

Fall 2021 National Organic Standards Board (NOSB) Meeting Report

On October 19-21, the National Organic Standards Board (NOSB) held its biannual public meeting via live online webinar. The purpose of NOSB meetings is to formalize recommendations to USDA about whether substances should be allowed or prohibited in organic farming and processing, and to make recommendations on other aspects of the organic regulations. The meetings provide an opportunity for organic stakeholders to give input on proposed NOSB recommendations and discussion items, and also for NOSB to receive updates from USDA's National Organic Program (NOP) on issues pertaining to organic agriculture.

Over the course of the three-day virtual meeting, NOSB considered **13** proposals, **3** discussion documents, and over **30** sunset materials. NOSB received **488** written comments, and listened to over **10** hours of oral testimony received from nearly **100** commenters during two public comment webinars prior to the meeting. Motions and vote tallies are provided at the end of this document. Background information on each topic is available in our [comprehensive pre-meeting summary](#).

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AT-A-GLANCE MEETING OUTCOMES

PROPOSALS: NOSB considered **13** proposals at this meeting. Of the proposals, **7 PASSED**, **5 FAILED**, and **1 was referred back to subcommittee**.

7 PASSED (Referred to USDA for approval and implementation. Recommendations are not effective until accepted by USDA and implemented through rulemaking.)

- **Ammonia Extract (Crops)** – proposal to prohibit stripped ammonia and concentrated ammonia **is adopted**. A portion of the Ammonia Extract proposal related to amending 205.203(f) for fertilizers under 3:1 Carbon-to-Nitrogen ratio is sent back to subcommittee for further work.
- **Sodium Nitrate (Crops)** – proposal to reinstate the restricted listing of sodium nitrate fertilizer **is adopted**
- **Biodegradable Mulch (Crops)** – proposal to allow biodegradable mulches that are 80% biobased **is adopted**
- **Lithothamnion (Crops)** – proposal to classify lithothamnion as nonagricultural and to exclude from eligibility for wild crop certification **is adopted**
- **Fish Oil (Handling)** – proposal to restrict sources of fish oil to minimize environmental harm **is adopted**
- **Climate Change** – proposal to send letter to USDA about importance of organic agriculture as a climate solution **is adopted**
- **Research Priorities** – proposal for NOSB’s annual list of research priorities for organic food and agriculture **is adopted**

5 FAILED

- **Chitosan (Crops)** – petition to allow chitosan (from seafood shells) as plant disease control **is rejected**
- **Biochar from Manure (Crops)** – petition to allow cow manure derived biochar as a soil amendment **is rejected**
- **Kasugamycin (Crops)** – petition to allow kasugamycin (antibiotic) for fire blight control **is rejected**
- **Hydronium (Crops)** – petition to allow it (sulfuric acid + calcium hydroxide) as a manure processing aid **is rejected**
- **Zein (Handling)** – petition to allow zein (corn protein) as food coating on organic foods **is rejected**

1 Sent Back To Subcommittee: Carbon Dioxide – proposal to allow as pH adjuster of irrigation water sources is sent back to subcommittee for further work

SUNSET REVIEWS: NOSB voted on over **30** currently allowed generic inputs. **All** are recommended for relisting on the National List.

DISCUSSION DOCUMENTS: NOSB considered **3** discussion documents at this meeting.

- **Oversight improvements to deter fraud** – discussion about modernizing organic traceability technology
- **Excluded Methods** – discussion about emerging technologies to be classified as excluded methods (prohibited)
- **Public Comment Process** – discussion about the format of providing public oral comments for NOSB meeting

OFFICER ELECTIONS: NOSB elected Nate Powell-Palm (Chair), Mindee Jeffery (Vice Chair), and Kyla Smith (Secretary).

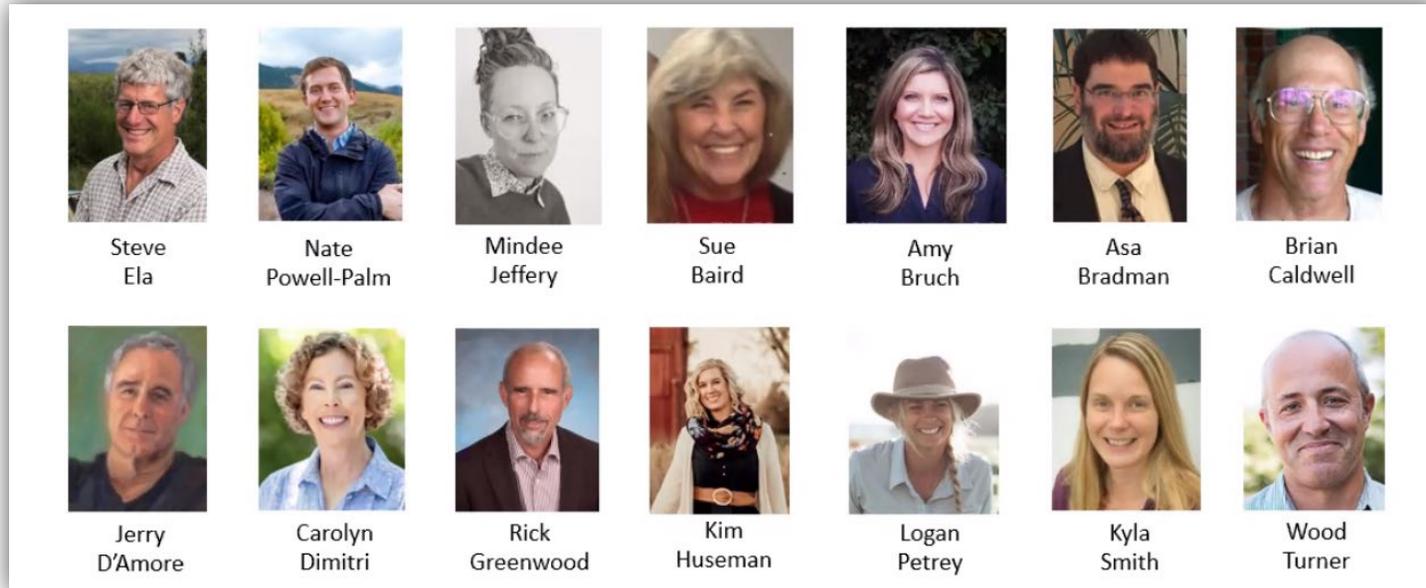
LOOKING AHEAD: The [Spring 2022 NOSB Meeting](#) is scheduled for April 26-28 in Crystal City, VA.

