

Recap of Public Comments Submitted to the

National Organic Standards Board

Spring 2015 Meeting

April 27-30 La Jolla, California

Compiled by the staff of The Cornucopia Institute



CORNUCOPIA
I N S T I T U T E

How to Use This Document

For the benefit of National Organic Standards Board members, and other organic stakeholders, The Cornucopia Institute has endeavored to compile, as accurately and objectively as possible, a recap of all formal written comments pursuant to the **Spring 2015 NOSB meeting**.

Cornucopia greatly appreciates the work, dedication and enormous time commitment required to serve on the NOSB. Our hope is to provide a valuable resource for the Board better enabling members to understand the scope and sentiment of organic industry participants, including:

- Farmers/Citizens
- Public Interest Groups
- Food Processors/Handlers
- Manufacturers/Ingredient Suppliers
- Distributors/Retailers
- Trade Associations/Industry Consultants
- Organic Certifiers/Materials Review Organizations

This document is organized by NOSB Subcommittee, in the order presented on the Draft Agenda (please note there is an alphabetical index at the end of the document). Under each agenda item, a table shows the number of comments submitted and the various stakeholder positions on that item. The “Notes” section under each table provides additional explanation.

Thank you for your work on behalf of all organic stakeholders. Please feel free to contact us regarding any of our findings or our methodology.

Will Fantle
Research Director
The Cornucopia Institute

IMPORTANT NOTE:

Cornucopia has not finished our review of 2017 materials because of the tremendous volume of sunseting materials. That might be true of other public interest groups as well. As a result, it is likely that before the next meeting, hopefully prior to additional debate on the subcommittee level, Cornucopia and others will be submitting additional comments. Unlike 2016 Sunset materials, you will note that some 2017 issues enjoy less public participation. NOSB members are encouraged to contact Cornucopia’s technical staff for additional information.

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HANDLING SUBCOMMITTEE

Glycerin

Motion: *The subcommittee proposal is to remove the allowed synthetic form from §205.605(b) of the National List and add the agricultural form(s) to §205.606 as an allowed non-organic ingredient when organic forms are not commercially available.*

Under this proposal, only “organic” and “agricultural” forms of glycerin would be allowed in NOP certified products.

(Subcommittee vote: 6 in favor, 0 against, 2 absent.)

Petitioned by: Draco Natural Products Inc. (Petition for the removal of “Glycerin—produced by hydrolysis of fats and oils” be removed from the National List at §205.605(b) because certified organic glycerin is now commercially available in sufficient quantities to meet the demand of the organic processed food and cosmetic products producers.)

Purpose: A flavor carrier, solvent, emollient, bodying agent, plasticizer, pharmaceutical agent, and sweetening agent

	Support Removal	Oppose Removal	Neutral / Seeks Clarification
Farmers / Citizens	None	1	3
Public Interest Groups	None	None	Beyond Pesticides (BP) (1) Cornucopia Institute (2)
Food Processors / Handlers	1	1	None
Ingredient Suppliers / Material Manufacturers	2	3 (3)	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Wolf, DiMatteo & Associates Organic Trade Association (OTA) (4)	None	None
Certifiers / Materials Review Organizations	Midwest Organic Services Association	None	Pennsylvania Certified Organic Quality Assurance International

Notes:

- (1) BP states: “We suggest separate listings for glycerin made by hydrolysis of fats and oil and glycerin made by fermentation. We do not support the classification of glycerin made by hydrolysis of fats and oils as agricultural and therefore oppose its listing on §205.606.” and “Both listings should address ancillary substances by either stating that there are none or by listing those allowable. In considering what other substances might be present in glycerin made by fermentation, residues of processing aids in cornstarch or other substrates should be included.”
- (2) The transition from synthetic glycerin to organic glycerin is an example of organic regulations pushing industry toward safer practices. Removing synthetic glycerin from the National List (i.e., glycerin produced by hydrolysis of fats and oils) will encourage additional glycerin production consistent with organic principles.
- (3) All oppose removal due to lack of commercial availability. As one commenter points out, “The market for US refined glycerin exceeds 670 million pounds and the petitioner (Draco Natural Products Inc.) does not adequately define or sufficiently support the statement, “The supply of our product, as well as the supply from other operations is sufficient to meet the needs for glycerin in organic food and cosmetic products.”
- (4) The Organic Trade Association (OTA) supports the Handling Subcommittee’s Proposal to remove synthetic Glycerin from 205.605(b) of the National List also supports the Subcommittee’s classification motion and the listing of “Glycerin” on § 205.606 of the National List.

Whole Algal Flour

Petition: To add whole algal flour to the National List §205.606

The subcommittee 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 alternatives are available and therefore it is not essential in organic handling. (Subcommittee vote: 0 in favor, 6 against.)

Petitioned by: Solazyme **Purpose:** Fat replacement ingredient

	Support Petition	Oppose Petition	Neutral / Seeks Clarification
Citizens	5 (1)	3	None
Farmers	None	None	None
Public Interest Groups	None	Cornucopia Institute (2) Beyond Pesticides (2) Consumer Reports (2)	None
Food Processors / Handlers	Smucker Natural Foods	None	None
Ingredient Suppliers / Material Manufacturers	1 (petitioner)	None	None
Distributors / Retailers	None	PCC Natural Markets	None
Trade Associations / Industry Consultants	Effekt, Inc. (3)	None	None
Certifiers/MROs	None	None	OMRI

Notes:

- (1) Several people with allergies to dairy products or vegetarians and vegans want this material added to the National list to provide them with a healthy and organic alternative to dairy products.
- (2) All organizations question the essentiality of this ingredient and cannot properly review a substance where the manufacturing process is withheld due to "CBI."
- (3) Effekt states: "Provides an option for consumers who are vegan or vegetarian to consume organic products traditionally made with animal products (i.e, milk and eggs derivatives). The non-allergenic aspect of this ingredient is the key for many consumers who are health conscious and seeking organic alternatives."

Ammonium Hydroxide

Petition: Add to the National List as an allowed synthetic boiler water additive under §205.605(b).

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 or compatible with organic agriculture and handling. (Subcommittee vote: 0 in favor, 5 against, 3 absent.)

Petitioned by: Richard C. Theuer **Purpose:** Boiler water additive

	Support Petition	Oppose Petition	Neutral / Seeks Clarification
Citizens	None	5 (1)	None
Farmers	None	None	None
Public Interest Groups	None	Cornucopia Institute Beyond Pesticides Consumer Reports	None
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	None	None	None
Certifiers/MROs	None	None	None

Notes:

- (1) Richard Theuer, one of the citizens to comment, states: "In October 2012, I submitted the petition to add the substance ammonium hydroxide as a boiler water additive to the National List at 205.605. This petition is scheduled for discussion at the April 2015 National Organic Standards Board meeting. I hereby formally request that my petition be withdrawn from consideration by the National Organic Standards Board."

Polyalkylene Glycol Monobutyl Ether (PGME)

Petition: To add PGME as an allowed synthetic boiler steam additive for use in feed pellet mills to the National List under §205.605(b).

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. Organic feed pellets can be made without it using a mechanical system alternative.

(Subcommittee vote: 0 in favor, 7 against, 1 absent).

Petitioned by: Pellet Products, Inc. **Purpose:** Processing aid to water that is used to make steam for the production of pelleted livestock feeds. PGME reduces foaming and also acts as a lubricant.

