

NATIONAL ORGANIC STANDARDS BOARD

FALL 2014 MEETING
OCTOBER 28-30 | LOUISVILLE, KY

what's Inside...

- Know Your National List
- NOSB Agenda Items
- OTA Comments
- Voting Tally Sheet



ORGANIC TRADE ASSOCIATION RESOURCE BOOKLET

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FOREWORD

THE \$35 BILLION ORGANIC SECTOR IS FUELED BY OVER 18,000 CERTIFIED ORGANIC PRODUCERS AND PROCESSORS.

Their farms and facilities adhere to the United States Department of Agriculture (USDA) organic regulations and receive regular inspections and audits by their federally accredited certifier. The USDA organic regulations provide a set of production standards that farmers must meet and requirements for food processors to prevent contamination of organic products. It is these process-based standards that organic integrity is based upon and which allow for operations of all sizes and types to participate in the growing organic marketplace.

Organic farmers must manage their operations in a way that improves soil health, and means to assess this requirement should be appropriate and flexible to site-specific conditions. The National Organic Standards Board (NOSB) discussion document, *Assessing Soil Conservation Practices*, starts the conversation on addressing how best to verify that an organic farmer's practices are, in fact, organic. Similarly, NOSB's discussion document, *Protection Against Contamination in Farm Inputs*, lays the groundwork for supporting organic farmers, all of whom must prevent the contamination of crops, soil, and water. The organic standards are rooted in the use of cultural and biological practices to combat pests, weeds, and diseases, and to prevent contamination of organic products. For these types of refinements in administering the USDA organic standards, it is critical that NOSB take the lead.

NOSB has recently received significant amounts of attention for one of its other critical roles as the gatekeeper of the National List. Organic farmers and processors aim to bring their products to market using preventive practices and with a federally mandated preference for all organic ingredients. The list of tools for producers contained in the National List represents the best and least-toxic technology our food system has developed, and these tools must receive regular scrutiny by NOSB and the sector at large to assure they still meet organic expectations. However, focusing debate solely on the substances on the National List detracts from the narrative about the practice- and process-based standards upon which the organic sector is built. This is a disservice to our organic farmers and processors.

Striking the balance between bolstering the practice standards and judicious evaluation of each tool's continued acceptance in organic production is NOSB's challenge moving forward. The aim of continuous improvement includes both a preference for the use of natural and organic substances as well as support and guidance for developing robust practice standards that continue to allow organic businesses to succeed.

ROLE OF NOSB

Passage of the Organic Foods Production Act (OFPA) in 1990 created the U. S. National Organic Standards. The Act authorized a new U. S. Department of Agriculture (USDA) National Organic Program (NOP) to set national standards for the production, handling, and processing of organically grown agricultural products. USDA's NOP is authorized to enforce OFPA and the organic regulations. In addition, the Program oversees mandatory certification of organic production. The Act also established the National Organic Standards Board (NOSB).

NOSB advises USDA on which production inputs should be allowed or prohibited in organic farming and processing. NOSB bases its decisions on specific criteria set forth in the Act and organic regulations. 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.

STRUCTURE OF NOSB

This 15-person citizen advisory board brings together volunteers from across the organic community and around the United States. It is made up of four farmers/growers, two handlers/processors, one retailer, one scientist, three consumer/public interest advocates, three environmentalists, and one USDA accredited certifying agent. Each of these individuals participates in NOSB committees, with areas of focus ranging from crops and handling to materials and livestock.

PURPOSE OF THE NOSB MEETINGS

The NOSB meets twice per year in a public forum to discuss and vote on subcommittee proposals related to the National List or other organic standards issues. NOSB subcommittees first publish proposals with request for public comments. During NOSB meetings, the full board listens to public comments, discusses the proposals, and then votes on whether to pass the subcommittee proposals. NOSB then submits its final recommendations to the USDA. Recommendations made by the NOSB are not official policy until they are approved and adopted by USDA. The NOSB values transparency and public input, inviting both advance written and in-person oral public comments to gain additional perspectives on its recommendations.

WHO ARE THE CURRENT MEMBERS?

Farmers/Growers: Colehour Bondera (HI), Carmela Beck (CA), Wendy Fulwider* (WI), Nick Maravell (MD)

Handlers/Processors: Harold Austin (WA), John Foster* (CA)

Retailer: Joe Dickson* (TX)

Scientist: Zea Sonnabend (CA)

Consumer /Public Interest: Jean Richardson (VT), Jennifer Taylor (FL), C. Reuben Walker (LA)

Environmentalists/Resource Conservationists: Tracy Favre (TX), Jay Feldman* (Washington, D.C.), Francis Thicke (IA)

Accredited Certifying Agent: Robert (Mac) Stone (KY)

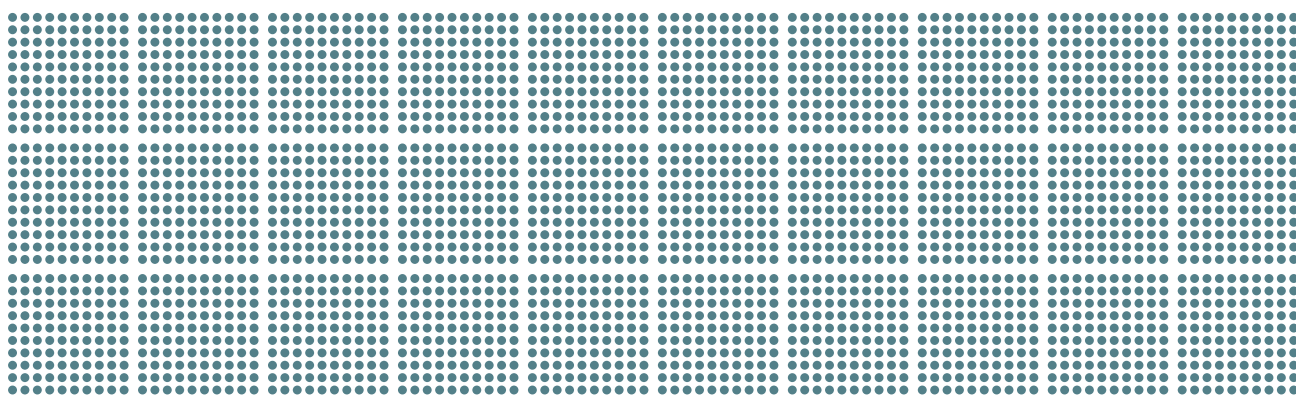
*Outgoing board members completing their 5-year term

How do the materials allowed in organic processed foods compare to the materials allowed in all other food?

79 non-agricultural minor ingredients allowed in organic processing



3000+ substances comprise Everything Added to Food in the United States (EAFUS)



Compared to the 79 non-agricultural minor ingredients allowed in organic processing, more than 3,000 total substances comprise an inventory often referred to as Everything Added to Food in the United States (EAFUS), and this is only a partial list of all food ingredients that may be lawfully added to conventional food.

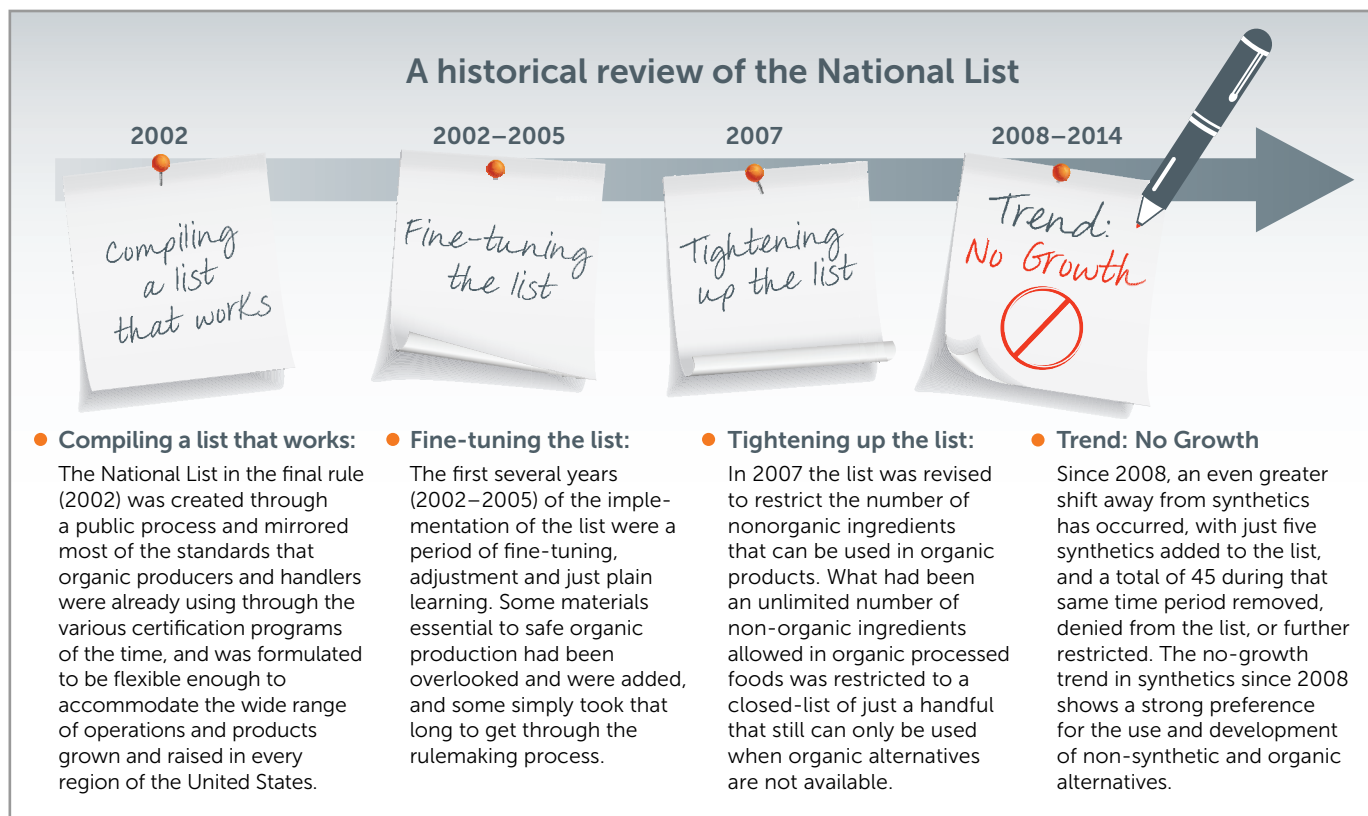
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It was 1997 and the National Organic Program (NOP) as we now know it was still evolving. On December 16 of that year, the first proposed rules to establish national organic standards were published by the NOP, erupting a roar of public discourse. The 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.

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.



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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,

Allowed synthetics since 2008: What is the trend?

No-Growth

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

5

synthetics have been added



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.

45

have been removed, denied, or further restricted.



{	Removals:	8
	Petitioned and denied:	36
	Further restricted:	1

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.

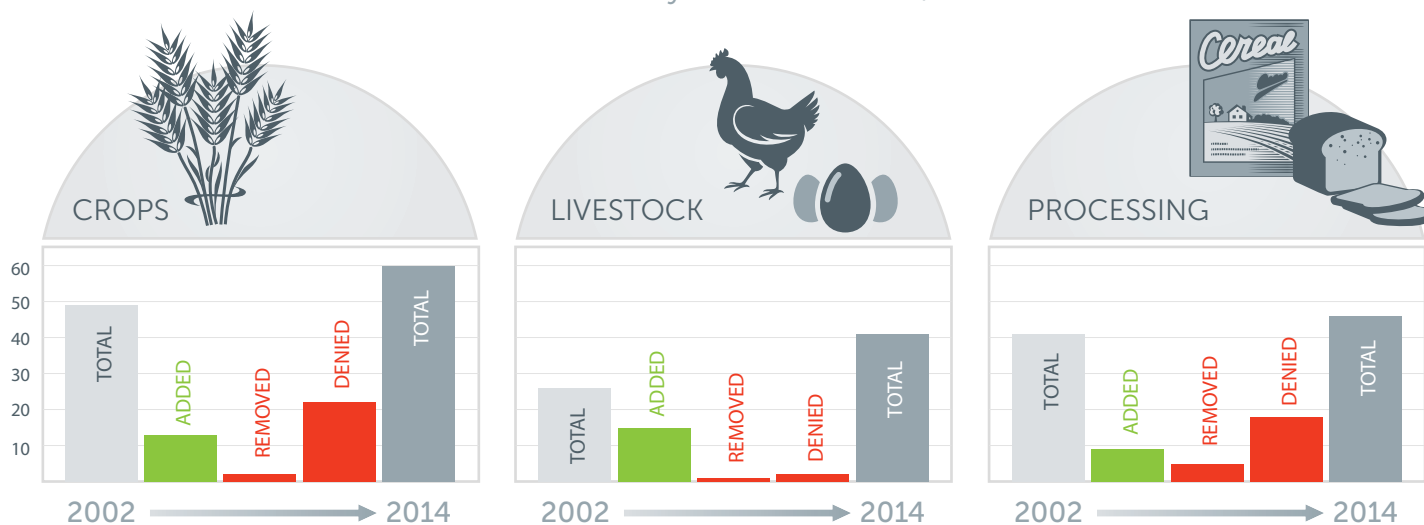
Since 2008, an even greater shift away from synthetics has occurred, with just five synthetics added to the list, and a total of 45 during that same time period removed, denied from the list, or further restricted.

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. 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 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 just last year. 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



	Synthetics on the National List in 2002	Synthetics Added	Synthetics Removed	Synthetics Petitioned and Denied*	Synthetics on the National List in 2014
CROPS	49	13	2	22	60
LIVESTOCK	26	15	1	2	41
PROCESSING	41	9	5	18	46

* 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 last ten years, organic food sales in the United States have jumped from around \$10 billion in 2003 to over \$30 billion in 2013, a 300 percent growth explosion. The number of certified organic farms in the country, according to USDA's recently released 2012 Agricultural Census, is approaching 13,000, 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.