KEY HIGHLIGHTS

- **Ammonia Extract, Sodium Nitrate & Other Highly Soluble Nitrogen Sources:** NOSB voted 13-1 to prohibit "stripped ammonia" and "concentrated" ammonia, which addresses the forms of ammonia extract that are the target of the petition. Despite the complexity and controversial nature of this material, there was a common theme across a decisive majority of the NOSB members that ammonia extracts do not meet the OFPA criteria for environmental impacts, soil health, and compatibility with a system of sustainable agriculture. Due to the support from certifiers and material reviewers at the front line of interpreting the definitions and the commonly accepted chemistry definitions of stripping, NOSB feels confident that the motions on stripped and concentrated ammonia won't have unintended consequences on other materials. NOSB also voted unanimously to reinstate a restriction on the use of sodium nitrate, another form of highly soluble nitrogen. However, a new proposal for limiting all highly soluble nitrogen fertilizers was sent back to subcommittee for further work. Discussions about the role of highly soluble nutrients in organic agriculture will continue to be a focus point as the Crops Subcommittee continues work on this topic.
- **All Sunset Materials Renewed & No New Materials Allowed:** Of the 30 materials currently on the National List undergoing Sunset Review this year, all of them were voted to be renewed for another five-year cycle. All of the Sunset Review votes were unanimous in support of renewal (with the exception of three materials), meaning that for the most part there is broad consensus that the materials currently on the National List continue to meet the criteria under OFPA for allowance in organic production and processing. Copper sulfate (rice production), EPA List 3 inerts (passive pheromone dispensers in crop production), and Carrageenan (gelling agent in food processing) were the only sunset materials that received any votes to remove, although not enough to pass a decisive motion to remove. NOSB also considered three petitions for adding new synthetic materials for allowance in organic crop production (chitosan, kasugamycin, and hydronium), one petition for expanding allowance of a currently prohibited natural (manure biochar), and one petition to allow a new non-organic ingredient in food processing (Zein). All of these petitions for expanded use of materials were rejected. As a result of the petitions considered at this meeting, NOSB is not recommending any new materials be added for new allowed uses on the National List.
- **Expanding NOSB Work Agenda:** During his opening remarks, NOSB Chair Steve Ela announced that he worked with NOP to allow NOSB to add items to its own work agenda that let the Board look at bigger picture systems in organic, beyond National List materials, to strategize about how we can move organic forward. An open discussion of some of the Board's ideas for new work plan items ensued following Dr. Jenny Tucker's NOP Report. Some of the ideas mentioned include: continuous improvement, climate change, organic seed requirements, forever chemicals in packaging, integrity and enforcement, container and greenhouse standards, and excluded methods. More to come on which one topic(s) the Board will include in its next work plan.

NOSB MEMBERS

This 15-person citizen advisory board brings together volunteers from around the United States. It is made up of 4 farmers/growers, 2 handlers/processors, 1 retailer, 1 scientist, 3 consumer/public interest advocates, 3 environmentalists, and 1 USDA accredited certifying agent.



Board Members for the Fall 2021 Meeting

- Farmers: [Steve Ela](#) (Chair), [Nathan Powell-Palm](#) (Vice Chair), [Amy Bruch](#), [Logan Petrey](#)
- Handlers/Processors: [Kimberly Huseman](#), [Gerard D'Amore](#)
- Retailer: [Mindee Jeffery](#) (Secretary)
- Scientist: vacant
- Consumer/Public Interest: [Sue Baird](#), [Carolyn Dimitri](#), [Brian Caldwell](#)
- Environmentalist/Resource Conservationist: [Asa Bradman](#), [Rick Greenwood](#), [Wood Turner](#)
- Accredited Certifying Agent: [Kyla Smith](#)

THANKS TO OUTGOING BOARD MEMBERS: Steve Ela, Sue Baird, and Asa Bradman.

USDA REPORT

Jenny Lester Moffitt, Under Secretary of Marketing and Regulatory Programs at USDA, provided welcoming remarks to NOSB and the organic stakeholder community. As a former organic farmer, she knows how important organic is to our communities and to markets and everything in between. Ms. Moffitt outlined the main priorities at USDA for the industry. First, USDA is focused on climate smart agriculture, referencing Secretary Vilsack’s big climate announcement last month about the government in partnership with industry and private sector to grow climate smart agriculture across agriculture. "We know how essential climate change solutions are to agriculture and the important role that agriculture has in finding those solutions." Second, USDA is focused on equity, including support for fair and competitive markets. Third, USDA is focus on supporting transition to organic agriculture and aiding market development. She announced that **USDA is allocating \$200 million for organic transition support** and is actively working to set up this program to administer these resources to transitioning operations. Lastly she outlined the importance of standards development. Rulemaking on Strengthening Organic Enforcement, Origin of Livestock, and Organic Livestock and Poultry Standards (based on 2017 OLPP rule) are all underway, with plans for spring 2022 publication dates.

Marni Karlin, USDA Senior Advisor on Organic and Emerging Markets, echoed the importance of organic in USDA’s effort to create resilient, equitable, climate-smart food system. She looks forward to more meaningful engagement with stakeholders across diverse sectors, and supporting continuing improvement of organic standards, enforcement, and market development.

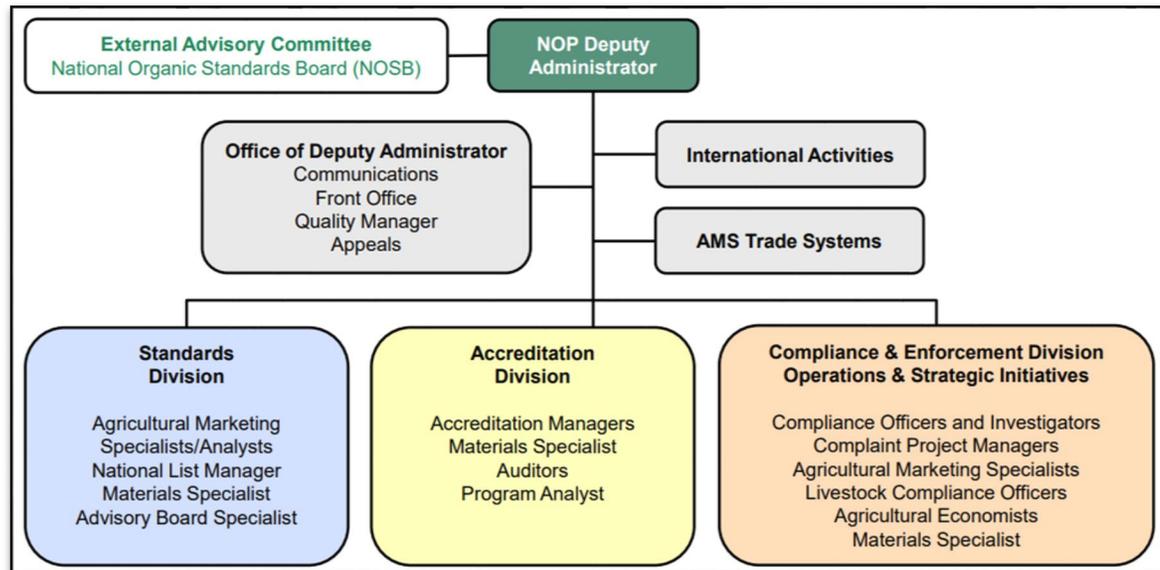
Dr. Jenny Tucker, Deputy Administrator of the National Organic Program (NOP), prepared a pre-recorded report on the activities of NOP and also presented supplementary remarks live during the meeting. The full recorded presentation is available in the [Organic Integrity Learning Center](#) at Course “NOP-998 - NOP Presentations.” *Need a Free Account? [Sign up here.](#)* Dr. Tucker’s presentation focused on key program areas including Strong Organic Control Systems, Robust Enforcement, Developing Standards, and Stakeholder Engagement. Several of the highlights are summarized below.