	Support Petition	Oppose Petition	Neutral / Seeks Clarification
Citizens	None	2 (1)	None
Farmers	None	None	None
Public Interest Groups	None	Cornucopia Institute Beyond Pesticides Consumer Reports	None
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	Uniscope, Inc. (2)	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	none	None	None
Certifiers/MROs	None	None	None

Notes:

- (1) Richard Theuer: "In October 2012, I submitted the petition to add the substance ammonium hydroxide as a boiler water additive to the National List at 205.605. This petition is scheduled for discussion at the April 2015 National Organic Standards Board meeting. I hereby formally request that my petition be withdrawn from consideration by the National Organic Standards Board."
- (2) Opposes petition because PGME is not listed in the regulations nor publication referenced on the FDA website entitled Animal & Veterinary Products, Animal Food & Feeds, Ingredients and Additives

Triethyl Citrate

Petition: To add as an allowed non-synthetic for use as a whipping enhancer for egg whites during processing to the National List under §205.605(b)

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. Additionally, alternative compliant processing aids exist.

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

Petitioned by: Michael Foods, Inc.

Purpose: It is a food additive for the intended use as a whipping enhancer for egg whites during processing.

	Support Petition	Oppose Petition	Neutral / Seeks Clarification
Farmers / Citizens	None	2 (1)	
Public Interest Groups	None	Cornucopia Institute Beyond Pesticides Consumer Reports (2)	None
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	1 (petitioner)(3)	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	None	None	None
Certifiers	None	None	None

Notes:

(1) "Non-synthetic alternatives exist."

(2) Compliant alternatives exist, "fails to meet the 'essentiality' requirement for inclusion on the National List."

(3) Petitioner argues in defense of its petition.

2016 SUNSET MATERIALS

Activated Charcoal

Sunset 2016: To be voted on at the spring 2015 meeting

The Handling Subcommittee found no concerns regarding the continued listing on the National List under 205.605(b).

(Subcommittee vote: 5 in favor of relisting; 0 against; 3 absent)

Discussion: Sunset Review. Comments regarding relisting activated charcoal on the National List §205.605(b)

Petitioned by: Canandaigua Wine **Purpose:** Processing aid, color extractor

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	Cornucopia Institute	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	Hain Celestial Group WhiteWave Foods Smucker Natural Foods Amy's Kitchen	None	None
Ingredient Suppliers / Material Manufacturers	Ciranda Inc.	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	OTA Juice Products Association	None	None
Certifiers / Materials Review Organizations	California Certified Organic Farmers	None	None

Notes:

- (1) BP states: "Beyond Pesticides opposes the relisting of activated charcoal as currently allowed. We would support a listing that limits its use to filtering water, and requires steam activation. However, without those restrictions, we find it to present environmental and health problems and issues with compatibility. Our recommendation calls for annotation of the listing on the National List. We believe that this action is necessary to ensure that OFPA criteria are met. The NOP's sunset policy does not allow this change to be made as part of the sunset process. Therefore, the NOSB must make the change through a two-stage process of removing the listing and creating a new listing. The USDA Office of General Counsel has previously ruled that a petition is not necessary for this process. In fact, the first National List did not arise based on petitions."

Boiler Chemicals

Sunset 2016: To be voted on at the spring 2015 meeting

The Subcommittee is proposing removal of the following boiler additives from the National List.

They are not essential due to the availability of alternative practices and equipment:

(Subcommittee vote: Cyclohexylamine, Diethylaminoethanol, Octadecylamine – 5 in favor of removing; 0 for relisting; 3 absent)

Discussion: Sunset Review. Comments regarding relisting cyclohexylamine, diethylaminoethanol, and octadecylamine on §205.606

Petitioned by: Several companies **Purpose:** Boiler water additive

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	4	None
Public Interest Groups	None	Beyond Pesticides (BP) (1) Cornucopia Institute (2) Consumer Reports	None
Food Processors / Handlers	None	Smucker Natural Foods WhiteWave Foods CROPP (2)	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations	Juice Products Association	Organic Trade Association (OTA) (2)	None
Certifiers	None	None	Midwest Organic Services Association Pennsylvania Certified Organic (PCO) (3)

Notes:

- (1) Beyond Pesticides states: “Boiler chemicals fail the OFPA criteria for health and environmental impacts, essentiality, and compatibility with organic handling practices.”
- (2) Industry, OTA, and The Cornucopia Institute state non-essentiality or no longer essential because a separate steam generator may be used at the point in which packaging sterilization is needed.
- (3) PCO is not taking a position, but states: “However, PCO would appreciate clarity regarding the annotation, “for use only as a boiler water additive for packaging sterilization.”

