NATIONAL ORGANIC STANDARDS BOARD

FALL 2017 MEETING October 31–November 2 | Jacksonville, FL



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- The Restricted Organic Toolbox
- Get To Know Your National List
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ORGANIC TRADE ASSOCIATION RESOURCE BOOKLET

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NOSB MEETING SCHEDULE: AT-A-GLANCE

TUESDAY • OCTOBER 31	WEDNESDAY • NOVEMBER 1	THURSDAY • NOVEMBER 2
8:30 a.m.: Call to Order	8:30 a.m.: Call to Order	8:30 a.m.: Call to Order
Welcome/Introductions Secretary's report NOP report ANSI Peer review report Materials update NOSB Report Panel: Imports	Public comments	Livestock Subcommittee (CS) Handling Subcommittee (HS)
BREAK: 10:30 a.m. LUNCH: ≈ 12:45 p.m.	BREAK: 10:30 a.m. LUNCH: ≈ 12:15 p.m.	BREAK: 10:00 a.m. LUNCH: ≈ 12:30 p.m.
Public comments	Certification Accreditation and Compliance Subcommittee (CACS) Crops Subcommmittee (CS)	Materials Subcommittee (MS) Deferred proposals/Final Votes Work agendas Recognition of outgoing members NOSB Officer elections Farewell to outgoing members Other business/Closing remarks
BREAK: 3:45 p.m. ADJOURN: 6 p.m.	BREAK: 3:45 p.m. ADJOURN: 6 p.m. NOSB Reception	ADJOURN: 4:30 p.m. NOSB Group Photo

Face-to-Face Meeting Format

- The Designated Federal Officer calls the meeting to order and adjourns the meeting. The NOSB Chair chairs the meeting.
- USDA and National Organic Program (NOP) provide the NOSB with updates, and an overview of petitioned substances, sunset materials, and technical reports.
- The Board hears public comments.
- NOSB members present Subcommittee proposals, reports and discussion documents, and discuss public comment prior to voting on proposals. Final votes may be deferred to the last day of the meeting if more deliberation is needed. NOTE: Agenda items may be withdrawn or votes postponed at the discretion of the Board.
- There will be two 15-minute breaks (mid-morning & mid-afternoon) and a 75-minute lunch break mid-day. Recess and adjournment times may vary based on completion of business.

Look for USDA's detailed NOSB Meeting Agenda that is available at the sign-in table outside the entrance of the meeting room. If you have questions, please contact the Advisory Committee Specialist Michelle Arsenault at Michelle.Arsenault@ams.usda.gov.

NATIONAL ORGANIC STANDARDS BOARD — THE CORNERSTONE OF CONTINUOUS IMPROVEMENT

Welcome to the fall 2017 National Organic Standards Board (NOSB) meeting. From its start, NOSB has been the cornerstone of continuous improvement and public input for U.S. organic standards. As we engage in this meeting and give voice to the process, it is important to take a moment to reflect on the genesis of NOSB and the importance of protecting and strengthening this foundational institution going forward.

As the growing awareness of ecological, health and welfare consequences of conventional farming systems became increasingly apparent from the 1960s through the 1980s, so did the demand for organic food and the need for organic standards. By the late 1980s, there was a patchwork of inconsistent or nonexistent state and private organic standards alongside inadequate enforcement programs. These caused a great deal of consumer confusion and threatened the meaning and value of the organic label. As a result, a coalition of organic farmers, consumers, animal welfare and environmental organizations recognized the need for establishing one common federal standard to ensure consistency, build consumer trust, and allow the sector to flourish. This diverse group of stakeholders united and persuaded Congress to pass the Organic Foods Production Act (OFPA) in the 1990 Farm Bill.

The passage of OFPA provided the foundation for uniform national organic standards for the production and handling of foods labeled as "organic." The Act authorized a new USDA National Organic Program (NOP) to set national standards for the production, handling, and processing of organically grown agricultural products and to oversee the certification of organic operations. The Act also established the National Organic Standards Board (NOSB) to ensure an open, balanced and transparent process for setting and revising organic standards.

NOSB'S BALANCING ACT

NOSB plays a critical role in the organic rulemaking process because it advises USDA on which production inputs should be allowed or prohibited in organic farming and processing. NOSB also makes recommendations on a wide variety of other standards issues, such as organic pet food standards, aquaculture standards, animal welfare standards, and organic inspector qualifications.

The composition of NOSB, as detailed in OFPA, was carefully designed to ensure balanced stakeholder input into the rulemaking process. At the time the law was under development, there was debate that the Board should be industry-dominated to ensure continuation of the kind of high-quality standards associated with organic farming, which make sense from a production viewpoint. Others argued that industry representation on the Board would be inappropriate and create conflict of interest problems. As a result, Congress structured the Board so that farmers and handlers involved in organic production receive six representatives, equal to the consumer and environmental organizations, which together would receive six representatives. A single retail, certifier and scientist designation raised the membership to fifteen.

This 15-member volunteer citizen advisory board is designed to represent the diversity of the organic community across the United States to help ensure that all perspectives are considered before final recommendations are presented to the Secretary of Agriculture. The number and ratio of seats were allocated intentionally so that sectors must achieve consensus to pass a recommendation, ensuring balance of interest, with none predominating. And, in order for any motion to carry, a two-thirds vote is required to prevent any one interest from controlling the Board. It is this construct that helped give the organic label the credibility that it has today as well as the platform for its exponential growth.





The Organic Foods Production Act passed in 1990. It takes an act of Congress to change the law.



7 CFR 205 are the organic standards that describe the requirements that must be verified before a product can be labeled as USDA organic.



U.S. Department of Agriculture (USDA) is responsible for administering federal regulations related to farming, agriculture, forestry and food.

The Secretary of Agriculture appoints and

consults with NOSB in the formation of

organic standards, policy and guidance.





USDA Agricultural Marketing Service (AMS) administers and enforces NOP's regulatory framework.



USDA (AMS) National Organic Program (NOP) establishes and enforces organic standards, oversees certifiers and supports transitioning and current organic producers and handlers. $\overline{\Lambda}$

KEY

National Organic Standards Board (NOSB) is a 15-member board of volunteer citizens that assists in the on-going development of the organic standards.



Accredited Certifiers are third party organizations that certify organic operations to protect the integrity of the USDA organic seal.



Certified Organic Producers and Handlers are farmers, ranchers, processors, retailers, traders, distributors and others that are able to sell, label and represent products as organic.



Consumers, trade associations, NGOs, retailers, scientists and other stakeholders with an interest in organic agriculture and products provide feedback to USDA and NOSB.

KEEPING NOSB STRONG

NOSB meets twice a year in a public forum to discuss and vote on subcommittee proposals related to the National List or other organic standards issues. NOSB first publishes proposals with a request for public comments. Prior to the meeting, NOSB members review literally thousands of pages of comments. During NOSB meetings, the full Board listens to oral public comments, discusses the proposals, and then votes on whether to pass the subcommittee proposals. NOSB subsequently submits its final recommendations to USDA.

The NOSB stakeholder feedback process allows substantial and diverse input from organic stakeholders continually to improve the organic standards. The process is challenging, it can be messy and it certainly can be difficult to watch. Is there room for improvement? Of course. Most anyone who has attended an NOSB meeting could point to areas to improve the process. The Organic Trade Association, for one, would like to see a less politicized and more respectful environment for public discourse at NOSB, and we would like to see Board members receive more regulatory and technical support from USDA on material analysis and proposal writing. Displeasure with the Board's controversial discussions on various topics or on the challenging decisions they make, however, should not be interpreted as a failure on the part of NOSB, but instead its members' diligence in addressing many viewpoints on multiple topics given the limited time and resources that the Board is provided.

Just like a healthy ecosystem, the strength in the organic sector always has been and always will be in its diversity. There is much at stake for organic in the 2018 Farm Bill, and the organic community's greatest weakness is the threat of division. Now more than ever, we need to stand together for policies and protections that strengthen the integrity of the USDA Organic seal, boost investment in organic research and support expansion of organic acres. With respect to NOSB, we must secure critical funding to make sure the Board receives the resources necessary to do its job so it can conduct the scientific analyses required under OFPA and write solid proposals which USDA can move through the system. OTA strongly believes that all of the opportunities to evolve the NOSB and the organic standards can happen within the public-private partnership, but we must stay united and live up to this unique structure we built. NOSB was designed to develop consensus, not pick winners and losers.

NOSB, while not a perfect system, is a solid one that has proven its worth and served the organic sector well for almost three decades. It is a process that is far more inclusive and transparent than turning over standards decisions to lawmakers and USDA staff and leaders. The public expects the process of establishing and revising USDA organic standards to be fully transparent with full opportunity for public participation, as envisioned by the procedures established in OFPA. In reality, there is no place in our food system that is more transparent than in organic production, and the role of the NOSB is central to that transparency.

WHO ARE THE CURRENT NOSB MEMBERS?

Farmers/Growers: Steve Ela (CO), Ashley Swaffar (AR), Jesse Buie (MS), Emily Oakley (OK)
Handlers/Processors: Joelle Mosso (CA), Tom Chapman (CA)
Retailer: Lisa de Lima (MD)
Scientist: Dave Mortensen (PA)
Consumer /Public Interest: Sue Baird (MO), Dan Seitz (MA), A-dae Romero-Briones (HI)
Environmentalists/Resource Conservationists: Asa Bradman (CA), *Francis Thicke (IA), Harriet Behar (WI)
Accredited Certifying Agent: Scott Rice (OR)

*Last term on NOSB

THE RESTRICTED ORGANIC TOOLBOX

Every household needs a good toolbox and a well-stocked first aid kit to deal with unexpected challenges that can't be handled in the usual way. And so it is with organic agriculture.

Many consumers believe that absolutely no synthetic substances are used in organic production. For the most part, they are correct and this is the basic tenet of the organic law. But there are a few limited exceptions to this rule, and the National List is designed to handle these exceptions. The National List can be thought of as the "restricted tool box" for organic farmers and handlers. Like the toolboxes or first aid kits in our cupboards to deal with critical situations when all else fails, the organic toolbox is to be used only under very special circumstances.

The organic farmer's toolbox contains materials that have been traditionally used in organic production. By law, they are necessary tools that are widely recognized as safe and for which there are no natural alternatives. This toolbox is much smaller than the "full-toolbox" used in conventional farming.

Organic farmers have restricted access to 25 synthetic active pest control products while over 900 are registered for use in conventional farming.



*Ware, George W and Whitacre, David M. The Pesticide Book 6th Edition. 2004

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Organic ranchers have restricted access to 21 synthetic livestock health treatments, while over 550 synthetic active ingredients are approved in conventional animal drug products.



*FDA Approved Animal Drug Products (Green Book)

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Before organic farmers can use any of these substances, however, they must develop a pest and disease management plan that describes how they will first prevent and manage pests without the use of National List inputs.

The restricted toolbox can only be opened when mechanical, cultural, and biological controls are insufficient to control pests, weeds and disease. This is foundational to organic farming.