- Origin of Livestock (OOL) – The final rule is written and is now in legal and USDA clearance. Once the rule clears USDA, it will go to the Office of Management and Budget which has 90 days to review. NOP estimates the final OOL rule will be published in Spring 2022.
- Strengthening Organic Enforcement (SOE) - The final rule is written and is now in legal and USDA clearance. Once the rule clears USDA, it will go to the Office of Management and Budget which has 90 days to review. NOP estimates the final OOL rule will be published in Spring 2022.
- Organic Livestock Practice Standards – At the direction of Secretary Vilsack, NOP has written a rule on Organic Livestock and Poultry Standards (OLPS). The rule is current in legal and USDA clearance. USDA is also going back and forth with its legal team on that rule as it is tied to the active litigation on the OLPP final rule withdrawal.
- Inerts – NOP is currently drafting an Advanced Notice of Proposed Rulemaking (ANPR) to explore the options for addressing the situation with EPA List 3 & List 4 inerts ingredients on the National List. Before it’s ready to publish, NOP is socializing it with EPA because it relies on their Safer Choice Program. NOP has had interesting conversations with senior staff at EPA, which seem to be revealing although the Safer Choice Program sounded like it would be the right place, it may in fact not be. Safer Choice is not a regulatory program and therefore has a different approach to materials lists from the NOP and the Code of Federal Regulations. The ANRP will summarize challenges we have encountered so far. NOP will

need to balance the criteria for decision-making and the resources for implementing decisions. Dr. Tucker warned that this will be a long road and there will be tough trade-offs. ***OTA Member Opportunity: Join OTA’s Inerts Task Force**

Current Strategic Initiatives related to Compliance, Enforcement, and International Activities & Trade Systems

- **Livestock Compliance** – NOP continues its boots-on-the-ground surveillance program to monitor compliance of key portions of the livestock regulations. Pasture compliance, animal traceability, and origin of livestock are key focus areas. The program involves coordination with USDA and State Agencies, and education and training with certifiers and producers.
- **Oversight of Imports** - NOP Compliance and Enforcement Division reported two recent enforcement successes. First involves uncertified imports from India, and the second involves illegally labeled olive oil.
- **Import Certificates** – Electronic import certificates are a key part of implementing the Strengthening Organic Enforcement final rule. NOP is working on building the interface with the Organic INTEGRITY database to where all steps related to import certificates will ultimately begin. Certifiers will enter data in the INTEGRITY database which will generate the certificates; importers then use the certificate as part of their existing import filing processes with Customs and Border Protection’s Automated Commercial Environment (ACE). Interface with CBP-ACE system is implemented and importers can already use it. The steps involving the INTEGRITY database are targeted to be complete in late 2022.



OUTCOMES OF NOSB AGENDA TOPICS (BY SUBCOMMITTEE)

CROPS SUBCOMMITTEE

- **AMMONIA EXTRACT (PROPOSAL):** NOSB presented its first series of proposals in response to a petition for the prohibition of nonsynthetic ammonia extract. This topic drew the most attention from public stakeholders, which has been building momentum through discussion documents at the past two meetings (Read [OTA Comments](#) and [Organic Center Comments](#)). This topic also took up the most time for active deliberation at the meeting.

In **summarizing the public comments**, NOSB's lead on this proposal noted a clear distinction among the commenters. Most organic certificate holders, organic certifiers, and organic advocacy organizations weighed in supporting the prohibition on ammonia extracts, while most input manufacturers weighed in against the prohibition. Most of the comments supported prohibition on the bases that ammonia extracts do not comply with the Organic Foods Production Act (OFPA) and do not meet expectations of feeding the soil versus feeding the plant and improving soil organic matter. On the other side, manufacturers of ammonia extract commented that ammonia extracts do comply with OFPA. On the topic of **recycling ammonia**, NOSB heard from commenters that these materials are beneficial because they capture ammonia that might otherwise go into the atmosphere. The NOSB lead summarized that this was a compelling argument in some ways, but organic agriculture doesn't have to be the ultimate recycler. It's only appropriate when it fits the OFPA criteria (prohibitions on manure ash and glossy or colored newspapers are cited as examples when recycling does not fit OFPA criteria).

On the topic of **definitions**, the NOSB lead noted the concern from ammonia extract manufacturers that the definitions in the ammonia extract proposal for "stripped ammonia" and "concentrated ammonia" may inadvertently impact other materials such as compost tea or feather meal. **However, the common chemistry definition for "stripping" will ensure that unintended impacts on other materials are avoided. "Stripping is activity that captures and refines vapor coming off of an agricultural feedstock or other natural source."** That type of vapor capture is not used in the production of manure tea, compost tea, or fish fertilizers because these materials are not being vaporized, nor is vapor being stripped out. Furthermore, comments from numerous certifiers and material review organizations all confirmed that the definitions are easily interpretable as intended (typically certifiers are not shy in letting NOSB know when proposals are ambiguous). Ultimately it is the responsibility of NOP to do the actual writing of regulatory language, and NOSB should focus on explaining its intent so that NOP can do the wordsmithing. Due to the support from certifiers and material reviewers at the front line of interpreting the definitions, NOSB feels confident that the intent is clear and that the definitions won't have unintended consequences on other materials.

Many public comments focused on whether the material met the OFPA criteria regarding **soil health impacts** and compatibility with a system of sustainable agriculture. A theme of the comments was that "In contrast to the reductionism of chemical agriculture, the origins of organic agriculture are in holistic and ecological thinking." The NOSB lead also cited the NOP regulations that require operators to maintain and improve soil organic matter. Public commenters and scientists submitted information that worked through many aspects of environmental impacts, although much of the research has not been done on organic soils. Many of these arguments were submitted through public comment at the last discussion document and summarized in the written proposal presented at this meeting. The NOSB lead expressed concerns about long-term soil impacts from increased mineralization mining carbon out of the soil, the need to apply other soil-heal inputs along with ammonia

extract, the potential over-use if cover crops are hard to use because of water restrictions, and addressing soil nutrient problems with materials that bypass soil biota.