2014 RESEARCH PRIORITIES

SUMMARY

In addition to the 2012 and 2013 research priorities the subcommittee has recommended the following additional topics as research priorities for 2014:

- Alternatives to Bisphenol A (BPA)
- Plant Disease Management
- Soil Building Practices
- Mitigation Measures for Residues in Compost
- Organic No Till
- How contaminated with GMOs is at-risk seed?
- Risk Reduction from Off-Target Exposure to Non-Permitted Materials
- Mastitis, Parasitism, Pneumonia, Herd Health
- Plant Extracts

THE ORGANIC CENTER'S POSITION

The Organic Center has reviewed the list of topics included for the 2014, and we're particularly pleased to see the inclusion of "Plant Disease Management" and "Soil Building Practices." The Organic Center is actively involved in conducting and communicating research on these issues and we expect the prioritization of these topics by NOSB may help us secure further funding. We also read with great interest the Crops Subcommittee Discussion Document on "Protecting Against Contamination of Farm Inputs" and would like to share with NOSB our work to conduct research on factors affecting the presence of arsenic in organic rice. Our goal is to offer future strategies to the organic sector to minimize such accumulation.

BACKGROUND

At the April 2011 NOSB meeting, public comment was received, and supported by discussion among NOSB members, asking the NOSB to create a process to collect, prioritize and advocate for research related to use of materials in organic production or handling. The Materials Subcommittee accepted the request and created a formalized approach for passing a proposal once a year that includes a list of prioritized research topics as supported by organic stakeholders. Criteria for research topics are:

- Persistent and chronic (i.e., perennial topics of debate and need)
- Challenging
- Controversial (i.e., topics on which there are widely differing perspectives or for which there have been close NOSB votes)
- Nebulous (i.e., the research need is hard to identify but the organic agriculture need is clear), for example, improved methods of weed control.
- Lacking in primary research. That is, topics for which there is no active research being conducted, primarily relating to the criteria in OFPA for review of materials.
- Relevant to assessing the need for alternative cultural, biological, and mechanical methods to materials on the National List.

NOSB hopes this information will be useful for researchers in many fields to defend and solicit funds for research that benefits organic production and handling.

See [The Organic Center's complete comments on page 32.](#)

TERMINOLOGY FOR EXCLUDED METHODS (PROPOSAL)

BACKGROUND

One year ago, NOSB started to grapple with the definition of "excluded methods" in the USDA organic regulations. The definition was based on the best efforts of the 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, this definition contains terms that are unclear, outdated and incomplete in light of new methods of recombinant DNA technology that have emerged since the definition was first adopted in 1995.

In 2011 and 2012, a number of confusing issues came before the NOSB and to the NOP, which made it necessary to revisit the definition. These include genetically engineered vaccines for livestock, the use of cell fusion within plant families to create male sterility in brassica hybrids, whether or not GMOs could be used in biodegradable bioplastic mulches, and the question of whether mutated algae might therefore be genetically engineered. The current definition is inadequate to clarify these issues. In 2013, NOSB released its first Discussion Document on excluded methods and included a discussion on each term included in the NOP definition of excluded methods. Terms involved in traditional breeding, such as mutagenesis and conjugation, were defined and discussed, and new terms that may be considered to be genetic engineering were brought up. No conclusions were suggested except that there is a need to do more work on the subject. The intention of this Second Discussion Document is to summarize the substantive public comments received on the previous one and to propose some further questions to move forward the issue of strengthening the Excluded Methods Terminology.

SUMMARY

The Materials subcommittee is seeking response from organic stakeholders on issues related to NOP's regulatory definition of "excluded methods." The discussion document intends to untangle, update and improve the definition currently in the organic regulations in light of new methods that have emerged since the definition was adopted by NOSB in 1995. Public comments from the previous discussion are summarized and new questions are asked. The goal is to have concrete determinations for NOP, Accredited Certifying Agencies, and organic producers to use in keeping GMOs out of organic food and farms.

OTA POSITION

OTA supports the continued discussion and work on updating and clarifying "excluded methods" terminology and we advocate for continuing a process-based approach. We remain unchanged in our position that a process-based standard can and should be intertwined with quantitative tools that can be used to assess the validity of a process-based approach. OTA agrees that a list of GE and non-GE terms in chart form would be useful. We suggest this chart be included in NOP Guidance maintained in the NOP Handbook that is publicly available on the NOP website. We strongly suggest working with NOP to incorporate clarification on terminology into guidance, so that definitions can be more easily updated and stay current with evolving technologies and products.

See the Organic Trade Association's complete comments on page 34.

RE: GUIDANCE FOR BEST MANAGEMENT PRACTICES FOR PREVENTION OF UNINTENDED GMO PRESENCE

BACKGROUND

In 2012, NOSB released a discussion document requesting comments on the feasibility of developing a seed purity standard in the organic regulations. Several questions were asked such as: 1) Is there a need to establish a seed purity protocol to ensure that planting seed meets the non-GMO requirements of the NOP rule?; and 2) What is currently known about the level of GMO contamination of seed used by organic growers? The subcommittee expressed that seed may be the most impactful and efficient point in the supply chain at which GMO contamination of organic products could be limited and controlled. The comment period was extended to a second meeting with a request for more data on the amount of GMO contamination that is actually occurring. Finally, the GMO subcommittee released a document summarizing comments and generally concluding that too many concerns and questions stand in the way of moving forward with a seed purity standard at this time. As discussed over the past few NOSB meetings, many agree, including OTA, that a seed purity standard IS the 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 standard at this time because of various obstacles identified through the NOSB public comment process, and a shared need to collect more data in order to shape an effective and fair standard. OTA believes that time is of the essence, and actions must be taken NOW that will help continue to keep GMOs out of organic agriculture.

For the fall 2014 meeting, the Materials Subcommittee has put forth a discussion document on updating and clarifying “excluded methods” terminology. The Subcommittee also identified “Seed Purity from GMO” and “Risk Reduction from Off-Target Exposure to Non-Permitted Materials” as priority topics in its 2014 Research Priorities Proposal. OTA supports these efforts, however, we remain intensely focused on the more immediate steps NOSB can take that will help keep GMOs out of organic agriculture. OTA believes it is in the best interest of the organic sector for NOP to include guidance in the NOP Handbook that would help farmers and handlers prevent GMO contact with organic products and assist ACAs in assessing the efficacy of an organic operation’s GMO contact prevention plan. Therefore, OTA is submitting a request via public comment asking NOSB to please prioritize developing guidance on best practices for prevention of unintended presence in organic products.

OTA POSITION

OTA was disappointed to not see a proposal in the fall 2014 meeting packet on guidance for prevention of unintended GMO presence in organic products. This topic was on NOSB’s work plan for the fall 2014 meeting as requested by NOSB and approved by NOP. OTA urges NOSB to prioritize releasing this guidance for the spring 2015 meeting. We request that NOSB include two key practices that could be carried out under existing organic regulations: 1) A method for keeping GMOs out of non-organic seed that is used when organic seed is unavailable. Specifically, Accredited Certifying Agencies (ACAs) would require a seed purity declaration made by the seed supplier to verify the non-GMO status of non-organic seed; and 2) Guidance and training for ACAs on GMO sampling and testing under the residue-testing rule. The details of both requests are outlined in our full comments. Recommendations for avoidance and methodology for testing from USDA’s NOP would reflect USDA’s commitment to enforcing the requirements of the regulation, and would provide organic producers and handlers with a useful USDA-recognized tool to further mitigate GMO presence in organic products.

See the Organic Trade Association’s complete comments on page 35.

GLYCERIN — PETITIONED TO ADD (PROPOSAL)

BACKGROUND

Glycerin is used as an ingredient in a wide variety of food products as well as cosmetics, and it's used as a solvent for flavors and extracts. Glycerin, produced by hydrolysis of fats and oils, was added to the National List in the Final Rule (2000) but it had been allowed by some certifiers under private standards prior to the establishment of NOP. Glycerin was classified as a "synthetic" because the hydrolysis process changes the chemical properties of the source material (fats and oils). Organic glycerin was not available when glycerin was added to the National List, and nonsynthetic forms made through fermentation or enzymatic hydrolysis were not acknowledged. Although synthetic solvents and carriers are prohibited in natural flavors allowed in NOP certified products, glycerin has been allowed due to the fact that it is an allowed synthetic. The public comment received at the spring 2014 meeting informed NOSB that the supply of organic glycerin is not sufficient to meet all applications in organic products, including natural flavors. Glycerin, derived from agricultural source material, may be classified as "nonsynthetic," "synthetic," or "agricultural," depending on how it is processed. All of these forms may be produced in compliance with the organic regulations if the starting agricultural material is organic and the processing inputs are on the National List. Commenters expressed confusion about the classification of glycerin and the need to be very clear about the non-organic forms that would be allowed in "natural flavors" and "made with" products should glycerin be removed from the National List.

SUMMARY

In response to a petition to remove glycerin from the National List, and the public comments received at the spring 2014 meeting, the Handling subcommittee is proposing to: 1) remove glycerin from 205.605(b) of the National List as an allowed non-agricultural synthetic for use in/on processed products labeled "organic" or "made with organic;" 2) add Glycerin to § 205.606 as an allowed non-organic agricultural ingredient only when organic forms are commercially unavailable; and 3) classify glycerin as agricultural when it is produced by microbial fermentation. Under this proposal, only "organic" and "agricultural" forms of glycerin would be allowed in NOP certified processed products, and organic would be required when it is available. Synthetic forms would no longer be allowed. NOSB is specifically requesting comments on the commercial availability of organic glycerin and how the removal of the synthetic form would impact the production and use of natural flavors that are allowed in NOP certified products. Synthetic glycerin is allowed in natural flavors only because it is on the National List as an allowed synthetic.

OTA POSITION

OTA supports the Handling Subcommittee's Proposal to remove Glycerin from 205.605(b) of the National List. We also support the listing of "Glycerin" on § 205.606 of the National List, however we request that the subcommittee clarify in its recommendation that glycerin products, derived from agricultural starting material and processed using biological or mechanical/physical methods, are also classified as "agricultural." This approach would allow for the use of other agricultural forms of glycerin (i.e. glycerin made by enzymatic hydrolysis). This can be accomplished by making a minor revision to the Subcommittee's classification motion. The listing motions would remain unchanged.

See the Organic Trade Association's complete comments on page 38.

WHOLE ALGAL FLOUR – PETITIONED TO ADD (PROPOSAL)

BACKGROUND

Whole Algal Flour was petitioned to the National List as an allowed non-organic agricultural ingredient that would be allowed in organic products when organic forms are commercially unavailable. It is manufactured by fermenting and harvesting cultures of a non-toxicogenic strain of algae (*Chlorella protothecoides*). The petitioner noted that algae is also a single-celled organism which could possibly place it on §205.605(a) – Non-agricultural (non-organic) substance (non-synthetic). Its primary proposed use would be as a whole food ingredient used as either a partial replacement for food ingredients that provide dietary fat and/or protein such as cream, milk, eggs/egg yolks, and/or butter or shortening in baked goods, beverages, dairy and egg products, sauces, gravies, margarines, salad dressings and soups or as an added ingredient for texture and mouth feel enhancement.

On September 6, 2013 the petition was received by the National Organic Program and forwarded to the NOSB's Handling Sub-committee for petition review and consideration for listing. On January 14, 2014 the Handling Sub-committee received from the petitioner a response to several questions that they had concerning whole algal flour after the review of the original petition had been completed. As stated by the Handling Subcommittee, both the original petition dated September 6, 2013 and the supplemental dated January 21, 2014 contained a tremendous amount of information that was redacted because it was considered to be Confidential Business Information (CBI). This did not provide the Subcommittee ample opportunity to make a determination on the material.

SUMMARY

The Handling Subcommittee reviewed a petition submitted by Solazyme, Inc. seeking permission to have Whole Algal Flour added to the National List of Approved Materials under §205.606 – Non-organically produced agricultural products allowed as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group(s)).” The Handling Subcommittee made a motion to classify algal flour as nonsynthetic, however the majority abstained because they could not determine whether the material was synthetic or non-synthetic based on the information provided. The Subcommittee did not pass the motion to add algal flour to the National List because it felt that they could not make a full determination due to the uncertainty created by the redaction of a large amount of Confidential Business Information (CBI). The Subcommittee also discussed the essentiality of this substance, and questioned its need due to the number of alternatives cited in the petition.

OTA POSITION

OTA does not take a position on this petition and did not submit comments.

GELLAN GUM (PROPOSAL)

BACKGROUND

Gellan Gum is a nonsynthetic ingredient allowed for use in processed products labeled “organic” or “made with organic (specified ingredients/food group(s)).” It was added to the National List in October 2010 and is undergoing its required 5-year sunset review by NOSB in order to evaluate the need for continued allowance. There were other gums on the National List that offered similar properties as Gellan Gum, but the development of this particular gum offered unique and improved functionalities. It is produced through a fermentation process that produces a gum, which is useful as a thickening agent in food products, including bakery fillings, dairy products, jams, etc. After the fermentation process, the gum is isolated from the raw starting material using isopropyl alcohol. The isopropyl alcohol does not alter the identity of the gellan gum, therefore it meets the OFPA definition of “nonsynthetic.” Furthermore the isopropyl alcohol is removed from the final gellan gum product. In 2012, Gellan Gum was identified as the acceptable and suitable alternative to Carrageenan, which was highly scrutinized during its 2012 sunset review for potential health concerns. In light of the attention Carrageenan received, several companies invested into reformulating and relabeling their products to meet consumer demand. No other equivalent organic alternatives have been identified.

SUMMARY

The Handling Subcommittee’s review of Gellan Gum resulted in a subcommittee vote to renew its listing for another five years. Although the ‘motion’ for consideration was a motion to “remove,” the actual vote caused motion to fail. The decision was based on criteria established in the Organic Foods Production Act of 1990 and in response to numerous comments received from the public confirming that Gellan Gum remains essential in the production of various organic foods. The subcommittee clarified that the listing and proposal is for the nonsynthetic form only (high-acyl form). The “motion to delist” means the proposal will be brought to the full board for review and a vote as well, regardless of the fact that the motion failed at the subcommittee level.