The National List is also designed to cover the up to 5% non-organic minor ingredients allowed in organic food processing. These ingredients are essential in organic food processing but difficult or impossible to obtain in organic form, either because the supply is very limited or the ingredient is a non-agricultural, like baking soda, and cannot be certified organic. A total of 74 non-agricultural minor ingredients are allowed in an organic processor's "pantry," while the conventional food processor's pantry is bulging with more than 3,000 total allowed substances.



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The restricted toolbox used in organic production and handling represents the best and least-toxic technology our food system has developed.

NOSB regularly reviews the tools in the organic toolbox to assure they still meet the organic criteria set forth in the law. Under the rigorous Sunset process, NOSB and organic stakeholders review the contents of the toolbox every five years to make sure that organic's allowed tools continue to be safe for humans, safe for the environment, and necessary because of the lack of natural or organic alternatives. There is no other regulation like this in the world.

Now more than ever, organic agricultural practices are needed on more acres to address significant environmental challenges for our planet. Now more than ever, the supply of organic ingredients, particularly grains and animal feed, is falling behind consumer demand. We face the dual challenges of encouraging more farmers to convert to organic and making our food production more sustainable. NOSB's challenge is to protect the integrity of organic, while at the same time providing producers and handlers with enough flexibility to allow them to comply with organic standards and to also expand organic acreage.

Like the toolboxes and first aid kits of households that are prepared for unexpected emergencies should they arise, the organic toolbox provides the tools to safely meet the challenges of today's organic world.

It was 1997 and the National Organic Program (NOP) as we now know it was still evolving. On December 16 of that year, the first proposed rules to establish national organic standards were published by the NOP, erupting a roar of public discourse. The Department of Agriculture, which had just begun overseeing the National Organic Program, was swamped with over 275,000 public comments on the proposal, and the public interest in organic has only intensified since.

Today's strict and comprehensive network of federal requirements and regulations that monitor and check the organic industry, from the farm gate to the dinner plate, was born out of a public outcry that started rumbling in the 1970s for a healthier and safer agricultural system that would not endanger the environment or pose risks to human health. That public sentiment culminated in the Organic Foods Production Act in the 1990 Farm Bill, which ultimately created the current rules for the entire system of certified organic agriculture in the United States.



(2002) was created through a public process and mirrored most of the standards that organic producers and handlers were already using through the various certification programs of the time, and was formulated to be flexible enough to accommodate the wide range of operations and products grown and raised in every region of the United States. (2002–2005) of the implementation of the list were a period of fine-tuning, adjustment and just plain learning. Some materials essential to safe organic production had been overlooked and were added, and some simply took that long to get through the rulemaking process. Ingreening up the list: In 2007 the list was revised to restrict the number of nonorganic ingredients that can be used in organic products. What had been an unlimited number of non-organic ingredients allowed in organic processed foods was restricted to a closed-list of just a handful that still can only be used when organic alternatives are not available.

Since 2008, an even greater shift away from synthetics has occurred, with just six synthetics added to the list, and a total of 72 during that same time period removed, denied from the list, or further restricted. The no-growth trend in synthetics since 2008 shows a strong preference for the use and development of non-synthetic and organic alternatives.

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Organic production systems encourage a healthy environment with as few inputs as possible. Organic agriculture is governed by the basic rule of allowing natural substances and not allowing synthetic materials. But in the real world, sufficient quantities of an input essential to organic production and processing — and not harmful to humans or the environment — are not always available in an organic form, so exceptions to this rule have been made. These exceptions make up the "National List of Allowed and Prohibited Substances," or simply the "National List."

The National List identifies the synthetic substances that may be used in organic crop and livestock production, and prohibits the use of certain natural toxic substances in organic production. The list also identifies synthetic materials such as carbon dioxide, non-synthetic non-agricultural substances such as yeast, and non-organic agricultural substances such as Turkish bay leaves that may be used in organic handling and processing.

LEARNING FROM OTHERS AND COMPILING A LIST THAT WORKS

It took five years for the National Organic Standards Board (NOSB), a group of fifteen public volunteers appointed by the Secretary of Agriculture who represent various sectors of the organic industry, to complete a massive review of the inputs in use by organic producers and processors, and of state, private, and foreign organic certification programs to help craft the final organic regulations.

It was from this extensive research and engagement with everyone in the organic chain, and following thousands of comments to federal regulators, that the National List was compiled, reworked and reworked again, and then officially established on Dec. 21, 2000. The list mirrored most of the standards that organic producers and handlers were already abiding by through the various certification programs of the time, and was formulated to be flexible enough to accommodate the wide range of operations and products grown and raised in every region of the United States

What are some of the allowable substances on the National List? For crop producers, the list includes things like newspapers for mulch and sticky traps for insect control. For livestock producers, it includes vaccines, an important part of the health regimen of an organic animal for which antibiotics are prohibited, and chlorine for disinfecting equipment. For organic processors, the list includes ingredients essential to processed products that can't be produced organically, like baking soda, and certain vitamins and minerals and non-toxic sanitizers.

Of course, not all the allowed items on the National List are non-controversial. But all of the substances on the list are required to fulfill three critical criteria as specified by the Organic Foods Production Act: 1) Not be harmful to human health or the environment; 2) Be necessary to production because of unavailability of natural or organic alternatives, and 3) Be consistent with organic principles.

A NO-GROWTH TREND IN SYNTHETICS

The first several years of the implementation of the list were a period of fine-tuning, adjustment and just plain learning. Some materials essential to safe organic production had been overlooked and were added, like ozone gas for cleaning irrigation systems and animal enzymes for organic cheese production — both put on the list in 2003.

In 2007, the number of non-organic agricultural ingredients allowed in organic processed products was dramatically tightened. Processed products with the organic label must contain 95 percent certified organic ingredients. Before 2007, the agricultural ingredients that could be used in the remaining 5 percent category were not spelled out; ANY non-organic agricultural ingredient could be used if it was not available in organic form. In 2007, 38 specific substances were defined and added to the National List of non-organic ingredients allowed in a processed organic product. So with the addition of 38 materials to the National List, what had been an unlimited number of non-organic agricultural ingredients allowed in organic processed foods was reduced to a closed list of just several handfuls.

Since 2008, an even greater shift away from synthetics has occurred, with just six synthetics added to the list, and a total of 72 during that same time period removed, denied from the list, or further restricted.

Allowed synthetics since 2008: What is the trend?

No-Growth

with a strong preference for the use and development of nonsynthetic and organic alternatives.

synthetics have been added

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Examples of synthetics added include a sanitizer used in processing facilities that is allowed only for secondary and indirect food contact surface sanitizing, a cheese wax used for organic mushroom production, a mite control product for honeybees for organic honey production.

 have been removed, denied, or further restricted.

 Image: Construction of the second second

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The synthetics added include a sanitizer in processing facilities used only for secondary and indirect food contact, a cheese wax used for organic mushroom production, a mite control product for organic honey production, and biodegradable mulch. Substances no longer allowed in organic products or denied permission to be added include non-organic hops in organic beer, bleached lecithin, unmodified rice starch, antibiotics for pears and apples, and dozens of synthetic substances and other materials. Additional restrictions recently added include a requirement to use organic yeast in certified products for human consumption and a requirement to use organic colors.

The no-growth trend in synthetics since 2008 shows a strong preference for the use and development of non-synthetic and organic alternatives.

A real-life example of a determined individual working within the NOSB system to replace an allowed synthetic material on the National List with a certified organic substitute occurred in 2013. The head of the company, which makes rice-based ingredients that food manufacturers use as alternatives to synthetic ingredients, submitted a petition in 2010 to remove silicon dioxide from the National List since his company had developed a rice-based certified organic alternative to the synthetic. In 2013, the NOSB amended the use of silicon dioxide and weighed in favor of organic rice hulls when available.



National List Scorecard: Synthetics Added, Removed or Denied

* Requested for addition to the National List but denied

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ENABLING ORGANIC TO GROW AND PRESERVING THE SYSTEM'S INTEGRITY

The system was more arduous and took longer than expected, but it worked. It was proof that the National List has the foresight to include synthetic ingredients when there are no organic or natural alternatives, and thereby enabling the organic industry to evolve and grow, but more importantly, the system provides a method to retire a synthetic substance and implement the organic alternative when it becomes available. And in the particular case of the maker of the rice-based organic alternative, it was a win-win deal for the company, with sales growing by over 150 percent!

The National List represents a process that is rigorous, fair and one that works. It reflects realistic organic practices, while taking into account current obstacles to ideal production. It encourages public scrutiny, comment and engagement.

In the past ten years, organic food sales in the United States have jumped from slightly more than \$15.6 billion in 2006 to \$43 billion in 2016, nearly 300 percent growth. According to USDA's National Agricultural Statistics Service's 2016 Certified Organic Survey, the number of certified organic farms in the country totaled 14,217 farms in 2016 compared to 3,000 tops in the mid-1990s.

More certified organic farmers, more organic products, more organic processors and handlers, an organic farm-to-table supply chain that is growing every day, but still adhering to a tight set of stringent guidelines —that's what the National List has made possible.

THE ORGANIC TOOLBOX IS SUPPORTED BY A THREE-LEGGED STOOL

A primary function and responsibility of the National Organic Standards Board (NOSB) is to determine the suitability of the inputs that may be used in organic farming and handling. NOSB was in fact designed by the Organic Food Production Act (OFPA) to advise the U.S. Department of Agriculture (USDA) as to which inputs should be allowed. The organic law and regulations specify the evaluation criteria NOSB must use when it makes its recommendation to USDA.

The evaluation criteria and review process used by NOSB when voting on the suitability of inputs can be likened to a three-legged stool. The National List, which we often refer to as the "Restricted Organic Toolbox," is supported by three legs, each one representing criteria to be met for an input to be added or removed. If any one of the three legs is missing, the stool falls over and the action on the input fails.

The organic law (OFPA) and the organic regulations include a number of factors NOSB must consider when deciding on the suitability of an input. If one takes a look at the sum of all parts, the conditions that must be met fall into three main clearly stipulated criteria: 1) the input is necessary or essential because of the unavailability of natural or organic alternatives; 2) the input is not harmful to human health or the environment; and 3) the input is suitable with organic farming and handling. These three criteria comprise the three legs of the stool. Let's take a closer look.

ALTERNATIVES

Perhaps the simplest of the three main criteria is researching whether there are natural or organic alternatives. The organic law clearly states the National List may allow the use of an input in organic farming or handling if it is "necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products." The law also states NOSB shall consider alternatives in terms of practices or other available materials. The organic regulations at § 205.600(b) also bring in additional but similar criteria for synthetic processing aids and adjuvants, allowing their use only when there are no organic substitutes and when they are essential for handling or processing.

