NATIONAL ORGANIC STANDARDS BOARD

SPRING 2015 MEETING
APRIL 27–30 | LA JOLLA, CA

INSIDE:
• The Organic Farmer’s Toolbox
• Know Your National List
• NOSB Agenda Items
• OTA Positions
• Voting Tally Sheet
• Finding Food & Green Space

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

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

The organic farmer’s toolbox contains materials that have been traditionally used in organic production. By law, they are necessary tools that are widely recognized as safe and for which there are no natural alternatives. This toolbox is much smaller than the “full-toolbox” used in conventional farming. Organic farmers have restricted access to 25 synthetic active pest control products while over 900 are registered for use in conventional farming. Organic ranchers have restricted access to 22 synthetic livestock health treatments, while over 550 synthetic active ingredients are approved in conventional animal drug products.

How do the synthetic pest control products allowed in organic farming compare to the pesticides allowed in conventional farming?

25 synthetic active pest control products allowed in organic crop production

900+ synthetic active pesticide products registered for use in conventional farming by EPA*

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

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

**The Organic Farmer’s Toolbox**

The organic farmer must first use preventive practices and biologics to prevent sickness and move onto the toolbox only when and if they don’t work. In this way the toolbox is "restricted.”

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How do the synthetic livestock health treatments allowed in organic livestock production compare to the drugs allowed in conventional livestock production?

**22 synthetic livestock health treatments allowed in organic livestock production**

**550+ synthetic active ingredients approved by FDA* in animal drug products**

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The National List is also designed to cover the up to 5% non-organic minor ingredients allowed in organic food processing. These ingredients are essential in organic food processing but difficult or impossible to obtain in organic form, either because the supply is very limited or the ingredient is a non-agricultural, like baking soda, and cannot be certified organic. A total of 79 non-agricultural minor ingredients are allowed in an organic processor’s “pantry,” while the conventional food processor's pantry is bulging with more than 3,000 total allowed substances.
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)

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

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

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

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

LEARNING FROM OTHERS AND COMPILING A LIST THAT WORKS

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

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

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

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

A NO-GROWTH TREND IN SYNTHETICS

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

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

Since 2008, an even greater shift away from synthetics has occurred, with just 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 in 2013. The head of the company, which makes rice-based ingredients that food manufacturers use as alternatives to synthetic ingredients, submitted a petition in 2010 to remove silicon dioxide from the National List since his company had developed a rice-based certified organic alternative to the synthetic. In 2013, the NOSB amended the use of silicon dioxide and weighed in favor of organic rice hulls when available.
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.
ROLE OF NOSB

Passage of the Organic Foods Production Act (OFPA) in 1990 created the U. S. National Organic Standards (OFPA). 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 sector 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

NOSB meets twice a year in a public forum to discuss and vote on subcommittee proposals related to the National List or other organic standards issues. NOSB subcommittees first publish proposals with a request for public comments. During NOSB meetings, the full board listens to public comments, discusses its proposals, and then votes on whether to pass the subcommittee proposals. NOSB then submits its final recommendations to USDA. Recommendations made by NOSB are not official policy until they are approved and adopted by USDA. 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), Ashley Swaffar* (AR), Nick Maravell (MD)
Handlers/Processors: Harold Austin (WA), Tom Chapman* (CA)
Retailer: Lisa de Lima* (MD)
Scientist: Zea Sonnabend (CA)
Consumer/Public Interest: Jean Richardson (VT), Jennifer Taylor (FL), C. Reuben Walker (LA)
Environmentalists/Resource Conservationists: Tracy Favre (TX), Paula Daniels* (CA), Francis Thicke (IA)
Accredited Certifying Agent: Robert (Mac) Stone (KY)

*New members beginning their five-year term
**NOSB OFFICERS (2015)**

Jean Richardson – Chairperson  
Tracy Favre – Vice Chairperson  
Harold Austin – Secretary

**NOSB SUBCOMMITTEES**

**COMPLIANCE, ACCREDITATION, CERTIFICATION**
Carmela Beck, Chair; Lisa de Lima, Vice Chair; Nick Maravell, Tom Chapman,  
Jean Richardson, Mac Stone, Jennifer Taylor

**CROPS**
Zea Sonnabend, Chair Francis; Thicke, Vice Chair; Harold Austin, Carmela Beck,  
Colehour Bondera, Paula Daniels

**HANDLING**
Harold Austin, Chair; Tom Chapman, Vice Chair; Lisa de Lima, Tracy Favre,  
Jean Richardson, Zea Sonnabend, Mac Stone, Ashley Swaffar

**INERTS WORKING GROUP**
Zea Sonnabend, Paula Daniels

**LIVESTOCK/AQUACULTURE**
Tracy Favre, Chair; Calvin Walker, Vice Chair; Colehour Bondera, Paula Daniels,  
Jean Richardson, Mac Stone, Ashley Swaffar, Francis Thicke

**MATERIALS/GMO ad hoc**
Calvin Walker, Chair; Zea Sonnabend, Vice Chair; Harold Austin, Colehour Bondera,  
Nick Maravell, Jennifer Taylor, Francis Thicke

**POLICY DEVELOPMENT**
Mac Stone, Chair; Colehour Bondera, Tracy Favre, Jean Richardson, Jennifer Taylor
GLYCERIN – PETITIONED FOR REMOVAL (PROPOSAL)

BACKGROUND

Glycerin is used as an ingredient in a wide variety of food products as well as cosmetics, and is 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 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 non-synthetic 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 and fall 2014 meetings 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 “non-synthetic,” “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. Synthetic glycerin is allowed in natural flavors only because it is on the National List as an allowed synthetic.

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 derived from agricultural source material and processed using biological and mechanical methods described under § 205.270(a). 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 (made through a chemical process) would no longer be allowed. NOSB requested 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 allowed in NOP certified products.

OTA POSITION

OTA supports the Handling Subcommittee’s Proposal to remove synthetic glycerin from 205.605(b) of the National List as an allowed synthetic ingredient. We also support the Subcommittee’s motion to classify glycerin as agricultural when derived from agricultural source material and processed using biological and mechanical methods (e.g., steam splitting/hydrolysis, fermentation, enzymolysis). This approach will align with NOP’s Draft Classification of Materials Guidance (NOP 5033), require use of organic glycerin in organic products, and allow non-organic agricultural forms of glycerin in products when organic is not required. This, in turn, will help address the concerns regarding the use of glycerin in “natural flavors” and “made with organic [specified ingredients or food group(s)]” products.
WHOLE ALGAL FLOUR - PETITION 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-toxigenic 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 (non-allergen option) 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.

At the fall 2014 meeting, the Handling Subcommittee made a motion to classify algal flour as non-synthetic. 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 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. It also had concerns related to the addition of ancillary substances and the GMO status of the substrate. The proposal was tabled in order to gather more information.

SUMMARY

The Subcommittee has again reviewed the petition and additional information submitted by Solazyme Inc., the petitioner. The concerns regarding the use of ancillary substances, the growth media used for the fermentation process (GMO status) were addressed, and the Subcommittee agreed to classify algal flour as non-synthetic (non-agricultural). The remaining concern is about its essentiality in organic processing and whether the benefits of adding a non-organic ingredient to the National List outweigh the expectation of organic consumers. The proposal is to not add whole algal flour to the National List. This ingredient would continue to be prohibited in organic products. The Handling Subcommittee made its decision due to its understanding that it is not essential in organic handling, and it is inconsistent with basic organic principles (replacing organic materials currently being used with this product). (Subcommittee Vote: 0 in favor; 6 against)

OTA POSITION

OTA does not take a position on this petition, and did not submit comments.
HANDLING SUBCOMMITTEE:

AMMONIUM HYDROXIDE – PETITION TO ADD (PROPOSAL)

NOTE: The petition was withdrawn prior to the meeting.

BACKGROUND

Ammonium hydroxide (the addition of water to ammonia) is a powerful alkali petitioned for use as a boiler additive because it prevents corrosion (acid attack) in food processing steam condensate lines. A typical dairy operation may use steam for heat exchanges, pasteurizers, whey dryers, and tank heating, as well as other processes. Relatively few of these applications involve use of steam in or on food. Where steam is used “in or on” food, it is termed “culinary steam” and used in food processing for sanitation or sterilization of food contact surfaces, including packaging sterilization required as part of good manufacturing practices for certain applications. For example, passage through a steam tunnel sterilizes bottle caps before they are put on juice bottles. The most common form of direct steam injection is injecting a puff of steam into the headspace of a can or jar just before sealing. When the steam condenses to water, it creates a vacuum that keeps the jar lid on during processing and makes the “pop-up” safety feature of the lid operation.

There are currently three boiler additives on the National List that may only be used for packaging sterilization. As explained above, the purpose is to neutralize carbon dioxide in the steam that leads to acid attack of the processing lines. For dairy operations, however, the Pasteurized Milk Ordinance and USDA dairy plant inspection rules prohibit these NOP allowed steam additives. Ammonium hydroxide was petitioned to provide an option for organic dairy operations that use steam for bottling/packaging operations. While there are alternatives, the petitioner argues that each alternative has economic, environmental, and/or safety downsides.

NOSB SUMMARY

The petition requests the addition of ammonium hydroxide to the National List as an allowed synthetic boiler water additive. The Handling Subcommittee proposes to not add this material to the National List because it has the potential to cause significant toxic damage to humans, mammals, aquatic systems and greenhouse gasses, and is not essential to organic processing because of the availability of mechanical and physical management alternatives. Alternative practices include replacement of steam lines with stainless steel piping, extensive water treatment of the feed water to purify it, interruption of boiler water treatment prior to organic processing, steam-to-steam generators, more frequent “blow-downs” (removal and disposal of treated boiler water as waste water), and a secondary boiler to generate steam for direct food contact applications. (Subcommittee Vote: 0 in favor; 5 against; 3 absent)

OTA POSITION

OTA does not take a position on this petition since it was withdrawn during the comment period. We did not submit comments. We do, however, support the removal of the other three approved boiler additives mentioned above in favor of mechanical alternatives. See OTA’s comments on 2016 Sunset Boiler Additives.
POLYALKYLENE GLYCOL MONOBUTYL ETHER (PGME)—
PETITION TO ADD (PROPOSAL)

BACKGROUND

Polyalkylene Glycol Monobutyl Ether (PGME) is added as a processing aid to water used to make steam for the production of pelleted livestock feeds. It reduces foaming and also functions as a lubricant for the equipment that makes the pellets. It is manufactured from ethylene oxide through a chemical process. On October 9, 2012, Pellet Products Inc. petitioned the USDA National Organic Program (NOP) to add PGME to the National List of Approved Materials as an allowed non-agricultural synthetic (§205.605). Following this, PGME was first considered by NOSB for use as a boiler water additive at its April 2013 meeting. Information provided in a Technical Report (TR) requested by the NOSB Handling Subcommittee indicated that PGME does not contact food. The report stated that this is because PGME is non-volatile (does not easily evaporate); PGME precipitates (deposits in solid form from a solution) at boiler temperatures and stays in the boiler. Based on the findings of the TR, the Handling Subcommittee developed a proposal on August 20, 2013, stating that PGME was not required to be on the National List because PGME in liquid water does not come into direct contact with organic food. However, public comment for the fall 2013 meeting indicated that PGME may, in fact, come into contact with organic product. At the next meeting on April 29, 2014, PGME was further discussed. Following review and public comment, the NOSB Handling Subcommittee requested an additional Technical Report of limited scope, as well as further information and clarification from the Petitioner. The Petitioner clarified that PGME does come in contact with the organic product but well below limits set by FDA.