Egg White Lysozyme

Sunset 2016: To be voted on at the spring 2015 meeting

The Handling Subcommittee found no concerns regarding the continued listing on the National List under 205.605(a).

(Subcommittee vote: 5 in favor of relisting; 0 against; 3 absent)

Discussion: Sunset Review. Comments regarding relisting egg white lysozyme on the National List §205.605(a)

Petitioned by: Enzyme Technical Association

Purpose: Antimicrobial and preservative

	Support relisting	Oppose relisting	Neutral / Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Cornucopia Institute (1) Beyond Pesticides (2)	None
Food Processors / Handlers	WhiteWave Foods (3)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	None	None	None
Certifiers	None	None	None

Notes:

- (1) Concerns about allergenic properties of EWL (labeling required in Europe), conventional production and animal welfare and essentiality (not a single wine or cheesemaker submitted written or oral testimony in Fall 2014 nor the Spring NOSB 2015).
- (2) The evaluation of egg white lysozyme must take into consideration the use of pesticides in the non-organic production of corn and soybeans and ensure that GMO grains are not used in production of organic products. The NOSB must consider the availability of organic eggs for this purpose, as well as the potential availability of organic egg white lysozyme if the demand was enhanced by removal of this listing.
- (3) WhiteWave supports the relisting of all the sunset materials, 2016 (with the exception of Boiler Chemicals) and all 2017 sunset materials.

Additional note: Essentiality is a concern, it appears, other than to WhiteWave, which endorsed virtually every sunset material; no companies or trade organizations support the relisting of this substance.

L-Malic Acid

Sunset 2016: To be voted on at the spring 2015 meeting

The Handling Subcommittee found no concerns regarding the continued listing on the National List under 205.605(a).

(Subcommittee vote: 5 in favor of relisting; 0 against; 3 absent)

Discussion: Sunset Review. Comments regarding relisting L-Malic Acid on the National List §205.605(a)

Petitioned by: Honest Tea

Purpose: pH adjuster

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Cornucopia Institute Beyond Pesticides (1)	None
Food Processors / Handlers	Smucker Natural Foods Hain Celestial Group WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association Juice Products Association Association for Dressings and Sauces (3)	None	None
Certifiers	None	None	None

Notes:

- (1) All organizations question the essentiality of this substance and reiterate the need for a recent Technical Review of this substance to be able to evaluate it.
- (2) Industry claims it is essential for organic processing and that there aren't any organic alternatives. One states: "Malic acid is used as a flavor enhancer... a use prohibited under §205.600(b)(4)."
- (3) Three trade organizations support relisting because several of their members utilize it (for pH and flavor - a use prohibited under §205.600(b)(4)) and to remove it from the National List would downgrade the quality and the marketability. Deemed essential to critically essential and states, "its removal would have a significant and negative impact on the future production of established organic products."

Microorganisms

Sunset 2016: To be voted on at the spring 2015 meeting

The Handling Subcommittee found no concerns regarding the continued listing on the National List under §205.605(a).