While this leg of the stool is arguably the most simple of the three, NOSB and organic stakeholders have long struggled with this criteria because of the terms "necessary," "essential," and "availability." How much of something is needed to consider it available in the volume needed? What if a natural alternative is available but the quality is not sufficient? What if the alternative works in one region of the country but not another? What if there is an alternative but it's important to have more than one option? Determining whether there are natural or organic alternatives continues to be more challenging than one might think, and for this particular criteria, NOSB relies heavily on the feedback from organic stakeholders, especially the organic farmers and handlers growing and making organic food, and using the inputs and practices in question.

HUMAN HEALTH AND THE ENVIRONMENT

The restricted organic toolbox used in organic farming and handling represents the best and least toxic technology our food system has developed. That is exactly how we want to keep it. This principle is bound by the organic law, which states specifically that inputs that otherwise would be prohibited can be added to the National List only if their use is not harmful to human health or the environment. The law also requires the final decision made by USDA to be done so in consultation with the Secretary of Health and Human Services and the Administrator of the Environmental Protection Agency.

To help NOSB advise USDA on this complex topic, the organic law provides NOSB with evaluation criteria to consider in order to explore the toxicity of the input during manufacture, use and disposal, and the

BALANCING THE THREE-LEGGED STOOL How "National List" Criteria Support the Restricted Organic Toolbox



Organic Foods Production Act (OFPA)

Processing Aids and Adjuvants Criteria (7 CFR 205.600(b))

National List Criteria (OFPA 6517) • Recognized as safe by the Food and National Organic Standards Board (NOSB) Evaluation Criteria (OFPA 6518) USDA Organic Regulations

• Primarily not a preservative or used to recreate qualities lost during processing

• Use and disposal don't harm the environment

Drug Administration

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potential interactions the input may have with other inputs or within the farming ecosystem. The organic regulations bring in additional but similar criteria for synthetic processing aids and adjuvants that consider the impact their use has on the environment and the safety status under the Food and Drug Administration (FDA).

Evaluating whether an input may be harmful to human health and the environment is no easy task. Members of the Board represent several areas of the organic sector and hold advanced degrees in different scientific disciplines, but they may lack the expertise or time to adequately address the needs of a petition. It is for this reason NOSB may request the assistance of a third party to evaluate a material. This comes to NOSB in the form of a Technical Review that is made available to NOSB and the public. In addition to the Technical Review, NOSB looks to the scientific experts in the community to provide meaningful input.

SUITABILITY WITH ORGANIC FARMING AND HANDLING

In addition to alternatives, human health and the environment, NOSB must determine the suitability of an input with organic practices. This is arguably the most nebulous of the three criteria, prompting NOSB to pass a guidance recommendation in spring of 2004 that includes a series of questions to assist the Board in its evaluation process. This guidance is now incorporated into NOSB's Policy and Procedures Manual, and plays a central role in NOSB's review process.

The questions in the guidance are largely tied to the definition of "organic production" codified in the organic regulations emphasizing practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Questions are also asked about the influence the input may have on animal welfare, the consistency the input has with items already on the National List and with international standards, and whether the input satisfies the expectations of organic consumers regarding the authenticity and integrity of organic products.

The third leg of the stool can be viewed as the "equalizing" leg of the stool, helping NOSB balance its evaluation of alternatives, human health and the environment. For example, if the information provided on human health raises some concerns, but the science is insufficient, or alternatives are available but they do not work in all regions of the country or in all types of products, NOSB will evaluate how suitable the input is overall with the foundations of organic production and handling. One leg of the stool may not fail the criteria altogether but it might be shorter than another leg, creating concern ... and a tilted stool. The suitability criteria help NOSB adjust and balance the stool. Similarly, the input may pull up short in the suitability department, causing the stool to topple. Either way, NOSB's final recommendation must deliver a balanced three-legged stool that firmly supports the restricted organic toolbox.

THE THREE-LEGGED STOOL STANDS ON A SOLID YET DYNAMIC FOUNDATION

The three-legged stool holding up the National List stands on a firm foundation made up of organic stakeholders, the organic law, the organic regulations, NOSB and USDA's National Organic Program. The organic law was created in response to the needs of organic stakeholders, and the law in turn created NOSB and the USDA organic regulations. Today, the entire process we use to shape the National List continues to be powered and driven by stakeholders throughout the supply chain and the organic community. The National List criteria are tough, the process is rigorous, the discussion and decisions are thoughtful and transparent, and everyone is welcome.

NOSB'S SUNSET PROCESS

Organic regulations prohibit the use of most synthetic inputs in organic farming and livestock, and largely require the use of organic ingredients in organic processed foods. Any exceptions are made because of the lack of natural or organic alternatives to a necessary or essential production or handling input. In addition to the necessity of being signed off on, the inputs must be fully vetted by the National Organic Standard Board (NOSB) and the public to ensure that their use will not adversely impact humans or the environment. Two-thirds of the NOSB must then vote to add the input to the "National List of Approved and Prohibited Substances." Once an input has been added to the National List, NOSB must review the input every five years. This is known as the Sunset Review process. Through this process, NOSB can remove inputs from the National List based on any new information regarding adverse impact on human health or the environment, or the availability of a natural or organic alternative. After NOSB completes its Sunset Review and provides a recommendation, USDA either renews or removes the input to complete the Sunset process.

SUNSET REORGANIZATION (2019 SUNSET REVIEWED IN 2017)

The National List items under the 2019 Sunset Review cycle are part of a reorganization process that will result in a more evenly distributed Sunset Review workload over the five-year Sunset Review cycle. The process is the result of an NOSB recommendation unanimously passed at the fall 2016 NOSB meeting. As explained in the NOSB recommendation, National List inputs that are reviewed early under the reorganization plan should be allowed to sunset on their original timeline. For example, if NOSB votes to remove a National List item under the 2019 review cycle that was originally under the 2017/2022 Sunset Review cycle, the removal of the item from the National List would not occur until 2022. This situation applies to all of the inputs under review during this meeting EXCEPT Biodegradable Bio-based Mulch.

PUBLIC COMMENT PROCESS

There are two public comment opportunities that inform the National List 2019 Sunset Review. The inputs scheduled to sunset in 2019 are undergoing their second and final stage of review at this fall 2017 meeting. The information collected through the first round of public comment periods informed the subcommittee proposals that went out for public comment prior to this meeting. The full Board is now taking the feedback from both comment periods into consideration along with its own research. NOSB will vote at this meeting on whether to renew their allowance on the National List for another five years.

ORGANIC TRADE ASSOCIATION'S ONLINE SURVEY SYSTEM

To help facilitate a thorough comment and review process, OTA created an electronic survey for each input under review for 2019. The surveys are user-friendly, available to every NOP certificate holder, and include 7-10 questions addressing the necessity (farm and livestock) or essentiality (handling) of the National List input under review. The names of the companies submitting the information are confidential (not disclosed to OTA). To ensure wide distribution of the surveys beyond OTA membership, OTA worked with Accredited Certifying Agencies (ACAs) to distribute the survey links to all of their certified clients as well as to targeted clients they know are using the inputs under review. OTA also worked through its Farmers Advisory Council (FAC¹) to help assist in distribution to NOP certified farmers. OTA hopes these efforts and the feedback gathered from certified farmers and handlers will help and inform NOSB in its review process as it relates to the necessity or essentiality of the National List inputs undergoing their five-year Sunset Review.

1. OTA's Farmers Advisory Council was established in 2013 to formalize two-way communication between OTA and member producers as well as regional organic producer organizations across the United States. Through dialogue and input, FAC gives organic farmers a voice to directly influence OTA's policy and provides an avenue for OTA to share information and advocacy work with this stakeholder group.

NOSB VOTING PROCEDURES

NOSB MOTIONS AND VOTES

As specified in the Organic Foods Production Act (OFPA), two-thirds of the votes cast at an NOSB meeting at which a quorum is present shall be decisive of any motion [§2119(i)]. As there are 15 NOSB members, 10 votes in favor are needed to pass any recommendation. For the fall 2015 meeting, there are only 14 members as one member has recently resigned. Ten votes are still needed to pass any recommendation

- Non-material related proposals: two-thirds of NOSB members must vote in favor of the motion for the recommendation to pass
- Petition to add or remove a material to/from the National List: two-thirds of NOSB members must vote in favor of adding (or removing) the material in order for USDA to have the authority to add or remove the material to/from the National List
- Sunset Review proposals: two-thirds of NOSB members must vote in favor of removing a material in order for USDA to have the authority to amend the National List. If two-thirds of NOSB vote to remove and USDA accepts the recommendation, USDA then will pursue rulemaking

SUBSTANTIVE CHANGES: If there are substantive changes made to a subcommittee proposal based on public comment, the proposal must go back to the subcommittee and a revised proposal must be released for further public comment prior to the subsequent NOSB meeting.

WHY DO THE SUNSET SUBCOMMITTEE PROPOSALS INCLUDE A "MOTION TO REMOVE?"

The purpose of a motion to remove is to introduce the topic for consideration while the vote from the entire board determines the final recommendation. Even if the Subcommittee "motion to remove" fails to receive a simple majority, the motion will still be put forward to the full Board for review. The "motion to remove" is then considered and voted on by the full Board, and needs to receive a 2/3 majority to recommend removal.

EXAMPLE VOTING PROCESS FOR A "MOTION TO REMOVE"

Subcommittee Vote (simple majority is needed to pass a motion)

- Yes = in favor to delist No = in favor to renew
- If majority vote yes, the recommendation to the full Board is to remove the material
- If majority vote no, the recommendation to the full Board is to renew the material
- Subcommittee proposal is forwarded to the full Board for a vote regardless of whether the motion failed/passed

Full Board Vote (2/3 majority (10 of 15)) is needed is needed to remove a material)

- The full Board votes on the subcommittee's motion to remove
- Yes = in favor to remove No = in favor to renew
- 2/3 of the 15 member board would need to vote YES to delist the material
 - Example: 10 yes, 5 no would mean that the motion passes, and the final recommendation would be to delist the material
 - Example: 8 no, 7 yes would mean the motion fails, and the material would remain on the National List.

EXCLUDED OPERATIONS IN THE SUPPLY CHAIN (PROPOSAL)

BACKGROUND

Organic products are the most heavily regulated products in the world, and the organic certification system is generally robust. However, recent activities and USDA investigations have revealed products fraudulently labeled as organic and gaps in the complex organic supply chain, specifically as it relates to organic imports. Compromised supply chains due to fraud can erode consumer trust in the integrity of the organic brand. Strong action is needed to improve the effectiveness of controls throughout the organic product supply chain. Everyone has a role in organic fraud prevention, and there are many avenues of action that must be taken. One part of the solution is to explore means to strengthen the regulations to shore up any gaps in the audit trail system. Under USDA organic certification, most operations in the organic supply chain are subject to certification. However, certain operations currently are excluded if they handle products that are packaged or otherwise enclosed in a container prior to being received or acquired by the operation and remain in the same package or container and are not otherwise processed while in the control of the handling operation. The regulations require a certified operation to verify organic status by tracing back to the last organic certificate holder. Excluded operations, however, may present gaps in this trail as they fall outside the scrutiny of certification.