OTA POSITION

Gellan Gum satisfies National List criteria. There are no other organic (vegetarian) gums in the marketplace that have the same unique properties, provide the same function and would serve as a suitable alternative to Gellan Gum. Many companies voluntarily chose to remove Carrageenan from their products as result of the controversial discussions and information that came out of its Sunset review in 2012. Gellan Gum was identified as the acceptable and suitable alternative to Carrageenan, therefore several companies invested into reformulating and labeling their products to meet consumer demand. Gellan Gum is the choice alternative to Carrageenan and it is essential to the handling of many organic processed products.

See the Organic Trade Association’s complete comments on page 41.

USDA organic regulations allow most natural inputs in organic farming, and prohibit most synthetic inputs. The National List, part of these regulations, lists the exceptions to this basic rule. Once an input has been added to the National List, NOSB must review the input every five years. Through this process, NOSB can remove inputs from the National List based on 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.

There are now two public comment opportunities before NOSB completes its Sunset review of each input. The inputs listed below are scheduled to Sunset in 2015 and are undergoing the 2nd stage of their review. These inputs were discussed at the spring 2014 meeting and will now be **voted on** at the fall 2014 meeting. The information collected and the feedback received during both public comment periods will inform NOSB's final decision on whether the inputs should be renewed or removed from the National List.

OTA POSITION

OTA applauds NOSB for carefully considering each input and conducting a thorough review. To help facilitate a robust comment and review process, OTA has created an electronic survey for each input under review for 2015 and 2016. We will be creating surveys for all of the 2017 materials as well. The surveys are available to **every NOP certificate holder**. The goal is to collect information for NOSB to consider at the first stage of the two-step process to inform their recommendation, and again prior to the vote at the 2nd meeting.

OTA provided comment on one of the three substances up for its 2015 sunset review at the upcoming meeting. We commented on Gellan Gum because our research and membership outreach demonstrated that: 1) there are no suitable organic or nonsynthetic alternatives; 2) it is compatible with organic principles; and 3) we have not seen any new information demonstrating adverse impacts on humans or the environment. Also, many companies voluntarily chose to remove Carrageenan from their products as result of the controversial discussions and information that came out of its Sunset review in 2012. Gellan Gum was identified as the acceptable and suitable alternative to Carrageenan, therefore several companies invested into reformulating and labeling their products to meet consumer demand. Gellan Gum is the choice alternative to Carrageenan and it is essential to the handling of many organic processed products. OTA did not comment on Tragacanth Gum, Sherry or Marsala and we do not take a position in the discussion and decision for these materials to remain allowed on the National List.

TRAGACANTH GUM – (PROPOSAL)

BACKGROUND

Tragacanth Gum is an agricultural product allowed as an ingredient in or on “organic” or “made with (specified organic ingredients/food group(s)).” It is used in dressing and sauces as an emulsifier (mixes oil and water). When used in organic products it must be “organic” unless commercially unavailable in organic form. Tragacanth gum is derived from trees grown in deserts in third world countries. The trees lose their leaves in the summer months and gum naturally exudes. The exudate is dried, graded and exported for processing. Tragacanth was added to the National List in 2010 based on its 2008 NOSB review. There were already other similar gums on the National List (e.g. Arabic Gum) and NOSB debated whether this one needed to be added as well. Public comment explained that Tragacanth Gum has sufficiently different properties that justified its inclusion on the National List. At the time Tragacanth was added, this tree was primarily cultivated in Iran and an embargo on U.S. trade with Iran had disrupted the supply of even the conventional form of this material. Turkey is expanding its organic production. The petitioner is working with the Turkish supplier and feels that an organic supply will be available in the next several years.

PROPOSAL SUMMARY

The Handling Subcommittee’s review of Tragacanth Gum resulted in a subcommittee vote to renew its listing for another five years. Although the ‘motion’ for consideration was to “remove,” the actual vote caused motion (to remove) to fail. The decision to relist was based on criteria established in the Organic Foods Production Act of 1990 (no new information demonstrating any health or environmental concerns or any relevant regulatory changes) and the lack of commercial availability of organic Tragacanth Gum at this present time. The subcommittee is interested in any compelling arguments regarding its necessity.

SHERRY AND MARSALA – (PROPOSAL)

BACKGROUND

Sherry and Marsala are both agricultural products allowed in or on “organic” or “made with (specified organic ingredients/food group(s)).” When used in organic products they must be “organic” unless commercially unavailable in organic form. Marsala and Sherry were both petitioned in 2007 for addition to the National List because they were considered to have a unique flavor. At the time these fortified cooking wines were petitioned, there were no organic fortified cooking wines available. The production and demand does not appear to have grown, and the products that were utilizing these fortified cooking wines are no longer on the market.

PROPOSAL SUMMARY

The Handling Subcommittee proposes to remove Marsala and Sherry from the National List, and they request that the public provide comment regarding the following: the commercial demand for both conventional and organic Marsala and Sherry, and the impact that the removal of Marsala from 205.606 would have on trade. During the first comment period in spring 2014, the original petitioner did not comment and the subcommittee could not find current contact information for them. An informal 2013 survey of a handful of stores and certifiers also did not turn up products containing Marsala or Sherry. It appears to the subcommittee that there is limited to zero use of either in the United States.

BOILER CHEMICALS

BACKGROUND

Heating of food in processing facilities often occurs using steam that is generated by a boiler system. Heating can occur two ways: 1) indirect, using a heat exchanger (e.g. double wall kettle, tube in shell, etc.); or 2) direct (e.g. steam blanching, steam peeling, lidding operations, etc.). The three boiler water additives discussed here are considered “volatile amines” and they are used to protect the integrity of the steam lines and condensate systems. Volatile amines are nearly impossible to remove from the steam. The common practice in organic operations is to shut off the volatile amine feed line prior to organic processing. This can be very disruptive and costly because it usually includes a system flush followed by wait time to completely clear the lines. In some systems there may not be a separate line that can be shut off.

In addition to volatile amines, other boiler water additives (salts, such as sodium carbonate or potassium hydroxide) are commonly used to reduce corrosion in equipment and lines (prevent metal loss). They are typically added directly to the boiler. However, due to the low solubility and weight of these chemicals, they will not carry over in the steam provided the boiler system is well maintained. As verified under the organic inspection and certification processes, boiler additives may be used, but they must not come in contact with NOP certified ingredients or products unless they are on the National List. Organic processors must ensure that that organic processing is done in such a manner as to prevent any boiler water additive from coming in contact with organic ingredients or products. Effective contamination prevention measures therefore become a central part of an organic operator’s organic management plan and a focus of the on-site inspection.

SUMMARY

NOSB is requesting information on whether to continue the allowance of three boiler water additives: 1) Cyclohexylamine; 2) Diethylaminoethanol; and 3) Octadecylamine. These boiler additives were approved by NOSB in 2001 but added to the National List in 2006; they are allowed only for packaging sterilization during organic processing operations. Prior to their allowance, the amine feed line would need to be shut off. All three are scheduled to sunset in 2016. The Handling Subcommittee is requesting specific information about the availability of alternatives in order to understand whether they are still essential to organic processing. All three are on the fall 2014 agenda for discussion only. They will be voted on at the spring 2015 meeting.

OTA POSITION

The three boiler chemical additives under review for Sunset 2016 may no longer be essential because an effective and commercially available mechanical device (a steam generator) may be used at the point in which packaging sterilization is needed. In other words, rather than using steam generated from the boilers that feed the entire facility, a separate and dedicated steam generator may be used at the necessary point of contact. OTA supports the relisting of National List materials only when they are essential (no suitable alternatives available) and compatible with organic practices.

See the Organic Trade Association’s complete comments on page 42.

USDA organic regulations allow most natural inputs in organic farming, and prohibit most synthetic inputs. The National List, part of these regulations, lists the exceptions to this basic rule. Once an input has been added to the National List, NOSB must review the input every five years. Through this process, NOSB can remove inputs from the National List based on 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.

There are now two public comment opportunities before NOSB completes its Sunset review of each input. The inputs listed below that are scheduled to Sunset in 2016 will be discussed at the fall 2014 meeting and voted on at the spring 2015 meeting. NOSB is requesting feedback from stakeholders to inform its review and final decision on whether the materials should be renewed or removed from the National List.

OTA POSITION

OTA applauds NOSB for carefully considering each material and conducting a thorough review. To help facilitate a robust comment and review process, OTA has created an electronic survey for each input under review for 2015 and 2016. We will be creating surveys for all of the 2017 materials as well. The surveys are available to **every NOP certificate holder**. The goal is to collect information for NOSB to consider at the first stage of the two-step process to inform their recommendation, and again prior to the vote at the 2nd meeting. At this stage of the process, OTA has received feedback from its members indicating that a mechanical alternative may be used in place of the three boiler chemical additives (approved for packaging sterilization only) that are due to sunset in 2016. Aside from the boiler chemicals, to the best of our knowledge, there are no suitable and/or commercially available alternatives to any of the 2016 materials listed below.

2016 SUNSET HANDLING MATERIALS

Egg White Lysozyme: A nonsynthetic substance allowed in products labeled “organic” and “made with (specified organic ingredients/food group(s)).” Egg white lysozyme was added to the National List in 2006. This addition was based on an assessment of egg white lysozyme by NOSB in 2003. Egg white lysozyme is a purified enzyme preparation extracted from hen egg white. Lysozyme is a natural anti-microbial. The food applications for egg white lysozyme include cheese and wine. The process to make it is consistent with other enzymes; no solvents are used in its manufacturing. Alternatives to this material in food handling are harsh preservatives such as formaldehyde, nitrate, or nisin. Hydrogen peroxide can also be used but this serves as a more environmentally natural alternative. The handling subcommittee does not request any specific additional information on this material at this time.

L-Malic Acid: A nonsynthetic substance allowed in products labeled “organic” and “made with (specified organic ingredients/food group(s)).” L-Malic Acid was added to the National List in 2006 based on a review by NOSB in 2003. This is one of several materials that were identified as essential but missing from the final rule in 2000. L-Malic acid is used as a flavor enhancer, flavoring agent and adjuvant, and for pH control agent in a variety of foods. Malic acid is naturally occurring in fruits such as apples and cherries. L-malic acid was determined to be non-synthetic; it is produced by the fermentation of fumaric acid, which can be produced by the fermentation of glucose. The alternatives to L-Malic Acid include vinegar or citric acid, but certified handlers report there are unique flavors in L-Malic that cannot be replaced by another acid. The Handling subcommittee is interested in comments regarding the essentiality of L-malic Acid. They are encouraging current users of this substance to provide detailed comments describing the situations in which L-malic acid is the only appropriate substance for a given technical application.

Microorganisms: A nonsynthetic substance allowed in products labeled “organic” and “made with (specified organic ingredients/food group(s)).” Microorganisms are essential for the production of many fermented foods we know and love. Prominent cultures include *Acetobacter* (vinegar), *Aspergillus Oryzae* (miso), and *Rhizopus* (tempeh). They were added to the National List in 2006 based on the 2003 NOSB review. They were previously allowed under organic handling standards under private and state certification programs prior to the establishment of NOP. Other similar listings on the National List include enzymes, yeast and dairy cultures, which generally covered the products using microorganisms prior to NOP. Microorganisms will be the first major review of “ancillary substances” that are used in the preparation of microorganisms. Ancillary substances are functional food additives such as carriers (that “carry” the microorganism for commercial use), preservatives and stabilizers. The Handling subcommittee seeks inputs on the ancillary substances that are commonly used in microorganism products. The review will ultimately result in a list of allowed ancillary substances that would be captured in the recommendation and communicated in NOP guidance (NOP Permitted Substance List for Crops, Livestock and Handling).

Activated Charcoal: A synthetic substance allowed in contact with products labeled “organic” and “made with (specified organic ingredients/food group(s)).” Activated charcoal was first petitioned in 2002 and added to the National List with the annotation “only from vegetative sources; for use only as filtering aid.” It was added to the list in 2006 based on the 2003 NOSB review. It used to filter juice as well as water, and it’s also commonly used to help isolate by-products of microbial fermentation, such as citric acid or methionine. The Handling Subcommittee is interested in comments regarding whether the substance is still used, and if not, what other alternatives are available. They are interested in knowing whether its use has increased or declined.

Peracetic Acid: A synthetic substance allowed for use in organic processing in wash and/or rinse water according to FDA limitations. It is also allowed for use as a sanitizer on food contact surfaces. Peracetic acid is an effective but much more benign and environmentally friendly alternative to chlorine. It is an important food safety tool for organic handlers. It was added to the National List in 2006 although its review was completed by NOSB in 2000. It took many years to finally get this effective sanitizer approved because its regulated under FDA, EPA and USDA. Peracetic acid breaks down into acetic acid (vinegar) and hydrogen peroxide. No additional information is requested.

Sodium Acid Pyrophosphate (SAP): A synthetic substance allowed only as a leavening agent in products labeled “organic” and “made with (specified organic ingredients/food group(s)).” SAP was added to the National List in 2006 based on a review by NOSB in 2003. SAP was originally petitioned for use as a leavening acid in baked goods, and was given the annotation “for use only as a leavening agent” when originally recommended for listing by the NOSB. It is a relatively common food additive with USDA and FDA approval for many functions in conventional foods. In this intended use, it is used as an acid to react with sodium bicarbonate (baking soda) to produce a controlled release of the CO₂ that leavens the baked good. The Handling subcommittee is interested in comments regarding the essentiality of this substance and they encourage current users of this substance to provide detailed comments describing the situations in which sodium acid pyrophosphate is the only appropriate leavening agent for a given technical application.

Tetrasodium Pyrophosphate (TSPP): A synthetic substance allowed only as a meat analog in products labeled “organic” and “made with (specified organic ingredients/food group(s)).” TSPP was added to the National List in 2006 based on 2004 NOSB review. The subcommittee has raised the concern about the sole function of this input being to restore texture after complex processing, which runs counter to National List criteria (§205.600(4)): “The substance’s primary use is not as a preservative or to recreate or improve flavors, colors, textures, or nutritive value lost during processing, except where the replacement of nutrients is required by law”. Preliminary discussion among the Handling subcommittee is leading towards an inclination to remove this substance because of the concern mentioned above.