SUMMARY

NOSB is responding to a petition to add Polyalkylene Glycol Monobutyl Ether to the National List as an allowed synthetic boiler steam additive for use in feed pellet mills. The Subcommittee proposal is to not add (PGME) to the National List because it comes in contact with the feed pellets and is not essential to processing. Based on the Subcommittee’s review, organic feed pellets can be made without PGME by using a mechanical system alternative such as water treatment and reverse osmosis filtration or ion exchange. There are no natural sources, but castor oil and other natural oils may be used as well as carnauba wax, although not as effectively. (Subcommittee Vote: 0 in favor; 7 against; 1 absent)

OTA POSITION

OTA does not take a position on this petition, and did not submit comments. However, OTA maintains its general position that synthetic ingredients or processing aids should not be allowed in organic processing if a natural or other mechanical/physical alternative is available. Non-organic ingredients or processing aids must be essential to organic processing because non-synthetic or organic alternatives are not commercially available.
HANDLING SUBCOMMITTEE:

TRIETHYL CITRATE – PETITION TO ADD (PROPOSAL)

BACKGROUND

Triethyl citrate is a food additive generally used to stabilize foams. It is used especially as a whipping aid for egg whites, and was patented for such use in the early 1950s. It occurs naturally in plants and animal tissues, but it is manufactured commercially from the reaction of citric acid (on the National List) and ethanol, both of which are produced from the fungal fermentation of glucose. It was petitioned for use as a whipping agent for egg whites and other foams. However, it is also used as a flavoring agent, a solvent, and in food coatings, food contact materials and food packaging. It is commonly used as a stand-alone food additive, and does not require formulation with other substances to be used as a whipping agent. Triethyl citrate is not listed as an allowed non-organic ingredient/processing aid under the European or Canadian organic regulations. It is also not allowed under the Japan Agricultural Standard for organic production, the International Federation of Organic Agricultural Movements (IFOAM) or CODEX Alimentarius Commission Guidelines for organically produced food.

SUMMARY

The Subcommittee is responding to a petition to add triethyl citrate (TEC) to the National List as an allowed non-synthetic for use as a whipping enhancer for egg whites during processing. The Subcommittee proposal is to not add TEC to the National List. The Subcommittee considers TEC to be synthetic since it is created via a reaction between citric acid and ethanol. It is added to egg whites to recreate textures and related properties, which are lost during pasteurization. This fails the National List criteria for synthetics used in processing. The evaluation criteria in the organic regulations specifically prohibit the addition of a synthetic to the National List if the substance's primary use is as a preservative or to recreate or improve flavors, colors, textures, or nutritive value lost during processing. Additionally, alternative compliant natural processing aids exist such as sugar, some gums and cream of tartar (listed on the National List as Potassium Acid Tartrate).

(Subcommittee Vote: 0 in favor; 7 against; 1 absent)

OTA POSITION

OTA did not receive comments from membership on this substance; therefore, we did not submit comments. OTA maintains its general position, however, that synthetic ingredients or processing aids should not be allowed in organic processing if a natural or other mechanical/physical alternatives are available. Non-organic ingredients or processing aids must be essential to organic processing because non-synthetic or organic alternatives are not commercially available.
HANDLING SUBCOMMITTEE:

ANCILLARY SUBSTANCES FOR MICROORGANISMS (PROPOSAL)

BACKGROUND

Several handling substances on the National List are multicomponent substances or mixtures where the “active” or listed substance on the National List is combined with additional ingredients (e.g., carriers, stabilizers and antioxidants) to provide a necessary technical effect on the National List substance. These substances, however, do not have a technical or functional effect in the finished organic product, and are not considered part of the manufacturing process already reviewed by NOSB. One example is the listing for microorganisms that may be used in organic processing. Microorganisms are the critical ingredient used to make fermented foods such as yogurt, soy sauce, wine and cheese. When a certified operator purchases a microorganism product such a dairy culture or wine yeast, the product will include these additional ingredients to “carry” and feed the microscopic living organisms. NOSB is referring to these added ingredients as “ancillary substances.”

To date, a clear policy on how to evaluate these ancillary ingredients does not exist. In 2013, NOSB made a recommendation to review these substances in accordance with the organic law as they come up for Sunset or when processing inputs are petitioned. NOP responded in support of their review and agreed that they do not need to be individually listed on the National List. NOP stated that it could communicate restrictions or prohibitions in an annotation for a generic substance or in published guidance regarding permitted substances for organic handling. NOP outlined the review procedure NOSB should use, and, given the new approach, requested that microorganisms be reviewed as a trial run.

SUMMARY

The Subcommittee reviewed and voted in favor to the approval of several ancillary substances for use with microorganisms. The Subcommittee believes that all of the substances listed are necessary because they are what keep the microorganism alive, pure and able to perform. The availability of organic carriers and substrates is sometimes possible, therefore the Subcommittee also passed a motion to amend its listing to state: “Microorganisms—any food-grade bacteria, fungi, and other microorganism. Organic sources for ancillary substances must be used when available.”

OTA POSITION

OTA supports the Handling Subcommittee’s Proposal to approve the ancillary substances listed in the chart, although we are concerned about the static nature of the chart and the potential this closed list may have on the use of preferred alternatives more compatible with organic principles. We’re also supportive of the intent behind assigning organic preference to ancillary substances, but we believe there are practical obstacles and enforcement challenges in doing so. OTA continues to think it makes more sense to assign commercial availability to § 205.605 listed ingredients that contain agricultural components and could potentially meet the organic standards, rather than to ancillary substances contained within approved non-agricultural non-organic minor ingredients. OTA requests that NOSB develop a recommendation to NOP for the use of a template with standardized language that may be used by ACAs and certified operators to collect the information needed to determine compliance according to the ancillary substance policy. Finally, with respect to how this proposal will be made available to the public, OTA strongly believes that NOSB allowances, restrictions and/or prohibitions be recommended to NOP, and formally adopted and explicitly communicated through a National List annotation and/or NOP Guidance or Policy.
BRINGING THE NATIONAL LIST TO LIFE!

Humans have been preserving foods through fermentation since ancient times. Fermentation is the world’s oldest form of food preservation, and it provides some of our most interesting and healthy products: sauerkraut, beer, wine, pickles, soy sauce, cheese, coffee, kimchi, olives, and more. Not only do fermented products taste good, they introduce beneficial bacteria into our digestive system which helps us absorb more of the nutrients in the foods we eat. We owe this all to the wonderful and fascinating world of microorganisms.

One of the most important bacteria in food manufacturing is the *Lactobacillus* species, also referred to as lactic bacteria. Lactic bacteria allow the production of organic cheese, yoghurt, salami, wine, soy sauce and many other products. Soy sauce is an especially interesting fermented product because the process uses not one kind of microorganism, but three!

Organic soy sauce is possible because microorganisms are on the National List of allowed ingredients that may be used in or on ‘organic” or “made with” processed products. In 2002 a company making soy sauce petitioned to have microorganisms added to the National List, which they eventually were in 2006. Yeast and dairy cultures were already on the National List in 2002, which prompted the petitioner to file for the listing of “microorganisms” out of concern that other critical types of bacteria and fungi might not be included. This broad category listing now allows for literally hundreds of different kinds of bacteria and fungi that are used in preparing food.

THE SOY SAUCE PROCESS

KOJI-MAKING

To begin the process, organic soybeans and organic wheat are crushed and blended together, water is added, and the mixture is boiled until the grains are thoroughly cooked and softened. The “mash,” as it is known, is allowed to cool before adding the “seed mold,” which is a fungus known as *Aspergillus oryzae*. The mixture is allowed to mature for three days in large perforated vats through which air is circulated. This resulting culture of soy, wheat and mold is known as Koji (soy and wheat that has mold growing on it).

BRINE FERMENTATION

The Koji is transferred to fermentation tanks, where it is mixed with water and salt to produce a mash called moromi. The Koji gives rise to enzymes that break down the proteins for added flavor and break down starches into sugars that can be fermented. Lactic acid bacteria and yeasts are then added. The lactic bacteria convert some of the sugar into a variety of organic acids, which generate flavor. Next, the yeast goes to work converting some of the sugar to alcohol, which imparts aroma. The salt helps in this process by providing the proper chemical environment for the lactic bacteria. The moromi must ferment for several months, and the soy and wheat paste turns into a semi-liquid, reddish-brown "mature mash." This fermentation process creates over 200 different flavor compounds.

REFINEMENT AND BOTTLING

After approximately six months of moromi fermentation, the raw soy sauce is separated from the cake of wheat and soy residue by pressing it through layers of filtration cloth. The liquid that emerges is then pasteurized to help prolong the shelf life of the finished product, and form additional aromatic and flavor compounds. Finally, the liquid is bottled as soy sauce.
The steamed soybean and the parched wheat are mixed. Aspergillus is seeded into the mixture to create the Koji.

The inoculated mixture is agitated slowly with air added from under the tank for 70 hours in a 30°C / 100% humidity environment.

A 25% salt solution is added.

Lactic acid bacteria and yeast fungus are added to the fermentation tank to create the moromi. This must ferment for several months. This fermentation process creates over 200 different flavor compounds.
CROPS SUBCOMMITTEE:

EXHAUST GAS – PETITIONED FOR ADDITION (PROPOSAL)

BACKGROUND

Gophers and other burrowing rodents can cause significant problems on organic farms. Livestock can become injured stepping into burrows in pastures, and these pests can significantly reduce crop yields. Organic producers have limited control measures available to them since Sulfur Dioxide (smoke bombs) were removed from the National List in 2012 and a recent petition to add odorized propane used for ‘gopher blasters’ was rejected by NOSB in 2011. Currently, the only allowed rodenticide on the National List is Vitamin D3. This petition was submitted to NOSB in order to allow the practice of using exhaust gas from internal combustion engines to control gophers and other rodents in their burrows.