Following the NOSB lead's presentation of the proposal and comments, **the full NOSB membership discussed the issue for over an hour** before motions for vote were presented. One NOSB member in support of ammonia extract acknowledged healthy soils are a foundation under OFPA, but argued against the perception that ammonia extract is not healthy; each material needs to be looked at within an organic system plan and won't be over-used if there is strong oversight by certifiers through organic system plan review. It was noted that an added assurance of a 20% restriction on highly soluble nitrogen inputs can be a tool to help farmers of specialty crop in certain growing conditions with unique nutrient challenges not experienced in other areas/sectors. Other NOSB members cited the importance of systems in organic and raised concern about inputs that disrupt systems and make the soil hungry for more inputs. Concerns about fraud were cited, especially considering inconsistent reliability of isotope testing across material review organizations. An NOSB member cited the support of certifiers for the defections and agreed the definitions are sound and clear. NOSB members cited that the stripped ammonia products are relatively new, so this is a chance for NOSB to be proactive, and that there have been many years of organic production without these materials. NOSB members strongly emphasized the importance of soil health. A member also questioned how organic can still stay the gold standard in the face of competing label claims.

Amid the discussion, a **motion was made to send the proposal back to the subcommittee** for further work. It is clarified that the motion pertains to the entire suite of proposals for ammonia extract. With only 4 votes in favor and 10 against, the motion failed. NOSB proceeded to vote on the motions as they are presented in the written proposal.

On the motion to classify as nonsynthetic: **14 Yes, 0 No**. Ammonia extracts are classified as nonsynthetic. (Note that the classification any potential prohibitions or restrictions at 205.602 would only apply to ammonia extracts made with nonsynthetic processes. Does not apply to synthetic ammonia extracts.)

NOSB voted **13 Yes, 1 No** on the motion to prohibit **Stripped Ammonia** at §205.602: "Stripped Ammonia – created by separating, isolating and/or capturing ammonia or ammonium from an agricultural feedstock or other natural source using methods such as, but not limited to, steam stripping, pressurized air, heat, condensation, and/or distillation." Motion passes.

NOSB voted **13 Yes, 1 No** on the motion to prohibit **Concentrated Ammonia** at §205.602 – contains greater than 3% ammoniacal nitrogen and the total nitrogen content is predominately (i.e., >50%) in the ammonia or ammonium form. Motion passes.

As a result of the previous two motions, NOSB has recommended to prohibit both stripped and concentrated forms of ammonia, which addresses the forms of ammonia extract that are the target of the petition. These recommendations will be referred to USDA for implementation.

The final part of the ammonia extract proposal is to add at **§205.203(f)**: "Nitrogen products with a C:N ratio of 3:1 or less, including those that are components of a blended fertilizer formulation, are limited to a cumulative total use of 20% of crop needs." However before this motion was called to vote, an NOSB member **made a motion to send it back to subcommittee**. NOSB voted **10 Yes, 4 No**. Motion passes. This item will stay on the NOSB work plan for further work in advance of the next meeting. NOSB Chair commended the Board for their thoughts on this complex issue and was glad to see the Board work through it in a civil manner.

- **SODIUM NITRATE (PROPOSAL):** To remedy and clarify the regulatory status of sodium nitrate, NOSB voted **unanimously** to pass a technical correction to reinstate the listing for sodium nitrate as it appears on §205.602, non-synthetic substances prohibited for use in organic crop production unless use is restricted to not more than 20% of the crop's nitrogen requirement. ([Read OTA Comments](#)). At nearly every NOSB meeting, stakeholders have requested a resolution to this listing. A question was directed to NOP staff about why NOP has not acted on past NOSB recommendations for this material. Dr. Jenny Tucker stated that NOP knew that by the number of people using the material, it would have an economic impact to prohibit it, and therefore the Administration chose not to do rulemaking based on their economic analysis. An NOSB member suggested that a petition that re-addresses the past Board desire to prohibit these materials may encourage further work on this topic, and this material is related to the discussion within the ammonia extract proposal about highly soluble nitrogen materials.
- **BIODEGRADABLE BIOBASED MULCH FILM (PROPOSAL):** NOSB **narrowly voted to pass** the proposal to allow biodegradable mulches that are 80% biobased. Public comments were balanced across both sides of the issue which made it seem like this specific proposal was a true compromise. ([Read OTA Comments](#)). **NOSB presented additional language to add to the proposal that encourages continuous improvement beyond 80% if commercially available, which NOP approved as a non-substantive amendment.** An NOSB member expressed concern with the impact to soil microbes after consecutive uses. All Board members expressed deep concern for over-use of plastic in agriculture and want to support efforts to move away from plastic. Some see biodegradable plastic as an imperfect solution but at least is a step in the right direction. NOSB members feel confident that some growers will switch to biodegradable alternatives if they are given the choice and can retain organic certification. There are not currently any products on the market that meet 80%, but there has been significant progress over the past five years, from 10-20% to now 60%. No one made a motion to send the proposal back to subcommittee, so the Board proceeded to a vote on the motion. The Motion is to amend the annotations for biodegradable mulch at 205.2 and 205.601 as shows below (bold text added):
 - §205.2 *Biodegradable biobased mulch film.* A synthetic mulch film that meets the following criteria:
 - (1) Meets the compostability specifications of one of the following standards: ASTM D6400, ASTM D6868, EN 13432, EN 14995, or ISO 17088 (all incorporated by reference; see §205.3);
 - (2) Demonstrates at least 90% biodegradation absolute or relative to microcrystalline cellulose in less than two years, in soil, according to one of the following test methods: ISO 17556 or ASTM D5988 (both incorporated by reference; see §205.3); and
 - (3) Must be **at least 80%** biobased with content determined using ASTM D6866 (incorporated by reference; see §205.3).
 - §205.601(a)(2)(iii) Biodegradable biobased mulch film as defined in §205.2. Must be produced without organisms or feedstock derived from excluded methods. **When greater than 80% biobased biodegradable plastic films become commercially available, producers are required to use them, given that they are of the appropriate quality, quantity, and form.**

The motion passed 10 yes, 4 no. This topic has consumed countless hours for Board members over many years. With the passage of this vote, the recommendation is passed on to USDA and is removed from the NOSB work agenda.

