and particularly at USDA.

What all did you find out there?
MS. HEINZE: To be honest, not much. This is a word that a lot of people struggle with. We tried to get other approaches. The reason it took so long was we were really not enamored with the Material Working Group because it's a hard definition, but there wasn't -- we couldn't find anything much better.

So, after circling and circling, we do think this is the right approach.

Nick, I think you had a question.
MR. MARAVELL: Yes, on the technical and functional effects in the final material, sometimes you have intended, you know, functional effects, and sometimes you have unintended.

So, let's say a petitioner sees no
functional effects from any detectable level of a synthetic, but it may have unintentional effects, but the petitioner's not aware of that, let's just say.

This would cover both? In other words, if something came to the Committee or to the Board through Technical Review or other that this has an unintentional functional effect, then it would still be considered the residual -- the significant amount does have a functional effect.

Am I making any sense?
MS. HEINZE: Absolutely. Yes. So, it is -- a couple comments on that.

This is technical and functional effects in the use of the material, not in the process of the material. Because clearly this synthetic input had a technical and functional effect in the process, right.

So, for example, the example we always come back to is botanical pesticides, which has been my poster child for this.

They're hexane-extracted. The hexane is clearly there in the process for a reason, but the Board, in '95, determined those to be nonsynthetic because the hexane was not -- you know, it was removed and then is not present at a significant level in the resulting material, and doesn't have a technical or functional effect in the use of that material. Yes, John.

MR. FOSTER: I think this falls under the not for nothing category, but that phrase is common to also the definition of "processing aid" under 205.2 right now. And I don't know to what extent the Materials Working Group used that.

But in my mind, that's been helpful
in that I'm way more familiar with characterizing processing aids than $I$ am considering the nature of all materials.

So, it had -- that has some resonance for me, but only because I have had to apply that in -- for the last 15 years in
certification. So, I think part of the hazard with "significant" is that it's, I believe, by definition, a relative term. And that anyone from any different position will not have the same, you know, perception of it, so that we're -- it's always going to be that way.

And to draw a line in the sand is -- I think might be a well-intentioned naivete, but -- so as for "significant." But that technical and functional effect in a -I'm grounded in that because -- only because I see it in processing aids.

And a de-foaming agent in a vat of fruit juice is used to keep foam from happening while it's being processed. In the bottle after the juice is done, that -- there may be some remnant of that left, but there is neither functional nor technical effect in the bottle.

So, I think perhaps it might be useful to also frame that question in terms of when in the chain of events are you trying to
determine the effect.
MS. HEINZE: Thank you, John. I had a thought as you were talking, and it is gone now.

But, Nick, I did forget as I was -as you were asking your question about the technical and functional effect, and that is why in November 2009 we had that NOSB Practices. And Point Number 3 was we really needed a reminder to the Board that on these really hard classifications, you need good technical expertise, you need good TRs. And, frankly, you need differences of opinion in your technical experts, because these are very difficult issues to flesh out.

And now I've remembered what I was going to say in response to John. The other thing is if you look historically in the record at materials that have been difficult to classify, they, no differently than this recommendation, have differences of opinion and that's okay, right?

This is as much about philosophical differences as it is science. And so if you look at botanical pesticides, if you look at all of the materials the Material Working Group evaluated, it's not like they get classified unanimously, because of the -- how people think about "significant."

Any other questions?
(No response.)
MS. HEINZE: Well, thank you very much. I really appreciate Tracy's point. This is a topic that has philosophical discussion and debate, and I'm very glad that we had some of that today. And I appreciate the really good questions.

And with that, the Materials Committee is done.

CHAIR MIEDEMA: Thank you, Materials Chair Katrina Heinze. And we're going to forge ahead again.

All right. Next up is Compliance, Accreditation and Certification Committee
deliberations. Joe Dickson is the chair.
Lisa, you had a question?
MS. AHRAMJIAN: Sorry. This will
just take a sec. I had several people who were interested in seeing the Livestock Committee's documents. So, those are now posted at regulations.gov.