NOSB SUBCOMMITTEE SUMMARY

This proposal seeks to further clarify what operations are excluded from certification via a revision to existing NOP Guidance 5031 – "Certification Requirements for Handling Unpackaged Organic Products." The proposed revision also seeks to clarify the requirements of labeling bulk packages and containers, as well as what constitutes an enclosed package or container. Specifically, NOSB suggests revising NOP 5031 to say that an operation is excluded from certification if it only handles organic products that are enclosed in a package or container and remain in the same package or container for the entire period handled AND (italicized is the new language) the package or container must be labeled as "organic" and contain the "certified organic by" certifier statement, the name of the handler and list of ingredients (if applicable). NOSB would like to know what negative and/or economic impact there might be on the trade and movement of organic product with these clarifications, and what impact these clarifications might have on maintaining organic integrity. (Subcommittee Vote: 4 in favor; 0 against; 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA is extremely supportive of NOSB's efforts to address the critical issue of organic fraud and we are generally in support of this proposal. We strongly believe that a regulatory modification to limit the types of operations that may be excluded from certification is imperative. In addition, we also support the important role guidance and training have in strengthening and clarifying the regulations. We believe that some operations handling unpacked products may be unaware or unclear on the requirements to be certified. Updating and re-releasing guidance, intrinsically, should have benefits if widely publicized. The subcommittee's proposed revision to make clear that the exclusion from certification only applies to operations that are handling packaged and labeled product should further limit the number of entities in the organic value chain that remain uncertified. The additional recommendations in the proposal on guidance, training and certifier oversight are also greatly needed and should be very beneficial. Acknowledging that this is one of many actions that must be taken to adequately address organic fraud, the Organic Trade Association supports passing the proposal at this meeting.

ELIMINATING INCENTIVE TO CONVERT NATIVE ECOSYSTEMS (PROPOSAL)

BACKGROUND

The organic regulations require that all organic land be free of prohibited substances for 36 months prior to production of an organic crop. There is growing concern that producers can meet this requirement by converting native land (i.e. land that has never been farmed before) to agricultural production. Anecdotal accounts indicate that producers in the arid West may be converting native habitat to organic production, raising questions about whether this practice meets the overall intent of organic production, which includes maintaining and improving natural ecosystems. This concern does not extend to land coming out of Conservation Reserve Program (CRP), as that land had previously been farmed.

NOSB SUBCOMMITTEE SUMMARY

NOSB is putting forth the proposed language below to provide protections for ecosystems through removal of the incentive to gain immediate access to the organic market after the destruction of these native ecosystems. NOSB would like to receive feedback from certifiers on possible economic impacts this rulemaking may have on their certified operations. Specifically, how many operations, crops, and acreage would have been impacted if this rule had been in place in 2016?

The subcommittee proposes to add the following in italics to the organic regulation:

A native ecosystem site that has not been previously grazed or cultivated cannot be certified as organic as provided for under this regulation for a period of 10 years from the date of conversion to crop or livestock production.

(Subcommittee Vote: 4 in favor; 0 against; 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the overall goal of CACS's recommendation on how to eliminate incentives to convert native ecosystems to organic production, and we believe a 10-year waiting time is an adequate disincentive. However, additional clarification is needed on defined terms, like "cropping," "grazing," and "native ecosystems." Additionally, CACS should consider whether exempting land that previously was used for grazing adequately protects native ecosystems across the West, and how to better provide flexibility to producers looking to expand pastures into their own managed woodlots. Eliminating the incentive to convert native habitats is a noble goal, and one that aligns with organic production principles. OTA supports this goal, but we believe additional refinement is needed before passing a formal recommendation.

2017 SUNSET REVIEW: CROPS

Synthetic substances allowed in organic crop production run the spectrum of pest control products to fertilizers to post-harvest handling aids. The pest control products are all also under the added scrutiny of the U.S. Environmental Protection Agency which has determined them to be the least toxic class of pest and disease control products and granted a "tolerance exemption" found at 40 CFR Part 180. Fertilizing materials have strict limitations on use patterns and manufacturing processes, which reduce potential harm to humans and the environment while keeping these critical tools available to organic farmers. These substances make up section 205.601 of the National List, which is subject to review by NOSB every five years.

Some non-synthetic substances are incompatible with organic production because they are harmful to humans and the environment and must be specifically prohibited. These substances make up sections of the National 205.602 of the National List, which is also subject to review by NOSB every five years like every other listing.

The list below includes a description of the National List input under the 2019 Sunset Review, the concern or issue raised by subcommittee members if any, and the subcommittee vote to remove or relist. You will also see icons that communicate the results of OTA's Sunset Survey System and a place where you can record the final vote of the full Board. NOTE: A "YES" vote = relist and a "NO" vote = remove

KEY:



The three legged chair = Surveys/member feedback indicate the input is necessary to organic production (1)



Surveys/member feedback indicate the input is no longer necessary/ essential (2) Lack of a symbol = No survey responses or member feedback was received (3)

§205.601 – SYNTHETICS ALLOWED IN ORGANIC CROP PRODUCTION

ALGICIDES, SANITIZERS, AND PEST, WEED, AND DISEASE CONTROL MATERIALS

Chlorine Materials (Calcium Hypochlorite, Sodium Hypochlorite, Chlorine Dioxide): Used to disinfect tools, prevent spread of diseases, and increase food safety of organic products.

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆



Soap Based Herbicides: Used to control weeds, but restricted to roadways, ditches, and ornamental crops only

- Subcommittee Vote: Motion to remove Yes: 0 No: 5 Abstain: 2 Absent: 2 Recuse: 0
- Final Vote: Remove 🗆 Relist 🗆



Biodegradable bio-based mulch film:

- Subcommittee Vote: Motion to remove Yes: 0 No: 8 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

Boric Acid: Used for structural pest control, but cannot come into contact with organic food or crops

- Subcommittee Vote: Motion to remove Yes: 0 No: 8 Abstain: 0 Absent: 1 Recuse: 0
- Final Vote: Remove 🗆 Relist 🗆



Sticky Traps/Barriers: Used to monitor for pest populations issues in organic fields

- Subcommittee Vote: Yes: 0 No: 7 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆
- Coppers, fixed: Used for disease control
 - Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 2 Recuse: 0
 - Final Vote: Remove 🗆 Relist 🗆

Copper Sulfate: Used for pest and disease control and as a fertilizer to correct copper deficiencies in soil

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 2 Recuse: 0
 - *Final Vote:* Remove
 Relist

FERTILIZERS, SOIL AMENDMENTS, AND CROP PRODUCTION AIDS

- Humic Acids: Used as a fertilizer and soil amendment
- Subcommittee Vote: Motion to remove Yes: 0 No: 9 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

Micronutrients (Soluble boron products): Used as a fertilizer when testing shows deficiencies

- Subcommittee Vote: Motion to remove Yes: 0 No: 8 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆



Micronutrients (sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt): Used as a fertilizer when testing shows deficiencies

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 3 Recuse: 0
- *Final Vote:* Remove □ Relist □

Vitamin B1: Used as a fertilizer and soil amendment

- Subcommittee Vote: Motion to remove Yes: 6 No: 0 Abstain: 0 Absent: 3 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

Vitamin C and E: Used as a fertilizer and soil amendment

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 3 Recuse: 0
- *Final Vote:* Remove □ Relist □

§205.602 – NON-SYNTHETICS PROHIBITED IN ORGANIC CROP

PRODUCTION

Lead Salts

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove □ Relist □

Tobacco Dust (Nicotine Sulfate)

- Subcommittee Vote: Motion to remove Yes: 0 No: 8 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove □ Relist □

FATTY ALCOHOLS - PETITION TO ADD (PROPOSAL)

BACKGROUND

Green Ag Supply LLC has petitioned for the inclusion of natural fatty alcohols in Section 206.601(k) of the National Organic Program's National List of Allowed and Prohibited Substances (synthetic plant growth regulators). The petitioner intends to use this substance, actually a fatty alcohol blend (Octanol and Decanol), as a pest control product on organic crops. According to the petitioner, the raw material for the alcohols is derived primarily from Palm Kernel Oil and Palm Oil, not synthetic alcohol. EPA has only approved fatty alcohols for use as a growth regulator on tobacco, and the technical review only covered use of fatty alcohols for use on tobacco.

NOSB SUBCOMMITTEE SUMMARY

The Crops Subcommittee does not think that use of a synthetic growth regulator is compatible with a system of sustainable and organic agriculture. It has not explained this reasoning. However, the technical review describes mechanical alternatives, namely that topping may be done by hand or with special machines that cut the flower heads and sacrifice a few leaves. Fatty alcohols also do not fall into any of the OFPA categories. The motion to add fatty alcohols (Octanol/Decanol mix) as petitioned at §205.601(k)(2) for use in organic crop production to the National List failed.

(Subcommittee Vote: 0 in favor; 8 against; 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION



The Organic Trade Association does not take a position on this material.

Organic Trade Association | www.OTA.com

Anyone who has watched the NOP petition process knows that it doesn't happen overnight, and it doesn't happen in a vacuum. In a nutshell, the petition process first involves submitting a petition to NOP for approval prior to it being forwarding to NOSB for the next phase of review. A NOSB subcommittee will take up the petition, draft a recommendation and release it to the public for feedback prior to an in-person meeting. The open comment period is typically 30 days or less. Comments are considered and the entire Board then votes on whether or not to add the material to the National List. If approved, NOP would then release a proposed rule for another comment period that is typically 60 - 90 days. Comments are considered, and ultimately a final rule is approved and published. The entire petition process can take anywhere from 2-6 years.

ANAEROBIC DIGESTATE - PETITION TO ADD (PROPOSAL)

BACKGROUND

Cenergy USA Inc. submitted a petition" to establish a separate classification for anaerobic digestate on the National list of Allowed and Prohibited Substances." Anaerobic digesters are closed systems in which natural waste products like manure and food waste are converted to methane and natural fertilizers by anaerobic bacteria. The methane typically is captured and then burned for energy production, and the fertilizer (also known as "anaerobic digestate") is used to add plant nutrients and organic matter to agricultural fields. The petition requests that anaerobic digestate fiber, or digestate, produced without synthetic materials be allowed for use in organic production exclusive of days-to-harvest restrictions following application. Since the petition did not request evaluation of any synthetic ingredients or feedstocks going into anaerobic digestate but requested that this substance not be subject to pre-harvest intervals (90 or 120 days depending on crop contact with soil), the Crops Subcommittee indicated it was more appropriate to view this petition as an amendment to 205.203(c) (Soil fertility and crop nutrient management practice standard).

NOSB SUBCOMMITTEE SUMMARY

The Crops Subcommittee indicated that since the petition did not address specific processes by which anaerobic digestate is produced or how anaerobic digestion affects persistence of human pathogens, there was a lack of justification for removing pre-harvest intervals from anaerobic digestate that contains raw manure. The subcommittee unanimously voted against the motion to amend section 205.203(c) of the regulations (Soil fertility and crop nutrient management practice standard) to allow raw animal manure when it has "undergone an anaerobic digestion process" and also to allow "anaerobic digestion products that have been processed to reduce pathogens."