- **BIOCHAR, COW MANURE DERIVED (PROPOSAL):** NOSB considered a petition to allow biochar from pyrolysis of cow manure as a soil amendment (currently, manure ash is listed as a prohibited material on 205.602). Part of the NOSB deliberation is whether biochar from

pyrolysis should be considered the same as ash from burning. The question of whether reliance on CAFO manure, or being a solution to CAFO manure waste, was discussed with varied opinions. NOSB members highlighted benefits of biochar as a net negative carbon material. On the other hand, some also cited concern that creating biochar from manure loses the nitrogen value of the manure, and there are other materials to make biochar without using manure which is an important nitrogen source for organic farmers. NOSB voted to classify manure derived biochar as nonsynthetic. On the motion to add “unless derived as part of the production of biochar from pyrolysis of cow manure” to the listing of ash from manure burning at §205.602(a), NOSB voted 4 yes and 10 no. The motion does not pass. As a result of the failed motion, the petition is rejected and the topic is removed from the NOSB work agenda.

- **CARBON DIOXIDE (PROPOSAL):** The petition for carbon dioxide is to allow it for two different uses, as an irrigation water treatment (pH adjuster) and also as a plant or soil amendment (foliar spray). However the NOSB proposal does not distinguish between the two uses. NOSB voted unanimously to send the proposal back to subcommittee so they can re-organize the motions (one for each use), and to consider whether additional annotations should be included such as requiring recycling of carbon dioxide.
- **CHITOSAN, FOR DISEASE CONTROL (PROPOSAL):** Chitosan is sourced from natural materials (seafood shells) but is processed synthetically and is petitioned for use as a disease control. NOSB members struggled with whether to allow this material. Overall, it is a benign material and helps divert waste streams. For some members, these are the types of pest control materials that organic should be moving towards. However, the necessity has not been fully demonstrated, and there are questions about its efficacy as a biodefense stimulator. Nonsynthetic seafood shell-based alternative, e.g. crab shell powder, appears to be available and effective. Ultimately, the Board was split down the middle, 7 voting to allow and 7 voting to prohibit. Of the “no” votes, member seemed to not be convinced it was worth adding a new synthetic material to the National List when efficacy was questionable and alternatives may exist. Of the “yes” votes, members seemed think there was no harm in allowing a material from a natural source, despite synthetic status, that could give growers a plant defense tool, and questioned whether nonsynthetic alternatives were widely available. As a result of the failed motion, the petition is rejected and the topic is removed from the NOSB work agenda.
- **HYDRONIUM (PROPOSAL):** The petition to allow this synthetic substance (sulfuric acid + calcium hydroxide) as a manure processing aid was unanimously rejected. The intended use of the material is to control odors in manure. NOSB members felt this was not a necessary use and it did not meet the OFPA criteria. No commenters indicated support or need for it. Manure odors are part of organic, and can even be a helpful tool for monitoring proper nutrient balances (good balanced farms can smell good!). As a result of the failed motion, the petition is rejected and the topic is removed from the NOSB work agenda.
- **KASUGAMYCIN (PROPOSAL):** NOSB voted unanimously to reject the petition to allow kasugamycin (antibiotic) for fire blight control. The main concern is that as an antibiotic, kasugamycin is not compatible with OFPA criteria and the longstanding concern about overuse of antibiotics in agriculture. This is an example of a material that disrupts natural systems within an agroecosystem. As a result of the failed motion, the petition is rejected and the topic is removed from the NOSB work agenda.

- **LITHOTHAMNION (PROPOSAL):** NOSB passes a series of two motions that addressed specific classification questions posed by NOP about the status of lithothamnion (calcium derived from seaweed): is it agricultural, and can it be certified organic as a wild crop? NOSB ultimately voted in unanimous support of the proposals made by the Subcommittee for public comment that it is nonagricultural and cannot be eligible for wild crop certification. Public commenters did not raise objections to these conclusions. However, the rationale of how the Subcommittee reached its conclusions (i.e. not just because it's harvesting dead plant material); NOSB will clarify this in its final recommendation to ensure their decision on lithothamnion does not impact unintended wild harvested dead materials like soap bark. Public commenters also raised concerns about the environmental impact of sourcing the material from wild marine environments, although this was not the subject of the NOSB's work agenda item. The motions pass and will be referred back to the NOP.
- **2023 SUNSET REVIEWS:** 8 materials on the National List for crop use were up for Sunset Review this year. (Read OTA's Comments on [Crops Sunset Review](#) & [Inerts](#)). A motion to remove each material was voted on by NOSB and no material received a decisive majority of votes to remove, therefore all materials are relisted for another five-year sunset cycle (all but two are unanimous). Ozone gas, Peracetic acid, Chlorine material, Magnesium oxide, Calcium chloride, and Rotenone all received unanimous votes in favor of relisting. **EPA List 3 Inerts** (used in passive pheromone dispensers) had 1 vote for removal, as a signal for urgent attention by NOP to address the longstanding need to replace the obsolete EPA List 3 with more current references. NOP is actively working on rulemaking efforts to update the listing of inerts. **Copper sulfate** (algicide and tadpole shrimp control in aquatic rice systems) had 3 votes for removal due to concerns about environmental impacts of heavy metals used in aquatic production systems. The "no" votes are meant to send a message that we need to get serious about continuous improvement and finding less toxic alternatives to copper. This is already reflected on the NOSB Research Priorities list. Meanwhile, the overwhelming majority of commenters support relisting, and most NOSB members see this material as essential for organic rice production, and delisting without suitable alternatives would cause severe harm to organic rice producers.

HANDLING SUBCOMMITTEE

- **FISH OIL (PROPOSAL):** NOSB unanimously passed a recommendation to further restrict the listing of fish oil at §205.606 to minimize environmental harm from fishing: "Sourced from fishing industry by-product only and certified as sustainable against a third-party certification that is International Social and Environmental Accreditation and Labeling (ISEAL) Code Compliant or Global Seafood Sustainability Initiative (GSSI) recognized." The recommended annotation was the result of several meetings of discussion documents and public comment. Commenters generally supported the option presented at this meeting. Although the Board acknowledged the risks of cross-referencing third-party standards in the NOP regulations, this felt like the best option at hand given the absence of NOP aquaculture standards. Once this listing is implemented, NOSB will continue to review it at Sunset Review and consider if updates are needed. Ideally, NOP will implement aquaculture standards and NOSB could require fish oil to be certified organic. The NOSB lead made a point to clarify the difference between the term "by-product" used in the proposed annotation (material that is left over after processing fish like cutting off fillet from a salmon; the leftover carcass is by-product that can be used for meal or oil), versus the term "by-catch" (harvesting of non-target marine organisms, e.g. dolphins in tuna nets; turtles in gill nets). NOSB intends to make this clarification in the final NOSB recommendation cover letter.