So, if you want to write down the number so that you can search for it later, I'll give you a second to grab a pen, it's ams-nop-11-0014-3469.

So, 3469 is the comment number. Thank you.

MR. DICKSON: Thank you, Lisa.
The Compliance, Accreditation and Certification Committee only has one item on its agenda, and that is a discussion document that will not be voted on at this meeting.

That discussion document is entitled The Evaluations of Materials Review Organizations. And because it's such an expansive topic with so many stakeholders and
so much potential impact on the industry, we decided as a committee it would be best to sort of divide it into a two-part process involving a discussion document designed to elicit various substantial public comment, and then a recommendation in the fall.

Some background on this. Back in January, the Board received a memo from the Program which requested our assistance in the development of a clearer policy on the oversight of materials review organizations.

A materials review organization, just for the purposes of this discussion, is any entity that assesses specific materials, both generic and brand name, for organic production and their consistency with the regulation.

The Organic Materials Review Institute of course is the most well-known of these organizations, but we also have a number of other organizations performing materials review activities, including the Washington

State Department of Agriculture, the California Department of Food and Agriculture, and nearly all certifiers provide some sort of materials review function as a service to their clients in the course of their business. The Committee worked with the Program to identify a list of specific challenges that this recommendation or the future recommendation is designed to address, and I'm just going to read through those very quickly so they're on the record.

The first challenge is that all certifying agents review input materials for compliance with the regulations. Most certifying agents do not publish their list of approved materials and inputs, and that can lead to a lack of transparency of what materials have been approved for use in organic production, and also inconsistencies between certifiers as to which materials have been approved.

There are numerous organizations
that may or may not be certifiers who are evaluating materials for consistency with the regulation.

On numerous occasions, a material that is allowed by one certifying agent is prohibited by another. This lack of consistency in what materials are approved creates an uneven regulatory landscape, is unfair to organic producers and handlers and leads to certifier shopping to find the certifying agent that allows more materials. There have been situations where the NOP has disallowed the continued use of materials, and material review organizations continue to list these materials as approved for some time after the Program has identified them as noncompliant.

There is no current single universal list of approved substances that is available to producers and handlers. And it is difficult for many producers and handlers to understand what materials are allowed and
which are prohibited in a given context.
This regulatory uncertainty causes reluctance by many potential producers and handlers to enter the organic trade because of the lack of stability of the materials list and what they may be able to use at a given time.

> OMRI and WSDA maintain publically available lists of approved materials. The process for removing substances from these approved materials list is not consistent. There is not a consistent process for material input manufacturers to appeal decisions that are made by these organizations or by certifying agents.

Currently, the NOP does not have any direct regulatory authority over materials manufacturers. If materials manufacturers violate the standards or fraudulently represent their product as approved for organic use, the NOP does not have the authority to issue civil penalties or propose
adverse actions.
Currently, organic producers and handlers bear the risk of using substances that may not comply with NOP regulations based on claims that are made fraudulently or mistakenly by the manufacturers of those materials.

This is a regulatory topic with dozens, if not hundreds, of stakeholders. Virtually all manufacturers, certifiers, materials review organizations and other parties have a horse in this race, and we wanted to make sure everyone had a chance to weigh in.

So, the discussion document laid out the challenges that $I$ just read through, along with 14 specific pointed questions that were intended to solicit very concrete input from the public.

We received a pretty good number of comments. We heard from OMRI and WSDA, a number of certifiers, materials consultants,
several former members of this Board. The Accredited Certifiers Association on behalf of the certifier community, and the Organic Trade Association all weighed in.

We literally have hundreds of pages of comments to sift through as a committee as we hunker down on this topic over the summer.

We still would like to hear from a few more stakeholders. There were only two individual certifiers that responded, and I think we could reach out to a few more and get a more robust representation from that community.