(Subcommittee Vote: 0 in favor; 8 against; 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the Crops Subcommittee's (CS's) assessment that the petition for anaerobic digestate did not specify any synthetic feedstocks, and therefore should not be considered a synthetic substance. Additionally, since the petition requested that anaerobic digestate be allowed in organic production without pre-harvest restrictions applied to inputs containing raw manure, we agree with CS's process to propose an amendment to 7 CFR 205.203(c). OTA supports CS's vote to deny this particular petition for anaerobic digestate because it lacks the necessary time, temperature, or similar metric, validated by testing, to ensure that an anaerobic digestate has undergone a process to reduce pathogens.

STRENGTHEN AND CLARIFY ORGANIC SEED USE REQUIREMENTS (PROPOSAL)

BACKGROUND

The Crops Subcommittee started soliciting public comment in 2016 on ways organic seed guidance could be strengthened to achieve full compliance with the requirement to use organic seed when it is commercially available in the appropriate quantity, quality and form. One of the main criticisms of the current seed guidance is that it fails to provide a framework for what continuous improvement looks like and how to achieve it in the context of seed. NOP has communicated to NOSB and the organic sector that to require certified operators to demonstrate "continuous improvement," the regulations would need to be modified. As a result, NOSB is recommending a regulatory change to the organic seed section of the organic regulations as well as several revisions to NOP's existing guidance (NOP 5029) for seeds, annual seedlings and planting stock used in organic crop production.

NOSB SUBCOMMITTEE SUMMARY

The subcommittee is proposing to 1) amend the regulations at § 205.204 to include a statement that improvement in sourcing and use of organic seed and planting stock must be demonstrated every year until full use of organic seed is achieved; 2) revise the NOP 5029 to specifically state that producers must avoid contamination from excluded methods in seed of at-risk crops; 3) revise NOP 5029 to specify that non-organic seed may be used only if the conventional replacement can be produced without the use of excluded methods; 4) revise NOP 5029 to specify that on-farm variety trials may be used to evaluate equivalency and varieties that are available as organic, and non-organic seed can be used if organic seed cannot be sourced because of GMO contamination; 5) revise NOP 5029 record-keeping system to further address the number of sources that must be contacted (FIVE for at-risk crops), the organic status of the organic companies contacted and that producers must keep records of buyers' (contracted crop) attempts to source organic seed; and 6) revise NOP 5029 to specify that certifying agents may ask for a corrective action plan and require additional efforts be made when sufficient progress towards organic seed is not demonstrated.

(Subcommittee Vote: 9 in favor; 0 against; 0 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the majority of the proposal. However, we believe that a few substantive changes are critical and the proposal should not be passed at this meeting. In summary, OTA strongly supports the proposal to amend the organic regulations at § 205.204 as written. We also support the majority of the proposed changes to NOP's Organic Seed, Annual Seedlings and Planting Stock Guidance (NOP 5029). The changes we are calling for primarily relate to the number of sources that should be contacted when searching for organic seed, disagreement with the inclusion of any language in guidance that would explicitly allow for non-organic seed to be used if organic seed cannot be sourced because of GMO contamination, and a request to add any new GMO prevention strategies to NOP Guidance 5025 that is designed for that specific purpose and includes the appropriate context. Until a seed purity standard is developed, we strongly urge NOSB to simply clarify that non-organic seed must be commercially unavailable in organic form and produced without the use of excluded methods. Where appropriate, we support including reference to existing guidance on GMO prevention measures to avoid contamination for seed of at-risk-crops. The detail of our suggested comments can be found in our complete comments.

HYDROPONIC AND CONTAINER GROWING (PROPOSAL)

BACKGROUND

NOSB continues to work on the ongoing issue of the compatibility of aeroponics, aquaponics, hydroponics and containerized production with organic production standards at the upcoming meeting. In 2010, NOSB passed a recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures. In this proposal, NOSB recommended prohibiting aeroponics and hydroponics, and proposed production standards that would ensure container producers met organic principles. In 2010, NOSB proposed the following definitions for aeroponics and hydroponics:

Hydroponics. The production of normally terrestrial vascular plants in nutrient-rich solutions or in an inert, porous, solid matrix bathed in nutrient-rich solutions.

Aeroponics. A variation of hydroponics in which plant roots are suspended in air and misted with nutrient solutions.

USDA did not act upon this recommendation, citing a lack of clarity, and requested additional work from NOSB on the topic. Over the past several meetings, NOSB has discussed how to properly define terms and what should be the guiding principles for the oversight of container production systems in organic. The issue has sparked lively debate among organic stakeholders over how to properly define these types of systems, how to ensure container systems adhere to organic principles, and how to properly move forward with federal rulemaking on the issue.

NOSB SUBCOMMITTEE SUMMARY

The Crops Subcommittee has proposed definitions for aeroponics, hydroponics and aquaponics, and recommended that these practices be prohibited in organic production by adding these defined terms to 7 CFR 205.105 (prohibited practices in organic production). Specifically, the Crops Subcommittee proposes the following definitions be used:

- Aeroponics: A variation of hydroponics in which plant roots are suspended in air and misted with nutrient solution.
- Hydroponics: Any container production system that does not meet the standard of a limit of 20% of the plants' nitrogen requirement being supplied by liquid feeding, and a limit of 50% of the plants' nitrogen requirement being added to the container after the crop has been planted.
- Aquaponics: A recirculating hydroponic system in which plants are grown in nutrients originating from aquatic animal waste water, which may include the use of bacteria to improve availability of these nutrients to the plants. The plants improve the water quality by using the nutrients, and the water is then recirculated back to the aquatic animals.

In addition, the Crops Subcommittee proposes that for container production to be certified organic, a limit of 20% of the plants' nitrogen requirement can be supplied by liquid feeding, and a limit of 50% of the plants' nitrogen requirement can be added to the container after the crop has been planted. For perennials, the nitrogen-feeding limit is calculated on an annual basis. Transplants, ornamentals, herbs, sprouts, fodder, and aquatic plants are exempt from these requirements.

The Crops Subcommittee asks for comments on these definitions and whether they adequately address the intent of the Board to prohibit entirely water-based systems, additional aspects of hydroponic production that should be considered in a future proposal, and questions related to containerized production, which will be addressed in a future discussion document and proposal by the Crops Subcommittee.

- The Crops Subcommittee made four motions:
- Three separate motions to *prohibit* aeroponics, aquaponics and hydroponics based on the new definitions:
 - Prohibit aeroponics PASSED (Yes: 8 No: 0 Abstain: 1 Absent: 0 Recuse: 0)
 - Prohibit aquaponics PASSED (Yes: 7 No: 2 Abstain: 0 Absent: 0 Recuse: 0)
 - Prohibit hydroponics PASSED (Yes: 6 No: 3 Abstain: 0 Absent: 0 Recuse: 0)
- A single motion to *allow* container production with the proposed restrictions related to limits on liquid feeding and nitrogen fertilizer additions - PASSED (Yes: 6 No: 3 Abstain: 0 Absent: 0 Recuse: 0)

MINORITY VIEW: In addition to the Crops Subcommittee motions, a "Minority View" was provided to express the views and proposals of a minority on the Crops Subcommittee who support hydroponic production under the organic standards. In this view, the minority proposes a number of redline changes to the 2010 NOSB Recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures. Instead of focusing on inputs as the defining characteristics of various production systems, the minority view focuses more on the outcomes it sees as critical for alignment with organic principles. Specifically, the minority view introduces the concept that a minimum soil biology diversity be applied to all container and hydroponic systems to ensure that soil biology remain an essential element of all organic systems. Additionally, the minority view indicates that it feels that neither the Crops Subcommittee proposal nor the minority proposal should be voted on at the Fall 2017 meeting, but requests additional feedback from the public on these proposed revisions.

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supported NOSB's 2010 recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures when it was passed, and we have consistently maintained that position ever since. We supported NOSB's view that entirely water-based systems (hydroponics and aeroponics) should be prohibited in organic, and that organic container production should meet strict and appropriate production standards. We agreed with NOSB in 2010 that container production must implement practices that ensure a "natural and diverse soil ecology" is supported in the container, and that broader organic concepts like maintaining and improving biodiversity and soil and water quality must be implemented on these types of farms. We support this approach because it focuses on the outcomes of an organic management system rather than on restricting the use of inputs, and it recognizes that while organic regulations must be flexible enough to accommodate site-specific conditions, all organic production requirements must be met on each operation, not just the use of allowed inputs. This position has not changed, and we remain committed to ensuring that the ongoing work on this issue build upon the 2010 NOSB recommendation and utilize clear and consistent definitions for each type of production system under consideration.

However, OTA does not support the entirety of the Crops Subcommittee proposal because it has drastically revised the definition of "hydroponic" and proposed guidelines on organic container production, which are not based on science and may not achieve an outcome that ensures organic container producers implement practices that foster a "natural and diverse soil ecology." OTA would have supported the motion to prohibit "hydroponics" if the Crops Subcommittee had retained the long-standing definition first proposed and approved by NOSB in 2010.

OTA also believes that standards for container production should be outcome focused and not be focused squarely on limitations on nitrogen inputs. Critics of hydroponic and container systems have correctly pointed out that organic production is not input substitution, but rather a systems approach to growing crops. We believe that all organic standards, including those specific to container production, should follow this systems approach. Focusing production requirements down to limitations on how and when a single plant nutrient can be utilized in a system does not lay solid groundwork for an organic approach to container growing.

FIELD AND GREENHOUSE CONTAINER PRODUCTION (DISCUSSION)

BACKGROUND

This new discussion document is connected to the proposal on container production and aims to address three additional areas: use of artificial light, use of synthetic mulches, and disposal of crops, substrates and containers at the end of the crop's production cycle. This discussion document's intention is to add clarity to NOSB's previous recommendation from 2010 on Production Standards for Terrestrial Plants in Containers and Enclosures.

NOSB SUBCOMMITTEE SUMMARY

The Crops Subcommittee brings forward background information for each of these three areas, and requests input from the public on the following questions:

- Should the use of artificial light be limited to a specific number of hours per day?
- Should the spectrum and intensity of artificial light be limited to full spectrum, which is as close to natural daylight as possible, or should other types of lighting, such as those that emit the red or ultraviolet spectrum of light or modified intensities, be allowed?
- Should the use of synthetic mulches that remain in place for numerous years, especially in an outdoor production setting, address the issues of soil and water quality as well as natural resource maintenance and improvement elaborated in this discussion document?
- Should composting and field spreading of crop residue and substrates from container operations and the recycling of plastic or non-compostable containers be addressed within the NOP organic certification system?