ASSESSING SOIL CONSERVATION PRACTICES (DISCUSSION)

BACKGROUND

The USDA organic regulations address soil conservation through the requirement that producers utilize cultivation practices in a manner that maintains and improves soil condition and minimizes erosion. A number of practices known to support healthy soils are also included in the standards like proper composting methods and the requirement to implement a crop rotation strategy. However, variations in organic cropping systems and variability in regional soil health concerns make applying a “one--size--fits--all” approach to soil conservation challenging for organic producers and certifiers. A refined and nuanced approach to soil conservation assessments is necessary for the dynamic nature of organic production systems. The subcommittee’s discussion document begins the process for NOSB to advise the USDA on implementation of the organic requirements.

SUMMARY

The Subcommittee discussion document requests input on the proper tools and methods for assessing soil conservation practices on organic farms. The subcommittee acknowledges that maintaining and improving soil quality are founding principles of organic production, and hopes to generate meaningful dialogue within the organic sector to identify and evaluate opportunities for improving soil and water practices on organic farms.

OTA POSITION

OTA agrees that organic farmers must implement their system plans in a manner that protects soil quality and health. Healthy soil fosters healthy, robust crops, and plays an essential role in organic farmers’ crop nutrient, weed, pest, and disease management plans. The requirement to maintain and improve soil quality is also clearly stipulated in a number of areas of the USDA organic regulations. The challenge stems from certifiers’ ability to assess the efficacy of each individual farmer’s soil conservation plans when applied over the diverse spectrum of cropping systems and locales covered by NOP certification. We applaud NOSB in soliciting information from certifiers and the organic sector at large to shape a recommendation that will guide and, potentially, harmonize how soil conservation practices are assessed through the certification process. We encourage NOSB to consider the various forms of soil quality testing currently available to certifiers in order to make these assessments, yet we also caution against reliance on testing that may not take into account the complexity of organic systems over the observations made by inspectors. We recognize the critical role NOSB plays in advising the Secretary on proper administration and ongoing refinement of the USDA organic regulations. This task should be taken as seriously as NOSB’s responsibility to review materials for the National List, and we challenge NOSB to prioritize its work on developing guidance that will bolster the fundamental process--based standards upon which organic production is built.

See the Organic Trade Association’s complete comments on page 43.

VACCINES MADE WITH EXCLUDED METHODS (PROPOSAL)

BACKGROUND

Vaccines are critical for the prevention of disease and to prevent needless suffering of livestock. For the vast majority of diseases for which a vaccine may be used there is a vaccine available that is not made with excluded methods. The NOSB, working with NOP, has spent considerable time over the last several years reviewing how best to address the issue of vaccines made with excluded methods in order to be in compliance with the USDA organic regulations. Challenges arose when compiling a list of federally registered vaccines produced from excluded methods because as technology has developed the NOP definition of “excluded methods” may require modernization. The livestock subcommittee presents a history of NOSB work to clarify apparent inconsistencies in practice, review in brief the complexity of the definition of “excluded methods,” and recommend that the NOP provides guidance on livestock vaccines made with excluded methods

SUMMARY

In this proposal, the Livestock Subcommittee outlines the history and regulatory references for livestock vaccine “made with excluded methods” under the USDA organic regulations as well as provides a clear overview of the advancements in design and manufacture of livestock vaccines. The Subcommittee proposal requests that NOP review the work of NOSB in compiling background and stakeholder input regarding vaccines made with excluded methods (GMOs) and provide guidance to NOSB, Accredited Certifiers, and Material Review Organizations on the use of GMO Vaccines in organic livestock production.

(Subcommittee Vote: 6 in favor; 0 against)

OTA POSITION

OTA agrees that the prohibition on excluded methods in organic production must be affirmed by appropriate guidance on avoiding excluded methods in all aspects of the organic industry, including livestock vaccines. We recognize the importance of vaccines to the success of organic livestock operations and that these operations may be subject to federal or state mandated vaccination schedules. We encourage guidance that will allow producers to avoid excluded methods in their production while implementing an adequate preventative healthcare plan and complying with regional livestock health requirements. The proposal provides clear background on the issue of livestock vaccines MWEM and should support NOP’s development of a comprehensive approach to preventing the presence of all GMOs in certified organic products.

See the Organic Trade Association’s complete comments on page 44.

CONTAMINATION IN FARM INPUTS (DISCUSSION)

BACKGROUND

Contamination of organic crops from farm inputs is a significant concern to organic producers. The USDA organic regulations acknowledge this potential eventuality as an organic integrity concern and require that all organic producers develop and implement system plans that prevent the contamination of crops, soil, or water with prohibited substances, heavy metals, or pathogens. However, despite the best efforts of organic producers and their certifiers, residues contained within farm inputs have damaged organic crops in the past. Identifying the potential contaminants, their pathways, and best ways to avoid contamination of organic crops will assist both producers and certifiers in verifying compliance with the organic standards. The crops subcommittee requests feedback from organic stakeholders in the following areas:

- contamination incidents in the past
- contaminants of concern
- contamination pathways of concern
- experts and other resources that would assist the subcommittee in its goal of ultimately proposing a process for addressing contamination of inputs that may be brought onto the farm

SUMMARY OF THE DISCUSSION DOCUMENT

The subcommittee discussion document solicits stakeholder feedback on contamination of farm inputs used on organic farms. Specifically, the discussion document highlights contamination issues from heavy metals, pathogens, pesticides, and GMOs that can impact the integrity of organic crops, and calls for experts to assist the subcommittee in its goal of ultimately proposing a process for addressing contamination of inputs that may be brought onto the farm.

OTA POSITION

The Crops Subcommittee (CS) discussion document identifies contamination prevention of organic crops from farm inputs as critical to maintaining integrity in the organic market place and to consumer confidence in the organic label. Specific examples of potential contaminants in farm inputs such as fertilizers and compost are discussed. The CS requests feedback from experts to better inform their recommendations on this subject. OTA believes that organic producers should have adequate resources available to avoid the inadvertent contamination of their crops, and OTA sees value in developing a best practices guide for organic producers to bolster their contamination prevention systems to achieve this end. OTA's full comments provide an overview of the regulatory frameworks already governing certain farm inputs, changes to agricultural systems that may reduce the risks of contamination, and bring to light the importance of a seed purity standard to prevent unintended contamination of GMO genes in non-organic seed used on organic farms.

See the Organic Trade Association's complete comments on page 46.

SULFUROUS ACID (PROPOSAL)

BACKGROUND

Sulfurous acid is an allowed input in organic crop production typically used to acidify irrigation water that is naturally highly alkaline. This substance must be made on-farm through the controlled combustion of elemental sulfur, a soil amendment also allowed in organic production. Prior to the allowance for sulfurous acid, organic producers needing to adjust pH of their irrigation water relied on significant quantities of weak organic acids like acetic or citric acid. Arid irrigated farming regions often experience soil alkalization or high salinity as a result of high pH irrigation water. This can make soil conditions unfavorable for plant growth. pH adjustment of irrigation water can help to improve growing conditions and nutrient uptake of crops. NOSB voted 12-2 (1 absent) in favor of listing sulfurous acid on the National List in May 2009, and the National Organic Program added the substance along with a restrictive annotation on July 6, 2010.

§ 205.601 Synthetic substances allowed for use in organic crop production

(j)(9) Sulfurous acid (CAS # 7782-99-2) for on-farm generation of substance utilizing 99% purity elemental sulfur per paragraph (j)(2) of this section

This substance is due for its sunset review at the Fall 2014 NOSB meeting.

SUMMARY

In NOSB's sunset review of Sulfurous Acid, the CS proposes to remove this substance from the National List citing concerns raised by new information on compatibility with sustainable agriculture and the potential for alternatives to be used.

OTA POSITION

In NOSB's sunset review of Sulfurous Acid, the CS proposes to remove this substance from the National List citing concerns raised by new information on compatibility with sustainable agriculture and the potential for alternatives to be used. OTA is concerned that the National List checklist included in the subcommittee's proposal on sulfurous acid is not fully reflective of the information contained in the TR, and we challenge NOSB to listen to organic producers reliant on sulfurous acid to adjust pH of irrigation water and to consider the allowance of sulfurous acid in Mexico's organic regulations as well as the equivalency agreements established with Canada, EU, Japan, and Korea when assessing this substance's compatibility with National List criteria.

RE: SODIUM CARBONATE PEROXYHYDRATE AND AQUEOUS POTASSIUM SILICATE

USDA organic regulations allow most natural inputs in organic farming, and prohibit most synthetic inputs. The National List, part of these regulations, lists the exceptions to this basic rule. Once an input has been added to the National List, NOSB must review the input every five years. Through this process, NOSB can remove inputs from the National List based on 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.

There are now two public comment opportunities before NOSB completes its Sunset review of each input. The inputs listed below are scheduled to Sunset in 2015 and are undergoing the 2nd stage of their review. These materials were discussed at the spring 2014 meeting and will now be voted on at the fall 2014 meeting. The information collected and the feedback received during both public comment periods will inform NOSB's final decision on whether the materials should be renewed or removed from the National List.

OTA POSITION

OTA applauds NOSB for carefully considering each material and conducting a thorough review. To help facilitate a robust comment and review process, OTA has created an electronic survey for each input under review for 2015 and 2016. We will be creating surveys for all of the 2017 materials as well. The surveys are available to every NOP certificate holder. The goal is to collect information for NOSB to consider at the first stage of the two-step process to inform their recommendation, and again prior to the vote at the 2nd meeting. OTA provided comment on one of the three substances up for sunset review (2015) at the upcoming meeting. We felt that the proposal for Sulfurous Acid did not fully reflect the information contained within the Technical Review of the substance, and we provided comments pertaining to some technical aspects of sulfurous acid generation and use as well as new information pertaining to the substance's use in international regulations, which was not available when the technical review was written. OTA did not provide comment to proposals on Sodium Carbonate Peroxyhydrate or Aqueous Potassium Silicate and does not take a position in the discussion and decision for these materials to remain allowed on the National List. The background and summary of the proposals however are provided below.

SODIUM CARBONATE PEROXYHYDRATE—(PROPOSAL)

BACKGROUND

Sodium carbonate peroxyhydrate (SCP) is an allowed substance in organic production used as an algaecide. It is manufactured by drying hydrogen peroxide in the presence of sodium carbonate. This product is only used to control algae in irrigation ponds, ditches, and aquatic rice paddies and is not approved for direct application on food crops. SCP was originally reviewed and approved by NOSB in 2007, but EPA only shortly thereafter approved its registration for use as an algaecide in aquatic rice production, so organic growers did not have any previous experience to draw from when the product was first allowed in organic production. SCP breaks down into sodium carbonate and hydrogen peroxide in water, and the hydrogen peroxide component inhibits undesirable microbial growth including algae, bacteria, mosses, molds, etc. NOSB completed its first round of sunset review for this substance at the Spring 2014 meeting and will conduct its final review at the Fall 2014 meeting.

SUMMARY

In NOSB's sunset review of SCP, the crops subcommittee proposes to remove this substance from the National List. However, a new technical review of SCP was provided to NOSB for the sunset review to address use patterns and alternatives, and there was no new information that showed issues around health and environmental effects of SCP. The technical review did highlight SCP's potential to substitute for copper products, which are now the most commonly used materials for controlling algae in aquatic rice production. A number of commenters to NOSB indicated that SCP had the potential to replace copper products in some production systems, which could help mitigate concerns regarding copper accumulation in soil. The subcommittee also expressed concern that organic farmers who have direct experience using SCP to control algae may not recognize the chemical name for the substance and may only be familiar with specific brand names so did not feel compelled to provide NOSB with input. Despite the crops subcommittee motion to remove SCP from the National List, they also acknowledge that they found no new concerns regarding the continued listing of SCP and clarify that the motion to remove this substance was made to ensure the full board has the opportunity to discuss and vote on the relisting of SCP.

AQUEOUS POTASSIUM SILICATE—(PROPOSAL)

BACKGROUND

Aqueous Potassium Silicate (APS) is an allowed substance in organic production used as an insect and plant disease control measure. APS is a synthetic material manufactured by combining natural mined sand and potassium carbonate in the presence of high heat to form water soluble glass beads. Its use increases assimilation of silicate into plants and results in an increased resistance to pests and diseases by strengthening of infection sites in plant cell walls and enhancing activation of specific immune responses. APS is a Section (3) pesticide requiring registration with EPA but is exempt from the requirement of a tolerance on food crops. The substance was originally reviewed and approved by NOSB in 2007, and rulemaking occurred in 2010 to officially add this substance to the National List. NOSB completed its first round of sunset review at the Spring 2014 meeting and will conduct its final review at the Fall 2014 meeting.

SUMMARY

In NOSB's sunset review of APS, the crops subcommittee proposes to remove this substance from the National List. The Technical Review of APS conducted in preparation for the sunset review show new information pertaining to the health risks associated with worker exposure to the material, and NOSB questions its essentiality in organic production when alternative practices may have the potential to increase silica uptake by plants conveying the same disease and pest resistance. New information also raises the concern that higher concentrations of silica, as a result of APS use, can render crops less palatable and digestible for livestock and may result in changes to micronutrient levels in food. NOSB requests specific feedback on the effects on organic consumers and organic livestock who may consume products that were treated with APS and the capacity for alternative soil management practices to provide the same level of protection to plants that APS may convey from increased silica concentration in plant cell walls.

USDA organic regulations allow most natural inputs in organic farming, and prohibit most synthetic inputs. The National List, part of these regulations, lists the exceptions to this basic rule. Once an input has been added to the National List, NOSB must review the input every five years. Through this process, NOSB can remove inputs from the National List based on 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.

There are now two public comment opportunities before NOSB completes its Sunset review of each input. The inputs listed below that are scheduled to Sunset in 2016 will be discussed at the fall 2014 meeting and voted on at the spring 2015 meeting. NOSB is requesting feedback from stakeholders to inform its review and final decision on whether the materials should be renewed or removed from the National List.

OTA POSITION

OTA applauds NOSB for carefully considering each material and conducting a thorough review. To help facilitate a robust comment and review process, OTA has created an electronic survey for each input under review for 2015 and 2016. We will be creating surveys for all of the 2017 materials as well. The surveys are available to **every NOP certificate holder**. The goal is to collect information for NOSB to consider at the first stage of the two-step process to inform their recommendation, and again prior to the vote at the 2nd meeting. At this stage of the process, OTA has not received any feedback from members indicating there is a suitable and/or commercially available alternative to the 2016 materials listed below.