And, you know, we'll continue talking to of course OMRI, WSDA, the key stakeholders in this conversation and the National Organic Program as we lay out a very detailed recommendation hopefully for the fall NOSB meeting in Savannah.

That is my update on that discussion document. Are there any questions? (No response.)

MR. DICKSON: Thank you very much. Tracy?

CHAIR MIEDEMA: Thank you, Joe.
Okay. We have quieted down up here. Do people have any questions about anything that they really wish they had asked earlier and are disappointed that they didn't think of it at the time?

I just want to give it to the table to make sure that we really cast a wide enough net to give opportunity.

Anything we missed from earlier?
(No response.)
CHAIR MIEDEMA: Okay. Seeing none, hearing none -

MR. MCEVOY: I think we're ready to provide a more thorough response to your question about the Handling Committee with the change to the annotation.

CHAIR MIEDEMA: Okay.
MR. McEVOY: That should liven things up a bit.
(Laughter.)
MR. McEVOY: Okay.
CHAIR MIEDEMA: Please, go ahead.
MR. McEVOY: So, what we did is we I guess what we would consider if you removed the annotation, that nutrient vitamins and minerals that didn't have an annotation, then what is the list of vitamins and minerals that would be allowed?

And the way that we would look at it, it would be limited to this particular list that we pulled from various regulatory references, including -- well, it compares 21 CFR $104.20(d)(3)$, has a list of the references for 101.9, 107.100 and 107.10, and also have a column on the 1995 TAP reviews for vitamins and minerals.

So, it would include or be limited to Vitamin A, Vitamin C, calcium, iron,

Vitamin D, Vitamin E, Vitamin K, thiamine, riboflavin, niacin, Vitamin B6, folate, Vitamin B12, biotin, pantothenic acid, choline
and inositol.

Note that we have received a petition for choline. Phosphorus, magnesium, zinc, iodine, copper, potassium, selenium, manganese, chromium, molybdenum and chloride.

So, this would be what we would consider if you remove the annotation, that this would be the list that we could reference based on removing the reference and have a specific -- this provides a specific list of the regulatory reference as well.

CHAIR MIEDEMA: Thank you.
Jay?
MR. FELDMAN: Thank you for that.
My understanding is that those lists are developed by FDA to be essential vitamins, essential nutrients, and essential minerals.

And there's nothing in the language here if we remove the annotation to 21 CFR 104.20, that describes these nutrient - or these nutrient vitamins and minerals as
essential.
So, why couldn't I, as a producer, introduce any vitamin or any nutrient that $I$ wanted to without that sort of limitation?

MR. McEVOY: Yes, I think that's the question. Is this - if we remove the annotation, would that then create an openended list of vitamins and minerals?

And that's why we would say and put on the record here, that our understanding of that, how we would interpret that, is that it would be limited to these particular vitamins and minerals.

CHAIR MIEDEMA: Sounds like a very reasonable compromise. So long as we don't have these dueling annotations both out there soliciting public comment, you know, we're going to live with however you decide to guide the public.

And we know every time we submit a material to the Program, that you can give contour to how you interpret and enforce that
material's use.
MR. McEVOY: Yes, we cannot add things to the list that the Board does not approve, but we don't have to add things to the list that the Board does approve.

And so if you in your recommendation have - we can understand the intent of that, then we can implement that based on the intent of the Board.

And so, what we're saying is that our understanding of what that would include at this point in time would be limited to this particular list of vitamins and minerals.

CHAIR MIEDEMA: So long as you all would - okay, and then I'll call on you, Katrina -- would be okay with the fact that we haven't floated this -- those CFR listings out to the public. And we would prefer to not tack them on as an annotation.

We're going to leave that to you to do as guidance after we were to propose a nonannotated material.

And by the way, Jay, this might speak to some of your questions and concerns, it still would be a two-vote process. The first vote would be for the existing material as is with the current annotation, because that's our new process for changing an annotation during sunset. And the second vote would be a strike of -- a striking of the annotation.

Katrina, then Jay.