Motion to accept the Discussion Document passed unanimously (*Subcommittee Vote:* 9 in favor; 0 against; 0 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA has always supported the development of strict and appropriate production standards for container production that align with organic production principles. These standards should address production concerns specific to container production both in greenhouses and in the open field. Of the three areas identified by the Crops Subcommittee in this discussion document, only the reuse and recycling of containers and media apply specifically to container production. The other areas brought up may warrant consideration by NOSB for future proposals, but this consideration should not be conducted through a narrow lens of container production. We urge the Crops Subcommittee (CS) to ensure that future recommendations focus on practices that are unique to container production. These three areas of concern do play a role in evaluating container production systems. However, they could also apply to producers growing in the soil.

2017 SUNSET REVIEW: LIVESTOCK

Synthetic substances allowed in organic livestock production include medications, feed additives and disinfectants. Livestock drugs allowed in organic production must all be approved by the U.S. Food and Drug Administration (FDA), and many must be administered under the care of a licensed Veterinarian. Livestock feed additives must also be approved by FDA, and many of the synthetic substances carry use restrictions to ensure they are not misused in organic production. These substances make up the livestock sections of the National List (205.603) that is subject to review by NOSB every five years.

Some non-synthetic substances are incompatible with organic production because they are harmful to humans and the environment and must be specifically prohibited. For livestock, these substances are listed under 205.604 of the National List, which is also subject to review by NOSB every five years like every other listing.

The list below includes a description of the National List input under the 2019 Sunset Review, the concern or issue raised by subcommittee members if any, and the subcommittee vote to remove or relist. You will also see icons that communicate the results of OTA's Sunset Survey System and a place where you can record the final vote of the full Board.

KEY:



The three legged chair = Surveys/member feedback indicate the input is necessary to organic production (1)



Surveys/member feedback indicate the input is no longer necessary/ essential (2) Lack of a symbol = No survey responses or member feedback was received (3)

205.603 – SYNTHETICS ALLOWED IN ORGANIC LIVESTOCK

PRODUCTION

Chlorhexidine: Used as an antiseptic and teat dip when alternatives have lost efficacy

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆



Chlorine Materials (Calcium Hypochlorite, Sodium Hypochlorite, Chlorine Dioxide): Used for sanitizer and disinfectant

- Subcommittee Vote: Motion to remove Yes: 0 No: 5 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove □ Relist □

Glucose: Used to treat ketosis and hypoglycemia

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

Oxytocin: Used in post parturition therapeutic applications (e.g. retained placenta)

- Subcommittee Vote: Motion to remove Yes: 0 No: 5 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove □ Relist □

- Tolazoline: Used to reverse the effects of Xylazine after surgical procedures
 - Subcommittee Vote: Motion to remove Yes: 0 No: 5 Abstain: 0 Absent: 2 Recuse: 0
 - *Final Vote:* Remove □ Relist □



Copper Sulfate: Used as hoof bath to treat foot conditions

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

Lidocaine: Used as a local anesthetic

- Subcommittee Vote: Motion to remove Yes: 0 No: 5 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove
 Relist

Procaine: Used as a local anesthetic

- Subcommittee Vote: Motion to remove Yes: 3 No: 2 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove □ Relist □





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SULFUR - PETITION TO ADD (PROPOSAL)

BACKGROUND

The petition is for sulfur to be used in livestock production as a livestock parasiticide. Sulfur (elemental) is currently allowed for use in the production of organic crops as an insecticide, for plant disease control, and as a plant or soil amendment. Sulfur is used as a pesticide (repellent for mites, fleas & ticks) for domestic livestock (chickens, turkeys, ducks, geese, game birds, pigeons, equine, cattle, swine, sheep, and goats and for use on dogs). Sulfur is dusted liberally and rubbed into feathers or hair. Sulfur is also used for treatment of listed animals/livestock living quarters to prevent mites, fleas and ticks.

NOSB SUBCOMMITTEE SUMMARY

The subcommittee concludes that the information provided in the technical review does not indicate that sulfur is incompatible with sustainable agriculture. There appears to be no viable alternatives other than prevention itself, and the information provided does not point to adverse impacts to human health or the environment that raised concern. Therefore, the subcommittee voted in favor of adding sulfur as petitioned to § 205.603 of the National List to be used in livestock production as a livestock parasiticide.

(Subcommittee Vote: 4 in favor; 0 against; 2 abstain, 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the Livestock Subcommittee's proposal to add Sulfur to the National List at 7 CFR 205.603 for use as an external parasiticide in organic livestock and poultry production. OTA understands that alternative external pest control materials available either are limited only to dairy animals (fenbendazole, moxidectin, and ivermectin) or have limited efficacy against lice and mites (hydrated lime, mineral oil and diatomaceous earth). OTA egg producer members have indicated their support for allowing sulfur to be used to control parasites, as they indicate there are no effective alternatives when faced with external parasites. OTA's broiler producer members indicate that parasites are currently not a major issue mostly due to the shorter production cycles typical in broiler production. However, as these producers look toward slower growing breeds to satisfy consumer demand, they indicate that having an effective tool against mites, ticks and lice could be necessary. Lastly, OTA notes that elemental sulfur is a currently FDA/AAFCO approved feed additive that can be included in organic livestock and poultry rations. Based on feedback from our membership, the current allowances for sulfur in organic crop and livestock production, and the lack of effective alternatives for organic meat and egg producers, OTA supports the LS proposal to add sulfur to the National List at 7 CFR 205.603.

HYPOCHLOROUS ACID - PETITION TO ADD (PROPOSAL)

BACKGROUND

Hypochlorous acid has been petitioned as a synthetic substance for addition to the National List at §205.603 as a topical treatment for pink eye and wounds in livestock. Hypochlorous acid previously was petitioned for use as a sanitizer in crop production, in livestock production, and in handling. In April 2016, NOSB recommended adding hypochlorous acid to the National List for organic crop production as an algicide, disinfectant, and sanitizer, including irrigation system cleaning systems and for livestock production and processing for disinfecting and sanitizing facilities and equipment food contact surfaces. NOSB favored adding hypochlorous acid to the National List as a sanitizer because the technical review indicated that although hypochlorous acid is chlorine-based, it is used at a lower concentration and is safer for health and the environment than the other chlorine-based sanitizers already on the National List—namely chlorine dioxide, sodium hypochlorite, and calcium hypochlorite. The petition for use as a topical treatment, however, entails different considerations than when hypochlorous acid was under review as a sanitizer. Based on the subcommittee review, livestock producers already have a number of natural (non-synthetic) materials available for treatment of pink eye and wounds.

NOSB SUBCOMMITTEE SUMMARY

The subcommittee proposal explains that personal communications with organic dairy farmers by the Livestock Subcommittee member leading the review of this material indicate that many use a commercially available formulation of the non-synthetic materials aloe, garlic, calendula and chamomile, and find that it works well on wounds and as an eyewash for pink eye. In light of the many non-synthetic materials available and in use by organic livestock producers for wounds and pink eye, the Livestock Subcommittee does not think it necessary to add a chlorine-based synthetic material to the National List for the same use. The motion to add hypochlorous acid to the National List as petitioned failed.

(Subcommittee Vote: 1 in favor; 5 against; 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the majority of the LS not to add Hypochlorous Acid to the National List at 7 CFR 205.603 as a medical treatment, specifically for treating wounds and pink eye. We agree that there are multiple alternative materials available for treatment of wounds and pink eye. Additionally, we recognize that other chlorine materials (chlorine dioxide, sodium hypochlorite and calcium hypochlorite) are currently only allowed for use in disinfecting and sanitizing facilities and equipment on organic livestock operations, and the petitioner did not adequately justify why this form of chlorine should be allowed for use directly on organic livestock to disinfect wounds and treat pink eye. Due to the availability of alternative materials and the lack of necessity for hypochlorous acid as a medical treatment, we support LS recommendation not to add Hypochlorous Acid to the National List.

CLARIFYING EMERGENCY USE OF PARASITICIDES (PROPOSAL)

BACKGROUND

Synthetic parasiticides are allowed for use in organic livestock production only on dairy animals not destined for organic slaughter and only under emergency situations. There has been ongoing discussions surrounding what conditions must exist for a situation to be considered "emergency" and therefore justify the use of synthetic parasiticides. In the Spring 2017 meeting, NOSB received public comment on a number of questions related to how to define "emergency treatment" and challenges that certifiers and producers face in verifying that synthetic parasiticides are only used to address an "emergency." Certifiers generally agreed that there was a need to develop consistency around what constitutes an "emergency treatment," and other commenters asked for improved transparency of how parasiticides are used in organic dairy operations.

NOSB SUBCOMMITTEE SUMMARY

The Livestock Subcommittee's proposal aims to develop parameters around the emergency treatment of dairy animals. The goal is to align the livestock standard with the step-wise approach used in the crop and handling production standard where operators must first use preventive approaches and mechanical or biological treatments before turning to synthetic substances to address pest or disease concerns. To achieve this goal, the subcommittee unanimously passed a motion to add additional language to section 205.238(c)(4) (Livestock Health Care Practice Standard) of the organic regulation to codify that preventive practices, monitoring, and non-synthetic substances must be used prior to the use of a synthetic parasiticide.

(Subcommittee Vote: 6 in favor; 0 against; 1 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the work of the Livestock Subcommittee (LS) to clarify "emergency" when producers justify the use of synthetic parasiticides on their organic dairy stock. This issue must be clarified in conjunction with the recently passed NOSB proposal reducing the withholding times for fenbendazole and moxidectin and recommendation to remove ivermectin. Certifiers should be applying this restriction consistently to ensure a level playing field for all organic dairy producers. OTA commends LS for approaching this issue through the lens of a step-wise preventive approach that is the guiding principle of pest and disease management in organic crops, livestock and handling. However, OTA also believes that the specific parameters proposed by LS to justify the "emergency" use of a parasiticide are better suited to be included in a guidance document issued by the National Organic Program (NOP) rather than in the regulations. Additionally, as we mentioned in our comments to LS for the Spring 2017 meeting, OTA would support further work on clarifying the defined term "routine use of parasiticide" in NOP issued guidance.

NON-ORGANIC INPUTS ALLOWED IN ORGANIC HANDLING/PROCESSING

The following ingredients and/or processing aids are allowed in the 5% or 30% non-organic portion of an "organic" (95+) or "made with" (70%+) product, respectively. They are also undergoing their five-year Sunset Review process. This section of the National List was created to allow for minor ingredients, processing aids, sanitizers and disinfectants critical to organic processing but not available in organic form because they are non-agricultural (the rule only certifies agricultural products). Some exceptions have emerged over time such as yeast, flavors and waxes. This is due to the large amount of agricultural raw material (at least 95% by weight) used in the manufacturing process. Most if not all of the substances listed below are used at less than 2% of the organic product. Most of the USDA organic products on the grocery store shelves are 99%+ organic.