2016 SUNSET CROPS MATERIALS

Ferric phosphate: A synthetic substance allowed in organic crop production as slug and snail bait, sold under brand names of First Choice Sluggo, Garden Safe Slug & Snail Bait, Safer's Slug and Snail Bait, Scott's EcoSense Slug and Snail Bait, Sluggo, Sluggo-AG, SLUGGO PLUS. This material was originally allowed for use as slug and snail bait in 2005, and a petition to remove the substance from the National List was denied in 2012 with a super-majority of NOSB members voting to see ferric phosphate remain allowed in organic production. NOSB will discuss this material at the Fall 2014 meeting and will vote on its continued use in organic production at the Spring 2015 meeting. The crops subcommittee does not request any specific additional information.

Hydrogen chloride: A synthetic substance allowed in organic crop production for delinting organic cottonseed for planting. Hydrogen chloride had been allowed by certifiers to delint organic cottonseeds prior to establishment of NOP. NOSB failed to include hydrogen chloride in its first round of substance review during the establishment of the National List. Instead, a petition from the Texas Organic Cotton Marketing Cooperative was submitted in 2002 and NOSB voted to allow this substance in 2004. NOSB will discuss this material at the Fall 2014 meeting and will vote on its continued use in organic production at the Spring 2015 meeting. The crops subcommittee requested specific input on the availability of mechanical (i.e. non-chemical) methods for delinting cotton seed for planting. See OTA's report on delinting from a recent tour of the USDA Agricultural Research Service station in Lubbock, TX where research into mechanical delinting has shown promising results.

CURRENT PRACTICES AND RESEARCH FOR THE FUTURE (A Closer Look at Hydrogen Chloride)

WHY DELINT COTTONSEEDS?

When cottonseed is separated from cotton during the ginning process, the seed retains a coating of lint, which is difficult to remove. “Fuzzy” cottonseeds, as the industry refers to them, cannot flow through mechanical planting equipment, which is required for commercial scale cotton production. Some process to delint the cottonseed must occur for cotton farmers to be able to plant their fields.



CURRENT DELINTING PRACTICES

Delinting facilities currently use hydrogen chloride or sulfuric acid to weaken and dissolve the lint bound to cottonseed. The seeds are then sent through a mechanical scrubber to remove any remaining lint before undergoing typical seed cleaning and sizing processes. As mentioned above, some kind of delinting process must occur prior to planting in both organic and conventional cotton production. Currently, hydrogen chloride is allowed to be used on organic cottonseeds for delinting purposes prior to planting, so organic cotton growers can continue to plant their crops. Hydrogen chloride is undergoing its Sunset review, and NOSB specifically requested input on advancements in non-chemical mechanical delinting processes and insight into when a mechanical delinting process may become commercially viable and adopted by the cottonseed industry.

RESEARCH FOR THE FUTURE

At the USDA Agricultural Research Service Cotton Production & Processing Research Unit in Lubbock, TX, researchers are developing technology to delint cottonseed without the aid of strong acids. Dr. Gregory Holt, Research Leader, is leading a team charged with designing and building a prototype of a commercial-scale mechanical delinting unit. Delinting processors of both organic and conventional cottonseed are interested in technology that would reduce worker exposure and handling of hazardous materials like strong acids, and a mechanical delinting machine would be readily accepted and implemented by the industry.

MECHANICAL DELINTING

Prior to any direct delinting processes, the cottonseed must first be cleaned of large lint particles by means of an improved cotton gin called a “power roller.” Once these large lint particles are removed, the seed is ready for mechanical delinting processing. Holt’s team has manufactured a small-scale prototype mechanical delinting machine and tested a number of abrasive materials for their efficacy in delinting cottonseed. They must balance the goal of removing enough lint from cottonseed to allow for planting with the potential to damage seeds and reduce germination.

The small-scale prototype is currently providing satisfactory delinting without excess damage to the cottonseed, and designs for a commercial scale prototype are in the works. The team hopes to have the larger prototype ready for testing in time for the 2015 cotton harvest.



MODERNIZING DELINTING INFRASTRUCTURE

Adoption of the technology by commercial delinting facilities will depend on the results from the research team's tests next fall. With the desire among commercial cottonseed processors to eliminate the use of chemical delinting processes, it is expected that adoption of this technology will be rapid. However, until cottonseed processors have purchased, installed, and tested the equipment in their facilities, both organic and conventional cotton farmers will remain reliant on cottonseed delinted with hydrogen chloride.

WHO ARE OTA'S MEMBERS?

OTA members represent the huge diversity and the entire supply chain of today's organic industry – small and large organic farmers of all types, local and national organic processors, regional and country-wide organic distributors, mom-and-pop organic stores and organic retail chains.

OTA members are proud to be a part of the association, and the OTA member list is --and always has been -- open to the public. OTA represents over 6,500 businesses in 49 U.S. states. Half of OTA members are small businesses, reporting less than \$1 million in organic sales per year.

OTA members include farmers, shippers, processors, certifiers, farmers associations, distributors, importers, exporters, consultants, retailers, and others. Organic products represented include organic foods, raw commodities, ingredients and beverages, as well as organic fibers, personal care products, pet foods, nutritional supplements, household cleaners and flowers.

OTA has two categories of membership – trade and associate.

Trade members govern the association. Only North American-based businesses or organizations actually engaged in some aspect of the business of organic are eligible for Trade membership. Trade members receive OTA benefits, and each has one vote.

Associate members include businesses, organizations and individuals not eligible for Trade membership but who are supportive of principles consistent with organic agriculture. Associate members can take advantage of OTA benefits but do not have voting privileges.

OTA's Trade members are represented either through direct membership or through strategic partnerships with regional organic producer organizations across the U.S. OTA's Farmers Advisory Council (FAC) encourages the formation of strategic alliances with farmer-driven organizations. OTA has a special membership category for small-scale organic farmers. The "Farmstead Membership" enables smaller organic farmers who have current membership with one of the participating organizations belonging to FAC to obtain a full OTA membership with all associated benefits for a minimal fee.

DO OTA MEMBERS PAY DUES?

Yes. Membership dues are calculated on a sliding scale based upon a company's total organic sales. Farmers joining under the "Farmstead Membership" category whose annual income from organic sales is less than \$250,000 pay a fee of just \$50 per year.

OTA's membership categories and dues structure can be accessed online by any interested party – no special password or code necessary—and OTA's financial records are transparent and public.

WHAT IS THE OTA CODE OF ETHICS?

Becoming an OTA member isn't just signing up for a mailing list. All OTA Trade members must sign the Association's Code of Ethics every year. The OTA Code of Ethics is a statement of the common values of the association. It serves as a guide to OTA members in the decisions they make as businesses and individuals to assist them with their responsibilities to the principles of organic agriculture and ethical business practices.

OTA members agree to a set of Core Values:

- Have established organic trade on a foundation of common organic standards
- Work in harmony with the environment, promoting sustainability
- Recognize the need for organic agriculture to be economically viable
- Work to protect the diversity of life

- Recognize the interdependence of all parts of the organic community
- Understand that organic farms are the foundation of the organic industry
- Seek out and use whole system approaches to agricultural and business practices
- Support the human right to knowledge and choice in the marketplace.

The Code of Ethics lays out specific objectives to which OTA members strive:

- Maintain the highest standards of business conduct and be legal and ethical in all business activity
- Promote and encourage the highest level of integrity within the organic industry
- Cooperate with other OTA members to advance organic agriculture and the organic industry
- Be fair and respectful to employers, employees, competitors, customers, the public
- Adhere to honesty in all representations to the public concerning organic
- Support a socially just and ecologically responsible production and supply chain
- Commit to the highest standards and practices for organic farming, processing and handling
- Observe all state or provincial, federal and international laws and regulations pertaining to organic production, processing and handling
- Represent OTA without rancor and support OTA and the industry by contributing to effective change.

WHAT IS THE GOVERNANCE STRUCTURE OF OTA?

OTA's structure reflects a commitment to utilizing members on its Board of Directors as strategic advisors and long-term thinkers, the staff as program planners and implementers, and the members as lenders of knowledge and expertise to the board and staff.

OTA's Board of Directors consists of fifteen people, each of whom serves a term of three years. A Board member cannot serve more than three consecutive terms.

OTA Board members are nominated and elected by OTA trade members each year. The Board is made up of nine at-large members elected by the general membership, two Canada Organic Trade Association (COTA) representatives who have been elected by the general membership of COTA and four members who are appointed by elected Board members. One of the seats is dedicated to a Farmer Board member.

HOW ARE POLICIES SET?

OTA offers numerous opportunities for members to not only get connected to conversations and issues that impact their businesses, but to actually help set policies. The voices of OTA members are listened to closely, and engagement with OTA members by OTA staff is constant and ongoing.

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 currently has nine Member Forums of diverse topics ranging from international trade to sustainability.

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. Sector Councils operate according to specific guidelines and prepare an annual report.

OTA Task Forces 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. Task forces are open to the membership at-large.

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.

- **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 then USDA 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?”

As expressed in the proposals released for the Fall 2014 meeting, the Crops and Handling Subcommittee believes that the full Board should have the opportunity to complete the review of each sunset material by voting. The NOP has stated that to do this, a motion to remove should be brought from the Subcommittee for each substance. The purpose of a motion is to introduce the topic for consideration while the vote 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 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

Subcommittee	Agenda Item	Motion and Subcommittee Votes	Full Board Vote	Fails/Passes
MATERIALS	Fall 2014 Research Priorities	Motion 1: To adopt the proposal (7 yes, 0 no) Motion 2: Amend to add section on "Risk Reduction" (5 yes, 1 no, 1 absent)	Yes: No: Yes: No:	
HANDLING	Glycerin	Classification Motion: Agricultural Listing Motion #1: List at *205.606 Listing Motion #2: Remove from *205.605(b) (7 yes, 0 No, 1 Absent for all three motions)	Yes: No: Yes: No: Yes: No:	
HANDLING	Whole Algal Flour	Classification Motion: As nonsynthetic (0 Yes, 2 Absent, 6 Abstain) Listing Motion: List on 205.606 (0 Yes, 6 No, 2 Absent)	Yes: No: Yes: No:	
HANDLING	Sunset 2015: Gellan Gum	Motion to Remove from *205.605(a) (0 yes, 6 No, 2 Absent) <i>Subcommittee voted to relist</i>	Yes: No: (Yes = Remove, No = Relist)	
HANDLING	Sunset 2015: Tragacanth Gum	Motion to Remove from 205.606 (0 Yes, 6 No, 2 Absent) <i>Subcommittee voted to relist</i>	Yes: No: (Yes = Remove, No = Relist)	
HANDLING	Sunset 2015: Marsala	Motion to Remove from 205.606 (6 Yes, 0 No, 2 Absent) <i>Subcommittee voted to remove</i>	Yes: No: (Yes = Remove, No = Relist)	
HANDLING	Sunset 2015: Sherry	Motion to Remove from 205.606 (6 Yes, 0 No, 2 Absent) <i>Subcommittee voted to remove</i>	Yes: No: (Yes = Remove, No = Relist)	
LIVESTOCK	Vaccines from Excluded Methods	Request that NOP review the document and provide guidance to NOSB, certifiers and MROs (6 Yes, 0 No, 2 Absent)	Yes: No:	
CROPS	Sunset 2015: Sulfurous Acid	Motion to Remove from the National List (4 Yes, 3 No) <i>The majority voted to remove</i>	Yes: No: (Yes = Remove, No = Relist)	
CROPS	Sunset 2015: Sodium Carbonate	Motion to Remove from the National List (4 Yes, 3 No) <i>The majority voted to remove</i>	Yes: No: (Yes = Remove, No = Relist)	
CROPS	Sunset 2015: Aqueous Potassium Silicate	Motion to Remove from the National List (4 Yes, 3 No) <i>The majority voted to remove</i>	Yes: No: (Yes = Remove, No = Relist)	

*National List References: 205.605(a)=allowed nonsynthetics / 205.605(b) = allowed synthetics / 205.606=allowed non--OG agricultural ingredient when OG is not available)

MATERIALS SUBCOMMITTEE:

Fall 2014 Resesarch Priorities

The Organic Center has reviewed the list of topics included for the 2014, and we're particularly pleased to see the inclusion of "Plant Disease Management" and "Soil Building Practices." The Organic Center is actively involved in conducting and communicating research on these issues and we expect the prioritization of these topics by NOSB may help us secure further funding. We also read with great interest the Crops Subcommittee Discussion Document on "Protecting Against Contamination of Farm Inputs" and would like to share with NOSB our work to conduct research on factors affecting the presence of arsenic in organic rice. Our goal is to offer future strategies to the organic sector to minimize such accumulation.

PLANT DISEASE MANAGEMENT

The Organic Center is collaborating with University of Florida researchers, citrus growers, and other non-profits to find organic solutions to control citrus greening. This project will determine the efficacy of labeled organic pesticides for controlling the Asian citrus psyllid (ACP), develop protocols for organic growers struggling with citrus greening, and examine naturally occurring organic trees resistant to citrus greening that can be bred to create non-GMO citrus greening-resistant varieties of citrus. This study will provide organic growers nationwide with information on how to protect their citrus groves from collapse due to citrus greening. It will also provide policy makers with data needed to incorporate organic alternatives to ACP control into area-wide treatment protocols.

Additionally, we have recently completed our fire blight project, which was carried out in collaboration with David Granatstein and Harold Ostenson. This project provided critically needed information on how to prevent fire blight from decimating apple and pear orchards without the use of antibiotics. The published report includes lessons learned from a systems approach to controlling fire blight without antibiotics which have been successfully used by dozens of Pacific Northwest organic orchardists. These strategies, along with previously existing materials, have been made available and provide a knowledge base for organic orchardists to refer to as they shift to non-antibiotic control. The written report is publicly available to growers, and covers methods for controlling fire blight holistically as well as issues such as sanitation, vigor control, sequence and timing of control materials, spray coverage, and varietal susceptibility. This research provides an important tool for organic growers to fight fire blight with the sunset of oxytetracycline this October.