- **ZEIN (PROPOSAL):** Zein (corn protein) was petitioned for use as food coating on organic foods. However, the Handling Subcommittee presented its proposal to allow for use only as nutraceuticals or pharmaceuticals as a micro encapsulation acting as a moisture barrier and taste masker. In the Board's deliberations, NOSB members explained that they were opposed to broad use of this non-organic ingredient and therefore narrowed its potential use to this very restrictive application. Of the public comments submitted on this topic, none were in favor of allowing this materials for the annotated use. ([Read OTA Comments](#)). The classification of this substance generated much discussion among the Board, and whether the Subcommittee had properly classified it as nonsynthetic; some members agreed with the classification although one member felt it needed additional scrutiny to conform accuracy against various NOP guidance documents and the technical report. A motion to send the proposal back to subcommittee was voted down 5-9. Given the overall sense of the Board that they didn't favor allowing the substance, NOP granted permission to flip the order of the motions: The Board could vote on the listing motion first, and if it passed, the Board could go back to subcommittee to work on classification. The Board proceed to vote on the listing motion to add zein to §205.605(a), and the motion failed 3-10 with 1 abstention. As a result of the failed motion, the petition is rejected and the topic is removed from the NOSB work agenda. For the record, the full Board did not vote on the classification motion.
- **2023 SUNSET REVIEWS:** NOSB completed Sunset Reviews for 12 materials currently listed on the National List at §205.605. ([Read OTA Comments on Handling Sunset Review](#)). All of the materials (except 1) received a unanimous vote from NOSB for re-listing: agar-agar, animal enzymes, calcium sulfate, Glucono delta-lactone, tartaric acid, cellulose, chlorine materials, potassium hydroxide, silicon dioxide, potassium lactate, and sodium lactate. **Carrageenan** garnered the most discussion of the handling sunset materials. This material is unique because at it last Sunset Review NOSB voted to remove its listing due to consumer concerns for human health impacts, and the apparent availability of alternatives for manufacturers. NOP did not accept the recommendation and instead relisted it; NOP's view is that alternatives were not available for all uses and therefore carrageenan remained necessary. Some Board members felt obligated to stay aligned with the previous Board's recommendation to prohibit, while other felt they would like to see a compromise such as working on a narrowed restrictive annotation. On a motion to remove carrageenan from the National List, the Board voted 9-5 with 1 absent. The motion needed 10 votes to reach the two-thirds majority threshold for making decisive recommendations to amend the National List. As a result of the failed motion, carrageenan is relisted for another five-year sunset cycle.

LIVESTOCK SUBCOMMITTEE

- **2023 SUNSET REVIEWS:** NOSB completed sunset reviews for 10 materials currently listed on the National List for use in organic livestock production. All 10 materials received unanimous votes to relist: activated charcoal, calcium borogluconate, calcium propionate, chlorine materials, kaolin pectin, mineral oil, nutritive supplements, propylene glycol, acidified sodium chlorite, and zinc sulfate. Generally, commenters indicated a high degree of support for the continued use of these materials as critical for protecting animal health and welfare. ([Read OTA Comments on Livestock Sunset Review](#)).

COMPLIANCE, ACCREDITATION, & CERTIFICATION SUBCOMMITTEE

- **CLIMATE CHANGE (PROPOSAL):** NOSB unanimously passed its proposal for sending a letter to USDA about the importance of organic agriculture as a climate solution. NOSB members expressed appreciation for the comments received from stakeholders. (Read [OTA Comments](#) and [TOC Comments](#)). The Board's discussion on this topic expanded into other broader areas of the food system and social justice, recognizing the balance of pricing food to account for externalities and expanding accessibility of organic food to underserved populations.
- **SUPPLY CHAIN TRACEABILITY (DISCUSSION):** The discussion document on modernizing organic traceability technology generated robust comments from stakeholders and discussion among NOSB members. ([Read OTA Comments](#)). The discussion is helping NOSB explore options for capturing business-to-business transactions that are adaptable to every sector of the organic community, building off the work on the Strengthening Organic Enforcement rule (see slide below). Commenters generally supported the overall goals but had lots of specific comments, questions, and alternatives on how to best achieve that goal. NOSB members highlighted the time and human capital cost of an Organic Link System, and felt strongly about not overburdening certifiers and inspectors. Also NOSB members encouraged programs that can dovetail and work within existing traceability tracking systems and within the existing organic system plan framework. On the question of whether the industry should require registration of land 36 months before certification, the comments were mixed. Although it could provide much-needed transparency, there were concerns that it could create barriers for farmers using rented or leased land. NOSB will take the feedback from commenters and continue working on the topic for the next NOSB meeting.

SOE defines 4 concepts & provides guidance

1. *Organic integrity*: proposed added term 205.2
2. *Organic fraud*: proposed added term 205.2
3. *Audit trail*: current term in 205.2
4. *Supply chain traceability*: proposed added term 205.2
 - The ability to identify and track a product (including its location, history, and organic nature) along its entire supply chain, from source to consumption and/or “backward” from consumption to the source. A supply chain audit assesses supply chain traceability for specific products, verifying whether records show all movement, transactions, custody, and activities involving the products.

MATERIALS SUBCOMMITTEE

- **2021 RESEARCH PRIORITIES (PROPOSAL):** NOSB unanimously passed its annual list of research priorities for organic, which will be referred to USDA for distribution among agency research programs. Public commenters expressed strong support for the priorities; impact on water quality was a common area of agreement among commenters. ([Read TOC Comments](#)). NOSB members felt that they needed a stronger understanding of the actual activities and research projects happening on each of the research areas; i.e., there should be a stronger feed-back loop, so that NOSB can be aware of progress on these topics following their vote and also what progress has been made in advance of voting on the research priority. An NOSB member also suggest that NOSB should ask for literature reviews on certain topics in the research priorities, similarly to how the NOSB requests technical reports on petitioned materials. The lack of research priorities in the Processing/Handling section of the proposal was noted.
- **EXCLUDED METHODS DETERMINATIONS (DISCUSSION):** Public comments emphasized the urgency of NOP to implement NOSB’s past work on excluded methods guidance, and for NOSB to act on the remaining ‘to be determined’ technologies. ([Read OTA Comments](#)). Generally NOSB members felt that the existing criteria were sufficient for NOSB to use in future work on remaining TBD technologies. Also there was near unanimous support for NOSB to make a determination on cell fusion and protoplast fusion consistent with NOP Policy Memo 13-1. Certifiers and MROs are functioning well inside the parameters in the policy memo; there is agreement that the policy memo is clear for certification, enforcement, and materials review. Looking forward, we intend for cell fusion and protoplast fusion to become closed subjects at the next meeting.

POLICY DEVELOPMENT SUBCOMMITTEE

- **PUBLIC COMMENT PROCESS (DISCUSSION):** NOSB discussed the format of providing public oral comments at NOSB meetings. In general, public comments indicated strong support for both in-person and virtual comments because there are clear benefits to each option. ([Read OTA’s Comments](#)). There was also agreement in the benefit of oral comments happening prior to the meeting allowing more time for NOSB members to digest oral comments before going into deliberations. There was not much concern that organizations had multiple speakers because organizations represent many operations and may speak to a number of topics. The main concern was to create enough space to hear directly from farmers. The suggestion was posed to reserve a time block only for farmers to provide oral comments.