MS. HEINZE: Am I allowed to ask Miles a question? I know he doesn't have to answer.

You said as long as you could understand our intent in your response, can that intent be the discussion that we had as a Board, or do we need to write a document to make that clear?

MR. McEVOY: This is what we are understanding of it -- the intent of the Board at this point, is this list of substances.

So, what we need from the Program,
what the certifiers need, what handlers and processors need, is a clear list of what's allowed and what's not allowed.

And so we're saying that based on removing the annotation, it would be limited to these particular substances.

So, you can concur with that, or you can say, oh, that's not really what we mean.

So, it's up to you to respond to this of either saying, okay, this looks reasonable as a reasonable way to proceed, or asking, you know, additional clarifying questions.

CHAIR MIEDEMA: Jay.
MR. FELDMAN: Which is what I have, an additional clarifying question.

Are those materials that you list, substances you listed, are they lists incorporated into CFR sections? Can you tell us which sections those are?

MS. BROWN ROSEN: Yes, it's at the
top of the column there, Jay.
So, Column 2 is the current 104.20 that's referenced in the rule. And then Column 3 is the 101.9, which is where the referenced daily intakes are indicated in 21 CFR.

And then Column 4 is the section that refers to infant formula.

CHAIR MIEDEMA: Let's see if anyone else has anything. You and I have both used up our two.

Joe Dickson, and then Nick.

MR. DICKSON: I'm having a little trouble seeing, from a Board policy perspective, how this is not changing an annotation to make it less restrictive during sunset. And I'm not sure if anyone on the Board has any light to shed on that, because I see that, you know, removing an annotation is making the listing less restrictive.

CHAIR MIEDEMA: Steve, would you be willing to address that?

MR. DeMURI: I'd have to agree with you. I think we're moving -- it does restrict it because there's a lot of the things being used besides these right now.

MR. FOSTER: I have a question.

CHAIR MIEDEMA: John.
MR. FOSTER: It's clarifying, Steve, what you just said.

Did you just say that would the -I guess my question is, would the net effect of what Miles just described end up in a shorter or longer list than is currently in effect as a function of regulatory language?

MR. DeMURI: I believe it would result in a shorter list.

MR. FOSTER: Then $I$ don't -- if we're going to -- if the net effect is a shorter list, then $I$ don't see that as being less restrictive.

CHAIR MIEDEMA: Miles McEvoy.
MR. McEVOY: Yes, it's a matter of perspective of whether it's a shorter or a
longer list.
Based on the prior interpretation by the Program, this is a shorter list. Based on the new understanding of the meaning of 104.20, it's a longer list. Based on the intent of the '95 recommendation to allow infant formula to include essential nutrients and vitamins, it's consistent.

So, it's a little bit -- depends on your perspective of whether it's a shorter or longer list.

We're in an interesting conundrum right now.
(Laughter.)
CHAIR MIEDEMA: Katrina.
MS. HEINZE: So, this is my second
comment. So, I'm not talking after this.
Might I suggest that this is all
good information and that Handling Committee meeting that we know we're going to have, that we do that and try to figure out what we're going to come forward with.

CHAIR MIEDEMA: Before we start deviating from protocol and extending this discussion too much further, does anyone who has not been able to voice an opinion on this, have one that they would like to voice now? Jay.

MR. FELDMAN: I'm not expressing a position on this, but we did -- the policy we passed enabled us to adopt annotations that are equivalent to or more restrictive or clarifying, and one -- again, $I$ don't know what my position is on this, but one might argue going back to the history here, that this is clarification or updating of the previous intent.

At the time this was originally
adopted, $I$ don't believe there was an infant formula. Am I correct, on that CFR?

CHAIR MIEDEMA: FDA has said that this annotation that is currently on 605(b) does not cover infant formula.

MR. FELDMAN: That's just another
option we have to -- if this is somehow clarification, then it would fit within the guidance of our policy.

CHAIR MIEDEMA: Yes. All right.
Thank you very much for the feedback, National Organic Program.