SOIL BUILDING PRACTICES

The Organic Center is also involved with research in the priority area of Soil Building Practices. Soil health is essential to long-term crop viability and yield consistency. To add to the increasing body of knowledge about methods for maintaining productive healthy soils, The Organic Center is working with the National Soil Project at Northeastern University to examine the benefits associated with different soil components such as humic acids, fulvic acids and humin, and develop a reference database that will enable agronomists, farmers, and environmental scientists to correlate soil health and productivity with agricultural practices. This will be directly useful to organic farmers, who rely on soil quality, through bench-marking that will facilitate remediation, maintenance and conservation of soil resources.

ARSENIC IN RICE

The Organic Center is also participating in research that compliments the Crops Subcommittee Contamination in Farm Inputs Discussion Document. We are currently collaborating with the U.S. Department of Agriculture's (USDA's) Agricultural Research Service (ARS) to conduct targeted research on the factors affecting the presence of arsenic in organically grown rice. ARS scientists are testing stored samples of organic rice grown under controlled organic conditions at USDA research facilities, and examining the factors that directly impact the rate of arsenic accumulation in rice grown organically. Factors under investigation include varietal selection, management practices, cover crops, and organic compliant fertilizers. Our preliminary results suggest that the type of organic compliant fertilizer applied to rice does not affect arsenic uptake by organic rice, nor does the rate at which these fertilizers are applied. The completion of this project will provide tactics for organic rice growers to reduce arsenic accumulation in rice.

ORGANIC REPRESENTATION ON USDA ADVISORY AND RESEARCH BOARDS

A critical move that will heavily influence our ability to defend and solicit funds for research that benefits organic production and handling is making sure that we have organic representation on USDA research boards and committees. Therefore, TOC is requesting that NOSB draft a letter to USDA requesting mandatory organic representation on USDA research boards and committees. Organic representation can ensure that the organic sector's interests and research needs are adequately and fairly represented.

For example, the Organic Trade Association recently garnered support for an organic citrus producer from Florida and an organic citrus grower from California to serve on the National Agricultural Research, Extension, Education, and Economics (NAREEE) Advisory Board Citrus Disease Subcommittee. The purpose of the committee is to advise the Secretary of Agriculture on citrus research, extension, and development needs, engage in regular consultation and collaboration with USDA and other organizations involved in citrus, and provide recommendations for research and extension activities related to citrus disease.

To the best of our knowledge, the existing subcommittee does not include organic industry representation. Organic representation, however, will be critical in creating a balanced and technically adept subcommittee, and will benefit the research development needs for both organic and conventional citrus production alike.

Thinking along these lines, the organic sector must ensure that all USDA appointed research boards include at least one member representing the interests of organic. The Organic Center believes the "Departmental Guidance on Organic Agriculture" released in May 2013 provides the perfect avenue for NOSB to submit such a request to USDA. See Appendix A.

Under the actions listed to implement guidance instructing Agencies, their Under Secretaries, and Administrators to recognize the distinct nature of USDA-certified organic production and organic goods, the following action is listed:

Where the organic sector has specific research needs regarding production or regulatory compliance, the Department will endeavor to respond to those specific needs. The Department should include organic production as a component of its studies comparing the effects of different production systems when appropriate (e.g., investigation of climate change adaptation practices). Organic production models may provide alternative solutions to current agricultural challenges, and it is the Agency's responsibility to develop diversity in research and alternatives for all producers.

The Organic Center encourages NOSB to take this opportunity to request that organic representation be a requirement of any USDA board or committee.

MATERIALS/GMO SUBCOMMITTEE :

Discussion Document on Excluded Methods Terminology

OTA supports the continued discussion and work on updating and clarifying “excluded methods” terminology. The National Organic Standards Board’s (NOSB) continued work on the topic of GMOs is paramount. OTA continues to be very supportive of moving recommendations forward to NOP that will not only improve the practices used to keep GMOs out of organic seed, feed and crops, but will also clarify the standards and terminology used for making clear and consistent compliance determinations.

OTA recognizes that the definition of excluded methods was based on the efforts of NOSB in 1995 and is now outdated. Organic producers and handlers as well as Accredited Certifying Agencies (ACAs) and USDA’s NOP must have clear and updated definitions in order to make consistent and concrete determinations.

OTA supports continuing a process-based approach. We remain unchanged in our position that a process-based standard can and should be intertwined with quantitative tools that can be used to assess the validity of a process-based approach.

This relationship between a “process-based” standard and “product” evaluation is codified in the Organic Foods Production Act and the USDA organic regulations under the Periodic Testing Rule (205.670). ACAs are required to conduct periodic residue testing of organically produced agricultural products annually on at least 5% of their certified operations. Testing of residues is not limited to pesticides. Under the existing regulations, certifying agents have the flexibility to test for a range of prohibited materials and excluded methods, including, but not limited to, pesticides, hormones, antibiotics, and GMOs.

Testing is one of the most definite and effective tools ACAs can use to evaluate whether an organic operation has adequate measures in place to prevent commingling with or contact with GMOs. Testing is used to determine whether the “processes” and methods being used to avoid prohibited substances (including GMOs) are effective.

OTA agrees that a list of GE and non-GE terms in chart form would be useful. We suggest this chart be included in NOP Guidance maintained in the NOP Handbook that is publicly available on the NOP website. It could be added to the existing NOP Policy Memo entitled “Clarification of Existing Regulations Regarding the Use of Genetically Modified Organisms in Organic Agriculture” (PM 11-13). Similarly, it could be added to the forthcoming NOP guidance on “Best Practices for Prevention of Unintended GMO Presence in Organic Products” once NOSB provides NOP with a recommendation as requested by NOP in its Memo to NOSB on April 24, 2014.

OTA encourages the Materials/GMO Subcommittee to continue this discussion and continue its work on clarifying and updating the definition of excluded methods. The prohibition on excluded methods (GMOs) must remain in the regulations. We strongly suggest working with NOP to incorporate clarification on terminology into guidance, so that definitions can be more easily updated and stay current with evolving technologies and products.

MATERIALS SUBCOMMITTEE:

Guidance for best management practices for prevention of unintended GMO presence

Thank you for this opportunity to provide comment on the efforts the National Organic Standards Board (NOSB) is making to keep genetically modified organisms (GMOs) out of organic agriculture. OTA shares the desire to keep GMOs out of organic livestock feed, crops, and food, and we remain committed to furthering these efforts.

In early 2014, the NOSB Materials Subcommittee submitted a work plan request to the National Organic Program (NOP) to develop a prevention strategy for excluded methods in crops and handling. On April 24, 2014, NOP sent a response memo to NOSB entitled, "Improved Guidance on Preventing GMOs Presence in Organic Products." NOP stated:

"The organic community, NOSB and USDA would like to provide additional guidance and best practices for prevention of unintended GMO presence in organic products. Therefore, the NOP requests that the NOSB provide recommendations regarding best management practices for prevention of unintended GMO presence."

Unfortunately, a recommendation did not make it onto the fall 2014 NOSB Agenda. OTA believes there are immediate steps and strategies that can be made to further keep GMOs out of organic agriculture. OTA urges the Materials/GMO Subcommittee to prioritize drafting a proposal to NOP to develop guidance on industry best practices for avoiding GMOs. We request that NOSB include two key practices that could be carried out under existing organic regulations:

- A method for keeping GMOs out of non-organic seed that is used when organic seed is unavailable. Specifically, Accredited Certifying Agencies (ACAs) would require a seed purity declaration made by the seed supplier to verify the non-GMO status of non-organic seed.
- Guidance and training for ACAs on GMO sampling and testing under the residue-testing rule.

NOP GUIDANCE ON GE AVOIDANCE AND TESTING

NOSB's continued work on the topic of GMOs is paramount. OTA continues to be very supportive of moving recommendations forward to NOP that will not only improve the practices used to keep GMOs out of organic seed, feed and crops, but will also clarify the standards and terminology used for making clear and consistent compliance determinations.

As submitted in separate comments, OTA reiterates our support for continued discussion and work on updating and clarifying "excluded methods" terminology. We are also encouraged that "Seed Purity from GMO Research Needs" and "Risk Reduction from Off-Target Exposure to Non-Permitted Materials" were identified as topics in the 2014 Research Priorities Proposal. However, we remain intensely focused on the more immediate steps NOSB can take that will help keep GMOs out of organic agriculture.

SEED PURITY STANDARD FOR NON-ORGANIC SEED

The organic regulations allow the use of non-organic untreated seed when an equivalent organically produced variety is not commercially available. Under the organic regulation's general prohibition of GMOs (§205.105), non-organic seed must be produced and handled without the use of excluded methods (GMOs).

While the organic regulations prohibit GMOs in organic production and handling, they do not delineate thresholds or contact prevention techniques specific to GMOs. Seventeen years after commercial introduction of GMOs in agriculture, it is time for the regulations to embrace this challenge and provide meaningful oversight and guidance on how to prevent the unintended contact with and presence of GMOs in organic products.

As discussed over the past few NOSB meetings, many agree, including OTA, that a seed purity standard is the 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 standard at this time because of various obstacles identified through the NOSB public comment process, and a shared need to collect more data in order to shape an effective and fair standard.

However, the longer we wait to set limits for controlling GMO presence in organic seed, feed and crops, the further we fall behind market demand and the longer organic farmers are subject to the variability of the private market vs. the requirements of the organic regulations. Time is of the essence, and actions must be taken NOW that will help continue to keep GMOs out of organic agriculture.

One approach for taking immediate action on the future of organic is for NOSB to include steps for evaluating the non-GMO status of non-organic seeds in its recommendation to NOP on guidance.

HOW WOULD THIS WORK?

- As stated earlier, the organic regulations require that non-organic seed is non-GMO. Organic producers must provide ACAs with supporting evidence that non-organic seed is non-GMO. The common verification practice currently used is to collect a non-GMO affidavit that declares the seed is not genetically modified. Documentation may or may not speak to any inadvertent GMO presence. To address this requirement, NOP, in guidance, could request that ACAs collect a seed purity declaration made by the seed supplier to verify the non-GMO status of non-organic seed.
- Since organic seed must comply with the organic standards and is subject to residue sampling by ACAs, requiring a seed purity declaration for organic seed could undermine confidence in the process-based standards. For organic seed, an organic certificate is adequate. However, requiring a seed purity declaration on non-organic seed would obligate seed suppliers to test non-organic seed for GMOs and to withhold contaminated seed from entering the organic supply chain.

WHAT WOULD THIS STRATEGY ACCOMPLISH?

Requiring a seed purity declaration for non-organic seed would:

- Shift the financial burden of routine GMO testing from organic seed producers to suppliers of non-organic seed;
- Significantly reduce the inadvertent introduction of GMOs into organic production through seed supply;
- Show confidence in the process-based standards that have proved successful in preventing pesticide contamination on organic products; and
- Incentivize the expansion of the organic seed industry.

OTA strongly urges the CACS to work with the Materials/GMO Subcommittee and draft a recommendation on guidance to NOP that requires ACAs to collect a seed purity declaration made by the seed supplier to verify the non-GMO status of non-organic seed.

GUIDANCE AND TRAINING FOR ACAs ON GMO TESTING

On November 9, 2012, NOP published a Final Rule on Periodic Residue Testing. The rule clarifies a provision of the Organic Foods Production Act (OFPA) of 1990 and the regulations issued that require periodic residue testing of organically produced agricultural products by ACAs. NOP received several comments regarding types of residues that would be considered acceptable targets for testing under the rule. Four commenters, including OTA, requested clarification on testing for GMOs.

NOP responded by saying that it does not intend for the testing conducted under section 205.670 to be limited to pesticides residues. Under the existing regulations, certifying agents have the flexibility to test for a range of prohibited materials and excluded methods, including, but not limited to, pesticides, hormones, antibiotics, and GMOs.

Given the regulatory requirements and NOP clarification, ACAs are required to test if there is reason to believe that an organic product has come into contact with GMOs. ACAs may also test for GMOs under the periodic residue testing requirements. To date, however, NOP has not issued any instruction or guidance on GMO testing.

OTA strongly urges the CACS to work with the Materials/GMO Subcommittee and draft a recommendation to NOP to create guidance and provide training to ACAs on conducting GMO sampling and testing under the residue-testing rule. Providing NOP with a recommendation that includes further guidance on testing falls directly under the specific responsibilities outlined in the OFPA starting at section 2119(k):

5. PRODUCT RESIDUE TESTING.—The Board shall advise the Secretary concerning the testing of organically produced agricultural products for residues caused by unavoidable residual environmental contamination.

Although NOP guidance on pesticide residue testing is available and USDA resources for GMO testing in organic feed do exist, further guidance on GMO testing of other crops for human consumption is greatly needed. It is extremely important that guidance offer clear and consistent sampling and testing protocols so ACAs may accurately assess the efficacy of an organic operation's system for ensuring that GMOs do not come in contact with organic product. Testing is one of the most definite and effective tools ACAs can use to evaluate whether an organic operation has adequate measures in place to prevent commingling with non-organic GMO crops as well as intentional or unintentional contact with GMOs.

CONCLUSION

OTA believes it is in the best interest of the organic sector for NOP to include guidance in the NOP Handbook that would help farmers and handlers prevent GMO contact with in organic products and assist ACAs in assessing the efficacy of an organic operation's GMO contact prevention plan. Therefore, we urge the Materials/GMO Subcommittee to prioritize this work and release a recommendation for guidance prior to the spring 2015 meeting. Recommendations for avoidance and methodology for testing from USDA's NOP would reflect USDA's commitment to enforcing the requirements of the regulation, and would provide organic producers and handlers with a useful USDA-recognized tool to further mitigate GMO presence in organic products.

HANDLING SUBCOMMITTEE:

Glycerin

The Organic Trade Association supports the Handling Subcommittee's Proposal to remove Glycerin from 205.605(b) of the National List. We also support the listing of "Glycerin" on § 205.606 of the National List, however we request that the subcommittee clarify in its recommendation that glycerin products, derived from agricultural starting material and processed using biological or mechanical/physical methods, are also classified as "agricultural." This approach would align with NOP's Draft Classification of Materials Guidance (NOP 5033) and allow for the other agricultural forms of glycerin available in the marketplace. It would also help address the concerns regarding the use of glycerin in natural flavors and "made with organic (specified ingredients or food group(s))" products.