VOTING CHART – PROPOSALS

14 voting members were present at this meeting. 1 seat is vacant. Unless otherwise noted, there were no abstentions or recusals. Motions need two-thirds majority to pass.

SUBCOMMITTEE	PROPOSAL	MOTION & VOTE	OUTCOME
CROPS	Chitosan – petition to allow chitosan (from seafood shells) as plant disease control	To classify chitosan as synthetic. 14 Yes, 0 No. To add chitosan to the National List at §205.601(j)(4) for plant disease control. 7 Yes, 7 No. Motion fails.	PROPOSAL FAILED: Petition is rejected. Chitosan (synthetic) remains prohibited.
CROPS	Biochar – petition to allow cow manure derived biochar as a soil amendment	To classify as nonsynthetic: 13 Yes, 1 No. To add exemption “unless derived as part of the production of biochar from pyrolysis of cow manure” to the prohibition of manure ash at §205.602: 4 Yes, 10 No. Motion fails.	PROPOSAL FAILED: Petition is rejected. Biochar from cow manure remains prohibited under existing listing at §205.602.
CROPS	Ammonia Extract – petition to prohibit nonsynthetic ammonia extract fertilizer	To classify as nonsynthetic: 14 Yes, 0 No. To prohibit at §205.602: “Stripped Ammonia – created by separating, isolating and/or capturing ammonia or ammonium from an agricultural feedstock or other natural source using methods such as, but not limited to, steam stripping, pressurized air, heat, condensation, and/or distillation.” 13 Yes, 1 No. To prohibit at §205.602: “Concentrated Ammonia – contains greater than 3% ammoniacal nitrogen and the total nitrogen content is predominately (i.e., >50%) in the ammonia or ammonium form.” 13 Yes, 1 No. To send the remaining proposal for §205.203(f) back to subcommittee. 10 Yes, 4 No.	PROPOSAL PASSED: Recommendation to prohibit stripped and concentrated ammonia at §205.602 is referred to USDA. The proposal for amending §205.203(f) is referred back to the Crop Subcommittee for further work.
CROPS	Kasugamycin – petition to allow kasugamycin (antibiotic) for fire blight control	To classify as synthetic: 14 Yes, 0 No. Motion passes. To allow at §205.601(j) for disease control: 0 Yes, 14 No.	PROPOSAL FAILED: Petition is rejected. Kasugamycin (synthetic) remains prohibited.
CROPS	Hydronium – petition to allow it (sulfuric acid + calcium hydroxide) as a manure processing aid	To classify as synthetic: 14 Yes, 0 No. Motion passes. To allow at §205.601(j) as processing aid: 0 Yes, 14 No.	PROPOSAL FAILED: Petition is rejected. Hydronium (synthetic) remains prohibited.
CROPS	Carbon Dioxide – petition to allow as pH adjuster of irrigation water sources	To send back to subcommittee. 14 Yes, 0 No. Motion passes.	The proposal on carbon dioxide is referred back to the Crop Subcommittee for further work.

SUBCOMMITTEE	PROPOSAL	MOTION & VOTE	OUTCOME
CROPS	Lithothamnion – proposal to classify as nonagricultural and not eligible for wild crop certification	To classify as a nonagricultural: 14 Yes , 0 No. Motion passes. <i>Lithothamnion</i> does not meet wild crop criteria and is not eligible to be certified to the wild crop standard: 14 Yes , 0 No. Motion passes.	PROPOSAL PASSED: Recommendation on lithothamnion classification and wild crop eligibility is referred to USDA.
CROPS	Biodegradable Biobased Mulch – proposal to allow biodegradable mulches that are 80% biobased	To add “at least 80%” biobased content to the definition of biodegradable biobased mulch film at §205.2, and to add the following phrase to the listing on §205.601, “When greater than 80% biobased biodegradable plastic films become commercially available, producers are required to use them, given that they are of the appropriate quality, quantity, and form. 10 Yes , 4 No . Motion passes.	PROPOSAL PASSED: Recommendation to amend biodegradable mulch definition at §205.2 and listing at §205.601 is referred to USDA.
CROPS	Sodium Nitrate – proposal to reinstate the restricted listing of sodium nitrate fertilizer	To reinstate the listing of sodium nitrate at §205.602(g): 14 Yes , 0 No. Motion passes.	PROPOSAL PASSED: Recommendation to reinstate listing at §205.602(g) is referred to USDA.
HANDLING	Zein – petition to allow zein (corn protein) as food coating on organic foods	To add zein at §205.605(a), annotated as: “Only for use in nutraceuticals or pharmaceuticals as a micro encapsulation acting as a moisture barrier and taste masker.” 3 Yes , 10 No , 1 Abstain. Motion fails.	PROPOSAL FAILED: Petition is rejected. Non-organic zein remains prohibited in organic (95%+) foods.
HANDLING	Fish Oil – proposal to restrict sources of fish oil to minimize environmental harm	To add an additional restriction to the listing of fish oil at §205.606: “Sourced from fishing industry by-product only and certified as sustainable against a third-party certification that is International Social and Environmental Accreditation and Labeling (ISEAL) Code Compliant or Global Seafood Sustainability Initiative (GSSI) recognized.” 14 Yes , 0 No, 1 Absent. Motion passes.	PROPOSAL PASSED: Recommendation to amend the fish oil annotation at §205.606 is referred to USDA.
MATERIALS	Research Priorities – Annual list of research priorities for organic	To adopt the proposal. 14 Yes , 0 No. Motion passes.	PROPOSAL PASSED: Recommendation for organic research priorities is referred to USDA.
COMPLIANCE, ACCREDITATION, & CERTIFICATION	Climate Change – letter to USDA about importance of organic agriculture as a climate solution	To adopt the proposal. 13 Yes , 0 No, 1 Absent. Motion passes.	PROPOSAL PASSED: Recommendation for climate change letter is referred to USDA.

National List References: §205.601 = allowed synthetics for crops / §205.602 = prohibited non-synthetics for crop / §205.603 = allowed synthetics for livestock / §205.604 = prohibited non-synthetics for livestock / §205.605(a) = allowed non-agricultural non-synthetics for processing/handling / §205.605(b) = allowed non-agricultural synthetics for processing/handling / §205.606 = allowed agricultural for processing/handling

VOTING CHART – SUNSET REVIEWS

14 voting members were present at this meeting. 1 seat is vacant. Unless otherwise noted, there were no abstentions or recusals. For sunset materials, two-thirds of NOSB members must vote in favor of removing a material for USDA to have the authority to amend the National List.