SUMMARY

NOSB’s Crops Subcommittee is proposing to NOT ADD exhaust gas to the National List for rodent control. The Subcommittee cites deleterious impacts on human health and the environment, the availability of alternative materials and practices (Vitamin D3 and mechanical trapping), and an incompatibility with organic farming principles as support for its recommendation. (Subcommittee Vote: 0 in favor; 5 against; 2 absent)

OTA POSITION

OTA supports the Crops Subcommittee’s recommendation that exhaust gas should remain prohibited for rodent control in organic production.

CALCIUM SULFATE – PETITIONED FOR ADDITION (PROPOSAL)

BACKGROUND

Organic farmers have traditionally used calcium sulfate (gypsum) products to provide sulfur to their crops and to balance soil pH, among other uses. Gypsum used by organic farmers has come from mined sources that do not require any further processing beyond grinding and packaging. This petition is to add a synthetic form of gypsum to the National List that is obtained from the flue gas desulfurization process at coal-fired power plants.

SUMMARY

NOSB Crops Subcommittee is proposing to NOT ADD synthetic calcium sulfate (gypsum) to the National List as a fertilizer and soil amendment. The Subcommittee cites the potential for toxic heavy metal contaminants to be contained in gypsum obtained from power plants, and the availability of alternative materials (namely mined gypsum) as support for its recommendation. Synthetic gypsum is not necessary for organic production because of availability of a wholly natural alternative (mined gypsum) and its potential to harm human health or the environment with heavy metal contaminants. (Subcommittee Vote: 0 in favor; 6 against; 1 absent)

OTA POSITION

OTA supports the Crops Subcommittee’s recommendation that synthetic calcium sulfate (gypsum) should remain prohibited as a fertilizer and soil amendment in organic production.
CROPS SUBCOMMITTEE: 3-DECEN-2-ONE – PETITIONED FOR ADDITION (PROPOSAL)

BACKGROUND
Storage crops often require the use of substances to maintain their freshness and appeal to consumers. The tendency for potatoes to sprout during storage can reduce their marketability, and handlers may need to use a material that delays the sprouting of the potatoes and extends the time the crop can be marketed. Currently, organic potato growers use organic clove oil to inhibit sprout growth on organic potatoes. This petition is to add a synthetic substance, 3-decen-2-one, to the National List for inhibiting sprouting on organic potatoes.

SUMMARY
NOSB’s Crops Subcommittee is proposing to NOT ADD synthetic 3-decen-2-one to the National List as a sprout inhibitor on organic potatoes. The Subcommittee recognizes that the manufacturing of this substance and use do not pose significant risks to human health and the environment, but the availability of natural alternatives (clove oil) and the inconsistency of this product with organic principles support NOSB’s Crops Subcommittee’s recommendation. (Subcommittee Vote: 0 in favor; 5 against; 1 absent)

OTA POSITION
OTA supports the Crops Subcommittee’s recommendation that synthetic 3-decen-2-one should remain prohibited as a sprout inhibitor on organic potatoes.
BACKGROUND

One year ago, NOSB started to grapple with the definition of "excluded methods" in the USDA organic regulations. The definition, based on the best efforts of NOSB in 1995, 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 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 2011 and 2012, a number of confusing issues came before NOSB and to 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. A subsequent Discussion Document, released for the fall 2014 NOSB meeting, summarized the substantive public comments received, and proposed some further questions to move forward the issue of strengthening the Excluded Methods Terminology.

SUMMARY

The Materials Subcommittee is posting this Discussion Document a second time to allow more public input. Those who commented during the last posting do not need to re-submit comments. Because this is a complicated subject, the Materials Subcommittee believes it would be beneficial for other stakeholders to participate in the conversation so it can collect as much input as possible before proceeding.

OTA POSITION

In the fall 2014 round of comments, OTA submitted comments in support of a process-based approach. We also weighed in on the usefulness of a chart containing a list of GE and non-GE terms, and requested that the chart be included in NOP Guidance. We are re-submitting the same comments for the record once again, but with an additional suggestion for the proposed list of GMO terms. The phrase “genetically modified organism” is included in the first sentence of the NOP definition of “Excluded Methods” (7 CFR 205.1), but for some reason was not included in the chart. We’re also requesting that the acronym “GE” be included alongside the term “Genetic Engineering.” It is critical that this terminology be added in order to support and secure the language most commonly used on organic packaging (non-GMO or non-GE), in our day-to-day communications, and with the various state and federal labeling initiatives to require labeling of GE foods. It’s critical to recognize that after a decade of common usage, the organic sector has grown familiar with the acronyms “GMO” and “GE” as shorthand for “not produced using genetic engineering.” OTA is requesting that these terms and their associated shorthand acronyms be expressly recognized and included in any proposal sent to NOP.
MATERIALS/GMO SUBCOMmitTEE:

PREVENTION STRATEGY GUIDANCE FOR GMOS (DISCUSSION)

BACKGROUND

Best Management Practices: The organic regulations prohibit the use of excluded methods (GMOs), and consumers clearly expect that the organic products they purchase, in fact, are non-GMO. Among the greatest threats to organic production are the proliferation of GMOs and the risk of unavoidable residual contamination it poses to our food supply. 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 requested that NOSB provide recommendations regarding best management practices for prevention of unintended GMO presence. In response, the Materials/GMO Subcommittee has drafted a discussion document to gather information to help shape a proposal. This includes a section on seed purity, a topic of ongoing work.

Seed Purity: 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 suggested 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. In conjunction with a discussion document on best management practices to avoid GMOs, the Subcommittee is continuing the conversation on seed purity with a proposal to start with a standard for non-organic seed.

SUMMARY

The Subcommittee is soliciting feedback from organic stakeholders on precautions that organic producers and handlers should take to prevent and minimize contact with GMOs in organic production and processing. Certified operators are already extensively carrying out such practices, but it would be a stronger point in future prevention strategies and policy efforts if it were spelled out in formal guidance from NOP. The guidance includes a proposal for a seed purity standard for non-organic seed used under the commercial availability clause of the organic regulations. The Subcommittee would like input from the public on the concepts presented in this discussion document, including feedback on whether a seed purity standard for non-organic seed is favorable, and, if so, whether a threshold level should be established.

OTA POSITION

OTA supports the proposal on GMO prevention strategies with minor changes. We’re requesting that a final proposal include the role of the Organic Systems Plan, guidance on transportation activities for crops, livestock and handling and a clear recommendation to NOP to provide guidance to accredited certifying agencies (ACAs) on GMO testing. With these changes, we urge the Subcommittee to move all but the seed purity standard discussion forward to a proposal for the fall 2015 meeting. OTA agrees that a seed purity standard should be established for non-organic seed but it needs to be established per crop through a careful and deliberate process based on data. We recommend that a USDA-appointed advisory task force be developed. The task force would develop a recommendation to NOSB on the design of a feasibility study for evaluating crop-specific testing threshold levels. A time frame for implementing a seed purity standard would be evaluated as well. This, in turn, would help shape a NOSB recommendation to NOP. The study would be administered and carried out by USDA. We also recommend that NOSB request financial assistance from USDA for GMO testing conducted under NOP.
METHIONINE – PETITIONED FOR ANNOTATION CHANGE (PROPOSAL)

BACKGROUND

Methionine is an essential amino acid that has been included in organic poultry rations at strictly controlled levels. Methionine is critical to poultry for proper feather growth and cell division. Since it cannot be biologically produced, it is necessary to add sources of methionine to poultry diets. Current organic standards allow methionine to be included at two pounds per ton for laying and broiler chickens, and three pounds per ton for turkeys and all other poultry. NOSB is considering a petition to modify the annotation on the listing for methionine to allow producers to average the rate of methionine included in the rations provided to poultry. The petitioners contend this would allow them to provide elevated rates of methionine during phases of life that require additional methionine such as feathering for broilers and when laying hens first begin to lay eggs, but offset those elevated rates with lower rates during other phases of life where methionine requirements are lower. Some producers have reported health concerns during certain phases of life in their flocks stemming from methionine deficiencies, and wish to balance the desire to continue a gradual phase-out of synthetic methionine with the animal welfare expectations of organic production and the established nutritional requirements of poultry.

SUMMARY

NOSB’s Livestock Subcommittee is proposing to modify the annotation for methionine to allow producers to average the amount of methionine fed over the lifetime of the flock. The Subcommittee is also recommending increasing the upper limit for organic broilers to 2.5 pounds per ton. The Subcommittee further recognizes that the organic sector is committed to a phase-out of synthetic methionine in organic poultry rations, and encourages aggressive research on natural alternative sources of methionine, breeding poultry that perform well on less methionine, and management practices for improved animal welfare. Opponents to modifying the annotation for methionine in organic poultry diets cite potential difficulty in enforcing this approach by organic certifiers, and concern that this change will not continue to encourage development of methionine alternatives. (Subcommittee Vote: 6 in favor; 2 against; 2 absent)

OTA POSITION

OTA supports the Livestock Subcommittee’s recommendation that methionine inclusion rates may be averaged over the lifetime of the flock to accommodate changing nutritional demands. Feedback received from accredited certifiers who enforce organic regulations indicate that verifying compliance to an average approach of methionine inclusion will not be difficult through the regular feed audits conducted at annual inspections. Furthermore, average intake of pasture over the course of the grazing season is already being verified for ruminant livestock farmers who must comply with the Pasture Rule, which requires 30% of an animal’s feed come from pasture during the grazing season. Systems in place to make these assessments for ruminant livestock producers will be easily adapted to feed audits of organic poultry operations. OTA is also committed to the phase-out of synthetic methionine, and commends the Methionine Task Force for its work on this topic to-date. We recognize that there is no one “silver bullet” to replace methionine, and the most likely recipe for success will be a combination of natural alternatives in addition to management practices. It appears that all organic stakeholders are committed to this phase-out, and we believe that allowing producers to adjust rations to accommodate varying methionine demands will not act as a disincentive to further research into methionine alternatives.
LIVESTOCK SUBCOMMITTEE:

ACIDIFIED SODIUM CHLORITE – PETITIONED FOR ADDITION (PROPOSAL)

BACKGROUND

Acidified Sodium Chlorite (ASC) is a chlorine-based pre-milking and post-milking teat dip to ensure milk quality and help prevent mastitis in organic dairy cows. Currently, organic dairy producers are allowed to use iodine-based teat dips, and may also use chlorhexidine teat dips when iodine has lost efficacy on their herd. This petition proposes to add another substance—ASC—to the National List, so that organic livestock producers have an alternative product available to control and prevent mastitis. ASC is currently allowed as a direct food contact sanitizer with organic products on 205.605(b). This petition would expand its use to include allowance in organic livestock production systems. Other chlorine products (sodium hypochlorite, calcium hypochlorite, and chlorine dioxide) are also currently allowed as sanitizers and disinfectants in organic livestock production. However, ASC is the only chlorine material currently formulated into a product appropriate for use as a teat dip.