Next up is the Policy Development Committee. Chairman Barry Flamm, please proceed.

MR. FLAMM: I'm afraid, like the animals that we talked about their welfare this morning, $I$ also need fresh air and exercise for my good health and I'm losing it right now. Headache and sore throat. So, I'll proceed along.

We have two items on the policy agenda. The first is a review of the position descriptions and role of the Vice Chair and the Policy Committee as relates to what instructions we have in the Policy and Procedures Manual.

And Joe was the lead person on
that. And, Joe, if you would please present our recommendation?

MR. DICKSON: Sure thing. This is a pretty straightforward recommendation that deals with the linguistic inconsistency within the Policy and Procedure Manual.

That inconsistency surrounds the Policy and Procedures Manual itself and who is responsible for its upkeep.

Section 2 of the Policy and Procedures Manual currently describes the roles of the Vice Chair and reads, the Vice Chair shall act in the absence of the chair. The Vice Chair shall also be responsible for the maintenance and upkeep of the Policy and Procedures Manual.

Section 4 describes the
responsibilities of the Policy Development Committee, and also gives the Policy Development Committee the responsibility for managing the PPM.

So, the PPM gives responsibility
for managing itself in two different spots to two different entities. So, this recommendation addresses that.

The way that it addresses that is by inserting language in the job description of the Vice Chair, or actually changing language, so that it reads the Vice Chair shall serve as a member of the Policy Development Committee and work collaboratively with the PDC members on the maintenance and upkeep of the Policy and Procedures Manual.

The section on the job description of the PDC is updated so it says, the PDC maintains the content and updates to the NOSB Policy and Procedures Manual in collaboration with the NOSB Vice Chair and new member guide.

And so that just synchronizes those two job descriptions and make it clear that it's the joint responsibility of the Vice Chair working as a member of the Policy Development committee to manage and maintain the upkeep of the Policy and Procedures

Manual.
The Committee passed that recommendation unanimously with five members voting in favor, and none against, and no one absent. And that is my presentation of that recommendation.

MR. FLAMM: Do you want to take any discussion now, or later?

MR. DICKSON: Sure. Is there any discussion or questions on this one?

John.
MR. FOSTER: What was the origins of this? Where did this come from? What was the need?

MR. FLAMM: The inconsistency was identified by a member of the Board. I don't remember who or when. Was it Tracy?

Yes, Tracy in her meticulous reading of the Policy and Procedures Manual, perhaps in gearing up to be Chair, discovered this inconsistent language.

MR. FLAMM: As a little additional
background, I did talk to Rigo who was Chair at the time this was inserted. And he said it was intentional to get the Vice Chair involved. He thought that was important, and important link into the other operations of the Board.

But I think certainly the wording was -- that is in the Policy and Procedures Manual was not very clear and led to a little confusion, but nobody paid any attention to it for a couple of years until Tracy brought it to our attention.

MR. DICKSON: All right. Without further discussion or questions, I'll turn it back to you.

MR. FLAMM: If there's no more questions or discussion, I'll move to the next item which is, again, a clarification and update in the Policy and Procedure Manual.

And for particularly the new members, you know, the Policy and Procedure Manual is a guide to assist the Board in the
conduct of our business. And you've already seen in this meeting that it's frequently referred to. So, it's kind of like our Bible.

So, it's quite important and we constantly are finding that there are things that aren't as clear as they once were. And it usually shows up with a real life situation when we find our procedures aren't dealing with it completely.

And that's what triggered this particular recommendation and review was difficulties at the last Board meeting in handling procedures and handling the Committee recommendation.

And as you all know, we do an awful lot of our work in the committees preparing recommendations or discussion documents, and that's where a lot of the grunt work gets done. And then we have, as you all know, some -- we expose these ideas to the public and get often a vast amount of additional information. And then we present it in the Board meeting
and we get more ideas.
So, often in this process, the Committee may either change its mind or want to withdraw its recommendations for further consideration.