SUNSET MATERIAL (SUBCOMMITTEE)	MOTION & VOTE	OUTCOME
Copper sulfate (CROPS) – algicide and tadpole shrimp control in aquatic rice systems	To remove from §205.601(a)&(e). 3 Yes , 11 No. Motion fails.	RELIST: Remains on National List.
Oxone gas (CROPS) – irrigation system cleaner	To remove from §205.601(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Peracetic acid (CROPS) – disinfectant, disease control	To remove from §205.601(a)&(i). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
EPA List 3 Inerts (CROPS) – passive pheromone dispensers	To remove from §205.601(m). 1 Yes , 13 No. Motion fails.	RELIST: Remains on National List.
Chlorine materials (CROPS) – sanitizer, disinfectant	To remove from §205.601(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Magnesium oxide (CROPS) – viscosity control in humates	To remove from §205.601(j). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Calcium chloride (CROPS) – foliar spray for physiological disorders	To remove from §205.602. 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Rotenone (CROPS) – prohibited	To remove from §205.602. 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Agar-Agar (HANDLING) – gelling agent, emulsifier, thickener	To remove from §205.605(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Animal enzymes (HANDLING) – catalysis for biological processes, e.g. cheesemaking	To remove from §205.605(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Calcium sulfate (HANDLING) – tofu coagulant	To remove from §205.605(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Carrageenan (HANDLING) – gelling agent, emulsifier, thickener	To remove from §205.605(a). 9 Yes , 5 No. Motion fails.	RELIST: Remains on National List.
Glucono delta-lactone (HANDLING) – tofu coagulant	To remove from §205.605(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Tartaric acid (HANDLING) – acidulant	To remove from §205.605(a). 0 Yes, 13 No, 1 Absent. Motion fails.	RELIST: Remains on National List.

SUNSET MATERIAL (SUBCOMMITTEE)	MOTION & VOTE	OUTCOME
Cellulose (HANDLING) – regenerative casings, anti-caking agent, filtering aid	To remove from §205.605(b). 0 Yes, 13 No, 1 Absent. Motion fails.	RELIST: Remains on National List.
Chlorine materials (HANDLING) – sanitizer, disinfectant	To remove from §205.605(b). 0 Yes, 13 No, 1 Absent. Motion fails.	RELIST: Remains on National List.
Potassium hydroxide (HANDLING) – pH adjuster	To remove from §205.605(b). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Silicon dioxide (HANDLING) – defoamer	To remove from §205.605(b). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Potassium lactate (HANDLING) – antimicrobial agent, pH regulator	To remove from §205.605(b). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Sodium lactate (HANDLING) – antimicrobial agent, pH regulator	To remove from §205.605(b). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Activated charcoal (LIVESTOCK) – adsorbent	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Calcium borogluconate (LIVESTOCK) – milk fever treatment	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Calcium propionate (LIVESTOCK) – milk fever treatment	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Chlorine materials (LIVESTOCK) – sanitizer, disinfectant	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Kaolin pectin (LIVESTOCK) – adsorbent, antidiarrheal, and gut protectant	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Mineral oil (LIVESTOCK) – intestinal compaction treatment	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Nutritive supplements (LIVESTOCK) – injectable vitamins and minerals	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Propylene glycol (LIVESTOCK) – ketosis treatment	To remove from §205.603(a). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Acidified sodium chlorite (LIVESTOCK) – teat dip	To remove from §205.603(a)&(b). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.
Zinc sulfate (LIVESTOCK) – hoof treatment	To remove from §205.603(b). 0 Yes, 14 No. Motion fails.	RELIST: Remains on National List.

National List References: §205.601 = allowed synthetics for crops / §205.602 = prohibited non-synthetics for crop / §205.603 = allowed synthetics for livestock / §205.604 = prohibited non-synthetics for livestock / §205.605(a) = allowed non-agricultural non-synthetics for processing/handling / §205.605(b) = allowed non-agricultural synthetics for processing/handling / §205.606 = allowed agricultural for processing/handling

WORK AGENDA FOR NEXT MEETING

The [Spring 2022 NOSB Meeting](#) is scheduled for April 26-28 in Crystal City, VA. Tentative work agenda topics are listed below. Items that are expected to be presented as proposals for vote rather than discussion are indicated within the table.

SUBCOMMITTEE	ACTION	SPRING 2021 NOSB WORK AGENDA TOPIC
CAC	Vote	Oversight improvements to deter fraud: Modernization of organic traceability infrastructure
CAC	Vote	Human Capital Management: Supporting the work of the NOSB
Crops	Vote	Highly Soluble Nitrogen Fertilizers (motion from Ammonia Extract that was sent back to subcommittee)
Crops	Vote	Carbon Dioxide – petition to allow for irrigation and foliar spray
Crops	Discussion	2024 Crops Sunset Reviews: Herbicidal soaps, Biodegradable mulch, Boric acid, Stick traps, Elemental sulfur, Fixed Copper and Copper sulfate, Polyoxin D zinc salt, Humic acid, Micronutrients, Vitamins, Squid byproducts, Lead salts, Tobacco dust
Livestock	Discussion	2024 Livestock Sunset Reviews: Chlorhexidine, Glucose, Tolazoline, Copper sulfate, Elemental sulfur, Lidocaine
Handling	Vote	Cetylpyridinium Chloride (CPC) – petition for use as an antimicrobial processing aid for poultry processing
Handling	Vote	Phosphoric Acid – petition to allow for use as a pH adjuster for extractions of plants of the Lamiaceae family
Handling	Vote	Peroxylic Acid (PLA) – petition for use as an antimicrobial processing aid for meat and poultry products
Handling	Discussion	L-Malic Acid - reclassification
Handling	Vote	Ion Exchange Filtration – response to NOP memo
Handling	Vote	2024 Handling Sunset Reviews: Attapulgate, Bentonite, Diatomaceous earth, Magnesium chloride, Nitrogen, Sodium carbonate, Acidified sodium chlorite, Carbon dioxide, Sodium phosphates, Casings, Pectin, Potassium acid tartrate
Materials	Vote	Excluded Methods Determinations (cell fusion and protoplast fusion)
Materials	Vote	Tall Oil, distilled
Materials	Discussion	2022 Research Priorities

About the Organic Trade Association’s NOSB Report: As a service to its members, the Organic Trade Association attends National Organic Standards Board meetings. The *NOSB Report*, a member publication, summarizes the meeting and provides an overview of the agenda topics, public commentary, and key decisions made by NOSB. The items included in this report represent recommendations that NOSB developed and reviewed at its meetings. If accepted by the Board, recommendations pass to the National Organic Program, which determines the final form of the NOSB recommendations. Our members are alerted to steps in rulemaking through our *News Flash* or other member communications. Archives of our *NOSB Report* are available on our website. Please contact [Gwendolyn Wyard](#), OTA’s Vice President of Regulatory and Technical Affairs, or [Johanna Miranda](#), OTA’s Farm Policy Director, for more information.