SUMMARY

NOSB’s Livestock Subcommittee is proposing to add ASC to the National List for use in organic livestock production as a pre- and post-teat dip treatment. The Subcommittee supports its position citing research indicating that ASC is equally or slightly more effective against mastitis as iodine, and its potential to pose harm to human health or the environment or to contaminate milk is minimal. Additionally, the Subcommittee recognizes the need for organic livestock producers to have access to alternative health care tools to ensure the continued efficacy of currently allowed products, and to provide organic livestock producers access to new, and potentially more effective and less harmful treatments. (Subcommittee Vote: 4 in favor; 1 against; 3 absent)

OTA POSITION

OTA supports the Livestock Subcommittee’s recommendation that ASC be added to the National List as a pre- and post-teat dip treatment. OTA’s livestock producer members indicate an interest in having alternatives available to them provided these substances meet the requirements for inclusion on the National List. Having the ability to switch between treatment options increases the efficacy of these treatments, and helps prevent disease resistance to any single treatment method. Since NOSB’s review of this substance does not indicate harmful effects to human health or the environment, OTA agrees that ASC should be added to the National List.
ZINC SULFATE – PETITIONED FOR ADDITION (PROPOSAL)

BACKGROUND

Zinc sulfate is used as a footbath for control of foot rot in livestock, particularly dairy cattle, sheep, and goats. Zinc sulfate is also used currently as a micronutrient in small amounts in organic livestock rations and in organic fertilizers. The petition requests that zinc sulfate be added to the National List to allow its use in the treatment of hoof rot in organic livestock. Currently, only copper sulfate and hydrogen peroxide are allowed for such a purpose. The petition indicates that adding zinc sulfate would provide organic livestock producers with an alternative substance for maintaining foot health of their animals.

SUMMARY

NOSB’s Livestock Subcommittee is split in its proposal to add zinc sulfate to the National List for use in organic livestock production as a footbath only. Some on the Subcommittee believe that providing an alternative substance to ensure continued efficacy of existing treatments is warranted in this situation, and that zinc sulfate does not pose a risk to human health or the environment. Critics of adding this substance to the National List contend that there are difficulties in measuring zinc levels, so contamination from the use of zinc sulfate may be challenging to assess. (Subcommittee Vote: 4 in favor; 3 against; 1 absent)

OTA POSITION

OTA supports the Livestock Subcommittee’s recommendation that zinc sulfate be added to the National List as a footbath only. OTA’s livestock producers indicate an interest in having alternatives available to them provided these substances meet the requirements for inclusion on the National List. Having the ability to switch between treatment options increases the efficacy of these treatments, and helps prevent disease resistance to any single treatment method. Concern by some Subcommittee members that misuse of zinc sulfate may pose harmful effects to soil health is warranted. However, OTA believes that the long-established requirement that organic producers prevent contamination of crops, soil, and water on organic farms adequately addresses this concern.
COMPLIANCE, ACCREDITATION, AND CERTIFICATION SUBCOMMITTEE (CACS):

NOP PEER REVIEW PANEL (PROPOSAL)

BACKGROUND

USDA organic regulations require USDA’s Agricultural Marketing Service (AMS) Administrator to establish a panel to conduct peer reviews of the NOP’s accreditation process (oversight of third-party certifiers). To satisfy these requirements, NOP has previously contracted with third-party auditing organizations to conduct peer reviews. NOP contracted with the American National Standards Institute (ANSI) in 2005 and 2014 and the National Institute of Standards and Technology (NIST) in 2010. The 2014 ANSI peer review identified 14 opportunities for improvement that included evidence that some NOP procedures need revisions or do not exist. NOP responded with a number of actions that would be taken to revise its procedures and improve its quality management system.

In a November 2014 memorandum, NOP asked NOSB’s Certification, Accreditation and Compliance Subcommittee (CACS) to review a “Peer Review of National Organic Program (NOP) Accreditation” process (provided with the memorandum) and provide feedback on NOP’s process. NOP requested that CACS provide feedback to NOSB during the spring 2015 NOSB meeting in the form of a proposal, which might include (1) support for NOP’s peer review process and/or (2) any recommendations for how the process should be changed to be successful, and/or (3) any suggestions NOP should consider in its implementation.

SUMMARY

In response to NOP’s memorandum, CACS is suggesting changes related to the composition of the Peer Review Panel (PRP). This includes a recommendation to include an NOSB member on the panel and to give priority to PRP members with strong inspection, certification and accreditation experience. CACS also recommends that NOP pursue a rule change to 205.509 and remove the reference to FACA, and allow the hiring of contractors as an independent assessment body in a manner consistent with the OIG audit findings.

OTA POSITION

Consistent with the Subcommittee recommendation, OTA supports: 1) the concept and practice of a formal Peer Review Panel process; and 2) the general direction of the process outlined by NOP with the Subcommittee proposed modifications. NOP’s accreditation program is the foundation of a sound functioning organic regulatory structure. It entails regular, systematic audits performed by qualified auditors to form the basis for the continued quality of this regulatory system. OTA strongly supports continuous review and improvement to the NOP accreditation system, and continues to support the required review of accreditation procedures compliant with ISO/IEC 17011 (formerly named ISO Guide 61). Using ISO 17011 as the basis for evaluation of an accreditation program not only provides a framework for analysis of all aspects of the system, it also results in increased acceptance of the accreditation program by regulatory authorities in other countries due to ISO 17011’s international use. With respect to the composition of the PRP and the inclusion of a standing NOSB member, OTA agrees with the Subcommittee’s recommendation to give preference to an NOSB member who is either Vice Chair or Chair of the CACS. We also support the recommendation that priority be given to PRP members who have experience with inspection, certification and accreditation.
NOSB’S SUNSET PROCESS

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

PUBLIC COMMENT PROCESS

There are now two public comment opportunities before NOSB completes its Sunset review of each input. The 2016 Sunset inputs are scheduled to Sunset (expire) in 2016. However, NOSB will be voting on them at this spring 2015 meeting. These inputs underwent their first stage of review during the fall 2014 public comment and discussion cycle. The information collected last fall informed the Subcommittee proposals for all of the 2016 National List inputs presented in the following pages. In the first stage of their review, the 2017 Sunset inputs will be discussed at this spring 2015 meeting. The vote on whether to renew their listing will take place at the fall 2015 meeting. The comments submitted in this first stage review will inform the fall proposals.

OTA’S ON-LINE SURVEY SYSTEM

To help facilitate a thorough comment and review process, OTA created an electronic survey for each input under review for 2016 and 2017. The surveys are user-friendly, available to every NOP certificate holder, and include 7-10 questions addressing the necessity (farm and livestock) or essentiality (handling) of the National List input under review. The names of the companies submitting the information are confidential (not disclosed to OTA). To ensure wide distribution of the surveys beyond OTA membership, OTA worked with Accredited Certifying Agencies (ACAs) to distribute the survey links to all of their certified clients as well as to targeted clients they know are using the inputs under review. OTA also worked through its Farmers Advisory Council (FAC) to help assist in the distribution to NOP certified farmers.

OTA hopes these efforts and the feedback gathered from certified farmers and handlers will help and inform NOSB in its review process as it relates to the necessity or essentiality of the National List inputs undergoing their five-year Sunset review.
EGG WHITE LYSOZYME (PROPOSAL)

**Background:** A non-synthetic 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 antimicrobial. 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.

**NOSB Subcommittee Motion:** During the first round of comments, concerns were expressed about this product being made from conventionally raised eggs. The Handling Subcommittee found no concerns regarding the continued listing of egg white lysozyme on the National List. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the vote was to relist egg white lysozyme (EWL). However, the Subcommittee seeks input regarding the presence of ancillary substances in EWL following the extraction, concentration and purification processes. It is also requesting information whether manufacturers are using organic egg whites to make this material. (5 in favor of relisting; 0 against; 3 absent)

**Summary of OTA Survey Comments:** None received. OTA did not submit comments.

L-MALIC ACID (PROPOSAL)

**Background:** A non-synthetic 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. L-Malic acid is a single substance; no other ingredients are added.

**NOSB Subcommittee Motion:** In the first meeting posting, NOSB received public comment from one certifier with seven current clients using L-Malic acid in the wine, juice and bottled tea sectors. Another large producer gave comment confirming its current use and need for this substance. Two other commenters expressed concern that the original Technical Advisory Panel (TAP) review evaluated DL-malic acid, the synthetic form, rather than L-malic acid, the non-synthetic form currently listed. However, a review of the 2003 TAP shows that the reviewers very clearly accounted for the fact that there are two forms of this substance, very clearly recommended that the synthetic form not be listed, and that L-malic acid be listed on 605(a) as an allowed non-synthetic. The Handling Subcommittee found no concerns regarding the continued listing of L-Malic Acid on the National List. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the Subcommittee voted five in favor of relisting. (5 in favor of relisting; 0 against; 3 absent)

**Summary of OTA survey comments:** Used in a number of different organic products including juices, chips, salsa, cheese, dairy-based powders and seasonings. Companies using L-Malic Acid have been certified for 5-15 years and distribute organic products throughout the U.S. and Canada. Some export as well. Primary uses
are for pH control and flavor. Other alternatives include lemon juice and citric acid. However, based on R & D trials, the taste imparted by the alternatives does not meet the flavor profiles of the products meeting consumer expectation. The use of the alternatives would downgrade the quality of the products and marketability to established customer base. All responses said this substance is essential, and its removal would have a significant and negative impact on the future production of established organic products.

**OTA Analysis:** The survey responses received support the Subcommittee’s conclusion that L-Malic Acid is essential to organic handling.

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MICROORGANISMS (PROPOSAL)

**Background:** A non-synthetic 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 (soy sauce & miso), and Rhizopus (tempeh), which 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 are also 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 also seeks feedback on the ancillary substances 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).