The list below includes a description of the National List input under the 2019 Sunset Review, the concern or issue raised by subcommittee members if any, and the subcommittee vote to remove or relist. You will also see icons that communicate the results of OTA's Sunset Survey System and a place where you can record the final vote of the full Board. NOTE: A "YES" vote = relist and a "NO" vote = remove

KEY:



The three legged chair = Surveys/member feedback indicate the input is necessary to organic production (1)



Surveys/member feedback indicate the input is no longer necessary/ essential (2) Lack of a symbol = No survey responses or member feedback was received (3)

§205.605(A) – ALLOWED NON-SYNTHETIC NON-AGRICULTURAL

FOOD FILTERING AIDS

Diatomaceous earth: Used for filtering numerous organic products.

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆



- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

GASES



Nitrogen: Keeps cans rigid in still juice. Excludes oxygen from sealed containers. Used in flash freezing of foods. The nitrogen dissipates into the air after freezing and does not remain in the food product.

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 2 Recuse: 0
- Final Vote: Remove 🗆 Relist 🗆

GENERAL – INGREDIENTS/PROCESSING AIDS



Attapulgite: Used as a processing aid and function as a natural bleaching clay for the purification of vegetable and animal oils.

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove □ Relist □



Sodium bicarbonate: Baking soda. Used in prepared pancake biscuit and muffin mixes; a leavening agent in baking powders; in various crackers and cookies; to adjust acidity in tomato soup, in pastes and beverages; in syrups for frozen products; in confections and self-rising flours. Used also as a neutralizer for butter, cream mild and ice cream.

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove □ Relist □



Sodium carbonate: Used as a neutralizer for butter, cream, fluid milk and ice cream; in the processing of olives before canning; and in cocoa products.

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove □ Relist □

§205.605(B) – ALLOWED SYNTHETIC NON-AGRICULTURAL

SANITIZERS

Acidified sodium chlorite: Used as a secondary direct antimicrobial food treatment and indirect food contact surface sanitizing. Under consideration by FDA as a sprouting seed disinfectant.

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆



Chlorine materials (Calcium hypochlorite; Chlorine dioxide; and Sodium hypochlorite): For disinfecting and sanitizing food contact surfaces and as a sanitizer in the handling and processing of organic crops.

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

GENERAL - INGREDIENTS/PROCESSING AIDS



Carbon dioxide: Used in the storage of grains for pest control and for freezing of foods and accelerated cooling. Beverage carbonation. Extraction of essential oils and extracts. Controlled atmospheric packaging.

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove
 Relist



Magnesium chloride, derived from seawater: Coagulant in tofu manufacturing. Firming agent in canned vegetables.

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove □ Relist □



Potassium acid tartrate: Used in many types of organic baked goods as a leavening agent. Used as part of aluminum free baking powder, along with sodium bicarbonate and cornstarch.

- Subcommittee Vote: Motion to remove Yes: 0 No: 6 Abstain: 0 Absent: 2 Recuse: 0
- *Final Vote:* Remove □ Relist □

Sodium phosphates (for use only in dairy foods): Used as an emulsifier in organic cheese products.

- Subcommittee Vote: Motion to remove Yes: 0 No: 8 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove 🗆 Relist 🗆

ALLOWED NON-ORGANIC AGRICULTURAL INGREDIENTS IN HANDLING/PROCESSING

The following ingredients are allowed in the 5% portion of an "organic" (95+) product only when the certified operator has demonstrated to their certifier that an organic form is not available in the necessary quality, quantity and form. This section of the list was created in recognition that organic supply of some agricultural ingredients is not adequately sufficient to consistently meet demand. In many cases, a certified operator will use the organic ingredient when it is available but at least has the option to use (and label) the non-organic form in the case there may be a supply issue. OTA views this as the entrepreneur's list of opportunity!

§205.606- NON-ORGANIC ONLY WHEN ORGANIC IS NOT AVAILABLE

*Ingredient NOSB is considering for removal

Casings, from processed intestines: Processed intestines of hogs, cattle and sheep. In most instances, the casing is consumed with the product; in some cases, the casing is removed.

- Subcommittee Vote: Motion to remove Yes: 0 No: 8 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove □ Relist □

Pectin (non-amidated forms only): Used as a stabilizer and thickening agent. Used in jams and jellies. Also in fruit preparations for yogurt and bakery fillings. Can be used in salad dressings, malted milk beverages, and frozen fruit products.

- Subcommittee Vote: Motion to remove Yes: 0 No: 7 Abstain: 0 Absent: 1 Recuse: 0
- *Final Vote:* Remove □ Relist □



***Konjac flour:** Used as a gelling agent and stabilizer/thickener; its functional properties are similar to those for food ingredients such as gelatin, pectin, modified starches and vegetable gums. Also classified by USDA-APHIS as a binder in meat and poultry products.

- Subcommittee Vote: Motion to remove Yes: 8 No: 0 Abstain: 0 Absent: 0 Recuse: 0
- *Final Vote:* Remove □ Relist □

POTASSIUM ACID TARTRATE – PETITION TO ADD (PROPOSAL)

BACKGROUND

Potassium acid tartrate (PAT) is present in grape juice and wine. It is extracted from natural sources: press cake, lees, and sediment recovered from winemaking. It is extracted with potable water and undergoes no chemical change during extraction or crystallization. Currently, this substance is listed as an allowed non-agricultural synthetic substance. During the 2015 Sunset Review of PAT, NOSB noted a number of inconsistencies in its related historical documents, confusion with specific names of similar sounding materials, and confusion regarding its classification.

NOSB SUBCOMMITTEE SUMMARY

Information in a new Technical Review for PAT, dated January 11, 2017, demonstrates that the substance could very well be classified as agricultural given how it is manufactured and the USDA Guidance on Classification of Materials. Potassium acid tartrate is derived from a crop (grapes) and there is no change in the chemical structure of the material when it is extracted. Using the decision tree for an agricultural vs. non-agricultural material in the Classification of Materials guidance (NOP 5033-2), potassium acid tartrate should be classified as agricultural. Given this information, the Handling Subcommittee proposes to change the classification of potassium acid tartrate from a synthetic substance to an agricultural non-synthetic substance and move the substance from § 205.605(b) to § 205.606 of the National List.

(Subcommittee Vote: 8 in favor; 0 against; 0 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the Handling Subcommittee's proposal to reclassify Potassium Acid Tartrate (commonly referred to as "cream of tartar") from its current status as a synthetic non-agricultural substance to an agricultural ingredient for the following reasons:

- It is derived from wine grapes (crops);
- It is a by-product of wine making;
- During its extraction, it does not undergo a chemical change (aka remains non-synthetic). It forms naturally through a precipitation process and, in fact, is the residue left on wine barrels;
- It is a product of minimal processing;
- The source and manufacturing process, when cross-referenced with the Classification of Materials Guidance (NOP 5033-1) and the Agricultural vs. Non-agricultural Decision Tree, results in an "agricultural" determination;
- No other method of manufacture is used. It's a by-product of winemaking only;
- The classification as "agricultural" could incentivize the production of organic Potassium Acid Tartrate (organic cream of tartar).

OTA appreciates the subcommittee's efforts to improve the consistency of the National List and to propose regulatory changes that may encourage the development and use of organic ingredients.

MARINE ALGAE LISTINGS ON THE NATIONAL LIST (PROPOSAL)

BACKGROUND

Seaweeds have been commonly used in many ways throughout human history. However, most of the seaweed harvested for human use is not certified organic, but simply harvested from or cultivated in marine environments worldwide. Furthermore, some marine environments are polluted and, because of high demand, harvesting does not necessarily protect biomass and rarely involves ecosystem management. Little is really understood about the multi-tropic impact on seaweed harvesting or cultivation. During its recent five-year 2017 Sunset Review of almost 200 materials, NOSB noted there are a number of materials listed that are either marine algae or extracts of marine algae. Public comment during Sunset Review indicated serious concerns about various issues related to sustainability of production practices and/or clarification of harvesting and processing methods. As a result, a limited scope Technical Review (TR) was requested and received. The TR is being used to help shape the subcommittee's presentation and discussion of this topic. Marine Algae Listings: Aquatic plant extracts, alginic acid, agar-agar, carrageenan, alginates, beta-carotene from algae, kelp, seaweed (Pacific Kombu) and Wakame.

NOSB SUBCOMMITTEE SUMMARY

The Handling Subcommittee is presenting a brief analysis of its current understanding of the nine marine algae inputs on the National List and requesting public comment on a proposal to annotate some of the marine/algae materials on the National List. NOSB is also recommending that NOP develop guidance to clarify the term "kelp" as used in organic production and wild harvesting.

The subcommittee unanimously passed both motions (Yes: 9 No: 0 Abstain: 0 Absent: 0 Recuse: 0)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports using Latin binomials for the naming convention of the marine algae listings on the National List, and we support all efforts to clarify and/or avoid redundancies on the National List. We also generally share the concerns that have been voiced about the sustainability of production and harvesting methods used for marine algae listings on the National List. We support the efforts of NOSB and the organic sector to move towards, over a reasonable time frame, the allowance of only marine algae species that are produced and harvested in accordance with recognized sustainable practice standards whether they be state, federal, international or private. We do not believe that production or harvesting practices should be specified in an annotation unless an accredited certifier can verify such practices through a certificate of compliance or other similar verification document. We also support the recommendation for NOP to develop Guidance to clarify the term "kelp" as used in organic production and wild harvesting.

2017 RESEARCH PRIORITIES (PROPOSAL)

BACKGROUND

Since adopting its Research Priorities Framework in 2012, NOSB has presented a list of research priorities for organic food and agriculture. The priorities are proposed by NOSB's Livestock, Crops, Handling, and Materials/GMO Subcommittees, and are published each year prior to the fall meeting. The final priorities include feedback from organic stakeholders that is publicly available through the Federal Register. The purpose of publishing the research priorities each year is to advocate for research related to use of materials in organic production or handling that would be useful for researchers in many fields to defend and solicit funds for research that benefits organic production and handling.

NOSB SUBCOMMITTEE SUMMARY

This document reflects an effort by each subcommittee to review and prioritize all previous years' priorities from 2012-2017.

- Crops: 1) Biodegradable Bio-based Mulch Film: 2) Organic No-Till; 3) Alternatives to Antibiotics for Fire Blight; 4) Alternatives to Copper for Disease and Algae Control; 5) Plant Disease Management; 6) Mitigation Measures for Residues in Compost; and 7) Management and control of spotted wing drosophila in fruits.
- Livestock: 1) Evaluation of methionine in the context of a systems approach in organic poultry; 2) Prevention and Management of Parasites and 3) Organic livestock breeding for animals adapted to outdoor life and living vegetation.
- Handling: 1) Chlorine Materials and Alternatives; 2) Celery Powder; and 3) Alternatives to Bisphenol A (BPA)
- **Materials/GMO:** 1) Fate of genetically engineered plant material in compost; 2) Integrity of breeding lines and ways to mitigate small amounts of genetic presence, and 3) Prevention of GMO Contamination.