(Subcommittee vote: 6 in favor of relisting; 0 against; 2 absent)

Discussion: Sunset Review. Comments regarding relisting microorganisms on the National List §205.605(a)

Petitioned by: Kikkoman Corporation

Purpose: Processing aid, fermentation aid

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	Cornucopia Institute (1)	None	Beyond Pesticides (BP) (2)
Food Processors / Handlers	Hain Celestial Group WhiteWave Foods CROPP Amy's Kitchen	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council Organic Trade Association	None	None
Certifiers/Materials Review Organizations	Midwest Organic Services Association Pennsylvania Certified Organic California Certified Organic Farmers (CCOF) (3)	None	Organic Materials Review Institute

Notes:

- (1) Cornucopia has concerns about bacteriophages, which are used as a post-harvest biocontrol agent. They may have deleterious health effects that were not discussed in the technical report. These microorganisms should be removed from the current listing since their use is different than other microorganisms.
- (2) BP cannot support the relisting of microorganisms without documentation to show that the listing meets the criteria of the Organic Foods Production Act (OFPA). The listing on §205.605(a) "Microorganisms—any food grade bacteria, fungi, and other microorganism" is not clear. The Handling Subcommittee intends to include in this listing living organisms added to food but not either dead microorganisms or substances derived or extracted from microorganisms. This clarification should be included in an annotation.
- (3) CCOF urges NOSB to allow the ancillary substances listed in the proposal. CCOF does not support any additional National List annotation to limit the ancillary substances allowed in microorganisms.

Peracetic Acid

Sunset 2016: To be voted on at the spring 2015 meeting

The Handling Subcommittee found no concerns regarding the continued listing on the National List under §205.605(b).

(Subcommittee vote: 7 in favor of relisting; 0 against; 1 absent)

Discussion: Sunset Review. Comments regarding relisting Peracetic Acid on the National List §205.605

Petitioned by: None

Purpose: Antimicrobial / disinfectant

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	2	None	None
Citizens	1	None	1
Public Interest Groups	Cornucopia Institute Beyond Pesticides	None	None
Food Processors / Handlers	Hain Celestial Group WhiteWave Foods CROPP/Organic Valley Amy's Kitchen Smucker Natural Foods	None	None
Ingredient Suppliers / Material Manufacturers	BioSafe Systems	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition	None	None
Trade Associations / Industry Consultants	Organic Trade Association Juice Products Association GS Long Company	None	None
Certifiers	Midwest Organic Services Association Pennsylvania Certified Organic Organic Materials Review Institute	None	None

Notes:

Not a single public comment was submitted opposing this material, but a citizen states: "Peracetic acid is another powerful oxidizer, but it breaks down to harmless materials, unlike chlorine. Peracetic acid is an irritant of the skin, eyes, mucous membranes, and respiratory tract. When the NOSB reviews needs for sanitizers, it should ask whether peracetic acid is needed."

Sodium Acid Pyrophosphate (SAPP)

Sunset 2016: To be voted on at the spring 2015 meeting

The Handling Subcommittee found no concerns regarding the continued listing on the National List under §205.605(b).

(Subcommittee vote: 5 in favor of relisting; 0 against; 3 absent)

Discussion: Sunset Review. Comments regarding relisting SAPP on the National List §205.605(b)

Petitioned by: International Food Additives Council

Purpose: Leavening agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	
Public Interest Groups	None	Cornucopia Institute (1) (2) Beyond Pesticides (1) (2) Consumer Reports (1) (2)	
Food Processors / Handlers	Hain Celestial Group (3) WhiteWave Foods (4)	None	
Ingredient Suppliers / Material Manufacturers	None	None	
Distributors / Retailers	None	None	
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (5) Organic Trade Association (OTA) (6)	None	
Certifiers		None	Midwest Organic Services Association

Notes:

- (1) All of these organizations oppose the relisting of sodium acid pyrophosphate because it does not meet the criteria of lack of harm to the environment and human health, essentiality ("other raising agents, which do not contain phosphates, are available"), and compatibility.
- (2) The NOSB should consider recent scientific findings on the potential impacts on human health from the consumption of phosphate food additives. The widespread use of phosphate food additives in processed foods raises concerns.
- (3) Hain Celestial claims essentiality: "Other leavening agents on the National List do not have these same properties."
- (4) WhiteWave supports the relisting of all the sunset materials, 2016 (except Boiler Chemicals) and 2017.
- (5) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We believe these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."
- (6) OTA reports that several of its members stated: "Loss of this input would result in discontinued mixes and/or poor product performance and lost sales."