**NOSB Subcommittee Motion:** At the first posting for microorganisms, there was a call made for public comment to provide input on a chart of existing ancillary substances and to identify additional ancillary substances that may be used in formulations of microorganisms. This topic is covered under a separate proposal on microorganisms (See Page 15). The Subcommittee found no concerns regarding the continued listing of microorganisms. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the Subcommittee voted 6 in favor of relisting. (6 in favor of relisting; 0 against; 2 absent)

**Summary of OTA survey comments:** Used in numerous organic products throughout the country and world including baked goods, miso, pretzels, tempeh, wine, vinegar, cheese, sour cream, yogurt, sauerkraut, and more. Companies responding have been certified organic for 10 to 19 years. The only organic alternatives are organic yeast (required to be used when commercially available), which does not apply to many fermented food applications. Microorganisms are essential to all of the products listed and more. The companies responding would not be able to continue to produce organic products, or would have to drop certain product lines (e.g., products containing cheese).

**OTA Analysis:** The survey responses received support the Subcommittee’s conclusion that microorganisms are essential to organic handling. See separate comments on Ancillary Substances.
ACTIVATED CHARCOAL (PROPOSAL)

Background: 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 is 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 sought comments regarding whether the substance is still used, and if not, what other alternatives are available. It is interested in knowing whether its use has increased or declined.

NOSB Subcommittee Motion: During the first round of public comments, there were 11 written public comments on activated charcoal. Of those comments, 7 were in support of relisting, 3 were in support of relisting only with an annotation to limit use to filtering water (as suggested by one of the reviewers in the original 2002 TAP) and requiring steam activation as the source of the material, and 1 commenter took a neutral position because a new TR had not been requested to provide information updates. Upon further review, there was no new evidence provided that identified any unacceptable risks to the environment, human or animal health resulting from the use or manufacture of activated charcoal as annotated. In conclusion, the Subcommittee found no concerns regarding the continued listing of Activated Charcoal but encourages stakeholders to pursue organic alternatives. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the Subcommittee voted 5 in favor of relisting. (5 in favor of relisting; 0 against; 3 absent)

Summary of OTA survey comments: Used as a filtering aid for water, refined organic oils and juice beverages. Companies responding have been certified for over 12 years. Products are sold throughout the United States in addition to export to other countries. Several companies replied that without activated charcoal, they would not have any products and/or their products would be unacceptable to consumers. No alternatives are known that are more natural or more effective in removing impurities from water. All members rated this material as critically essential.

OTA Analysis: The survey responses received support the Subcommittee’s conclusion that Activated Charcoal is essential to organic handling.

PERACETIC ACID (PROPOSAL)

Background: 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 it is regulated under FDA, EPA and USDA. Peracetic acid breaks down into acetic acid (vinegar) and hydrogen peroxide. No additional information is requested.

NOSB Subcommittee Motion: During the first round of review and comments, there was no new evidence provided about unacceptable adverse impacts on human health or the environment. Commenters noted peracetic acid/peroxyacetic acid had less adverse impact than allowed alternatives. There was no new evidence presented that refuted the substance’s essentiality for organic production. Several industry members noted the ongoing essentiality of the substance, particularly in the dairy, beverage, fresh and cut
fruit/vegetable industries. Two certifiers commented on the wide use of this substance by their clients. Several commenters noted its criticality to ensuring food safety. In conclusion, the Subcommittee found no concerns regarding the continued listing of peracetic acid. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the Subcommittee voted 7 in favor of relisting. (7 in favor of relisting; 0 against; 1 absent)

Summary of OTA survey comments: Used for a number of food processing applications. The only other equally effective alternative is chlorine, which is more difficult to use, and to calibrate and maintain application equipment. Chlorine is more caustic to equipment and leaves a residue on fruit and equipment surfaces. Chlorine requires a rinse. For some, calcium hypochlorite does not provide the efficacy needed to reduce *Salmonella* and *Campylobacter* to acceptable levels. The equally effective alternative would be highly concentrated chlorine at 900 to 1200 ppm. Peracetic acid decomposes quickly. For organic poultry operations, the use of PAA reduces the *Salmonella*, *Campylobacter* and *E.coli* levels resulting in a Category 1 status with USDA. Members expressed significant concern for food safety issues, noting increased spoilage and increased risks of exposure to human pathogens. Processing lines would not be able to be properly sanitized. All responses stated that peracetic acid is essential to their operations, and the loss of this input would significantly and negatively impact their business.

OTA Analysis: The survey responses received support the Subcommittee’s conclusion that peracetic acid is essential to organic handling.

**SODIUM ACID PYROPHOSPHATE (SAP) (PROPOSAL)**

Background: 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 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 (HS) is interested in comments regarding the essentiality of this substance, and encourages 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.

NOSB Subcommittee Motion: In the first meeting posting, the HS requested input on the essentiality and current use patterns of SAP. We received comment from one certifier who noted that this substance is in current use by six clients, and is used in five of the six baking powder formulas it has reviewed. A trade organization—the International Food Additives Council (IFAC)—supported its continued listing, noting that it is widely used and essential in baked good. IFAC also noted that “Delisting SAPP would significantly limit the quality, variety and availability of organic bakery products, negatively impacting organic consumers who currently purchase organic bakery items.” One large processor commented that it currently widely uses SAPP in a variety of products. In conclusion, the Subcommittee found no concerns regarding the continued listing of Sodium Acid Pyrophosphate. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the Subcommittee voted 5 in favor of relisting. (5 in favor of relisting; 0 against; 3 absent)
Summary of OTA survey comments: Used as a leavening agent in organic pancake mixes, cake mixes, cookie mixes and crackers. Companies responding have been certified from 12-20 years. Products are sold in all 50 states as well as in the UK, France, Belgium and Germany. There are no other known alternatives. Cream of tartar and baking soda are used in certain products, but SAP works best in cake and cookie mixes. Loss of this input would result in discontinued mixes and/or poor product performance and lost sales. This substance is also used to make baking powder in place of buying the pre-blended baking powder on the market. This input was rated as essential to critically essential.

OTA Analysis: The survey responses received support the Subcommittee’s conclusion that SAP is essential to organic handling.

BOILER ADDITIVES FOR PACKAGING STERILIZATION (PROPOSAL)

Background: Heating of food in processing facilities often occurs using steam 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 pealing, 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 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.

NOSB Subcommittee Motion: In the first stage of the review process, the Handling Subcommittee requested specific information about the availability of alternatives in order to understand whether they are still essential to organic processing. Some information received suggested that most manufacturers have already begun a move away from these additives in favor of mechanical practices.

Summary of OTA survey comments: Survey responses indicate 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. Comments also express the alternative practices require large capital investment that 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. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the Subcommittee voted 5 in favor of REMOVING. (5 in favor of removing; 0 for relisting; 3 absent)

OTA Analysis: The survey responses received support the Subcommittee’s conclusion that Cyclohexylamine, Diethylaminoethanol, and Octadecylamine, when used for packaging sterilization (direct contact with product), are no longer essential to organic handling due to the availability of alternatives more compatible with organic production principles. OTA supports the Subcommittee’s decision to remove these three boiler additives from the National List.

TETRASODIUM PYROPHOSPHATE (TSPP) (PROPOSAL)

Background: 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 leads towards an inclination to remove this substance because of the above mentioned concern.

NOSB Subcommittee Motion: The HS has determined from the 2014 TR and lack of clear input from the organic community that there are ample alternatives to the use of TSPP and some of the other criteria in the rule are not sufficiently met. Based on review of criteria in the Organic Foods Production Act (essentiality and no adverse impacts on human health or the environment), the subcommittee voted 6 in favor of REMOVING. (6 in favor of removing; 0 for relisting; 2 absent)

Survey Results: No Responses. OTA did not submit comments.
**FERRIC PHOSPHATE (PROPOSAL)**

**Background:** Ferric phosphate is a synthetic substance used to control slugs and snails in farm fields. It was added to the National List in 2005 and recommended for renewal in 2010. Subsequently, a petition to remove this substance was considered by NOSB, which decided to keep it on the list again in 2012.

**NOSB Subcommittee Motion:** At previous meetings, commenters have told NOSB that ferric phosphate is the only effective, organic-compliant control of slugs and snails, and that it is not harmful to human health and the environment. NOSB has also heard this substance is used in combination with inert ingredients that may pose harm to soil biology, and cultural practices can provide the same level of slug and snail control as ferric phosphate. NOSB’s Crops Subcommittee found no concerns regarding the continued listing of ferric phosphate on the National List. Based on review of criteria in the Organic Foods Production Act (necessary to organic farming and not harmful to human health and environment), the Subcommittee voted 3 in favor of relisting and 2 against relisting. (3 in favor of relisting; 2 against; 2 absent)

**Summary of OTA Survey Comments:** OTA received survey responses from organic farmers representing 633 acres of certified organic ground in the West and Northeast. These farms ranged in size from 1.4 acres to over 400 acres. Crops produced by these farmers include mixed vegetables and herbs and tree fruit. Almost all respondents rated ferric phosphate as “critically essential” to their operations, and all respondents indicated that there were no effective alternative products for slug and snail control for commercial-scale production.

**OTA Analysis:** The survey responses received support the Subcommittee’s conclusion that ferric phosphate is necessary in organic farming.

**HYDROGEN CHLORIDE (PROPOSAL)**

**Background:** Hydrogen chloride is a synthetic substance used in the delinting of cottonseeds prior to planting. It is a strong acid that removes excess lint from cottonseed, so they can be planted using mechanical planters. “Fuzzy” cottonseeds (those that haven’t been delinted) cannot flow through mechanical cotton planters, and must be delinted to provide cotton growers with seed to plant their fields. There is emerging technology in basic prototype phase at USDA Agricultural Research Service that can remove the excess lint through mechanical means only, but it is not available yet to cotton seed handlers.

**NOSB Subcommittee Motion:** At the last NOSB meeting, five written comments were received, all in support of relisting hydrogen chloride for delinting cottonseed. Commenters recognized the toxic nature of this substance and generally expressed the desire to develop alternatives, but recognized that the necessity for organic cotton farmers to have this tool in their toolbox outweighed the potential harm hydrogen chloride may pose in its very limited use in organic production.

**Summary of OTA Survey Comments:** OTA received survey responses from members of the Texas Organic Cotton Marketing Cooperative who cumulatively produced over 20,000 acres of organic cotton in West Texas. All respondents indicated that hydrogen chloride is “critically essential” to organic cotton production because, without delinting cotton seed, it is not possible to plant using a mechanical seeder. Research into non-chemical delinting processes at USDA-ARS in Lubbock, TX, shows promise, but no commercial-scale mechanical delinting equipment has been manufactured or made available to the industry. Hydrogen chloride remains the only option for delinting cottonseed for the entire cotton industry (both organic and conventional).