(Subcommittee Vote: 9 in favor; 0 against; 0 absent)

THE ORGANIC CENTER'S POSITION

The Organic Center is pleased to see the inclusion of research priorities related to plant disease management and the development of alternatives for materials on the National List. The Organic Center relies on the annual NOSB Research Priorities to guide the development of our own research projects. Some of our past and ongoing research projects that directly address NOSB research priorities include the completion of a report entitled Grower Lessons and Emerging Research for Developing an Integrated Non-Antibiotic Fire Blight Control Program in Organic Fruit as well as research to develop organic solutions for citrus greening, develop integrated pest management strategies to combat pest and pathogens in southern U.S. organic rice systems, and develop organically grown celery or alternative vegetable for curing organic meat. The Organic Center suggests the consideration of biodiversity – efficacy of practices as well as long- and short-term costs and benefits – as a topic for inclusion in the Research Priorities for 2018 given its relevance as the National Organic Program's new Biodiversity and Resource Conservation Guidance comes online. We also suggest the consideration of soil health for the inclusion of Research Priorities for 2018. Finally, we request that NOSB ensure that organic stakeholder voices are represented by requesting mandatory organic representation on USDA research boards and committees.

SPOTLIGHT

Conventional agriculture is a major contributor to climate change both through the release of greenhouse gas emissions and through the depletion of carbon in the soil which directly leads to an increased presence of carbon in our atmosphere. Now, a new study directed by Northeastern University in collaboration with The Organic Center has compared over 1,000 soil samples from across the country and found that organic farming can play a key role in restoring soil carbon, contributing to climate change mitigation.

Healthy soils are essential for robust and resilient crop production, and the amount of soil organic matter is one of the most critical components of a healthy soil. Organic matter is all the living and dead plant and animal material in our dirt that make it more than dirt – earthworms and insects and microorganisms, plant and animal residues, fermented compost, decomposed leaves and plant roots. Soils high in organic matter support healthy crops, are less susceptible to drought, and foster a diversity of organisms vital to soil health. Soils rich in organic matter can also maintain carbon for long periods of time, and help reduce the causes of climate change.

Humic substances are the gold standard of organic matter. Made up of carbon and other elements, they are the lifeblood for fertile soils. These substances resist degradation and can remain in the soil for hundreds and sometimes thousands of years. They don't just mean healthy soil; they are also one of the most effective ways to mitigate climate change. The more humic substances in a soil, the longer that healthy soil is trapping and keeping carbon out of the atmosphere. This stable pool of carbon is therefore more representative of stable carbon sequestration in the soil. Specifically measuring humic substances in soil gives an accurate understanding of long-term soil health and carbon sequestration.

The study shows that the components of humic substances – fulvic acid and humic acid -- were consistently higher in organic than in conventional soils.

The research found that, on average, soils from organic farms had:

- 13 percent higher soil organic matter
- 150 percent more fulvic acid
- 44 percent more humic acid
- 26 percent greater potential for long-term carbon storage.

This is the first time scientific research has given an accurate picture of the long-term soil carbon storage on organic versus conventional farms throughout the U.S., since most studies focus on individual farms or total soil organic carbon. The Organic Center's study takes farms from around the nation into account, and looks at the most accurate measure of carbon sequestration.



EXCLUDED METHODS TERMINOLOGY (PROPOSAL)

BACKGROUND

The organic regulations define and prohibit the use of "excluded methods" in organic production and handling. The term is defined as "a variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production." The definition goes on to provide examples of specific methods that would be considered an "excluded method." The definition was based on the best efforts of NOSB in 1995, and has provided adequate guidance to prohibit the use of the most obvious genetically engineered crops such as herbicide-resistant corn and soybeans and Bt cotton, as well as prohibit processing inputs such as genetically engineered yeasts and enzymes. However, in light of new methods that have emerged since the definition through guidance. They passed a recommendation to NOP in November 2016, providing a framework of guidelines and principles to use for determining whether a genetic manipulation is an excluded method. They also moved forward a discussion document that listed numerous technologies that needed further review.

NOSB SUBCOMMITTEE SUMMARY

The proposal for the October 2017 meeting makes a determination that the following three methods listed in the November 2016 discussion document should be classified as "excluded methods:"

- **Cisgenesis** (Subcommittee Notes: Even though the genetic manipulation may be within the same species, this method of gene insertion can create characteristics that are not possible within that individual with natural processes and can have unintended consequences)
- Intragenesis (Subcommittee Notes: Even though the genetic manipulation may be within the same species, this method of gene rearrangement can create characteristics that are not possible within that individual with natural processes and can have unintended consequences)
- Agro-infiltration (Subcommittee Notes: In vitro nucleic acids are introduced to plant leaves to be infiltrated into them. The resulting plants could not have been achieved through natural processes and are a manipulation of the genetic code within the nucleus of the organism).

The subcommittee also voted to accept eight additional terms that will continue to be researched.

(Subcommittee Vote: 9 in favor; 0 against; 0 absent)

ORGANIC TRADE ASSOCIATION'S POSITION

OTA supports the process of clarifying the definition of "excluded methods." Based on the information OTA referenced online, we believe cisgenesis, intragenesis and agro-infiltration are methods that should be prohibited. We are challenged, however, to support the proposal as written because it lacks critical information not only to adequately inform the reader's position but also to support a clear recommendation to NOP. Specifically, the proposal does not provide definitions for the three methods designated as 'excluded methods" or for any of the other terms on the "to be determined" list. It also does not provide the NOP definition of "excluded methods." The purpose of this work is to provide clear up-to-date definitions that will result in consistent determinations. We urge the Materials Subcommittee to continue its work on this topic but to improve the quality of the proposal by including definitions and descriptions that we can work with to ensure everyone is operating on the same page.

SEED PURITY (DISCUSSION DOCUMENT)

BACKGROUND

In 2012, 2013 and 2016, the Materials/GMO Subcommittee issued discussion documents on the topic of "seed purity" (i.e., keeping seed stock used for organic production free from contamination by GMOs). In 2014, the subcommittee issued a report summarizing the public comments received in response to the 2013 and 2014 discussion documents and the subcommittee's analysis of the situation. Public commenters have expressed strong support for exploring the feasibility of a seed purity standard recognizing the importance of reducing inadvertent introduction of GMOs into crops through seeds. At the same time, there is concern that setting a standard without the proper infrastructure may penalize organic farmers for trespass of genetic contamination that is the fault of others. Five years of discussion and public comment led to a conclusion that public data on seed contamination is needed to move forward with a proposal. In August 2016, the Materials Subcommittee chair submitted a request to NOP to convene a task force to formally collect and analyze data to inform a proposal on seed purity standard.

NOSB SUBCOMMITTEE SUMMARY

At its conference call meeting on August 22, 2017, the subcommittee agreed to develop a seed purity proposal for review at the spring 2018 NOSB meeting. To develop this proposal, the subcommittee has decided to draw upon previously submitted comments and suggestions to the documents listed below, as well as any additional comments it receives through this public comment process. However, the document does not include any mention of its request to USDA to convene a task force. The subcommittee is requesting further (new) stakeholder input on the topic of seed purity and the following documents:

- April 2016: Discussion Document: Next Steps for Improving Seed Purity (pdf)
- · April 2014: Report: Seed Purity from GMOs (pdf)
- April 2013: Discussion document: GMOs and Seed Purity (pdf)
- October 2012: Discussion document: GMOs and seed purity (pdf)

ORGANIC TRADE ASSOCIATION'S POSITION

As discussed over several NOSB meetings, many—including OTA—agree that a seed purity standard is an appropriate critical control point to begin to use analytical methods and standards in organic production to limit GMO presence and meet consumer expectations. Many also believe it is not possible to put forward a workable proposal or standard at this time because of various obstacles identified through the NOSB public comment process and a shared need to collect more data to shape an effective and fair standard. OTA continues to believe that a Seed Purity Advisory Task Force to collect data, systematically design threshold feasibility studies (per crop), identify partners and develop an action plan for moving forward is needed. We understand the realities under this current administration and the limited chance of USDA convening such a task force anytime soon. However, we strongly believe we cannot move forward with a proposal on seed purity standard without sufficient public data on the extent to which GM contamination is occurring in organic seed. OTA urges NOSB to keep the formation of a task force in the queue for future consideration.

WHO ARE THE ORGANIC TRADE ASSOCIATION'S MEMBERS?

One of the Organic Trade Association's (OTA's) strongest assets as an organization is the diversity and breadth of its membership.

Unlike many trade associations, OTA is uniquely structured to include the full value chain for the organic industry, ensuring that all segments, from farm to marketplace, have a strong voice within the organization. In this way, it is possible to work together to catalyze solutions, form coalitions and collaborate, whether it be on issues before Congress and government agencies, or to strategize on strengthening the organic message and movement to the public.

OTA represents its members to government on sector needs, market development and promotion, and strong organic standards and regulations. Members also receive the latest information and quick answers on organic regulations and standards in the U.S. and around the world.

OTA's membership continues to grow, spurred by interest at all levels of the supply chain in the booming organic sector, and the need and desire to be a part of a network of engaged organic stakeholders. OTA now represents more than 9,500 businesses through direct membership and formal agreements with organic farmer-governed organizations that make up OTA's Farmers Advisory Council. These businesses cover every state in the union, from small organic producers to major growers, from local family-run organic operations to nationwide companies. All of OTA's direct members and FAC organizations are listed on its website.

The Organic Trade Association's Board of Directors is democratically elected by the association's Trade members. Each Trade member company, regardless of size, has one vote. One of the Board seats is designated to a Farmer Board member.

HOW ARE POLICIES SET?

OTA Member Forums offer informal, ongoing conversation on issues of common interest, and help members network with peers, share their expertise, and discuss common challenges.

OTA Sector Councils offer a more formal avenue to build community among groups of members and to provide ongoing opportunities for networking, leadership development, and education. While Sector Councils do not act as policy-setting groups, they communicate sector issues, ideas, and concerns to OTA staff and Board.

OTA Task Forces, meanwhile, are time-bound, task-oriented, and outcome-focused groups charged with accomplishing a definite objective. Task forces can be convened by the Board, staff or members in order to recommend a course of action or accomplish a specific goal. Task forces provide transparent and inclusive opportunities for issue resolution and policy-setting, and are open to the membership at-large.

WHAT IS OTA'S COMMENT PROCESS?

OTA submits comments on behalf of its membership. Our positions and policies are primarily shaped through our task forces. In all cases, OTA's regulatory and legislative staff carry out an extensive process of membership engagement to capture how current issues and activities such as proposed rules or NOSB recommendations will impact certified farmers and handlers. Prior to submission of final comments, draft comments are distributed to membership at least a week in advance. Members are provided an opportunity to weigh in and shape any changes that may be needed prior to final submission. To carry out a meaningful comment process under OTA's governance structure, a comment period needs to be at least 30 days.

NETWORKING RECEPTION

for stakeholders attending the National Organic Standards Board meeting



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