OTA believes the proposal must clearly recognize all agricultural forms of glycerin. This can be accomplished by making the following minor revision (in redline) to the Subcommittee's classification motion:

Classification Motion: Motion to classify glycerin when produced by microbial fermentation derived from agricultural source material and processed using biological or mechanical/physical methods described under 205.270(a).

The following listing motions in the proposal would remain unchanged:

Listing Motion: Motion to list glycerin at 205.606

Listing Motion: Motion to remove glycerin—produced by hydrolysis of fats and oils—from 205.605(b)

Our suggested change to the classification motion would accomplish the following:

- Organic forms of glycerin **would be required** in all NOP **certified organic** products unless commercially unavailable.
- Non-synthetic (agricultural) forms of glycerin would be required for use in natural flavors used in NOP certified products. This would include agricultural forms of glycerin produced by fermentation or hydrolysis using biological or physical methods.
- Organic forms of glycerin **would be required** in **organic** flavors unless commercially unavailable.
- Allowed non-organic glycerin (including forms used in natural flavors) would be processed through the hydrolysis or fermentation of agricultural material using methods allowed under organic regulations and in line with NOP guidance on classification of materials. This would invite more companies to participate, and would move them a step closer to a certified organic version.
- The listing on § 205.606 would be clean and straightforward. Further guidance on the agricultural forms allowed would be communicated through NOP's Guidance Permitted Substance List¹ providing greater clarity for certifiers and industry as well as flexibility for future innovation and improvements.

We offer the following more detailed comments (see next page)...

1. NOP is in the process of releasing guidance on materials allowed in organic crop and livestock production as well as in handling. The Draft Guidance on Materials for Organic Crop Production (NOP 5034-1) is pending final release. The guidance on livestock and handling is forthcoming.

CLASSIFICATION OF GLYCERIN

Currently, glycerin produced by hydrolysis of fats and oils is listed on section 205.605(b) of the National List as a **non-agricultural synthetic** substance allowed in or on processed products labeled as “organic” or “made with (specified organic ingredient(s)).” If glycerin produced by **hydrolysis of fats and oils** is removed from the National List and the current classification of glycerin is accepted as written, the only forms of glycerin that would be allowed are:

- **Organic** glycerin produced by hydrolysis of fats and oils;
- **Organic** glycerin produced by microbial fermentation; and
- **Non-organic** glycerin* produced by microbial fermentation of agricultural substrate

*To the best of our knowledge, non-organic glycerin produced by microbial fermentation is not commonly produced. The petitioner is offering an organic form only.

Under the Subcommittee’s classification motion, the following forms would **not** be allowed:

- Non-organic glycerin produced by hydrolysis of fats and oils using an alkali process;
- Non-organic glycerin produced by enzymatic hydrolysis of fats and oils, which is a biological process and classified as “agricultural” (non-synthetic) per NOP draft guidance;
- Non-organic glycerin produced by mechanical hydrolysis of fats and oils (steam-splitting), which is also classified as “agricultural” in NOP’s draft guidance on Classification of Materials.

OTA agrees that glycerin produced by hydrolysis of fats and oils using an alkali process should be removed from the National List in favor of agricultural (nonsynthetic) alternatives. However, the classification motion implies that the only form of glycerin that is “agricultural” is glycerin produced by microbial fermentation.

There is on-going work to consistently define “agricultural,” “non-synthetic,” or “synthetic” glycerin. We know, however, that glycerin produced via hydrolysis of fats and oils AND glycerin produced via fermentation of sugar **can be produced** in accordance with NOP organic regulations, and thus certified organic forms of both are available. Furthermore, NOP’s draft guidance on Classification of Materials clarifies that glycerin produced from agricultural sources that have been hydrolyzed through heat, pressure, steam and enzymes are all classified as agricultural.

From NOP’s Draft Guidance Decision Tree for Classification of Agricultural and Nonagricultural Materials (NOP 5033-2):

- The substance is derived from a plant or animal but has undergone a chemical change during processing. Is the chemical change a result of naturally occurring biological processes such as fermentation or enzymatic hydrolysis; or a result of mechanical/physical process described under section 205.270(a)? **Yes = Agricultural**

From NOP’s Draft on Materials Allowed for Organic Crop Production (NOP 5034-1):

- Glycerin (non-synthetic): Produced from plant or animal oils that have been hydrolyzed through heat, pressure, steam, or enzymes only.

In order to address the varying classifications of glycerin produced by “hydrolysis,” OTA is requesting that NOSB:

- Classify glycerin as agricultural when it is produced from agricultural starting material and processed using biological or mechanical/physical methods allowed under NOP organic regulations.

COMMERCIAL AVAILABILITY

INSUFFICIENT SUPPLY OF ORGANIC GLYCERIN

Based on feedback collected from OTA members, there does not appear to be sufficient supply to meet the current demand for organic glycerin in the quality, quantity and form needed for all NOP certified product applications. The petition cites the ability to produce between 260 and 400 thousand pounds annually. Data on demand collected from membership surpass that by two to three times. Data do not include the type and quantity of glycerin used in natural flavors that are, in turn, used in NOP certified products. The proposal states that there are 21 USDA certified organic operations supplying organic glycerin, however our research shows that there are only three manufacturers. The remaining companies noted are suppliers only.

Under the current classification motion, companies making “made with” products as well as companies making natural flavors for use in organic products will be required to use glycerin produced by microbial fermentation of agricultural substrate (i.e., corn starch). OTA is unaware of any suppliers offering non-organic glycerin made through fermentation. Provided non-organic glycerin is produced from agricultural material, and processed using methods allowed under the organic regulations, OTA believes the use of either form should be equally acceptable. Limiting the options to glycerin produced by microbial fermentation would give preferential treatment to the petitioner.

THE SOLUTION

OTA is concerned that we may not have enough information at this time to prove that the supply of organic glycerin can meet the demand for NOP certified products, INCLUDING its use in natural flavors and “made with” products. We also recognize that glycerin can be made by hydrolysis of fats and oils (biologically and/or mechanically) as well as by microbial fermentation of agricultural substrate.

A simple solution would be to revise the classification motion to align with NOP’s Draft Guidance on Classification of Materials and recognize the biological and mechanical/physical processing methods allowed under the organic regulations.

As stated in the summary of our comments, our proposed solution would accomplish the following:

- Organic forms of glycerin **would be required** in all NOP **certified organic** products unless commercially unavailable.
- Non-synthetic (agricultural) forms of glycerin would be required for use in natural flavors used in NOP certified products.
- Organic forms of glycerin **would be required** in organic flavors unless commercially unavailable.
- Allowed non-organic glycerin (including forms used in natural flavors) would be processed through the hydrolysis or fermentation of agricultural material using methods allowed under the organic regulations and in line with NOP guidance on classification of materials. This would invite more companies to participate, and would move them a step closer to a certified organic version.
- The listing on § 205.606 would be clean and straightforward. Further guidance on the agricultural forms allowed would be communicated through NOP’s Guidance Permitted Substance List providing greater clarity for certifiers and industry as well as flexibility for future innovation and improvements.

Again, on behalf of our members across the supply chain and the country, OTA supports the National List process, and we’re committed to decisions that will both encourage the development and use of organic ingredients and support the use of the organic label.

HANDLING SUBCOMMITTEE:

Gellan Gum

OTA is committed to collecting information from our broad membership in order to determine whether or not a substance on the National List remains essential to organic production and/or handling. Materials that have been placed onto the National List should remain on the National List if: 1) they are still essential to and compatible with organic production and handling practices; 2) there are no commercially available alternative materials or practices; and 3) no new information has been submitted demonstrating adverse impacts on humans or the environment (OFPA SEC. 2118 [7 U.S.C. 6517 and 6518] National List).

OTA supports the relisting of Gellan Gum on the National List provided it satisfies OFPA and National List criteria. Based on our outreach and the Sunset Surveys we have had in circulation since July 2014¹, we are not aware of any organic (vegetarian) gums in the marketplace that have the same unique properties, provide the same function, and would serve as a suitable alternative to Gellan Gum.

OTA believes it's important that the Board recognize that many companies voluntarily chose to remove Carrageenan from their products as result of the controversial discussions and information that came out of its Sunset review in 2012. Gellan Gum was identified as the acceptable and suitable alternative to Carrageenan; therefore, several companies invested into reformulating and relabeling their products to meet consumer demand. Because Gellan Gum is the choice alternative to Carrageenan and it is essential to the handling of many organic processed products, we request that the Board focus its attention on public comment whether any other suitable alternatives are available.

With respect to the classification of Gellan Gum, the processing methods and materials used appear to render the substance "non-synthetic" based on the National Organic Program's Draft Classification of Materials Guidance (NOP 5033). OTA agrees that the use of isopropyl alcohol does not render Gellan Gum "synthetic" since it does not bring about a chemical change and is removed from the product. It is only used to separate the finished Gellan Gum from the fermentation materials. If this remains a concern, OTA believes the most orderly approach would be to address the re-classification of gums and other similar substances such as alginates, agar-agar and gelatin as a group once the NOP guidance on the Classification of Materials is finalized.

In closing, we thank the Board for the time and commitment on this round of Sunset materials and trust that all decisions made will be justified according to criteria established by the Organic Foods Production Act (OFPA).

1. OTA has created an electronic survey for each input under review for 2015 and 2016. We will be creating surveys for all of the 2017 materials as well. The surveys are user-friendly, available to every NOP certificate holder, and include 5-7 questions addressing the essentiality of the National List input under review. The goal is to collect information for NOSB to consider at the first stage of the two-step process to inform their recommendation, and again prior to the vote at the second meeting. The information collected will help OTA identify the inputs that should be renewed or removed from the National List and ultimately shape comments to NOSB.

HANDLING SUBCOMMITTEE:

Boiler Chemical Additives

OTA believes that the three boiler chemical additives under review may no longer be essential because an effective and commercially available mechanical device (a steam generator) may be used at the point in which packaging sterilization is needed.

OTA has reviewed the information provided, and we're in the process of collecting feedback from members. Based on our initial outreach and research, we have identified three of the ten 2016 materials where an alternative practice is available and effective. Given this information, we believe that the following allowed synthetics may no longer be essential:

- Cyclohexylamine (CAS # 108-91-8)
- Diethylaminoethanol (CAS # 100-37-8)
- Octadecylamine (CAS # 124-30-1)

The information OTA collected shows that the use of these materials for packaging sterilization in organic handling is no longer needed. Instead, a mechanical device (a steam generator) may be used at the point in which packaging sterilization is needed. In other words, rather than using steam generated from the boilers that feed the entire facility, a separate and dedicated steam generator is used at the necessary point of contact instead.

During OTA's outreach process, we received comments that we believe are important for NOSB to be aware of. It's often most challenging for the small- to medium-sized food producers and processors to adopt alternative practices when a capital investment in new equipment is involved. Half of OTA members are small businesses. While they are committed to advancing organic agriculture and will make the changes if possible, they have voiced that it can be extremely costly and sometimes simply cost prohibitive. We make this point in consideration of timelines that may be needed for organic operations, particularly small operations, to transition and comply with new requirements.

OTA is committed to collecting information from our broad membership in order to determine whether or not a substance on the National List remains essential to organic production and/or handling. Materials that have been placed onto the National List should remain on the National List if: 1) they are still essential to and compatible with organic production and handling practices; 2) there are no commercially available alternative materials (natural, organic) or practices; and 3) no new information has been submitted demonstrating adverse impacts on humans or the environment.

In the case of these three boiler additives, a commercially available alternative practices appears to be available.

CERTIFICATION, ACCREDITATION, AND COMPLIANCE SUBCOMMITTEE: Assessing Soil Conservation Practices (Discussion)

OTA COMMENTS

Thank you for this opportunity to provide comment on the Compliance, Accreditation, and Certification Subcommittee's (CACS) discussion document regarding the assessment of soil conservation practices on organic operations. In this document, CACS affirms the need for organic farms to employ soil conservation practices that maintain and improve soil health as a fundamental element of certified organic production. CACS further requests feedback on specific techniques employed by certifiers to assess organic farmers' compliance with soil conservation requirements outlined in the USDA organic regulations.

The Organic Trade Association (OTA) agrees that organic farmers must implement their system plans in a manner that protects soil quality and health. Healthy soil fosters healthy, robust crops, and plays an essential role in organic farmers' crop nutrient, weed, pest, and disease management plans.

The requirement to maintain and improve soil quality is also clearly stipulated in a number of areas of the USDA organic regulations. The challenge stems from certifiers' ability to assess the efficacy of each individual farmer's soil conservation plans when applied over the diverse spectrum of cropping systems and locales covered by NOP certification. We applaud NOSB in soliciting information from certifiers and the organic sector at large to shape a recommendation that will guide and, potentially, harmonize how soil conservation practices are assessed through the certification process. We encourage NOSB to consider the various forms of soil quality testing currently available to certifiers in order to make these assessments, yet we also caution against reliance on testing that may not take into account the complexity of organic systems over the observations made by inspectors. We recognize the critical role NOSB plays in advising the Secretary on proper administration and ongoing refinement of the USDA organic regulations. This task should be taken as seriously as NOSB's responsibility to review materials for the National List, and we challenge NOSB to prioritize its work on developing guidance that will bolster the fundamental process-based standards upon which organic production is built.

TESTING IS A TOOL

Soil tests and soil loss equations, like the Revised Universal Soil Loss Equation 2 (RUSLE2) employed by NRCS conservation planners, can provide critical baseline data for assessing soil conservation practices. These tools can also guide the development of good soil practices that foster the building of soil organic matter and soil health. However, testing is only one of the tools that certifiers use in making this assessment at onsite annual organic inspections. We also see the need for inspectors to gain familiarity with how to make these assessments through observation on organic farms and interviews with organic farmers.