**OTA Analysis:** The survey responses received support the Subcommittee’s conclusion that hydrogen chloride is necessary to delint cottonseed used in organic farming.
Consistent with the electronic Sunset surveys for 2016 inputs, OTA created a survey for each 2017 handling input. The handling surveys focus on questions addressing the essentiality of non-organic inputs that are allowed in organic processing. The goal is to collect information for NOSB to consider at the first stage of the two-step process to inform their recommendation as it relates to essentiality.

Our written comments submitted to NOSB on the 2017 Sunset Inputs include all of the survey responses we received during the open comment period. We collected additional responses up to one week prior to the NOSB meeting and prepared for in-person delivery. We are not including the survey results in this booklet due to the number of pages it would require. However, below is a list of the handling materials under review organized by category and function, with notes on common uses in organic processing.

ALLOWED NON-AGRICULTURAL INGREDIENTS FOR ORGANIC HANDLING/PROCESSING

The following ingredients and/or processing aids are allowed in the 5% or 30% non-organic portion of an “organic” (95+) or “made with” (70%+) product, respectively. They are also undergoing their five-year Sunset review process. This section of the National List was created to allow for minor ingredients, processing aids, sanitizers and disinfectants, critical to organic processing but not available in organic form because they are non-agricultural (the rule only certifies agricultural products). Some exceptions have emerged over time such as yeast, flavors and waxes. This is due to the large amount of agricultural raw material (at least 95% by weight) used in the manufacturing process. Most if not all of the substances listed below are used at less than 2% of the organic product. Most of the USDA organic products on the grocery store shelves are 99%+ organic. It’s important to note that there are 79 non-agricultural minor ingredients allowed in organic processing compared to more than 3,000 substances allowed in conventional food. The list below represents the relatively few but critical minor ingredients certified handlers may use to make organic processed products.

NON-SYNTHETIC

BIOLOGICS

Yeast (microorganisms): Used for flavoring, as a protein source (nutritional yeast), and various fermentation applications such as bread, wine and beer. Organic forms of yeast must be used when commercially available. Growth on petrochemical substrate and sulfite waste liquor is prohibited.

Dairy cultures (microorganisms): Used in making yogurt, cheese, some butter, and milk-derived products such as kefir.

Enzymes: Used in bakery products, for making cheese, juice, barley malt and many other food processing purposes. Must be derived from edible, non-toxic plants, non-pathogenic fungi, or non-pathogenic bacteria.

FOOD FILTERING AIDS

Diatomaceous earth: Used for filtering numerous organic products.

Bentonite: Used as a filtering aid, as a thickener and as a colorant in wine.

Perlite: Used as a filtering aid especially by the juice sector.
ACIDS

**Alginic acid**: Used as a stabilizer in many products such as beverages, cheese and dressings. Also used as a defoaming agent.

**Citric acid**: Must be produced via fermentation with a carbohydrate substrate. Citric acid is used to adjust the pH (acidity) of numerous organic products as well as to maintain the quality and control of microorganisms. Used as a flavoring for beverages, ice cream, and baked goods. Also prevents off-flavors in fried potatoes and is used as a foam inhibitor.

**Lactic acid**: Used as an acidulant in beverages, olives, dried egg whites, cottage cheese, bread, cheese products, soy-based cheese products, etc., and may be used in the brewing industry.

NATURAL FLAVORS

**Flavors**: Must be derived from non-synthetic sources only, and must not be produced using synthetic solvents and carrier systems or any artificial preservative. Used to improve the flavor of foods and beverages.

GASES

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

**Oxygen**: Modified atmosphere. Olive processing.

WAXES

**Carnauba wax**: Candy glaze and polish.

**Wood resin**: Used as a coating for fresh citrus fruits.

GENERAL — INGREDIENTS/PROCESSING AIDS

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

**Calcium carbonate**: Used as a carrier for bleaches. Also used as an alkali to reduce acidity, a neutralizer and firming agent. Used in baking powder as a neutralizer.

**Calcium chloride**: Used as a firming agent for sliced apples and other fruits and in certain cheeses to aid coagulation of the milk (turns liquid into thick gel for cutting into curds).

**Kaolin (Clay Mineral)**: Used as an anti-caking agent in food (e.g., keeps powders from caking or sticking).

**Magnesium sulfate**: Nutrient supplement. Used as mineral supplements for food, leavening agents and pH control agents. Also used as a corrective in the brewing industry.

**Potassium chloride**: A yeast food used in the brewing industry to improve brewing and fermentation and in the jelling industries. Used a substitute for sodium chloride in low-sodium dietary foods.

**Potassium iodide**: Used in table salt as a source of dietary iodine. It is also in some drinking water.
Sodium bicarbonate: Baking soda. Used in prepared pancake biscuit and muffin mixes; a leavening agent in baking powders; in various crackers and cookies; to adjust acidity in tomato soup, in pastes and beverages; in syrups for frozen products; in confections and self-rising flours. Used also as a neutralizer for butter, cream, milk and ice cream.

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

SYNTHETIC
SANITIZERS

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

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

Hydrogen peroxide: Bleaching agent and disinfectant. Effective and environmentally benign substance used to reduce/control microorganisms for food safety purposes. Critical for sanitizing aseptic packaging.

Ozone: Disinfectant and fumigant. Effective and environmentally benign substance used to reduce/control microorganisms for food safety purposes.

Phosphoric acid: Cleaning of food-contact surfaces and equipment only. Used in dairy lines.

NUTRIENT VITAMINS AND MINERALS

Nutrient vitamins and minerals: Used to fortify organic food in accordance with FDA requirements.

Ferrous sulfate: Used for iron enrichment or fortification of organic baby food, flour, and animal feed.

GENERAL - INGREDIENTS/PROCESSING AIDS

Alginites: Seaweed derivatives used as stabilizers and water retainers in beverages, ice creams, salad dressings, and confections. Provide heat-stable gels.


Ammonium carbonate (for use only as a leavening agent): Leavening agent, pH control agent. Baking powder component.

Ascorbic acid: Preservative and antioxidant in fruits, jellies, processed meat products, and dairy products. Also a common form of Vitamin C used in many organic products. Curing or pickling agent.

Calcium citrate: Buffer/pH control.

Calcium hydroxide: Used primarily for the manufacture of organic corn tortillas and organic sugar. Does not remain in final production (processing aid).
Calcium phosphates (monobasic, dibasic, and tribasic): Leavening, nutrient fortification for yeast growth, and monobasic as a firming agent. Also could be an anti-caking agent (tribasic), dough conditioner (mono- and dibasic), in jelling and canning various fruits and vegetables.


Ethylene: Used for postharvest ripening of tropical fruit and de-greening of citrus.

Glycerides (mono and di): Used for drum drying of food such as organic potato flakes. Prevent the potatoes from sticking to the drum. Not present in final product (processing aid).

Glycerin: Commonly used in organic baked goods and organic body care products, as an emulsifier for natural flavors.

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

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


Potassium citrate:Used as an acidulant, buffering agent and potassium source.

*Sodium citrate: An emulsifier in ice cream, cheese, and evaporated milk; a buffer to control acidity and retain carbonation in beverages.

Sodium hydroxide (prohibited for use in lye peeling of fruits and vegetables): Caustic soda/Lye. An alkali and emulsifier. Use as a modifier for food starch, a glazing for pretzels.

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

Tocopherols: Used in numerous organic food and personal care products. One of the few antioxidants allowed in organic. Critical to the shelf life of organic products with essential oils; prevents rancidity.

Xanthan gum: Emulsifier & stabilizer thickener. Allows water and oils to remain mixed together in water-based foods such as dairy products and salad dressings. Also used commonly in organic frostings, cake mixes, cookies beverages, soups, frozen entrees and in juice and fruit spreads.

ALLOWED FOR USE IN MADE WITH PRODUCTS ONLY

*Magnesium carbonate: Alkali used for sour cream, butter, ice cream, cacao products, and canned peas. Flow agent for salt.

Magnesium stearate: Used as an excipient and flow agent. Binding agent in tablets.

Potassium phosphate: pH control in milk products. Used as a microbial nutrient (yeast food); source of mineral potassium and/or phosphorus.

Sulfur dioxide: Allowed only in wine labeled “made with organic grapes,” provided that total sulfite concentration does not exceed 100 ppm. Used to prevent spoilage of wine and to retain color.

*NOSB is considering for removal
ALLOWED NON-ORGANIC AGRICULTURAL INGREDIENTS
IN HANDLING/PROCESSING

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

INGREDIENTS FOR WHICH SURVEYS INDICATE A SUFFICIENT
ORGANIC SUPPLY IS AVAILABLE

* Chia Seeds (Salvia hispanica L.)
* Peppers (Chipotle chile)
* Lemongrass—frozen

ORGANIC ALTERNATIVES ARE AVAILABLE BUT SURVEY RESPONSES INDICATE SUPPLY/QUALITY ISSUES

Celery powder
Colors – Various (must not be produced using synthetic solvents and carrier systems or any artificial preservative)
Gums—water extracted only (Arabic; Guar; Locust bean; and Carob bean)
Lecithin—de-oiled
Cornstarch (native)
Turkish bay leaves

NO KNOWN ORGANIC ALTERNATIVES AND SURVEYS INDICATE A NEED FOR CONTINUED LISTING

Casings, from processed intestines
Fish oil (stabilized with organic ingredients or only with ingredients on the National List, §§205.605 and 205.606)
Gelatin
* Orange shellac-unbleached
Pectin (non-amidated forms only)

*NOSB is considering for removal
OTHERS ON 205.606 FOR WHICH SURVEY RESPONSES WERE NOT RECEIVED

*Dillweed oil
Inulin-oligofructose enriched
Fructooligosaccharides
*Galangal, frozen
Kelp
Konjac flour
*Orange pulp, dried
Seaweed, Pacific kombu.
Sweet potato starch (for bean thread production only)
Wakame seaweed (*Undaria pinnatifida*).
Whey protein concentrate

*NOSB is considering for removal*
EXAMPLE SURVEY FOR HANDLING (XANTHAN GUM)

1. Please describe the types of certified products or processes this substance is used in.

2. How many years has your company been certified organic?

3. Where is your organic production located (state, region, country, etc.)?

4. How many states are your products sold in? Are they exported to other countries?

5. What is the function of the substance in your products or processes (e.g., stabilizer, thickener, flavor, sanitizer, etc.)?

6. Describe the availability of allowed alternatives (organic or natural) for this substance in terms of quality, quantity and form.