So, this recommendation is -- adds language, although it does doctor up some other words and language in this section. And the changes are outlined in the recommendation, but the key part is that we were recommending that the -- that after the Committee presents the discussion for the public -- the recommendation for public discussion and for public comments, after that's done and it's at the meeting when it's presented, that up until there's a motion and a vote, the Committee -- a Board motion and vote, that the Committee could withdraw the recommendation for further work.

This recommendation on either -both of our recommendations, we didn't get very many public comments, but we did get a
couple of suggestions for language change on this particular one. And I will get the Committee together to see if they think this improves our recommendation.

But, essentially, all the public comments we have received on this recommendation supported the notion that we needed to clarify this part of the manual.

Any questions, please? Discussion?
CHAIR MIEDEMA: John.

MR. FOSTER: Sometimes the committees, as a function of receiving public comment here, changes the recommendation at -during the course of a public meeting.

How -- I don't know what all the language following Number 4 on Page 20 says. So, I'm assuming the intent was not to change that, not to mandate a public comment after changes to a recommendation at a public meeting.

So, this wouldn't affect that, but does the language in here leave that alone,
leave that allowance alone?
MR. FLAMM: I'm not sure I understand your question, John. But I do-after reading a couple of public comments-- I do think we need some clarification on this. And I think there is some good language proposed by a couple of commenters that I want to go over with the Board and -- but it -maybe if you repeated your question -- I may be missing the point you're making.

MR. FOSTER: I may not have phrased it particularly well either.

So, Number 1 in the recommendation, it says the Committee prepares the recommendation or discussion document as agreed to in the committee work plan. And then the recommendation or discussion document is posted for public comment.

And I - my assumption is that you don't mean to exclude the opportunity for a committee to make a recommendation, let's say, tomorrow night. But according to this, then
all recommendations have to be posted for public comment, which won't be allowed. For example, some of the recommendations that are going to be changed, say, tonight or tomorrow night, those won't go out for public comment. And I'm not saying they should. I'm saying that $I$ want to make sure that these broad steps don't exclude that from continuing to happen.

And if that language appears elsewhere, that's fine. I just don't see it here.

MR. FLAMM: I think that's a good point. And I think one of the public commenters made a point and suggested language. Understanding what our intent was gave us some language to deal with that.

This was sort of - Number 3 is really the new one. The others are already in the Policy and Procedure Manual. So, this may not quite tie together as well as it should have.

MR. FOSTER: I think I understand the intent, and it's consistent with what I would hope.

MR. FLAMM: Any other questions or discussion on that?
(No response.)
CHAIR MIEDEMA: Thank you, Chairman Barry Flamm, of the Policy and Procedures Committee.

Tomorrow our agenda begins at 8:00 a.m. and is a day completely designated for public comments.

I'm going to make an announcement again that $I$ made earlier today, which is that the Tilth Producers of Washington are hosting a welcome event for the entire organic community. And I'll give you the location in case you want to jot this down.

It's at the Palace Ballroom, 2100 Fifth Avenue. It's Number 3, Location Number 3 on the friendly - the farm friendly food map that they published. They wanted me to know
that there will be organic food, organic wine, beer, non-alcoholic beverages, a no-host bar, live music and a $\$ 10$ suggested donation.

Any other announcements before we close for the day?

Lisa.
MS. AHRAMJIAN: Just to remind folks if anyone wants to give public comment tomorrow and isn't already signed up, to please sign your name in the sign-up sheet in the lobby. Or if you have any questions about your public comment, please see me right after we recess. Thanks. CHAIR MIEDEMA: Thank you, Lisa. We are adjourned until 8:00 a.m. tomorrow morning.
(Whereupon, the above-entitled meeting was adjourned at 3:48 p.m.)

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202-234-4433

This is to certify that the foregoing transcript

In the matter of: National Organic Standards Board Before: US Department of Agriculture

Date: 04-27-11

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

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