CACS outlines tests and soil loss equations utilized by NRCS to assess soil conservation practices in their efforts to protect highly erodible lands and ensure the longevity of American agriculture. These are effective tools, and we support the alignment of organic system plans with NRCS conservation plans when possible. We caution, however, that these tools, when applied to complex organic systems, may not be dynamic enough to accurately assess how effective a particular farmer's plan is at preserving the quality of his or her soil.

LIVESTOCK SUBCOMMITTEE:

Vaccines Made with Excluded Materials (Proposal)

The Organic Trade Association (OTA) agrees that the prohibition on excluded methods in organic production must be affirmed by appropriate guidance on avoiding excluded methods in all aspects of the organic industry, including livestock vaccines. The proposal provides clear background on the issue of livestock vaccines MWEM and should support NOP's development of a comprehensive approach to preventing the presence of all GMOs in certified organic products.

IMPORTANCE AND IMPLICATIONS

Organic livestock producers' preventative healthcare plans rely heavily on the use of vaccines to avoid the need for unapproved livestock medications and antibiotics. Additionally, some vaccines are required by federal or state mandate, and organic producers are not exempt from these requirements. We recognize the importance of vaccines to the success of organic livestock operations and that these operations may be subject to federal or state mandated vaccination schedules. We encourage guidance that will allow producers to avoid excluded methods in their production while implementing an adequate preventative healthcare plan and complying with regional mandatory vaccination schedules.

PROVIDING QUALITY RECOMMENDATIONS TO NOP

The proposal on livestock vaccines MWEM provides the most comprehensive overview of this issue available in one document. Providing this caliber of review to NOP is critical in developing relevant guidance for organic producers. Avoiding GMOs in all aspects of organic production is required by USDA organic regulations, but how to accomplish this in the diversity of inputs used on organic operations can be unclear for producers, and enforcement of this standard can be inconsistently verified among certifiers. Background to NOP on GMO prevention must accurately frame the issue and provide realistic solutions for certified organic operations. We cannot stress the importance of NOSB's thorough review of GMO issues enough, as NOP undertakes development of guidance that adequately addresses GMO contamination prevention in organic production. NOSB should strive to provide the same level of quality and thoroughness in all of its recommendations on GMO contamination prevention as the LS has accomplished in its proposal on livestock vaccines MWEM.

ACCURATE DEFINITIONS AND THOROUGH BACKGROUND

OTA provides comment on NOSB's discussion document on the definition of excluded methods under USDA organic regulations. In these comments, we support the ongoing refinement of the definition of excluded methods and raise the issues inherent with GMO testing under NOP. The LS proposal on livestock vaccines MWEM is an essential element of NOSB's work on ensuring GMOs are not part of organic production. Building upon an updated and well-founded definition of excluded methods, NOSB's well-researched recommendations to NOP in the following areas will ensure continued confidence in organic systems.

- Livestock Vaccines MWEM
- GMO testing guidance for certifiers
- GMO contamination avoidance for organic producers and handlers
- Seed purity standards for non-organic seeds used on organic farms

This is not a comprehensive list of all issues facing the organic industry as it continues to verify that excluded methods are not used in organic products. However, these topics cover the most significant sources of potential GMO contamination, and we urge collaboration between NOSB subcommittees, board

members, the organic sector, regulators, and researchers in developing the background and recommendations NOP needs to issue practical guidance on the vast topic of excluded methods and GMO contamination avoidance.

OTA's non-profit research foundation, The Organic Center, has partnered with researchers in the National Soil Project at Northeastern University. This project tests agricultural soils for the content of stable organic matter (humic acids, fulvic acids, and humin) with an overall goal of developing a regional reference database that will enable agronomists, farmers, and environmental scientists to correlate stable organic matter content with soil health and agricultural practices. These tests are provided at no cost, and we encourage NOSB to explore the role these tests could play in organic farmers' and certifiers' assessments of soil conservation practices. OTA is eager to elevate the awareness of this soil project, and would welcome a dialogue between NOSB, The Organic Center, and Northeastern University researchers leading this effort.

INSPECTOR TRAINING

The tools used to assess soil conservation will always have limitations, but their objectivity can augment assessments made by trained inspectors who conduct annual onsite inspections at organic farms.

Identifying soil conservation training resources for organic inspectors and facilitating the inclusion of soil conservation into all levels of organic inspector curriculum will increase the confidence with which organic inspectors can make these assessments, and can help to prevent soil conservation issues on organic farms. We urge NOSB to prioritize the inclusion of training resources for organic inspectors and certifiers as it further develops its work on assessing soil conservation practices.

CONCLUSION

Certifiers are acutely aware of the requirements surrounding the need for organic farmers to conserve soils and maintain and improve soil health on their farms. However, the current tools available to assess the efficacy of each farmer's adherence to these requirements may not be fully calibrated to the dynamic nature of organic systems. We applaud CACS in its initiative to collect information about the current state of these assessments at the farm level, and to explore new certification tools and training for the verification of soil conservation practices. We see the building of sequestered carbon in the form of soil organic matter as one of the foundations of organic agriculture, and evidence of the role organic production can play in mitigating climate change. NOSB should consider how testing of soils for stable organic matter through Northeastern University's National Soil Project can be used as a tool for developing soil conservation plans and certifiers' ability to assess these plans' efficacy.

One of NOSB's main roles is to advise the Secretary on implementation of the organic standards, and we urge NOSB to take this responsibility seriously. Reaching out to experts in soil conservation, organic certification, and organic farming practices is essential to assist NOSB in its efforts. Providing training resources to organic inspectors and certifiers, combined with thoughtful use of soil conservation assessment tools, will support organic farmers as they simultaneously grow crops and improve their soil's health.

CROPS SUBCOMMITTEE: Contamination in Farm Inputs (Discussion)

OTA COMPLETE COMMENTS

The Organic Trade Association (OTA) applauds CS for its efforts to ensure that organic crops are not inadvertently contaminated with substances that are not allowed in organic production and may cause toxicological effects on consumers and the environment. OTA's 2014 U.S. Families' Organic Attitudes and Beliefs Study indicates that consumers are choosing organic products to avoid synthetic fertilizers and pesticides (30%), antibiotics and hormones (27%), and GMOs (22%). Clearly, contamination prevention of organic crops from farm inputs is critical to maintain consumer confidence in the organic label, and producers should have adequate resources available to avoid the inadvertent contamination of their crops. We see value in developing a best practices guide for organic producers to bolster their contamination prevention systems to achieve this end. However, we urge caution in unwarranted scrutiny of farm inputs, as it would add unnecessary burden to organic certification for producers. A punitive approach to organic farmers who currently operate their farms in compliance with the USDA organic regulations despite reliance on an outdated infrastructure supporting agriculture as a whole does not incentivize transition or growth in the organic sector. We offer the following comments and information relating to the various sections of this document in order to inform NOSB and refine the approach in developing best practices guidance to avoid contamination of organic crops from farm inputs.

CONTAMINATION INCIDENTS

The discussion document brings forth two specific incidents of contaminated farm inputs: Bifenthrin residues in compost used on organic farms and Arsenic in poultry litter.

Compost Contaminates — The issue related to Bifenthrin in compost used on organic farms resulted in NOP's issuance of guidance document NOP 5016 (Allowance of Green Waste in Organic Production Systems). The memo acknowledges that pesticide residues may be present in compost, and clarifies that "Compost that is produced from approved feed-stocks is acceptable for use in organic production, provided that any residual pesticide levels do not contribute to the contamination of crops, soil or water." In the investigation of this particular compost contamination incident, residue samples from the fields having received applications of the contaminated compost showed no detectable results in either the crops or the soil. It is on this basis that adverse action was not pursued for the operations affected by the use of contaminated green waste compost. NOP's guidance does not provide for a categorical allowance of contaminated compost.

Arsenic in Poultry Litter — Arsenic used as an animal drug in poultry feed has been a source of heavy metal contamination in poultry manure-based fertilizers. However, as stated in the discussion document, arsenic in poultry litter generally will not pose environmental or human health risks when good agricultural practices are followed. Still, the issue warrants prudence on the part of organic producers. Recently, three of the four FDA approvals for livestock drugs containing arsenic (roxarsone, carbarsone, and arsanilic acid) were voluntarily withdrawn by manufacturers. The one remaining allowed arsenic drug (nitarosone) is used to treat "blackhead" in turkeys and chickens. FDA officially announced the discontinuation of these approvals in 2013. As the poultry industry has moved away from the use of arsenic in poultry feeds, one can assume that the risk from arsenic contamination from poultry litter has decreased as well. Additionally, state fertilizer laws govern the maximum allowable limits of heavy metals in fertilizer, including poultry waste-

derived products (In Washington State, the limit for arsenic is set at 0.297 lbs./acre/year). Current collaboration between The Organic Center (TOC) and USDA's Agricultural Research Service targets the factors affecting the presence of arsenic in organically grown rice. Preliminary results from this research do not seem to show a correlation between type of fertilizer used on an operation and the concentration of arsenic in the final product.

FERTILIZERS/SOIL AMENDMENTS

Metals in Compost, Manure, and Micronutrient Fertilizers — As stated above, state fertilizer laws govern acceptable limits of heavy metals in commercial fertilizers. Some states set these limits on an application rate per year basis and some set the limits based on maximum allowable parts per million (ppm) in the fertilizing product itself. The discussion document cites information from Washington State Department of Agriculture's fertilizer database showing a range of arsenic levels in copper sulfate products and cadmium levels in rock phosphate. Both rock phosphate and copper sulfate are allowed fertilizers in organic production, and the potential for high levels of toxic heavy metals applied to organic fields should raise concerns. However, within the guidelines of Washington State's metals in fertilizer rules (WAC 16-200-7064), no fertilizing material can be applied to any land (organic or conventional) at rates that would exceed the annual limits set by that part (Arsenic – 0.297 lbs./acre/year; Cadmium – 0.079 lbs./acre/year). Heavy metal contamination in composts also raises concerns, and, as is cited in the discussion document, the U.S. Composting Council (USCC) provides a screen for heavy metals in its Test Methods for the Examination of Composting and Compost (TMECC). Organic producers should be able to request tests from compost manufacturers to compare with EPA set limits on the allowable levels of these metals in compost.

Pesticides and Herbicides in Compost — Compost contaminated with persistent herbicide and pesticide residues have caused production issues in a number of locations. The discussion document describes contamination of compost with Bifenthrin, aminopyralid, and clopyralid, which have been found in composts from many states and can cause damage to crops at levels as low as 1 ppb. Aminopyralid and clopyralid are now only labeled for use on pastures, some hay crops, and right-of-ways. However, compost made from manure collected from farms where the animals consumed hay or pasture treated with these substances can still damage crops. This is a troubling reality for all producers of susceptible crops, as there are limited testing resources, and conducting a bioassay prior to application is not always feasible. Recently, USCC submitted comments to EPA encouraging the agency to consider the fate of herbicides in compost when evaluating the registration of persistent herbicides. USCC asked EPA to incorporate a "compostability" aspect to pesticide registration reviews and label approvals in order to prevent future compost contamination from occurring.

IRRIGATION

The discussion document goes into detail on the source and ramifications of alkaline and saline irrigation water. These effects are felt most by producers farming in the arid regions of the West who rely on irrigation water to grow their crops. Unfortunately, organic producers are limited in their ability to remedy the alkalization of soils from irrigation water, as most rely on delivery of water from large irrigation projects, and quality of irrigation water is usually out of their control. As noted in the discussion document, sulfurous acid is currently allowed in organic crop production to acidify irrigation water and counteract the deleterious effects of alkalization. With regards to contamination of irrigation water with human pathogens, the recently re-released FDA proposed rules on produce safety require testing of all agricultural water used on covered produce and set limits for bacteriological levels.

SEEDS

Seeds are a significant farm input not covered in the discussion document. Bringing seeds onto a farming operation raises the risk for seed-borne plant diseases and adventitious presence of GMO material. We encourage NOSB to include these topics in its efforts to provide organic growers with the best information on avoiding contamination from farm inputs. OTA provided detailed feedback on avoiding GMO contamination from non-organic seeds by establishing a seed purity standard in our comments to the Materials/GMO and CACS Subcommittees entitled “GMO Contamination Prevention.” We detail how a seed purity standard on non-organic seeds used on organic farms could work to prevent GMO contamination of organic crops, and shift the burden of testing and verification from organic producers to suppliers of non-organic seed.

CURRENT CONTROLS UNDER USDA ORGANIC REGULATIONS

Current USDA organic regulations establish practice standards by which all organic producers must adhere. Included in these standards is the requirement that organic producers manage their farms “in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances” (7 CFR 205.203(c)). It is through this lens that certifiers assess each organic producer’s compliance with the standards, and certifiers utilize soil tests, observations of plant health, and residue sampling to verify that this standard has been met. Periodic residue sampling under USDA organic regulations allows certifiers to test for pesticide residues, pathogens, heavy metals, and GMOs, and residue sampling of a minimum of 5% of all certificate holders must occur on an annual basis. Should residue tests exceed 5% of EPA tolerance or the FDA action level for a specific compound, the crop must be excluded from the organic marketplace, and the producer must take corrective actions to avoid future contamination.

CONTAMINATION PREVENTION

Organic producers need guidance on best practices to avoid contamination of organic crops, rather than additional unwarranted regulatory burden. We urge NOSB to build upon the work in this discussion document to develop recommendations for organic producers on the potential risks of some farm inputs and resources for organic producers to avoid the contamination of their soil and crops. When organic producers become educated on the contamination risks associated with particular inputs and how to best avoid these risks, their contamination prevention strategies can become more refined and effective at meeting the letter of USDA organic regulations and the expectation of organic consumers.

GETTING IT RIGHT

Gathering the information relating to possible sources of contamination from farm inputs and determining which vectors have the greatest potential to affect organic integrity are monumental tasks. We recognize NOSB’s call to solicit input from experts in this area to assist in the process, and we expect NOSB to take this information seriously. Advising the Secretary on implementation of the practice-based standard promulgated by Organic Foods Production Act is NOSB’s first duty. This discussion document shows NOSB’s commitment to the responsibility of providing timely and relevant advice on the issues facing organic producers. We hope NOSB continues to embrace this responsibility, and lays the ground-work for a comprehensive guide on best practices to avoid contamination of organic crops from farm inputs.

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