7. If available, have you conducted research (e.g., R & D trials) on the use of allowed natural or organic alternatives?

8. Are there any alternative management practices that would eliminate the need for the specific substance?

9. NOSB is requesting information about the ancillary substances (e.g., carriers, preservatives, stabilizers) that may be used in xanthan gum. Based on the ingredient statement provided in specification sheet that accompanies the xanthan gum you purchase, please list any ingredients that are added and remain in the product you buy. Note: The "ancillary substances" should be listed in the ingredient statement found on the specification sheet.

10. Describe the effects to your operation should you no longer be allowed to use xanthan gum:

Organic product effects (effects to the quality and marketability of the organic product(s) you are marketing):

Environmental effects (effects to environment if the substance was no longer allowed AND effects to environment from potential alternatives):

Economic effects (effects to economic health of your operation):

11. Based on your answers to the questions above, rate the essentiality of this substance (i.e. how necessary is this substance to the continued success of your organic products and operation?):

| 1 Less Essential | 2 | 3 | 4 | 5 More Essential | 6 | 7 | 8 | 9 | 10 Critical |

12. Does your company intend on submitting comments directly to NOSB regarding the Sunset review of this substance?

If you would like assistance or guidance in submitting comments to NOSB, please provide your e-mail address, and OTA staff will contact you directly:
Synthetic substances used in organic crop production run the spectrum of pest control products to livestock drugs to fertilizers to post-harvest handling aids. The pest control products are all also under the added scrutiny of the Environmental Protection Agency, which has determined them to be the least toxic class of pest and disease control products and granted a “tolerance exemption” found at 40 CFR Part 180. Livestock drugs all must be approved by FDA, and many must be administered under the care of a licensed veterinarian. Fertilizing materials have strict limitations on use patterns and manufacturing processes, which reduce potential harm to humans and the environment while keeping these critical tools available to organic farmers.

Some non-synthetic substances are incompatible with organic production because they are harmful to humans and the environment and must be specifically prohibited. These substances make up two additional sections of the National List (205.602 and 205.604), which is subject to review by NOSB every five years like every other listing.

SYNTHETICS ALLOWED IN ORGANIC CROP PRODUCTION

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

Alcohols (Ethanol and Isopropanol): Used to disinfect tools, growing supplies, to prevent spread of diseases.

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

Hydrogen Peroxide: Used to disinfect tools, prevent spread of diseases.

Soap-Based Algicide/Demossers: Used to control algae and moss build up on irrigation systems.

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

Newspaper or other recycled paper: Used as a mulch for weed control or as a compost feedstock.

Plastic mulch and covers: Used for weed control, but cannot contain PVC materials and must be removed from the field at the end of the growing season.

Ammonium Soaps: Used as a large animal repellant, but cannot come into contact with soil or edible portion of crops.

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

Elemental Sulfur: Used for pest and disease control and as a fertilizer to correct sulfur deficiencies in soil.

Lime Sulfur: Used for pest and disease control.

Horticultural Oils: Used for pest and disease control.

Insecticidal Soaps: Used for pest and disease control.

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

Sucrose octanoate esters: Used for pest control.

Pheromones: Used to confuse pests and prevent infestations.

Vitamin D3: Used for rodent control.
Coppers, fixed: Used for disease control.

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

**Hydrated Lime**: Used for disease control.

**Potassium Bicarbonate**: Used for disease control.

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**FERTILIZERS, SOIL AMENDMENTS, AND CROP PRODUCTION AIDS**

- **Aquatic Plant Extracts**: Used as a fertilizer and soil amendment.
- **Humic Acids**: Used as a fertilizer and soil amendment.
- **Lignin Sulfonate**: Used as a chelating agent in fertilizer and as a flotation aid in post-harvest handling.
- **Magnesium Sulfate**: Used as a fertilizer and soil amendment.
- **Micronutrients**: Used as a fertilizer when testing shows deficiencies.
- **Liquid Fish Products**: Used as a fertilizer and soil amendment.
- **Vitamin B1, C, and E**: Used as a fertilizer and soil amendment.
- **Ethylene**: Used to regulate pineapple flowering.
- **Sodium Silicate**: Used as a flotation aid in post-harvest handling of organic products.
- **EPA List 4 – Inerts of Minimal Concern**: Allowed in organic pest, weed, and disease control products.
- **Microcrystalline Cheese-wax**: Used to prevent undesirable fungi growth in log-grown mushroom production.

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**NON-SYNTHETICS PROHIBITED IN ORGANIC CROP PRODUCTION**

- Ash from manure burning
- Arsenic
- Lead Salts
- Potassium Chloride
- Sodium Fluoroaluminate
- Strychnine
- Tobacco Dust (Nicotine Sulfate)

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**SYNTHETICS ALLOWED IN ORGANIC LIVESTOCK PRODUCTION**

- **Alcohols (Ethanol and Isopropanol)**: Used as a sanitizer and disinfectant
- **Aspirin**: Used to reduce inflammation
- **Atropine**: Used as an antidote for livestock poisoning
- **Biologics (Vaccines)**: Used to prevent disease
- **Butorphanol**: Used as an anesthetic for surgical procedures
Chlorhexidine: Used as an antiseptic and teat dip when alternatives have lost efficacy

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

Electrolytes: Used to replenish electrolytes in organic livestock

Flunixin: Used to treat inflammation and pyrexia

Furosemide: Used to treat pulmonary edema and hypercalcemia

Glucose: Used to treat ketosis and hypoglycemia

Glycerin: Used in livestock teat dips

Hydrogen Peroxide: Used as a disinfectant

Iodine: Used as a topical disinfectant and as a teat dip

Magnesium Hydroxide: Used as an antacid and laxative

Magnesium Sulfate: Used to treat grass tetany

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

Parasiticides (Fenbendazole, Ivermectin, Moxidectin): Used to control internal parasites in organic breeder stock and dairy animals only

Peroxyacetic/Peracetic Acid: Used as an equipment cleaner

Phosphoric Acid: Used as an equipment cleaner

Poloxalene: Used as an emergency bloat treatment

Tolazoline: Used to reverse the effects of Xylazine after surgical procedures

Xylazine: Used as a sedative, analgesic, and muscle relaxant

Copper Sulfate: Used as hoof bath to treat foot conditions

Formic Acid: Used to control Varroa mites in beehives

Lidocaine: Used as a local anesthetic

Hydrated Lime: Used as an external parasiticide

Mineral Oil: Used for topical treatments and as a lubricant

Procaine: Used as a local anesthetic

Sucrose Octonoate Esters: Used as an external parasiticide

Methionine: An essential amino acid used as a feed additive

Trace Minerals and Vitamins: Used as feed additives to satisfy livestock nutritional needs

EPA List 4 – Inerts of Minimal Concern: Used as inert ingredients in pest and disease control products

Excipients: Used as additives to allowed livestock healthcare treatments

NON-SYNTHETICS PROHIBITED IN ORGANIC LIVESTOCK PRODUCTION

Strychnine
PHEROMONES: A TOOL FOR PEST MANAGEMENT

BACKGROUND AND HISTORY

Pheromones are chemical signals produced and released by an organism, eliciting a behavioral response when picked up by a member of the same species. The discovery that moths depend on pheromones for mate-finding led to development of products that could disrupt insects’ sexual communication and interrupt pest lifecycles leading to lower infestation rates. In the early 1990s, the first effective pheromone dispenser for codling moth—a regular pest of apple orchards and other tree fruits—was registered with the U.S. Environmental Protection Agency (EPA). EPA subsequently determined pheromone products to be among the safest pesticides available, and granted a “tolerance exemption.” Since then, pheromones have become the foundation for integrated pest management systems in both organic and conventional operations, and now are reported to be used on close to 2 million acres of cropland and forest land worldwide.

FUNCTION IN AGRICULTURE

When pheromones are used to disrupt mating, small wire ties impregnated with specific pheromone chemicals are placed throughout a production field. Pheromones have been developed to disrupt behaviors of dozens of pests that plague important crops like apples, pears, stone fruits and grapes.

These particular pheromone ties, used on organic apples in Washington State, slowly release the same chemical that a female codling moth uses to attract males. With an orchard full of these ties, male codling moths become confused and are unable to effectively locate females, thus interrupting the pest cycle and lowering infestation rates. Preventing the occurrence of pests in the first place reduces the need to apply additional pest control products, and the specificity of each species to a particular pheromone means farmers can target their use and reduce effects on non-target, beneficial insects.

PHEROMONES FOR THE FUTURE

Advances in pheromone technology are providing preventive solutions to many additional pest concerns on our agricultural crops. Pheromones, which provide a critical element to preventive pest management, have helped to support the growth of organic fruit production. Without this tool, all farmers would see increases in pest pressure on their crops, and organic farmers, without access to the same toolbox as their conventional counterparts, would see their specific production challenges rise significantly. Using pheromones for mating disruption is an advanced approach to pest management, and its widespread adoption in organic production has, in no small part, contributed to its use in conventional production, and an overall reduction in pesticide applications.
WHO IS OTA?

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 countrywide 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 7,000 businesses in 50 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.

OTA’s Farmers Advisory Council (FAC) provides input from small- and medium-sized organic farmers, ranchers and growers to OTA on matters pertinent to the advancement of organic agriculture, with a specific focus on OTA’s policy agenda. Established in 2013, FAC is designed to formalize and improve communication between OTA and organic producers. It gives organic farmers a voice to directly influence OTA’s policy, and enables OTA to better represent the diversity of organic producers in its policy and advocacy.

The council is comprised of representatives of state and regional farming organizations representing organic that enter into an agreement with OTA for the mutual benefit of strengthening the organic industry’s national public policy influence.

MEMBERS OF OTA’S FARMERS ADVISORY COUNCIL:

CCOF Inc. (California Certified Organic Farmers)  Oregon Tilth Certified Organic
Montana Organic Association  Organic Valley/CROPP Cooperative
Organic Egg Farmers of America  Western Organic Dairy Producers Alliance

If your organization is interested in being represented through FAC, contact OTA’s Senior Crops & Livestock Specialist Nate Lewis (nlewis@ota.com).

https://ota.com/about-ota/farmers-advisory-council
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.

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 15 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.

WHAT IS OTA’S COMMENT PROCESS?

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

GO-TO-SOURCE: NOSB Report

Fully engaged in issues related to organic standards, OTA is the go-to-place for reporting on topics being considered, discussed and decided on by the National Organic Standards Board.

OTA does this through its NOSB Report, a members-only publication summarizing the twice-annual NOSB meetings and providing an overview of the agenda topics, public commentary, and key decisions made by the Board. The items include represent recommendations that NOSB developed and reviewed at its meetings. If accepted by the Board, recommendations pass to the National Organic Program, which determines the final form of the NOSB recommendations.

Check it out on www.ota.com under “News”

The National Organic Standards Board Report
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. 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 two-thirds 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** (two-thirds majority—10 of 15—is needed is needed to remove a material)
- The full Board votes on the subcommittee’s motion to remove
- Yes = in favor to remove
- No = in favor to renew
- Two-thirds 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
<table>
<thead>
<tr>
<th>Subcommittee</th>
<th>Agenda Item</th>
<th>Motion and Subcommittee Votes</th>
<th>Full Board Vote</th>
<th>Fails/Passes</th>
</tr>
</thead>
</table>
| HANDLING     | Glycerin                                        | **Classification Motion:** Agricultural  
**Listing Motion #1:** List at *205.606  
**Listing Motion #2:** Remove from *205.605(b)  
(6 yes, 0 No, 2 Absent – for all three motions) | Yes: No: No:     |              |
| HANDLING     | Whole Algal Flour                               | **Classification Motion:** As Non-synthetic (agricultural)  
**Listing Motion:** List on 205.606 (0 Yes, 6 No, 2 Absent) | Yes: No: No:     |              |
| HANDLING     | Ammonium Hydroxide                              | **Classification Motion:** As synthetic  
**Listing Motion:** List on 205.605(b) (0 Yes, 5 No, 3 Absent) | Yes: No: No:     |              |
| HANDLING     | Polyalkylene Glycol Monobutyl Ether (PGME)      | **Classification Motion:** As synthetic  
**Listing Motion:** List on 205.605(b) (0 Yes, 7 No, 1 Absent) | Yes: No: No:     |              |
| HANDLING     | Triethyl Citrate                                | **Classification Motion:** As synthetic  
**Listing Motion:** List on 205.605(b) (0 Yes, 7 No, 1 Absent) | Yes: No: No:     |              |
| HANDLING     | Ancillary Substances Permitted in Microorganisms | **Motion to accept the Ancillary Substance Chart**  
(6 yes, 0 no, 2 Absent)  
**Motion to amend the annotation to require organic when available. (6 yes, 0 no, 2 Absent)** | Yes: No: No:     |              |
| HANDLING     | Sunset 2016: Egg White Lysozyme                 | **Motion to Remove from *205.605(a)** (0 yes, 5 No, 3 Absent))  
*Subcommittee voted to relist* | Yes: No: No:     |              |
| HANDLING     | Sunset 2016: L-Malic Acid                       | **Motion to Remove from 205.605(a)** (0 yes, 5 No, 3 Absent)  
*Subcommittee voted to relist* | Yes: No: No:     |              |
| HANDLING     | Sunset 2016: Microorganisms                     | **Motion to Remove from 205.605(a)** (0 yes, 6 No, 2 Absent)  
*Subcommittee voted to relist* | Yes: No: No:     |              |
| HANDLING     | Sunset 2016: Activated Charcoal                | **Motion to Remove from 205.605(b)** (0 yes, 5 No, 3 Absent)  
*Subcommittee voted to relist* | Yes: No: No:     |              |
| HANDLING     | Sunset 2016: Peracetic Acid                     | **Motion to Remove from 205.605(b)** (0 yes, 7 No, 1 Absent)  
*Subcommittee voted to relist* | Yes: No: No:     |              |
| HANDLING     | Sunset 2016: Sodium acid pyrophosphate          | **Motion to Remove from 205.605(b)** (0 yes, 5 No, 3 Absent)  
*Subcommittee voted to relist* | Yes: No: No:     |              |
<table>
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<tr>
<th>Subcommittee</th>
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<th>Fails/Passes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANDLING</td>
<td>Sunset 2016: Tetrasodium pyrophosphate</td>
<td>Motion to Remove from 205.605(b) (6 yes, 0 No, 2 Absent) <em>Subcommittee voted to REMOVE</em></td>
<td>Yes: No:</td>
<td><em>(Yes = Remove, No = Relist)</em></td>
</tr>
<tr>
<td>HANDLING</td>
<td>Sunset 2016: Boiler Additives -Cyclohexylamine -Diethylaminoethanol -Octadecylamine</td>
<td>Motion to Remove from 205.606 (5 yes, 0 No, 3 Absent) <em>Subcommittee voted to REMOVE all three</em></td>
<td>Yes: No:</td>
<td><em>(Yes = Remove, No = Relist)</em></td>
</tr>
<tr>
<td>LIVESTOCK</td>
<td>Methionine in OG Poultry Feed</td>
<td>Motion to accept the amendment (6 yes, 2 No, 0 Absent) Motion to accept the resolution (6 yes, 2 No, 0 Absent)</td>
<td>Yes: No:</td>
<td>Yes: No:</td>
</tr>
<tr>
<td>LIVESTOCK</td>
<td>Acidified Sodium Chlorite</td>
<td>Classification Motion: As synthetic (5 Yes, 0 No, 3 Absent) Listing Motion: List on 205.603 as pre/post teat dip (4 Yes, 1 No, 3 Absent)</td>
<td>Yes: No:</td>
<td>Yes: No:</td>
</tr>
<tr>
<td>LIVESTOCK</td>
<td>Zinc Sulfate</td>
<td>Classification Motion: As synthetic (7 Yes, 0 No, 1 Absent) Listing Motion: List on 205.603(b) for foot bath only (4 Yes, 3 No, 1 Absent)</td>
<td>Yes: No:</td>
<td>Yes: No:</td>
</tr>
<tr>
<td>CROPS</td>
<td>Exhaust Gas</td>
<td>Classification Motion: As synthetic (5 Yes, 0 No, 2 Absent) Listing Motion: List on 205.601 (0 Yes, 5 No, 2 Absent)</td>
<td>Yes: No:</td>
<td>Yes: No:</td>
</tr>
<tr>
<td>CROPS</td>
<td>Calcium Sulfate</td>
<td>Classification Motion: As synthetic (6 Yes, 0 No, 1 Absent) Listing Motion: List on 205.601 (0 Yes, 6 No, 1 Absent)</td>
<td>Yes: No:</td>
<td>Yes: No:</td>
</tr>
<tr>
<td>CROPS</td>
<td>3-decen-2-one</td>
<td>Classification Motion: As synthetic (5 Yes, 0 No, 1 Absent) Listing Motion: List on 205.601 (0 Yes, 5 No, 1 Absent)</td>
<td>Yes: No:</td>
<td>Yes: No:</td>
</tr>
<tr>
<td>CROPS</td>
<td>Sunset 2016: Ferric phosphate</td>
<td>Motion to Remove from the National List (2 Yes, 3 No, 2 absent) <em>The majority voted to remove (split vote)</em></td>
<td>Yes: No:</td>
<td><em>(Yes = Remove, No = Relist)</em></td>
</tr>
<tr>
<td>CROPS</td>
<td>Sunset 2016: Hydrogen chloride</td>
<td>Motion to Remove from the National List (0 Yes, 5 No, 3 absent) <em>The majority voted to relist</em></td>
<td>Yes: No:</td>
<td><em>(Yes = Remove, No = Relist)</em></td>
</tr>
<tr>
<td>CERTIFICATION, COMPLIANCE, &amp; ACCREDITATION</td>
<td>NOP Peer Review Panel</td>
<td>Motion to accept the Peer Review Proposal (8 yes, 0 no. 1 Absent)</td>
<td>Yes: No:</td>
<td></td>
</tr>
</tbody>
</table>
GO SHOPPING!
Bristol Farms (0.4 mi.)
Costa Verde Center
8510 Genesee Avenue
Gourmet market with meat, seafood, produce, cheese, wine & imports.
Whole Foods Market (1.1 mi.)
La Jolla Village Square
8825 Villa La Jolla Drive
Trader Joe’s (1.2 mi.)
La Jolla Village Square
8657 Villa La Jolla Drive

LOOKING FOR LUNCH?
(WITHIN 1 MILE)
Continent Deli (0.2 mi.)
Regents Marketplace
4150 Regents Park Row #110
Sausages, cheeses, pastries, sandwiches & soups, plus sidewalk seating
Cozymel’s Coastal Mexican (0.2 mi)
Westfield UTC
4303 La Jolla Village Drive
Quick meals of Mexican standards
Specialty’s Cafe and Bakery (0.2 mi.)
4330 La Jolla Village Dr #150
Baked goods & light breakfast/lunch fare.
Regents Pizzeria (0.2 mi.)
Regents Marketplace
4150 Regents Park Row #170
Nozomi Sushi (0.2 mi.)
Regents Marketplace
4150 Regents Park Row #190
Roy’s (0.3 mi.)
Costa Verde Center
8670 Genesee Avenue
Hawaiian Fusion
Tender Greens UTC-La Jolla (0.4 mi.)
Westfield UTC
4545 La Jolla Village Drive
Modern cafeteria-style area, globally influenced plates, sandwiches & salads

Seasons 52 (0.5 mi.)
4505 La Jolla Village Drive C1
Rotating menu of seasonal American dishes
Star Anise Thai Cuisine (0.8 mi.)
8935 Towne Centre Drive
Cosmopolitan restaurant offering Thai dishes
Edo Sushi (0.8 mi.)
8895 Towne Centre Drive
Good sushi/boxed lunches, fresh local uni (sea urchin) from Carlsbad
Pho UTC & Grill (0.8 mi.)
8195 Towne Centre Drive
Casual w/ outdoor patio

FORGOT YOUR CHARGER?
Apple Store
4505 La Jolla Village Drive
Westfield UTC
San Diego, CA 92122

NEED TO TAKE A WALK
ON THE GREEN SIDE?
Mandell-Weiss Eastgate City Park (0.6 mi.)
Doyle Community Park (0.7 mi.)
8175 Regents Rd
Large indoor & outdoor recreational space with soccer & baseball fields & playground
Rose Canyon Open Space Park (25-minute walk)
San Diego, CA 92122
Rugged venue offering trails, wildlife-viewing & bird-watching among canyons & valleys

NEED TO MAIL/SHIP OR DO A MAJOR PRINT JOB?
FedEx Office Print & Ship Center (next to Whole Foods)
La Jolla Village Square
8849 Villa La Jolla Drive
JOIN US FOR COCKTAILS AND HORS D’OEUVRES

at this networking reception for organic businesses and consumers attending the NOSB meeting. Held at the Birch Aquarium, the Scripps Institution of Oceanography’s public education center, this event supports the center’s commitment to education, ocean rehabilitation, research and environmental stewardship.

Tuesday, April 28, 2015 | 6 p.m. - 9 p.m. | Birch Aquarium
2300 Expedition Way, La Jolla, CA 92037

Sponsored by OTA, CCOF and local organic companies
Hosted by QAI

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