Tetrasodium Pyrophosphate (TSPP)

Sunset 2016: To be voted on at the spring 2015 meeting

Handling Subcommittee proposes the removal of this substance from the National List under §205.605(b) due to the availability of alternative natural protein sources. Based on review, this substance appears non-essential to organic processing.

(Subcommittee vote: 6 in favor of removing; 0 against; 2 absent)

Discussion: Sunset Review. Comments regarding relisting TSPP on the National List §205.605(b)

Petitioned by: Kansas City Ingredients Technologies

Purpose: For use as a meat analogue for the vegan market

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Cornucopia Institute Beyond Pesticides Consumer Reports (1)	None
Food Processors / Handlers	WhiteWave Foods	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (2)	None	None
Certifiers	None	None	None

Notes:

- (1) The NOSB should consider recent scientific findings on the potential impacts on human health from the consumption of phosphate food additives. No single phosphate food additive, in isolation, will be consumed in quantities that put a consumer at risk. Rather, it is the widespread use of phosphate food additives in processed foods that raises concerns. The NOSB should consider these impacts when evaluating any phosphate food additive, considering that any phosphate food additive will be a contributing factor for consumers who eat processed foods.
- (2) IFAC considers this material “essential” for extruded meat products.

Additional Note: Certified organic vegan foods can be made without TSPP. There are many vegetarian meat-replacement products on the marketplace, such as seitan and tempeh, along with many veggie burgers and soy hotdogs that do not use this substance.

2017 SUNSET MATERIALS - §205.605(a)

Alginic Acid

Sunset 2017: For discussion only at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Alginic Acid on the National List §205.605(a)

Petitioned by: Not known, on 04/26/95 **Purpose:** Stabilizer and defoaming agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (2) Association for Dressings and Sauces	None	None
Certifiers		None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Bentonite

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Bentonite on the National List §205.605(a)

Petitioned/added: In 1995 **Purpose:** Processing aid, filtering aid, and in organic body care products

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1) Smucker Natural Foods Hain Celestial Group (2)	None	None
Ingredient Suppliers / Material Manufacturers	DOW AgroSciences	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association Juice Products Association (2)	None	None
Certifiers	California Certified Organic Farmers	None	None

Notes:

- (1) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (2) Industry claims essentiality as filtering aid.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Calcium Carbonate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Calcium carbonate on the National List §205.605(a)

Petitioned/added: In 1995 **Purpose:** Buffering agent, calcium supplement

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	Beyond Pesticides	None	None
Food Processors / Handlers	WhiteWave Foods (1) Stonyfield CROPP	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (2)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (3) Association for Sauces and Dressings Organic Trade Association Juice Products Association	None	None
Certifiers	Midwest Organic Services Association	None	None

Notes:

- (1) WhiteWave supports the relisting of all the 2017 sunset materials.
- (2) Industry claims essentiality as buffering agent and a source of nutritional calcium.
- (3) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."

NOTE: The Cornucopia Institute has not yet reviewed this material

Calcium Chloride

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Calcium chloride on the National List §205.605(a)

Petitioned/added: In 1995 **Purpose:** Firming agent, buffering agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	Beyond Pesticides	None	None
Food Processors / Handlers	WhiteWave Foods (1) Amy's Kitchen CROPP	None	None
Ingredient Suppliers / Material Manufacturers	Ciranda, Inc. DSM Natural Products California Custom Fruits & Flavors (CCFF) (2)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Sauces and Dressings Organic Trade Association (3)	None	None
Certifiers	None	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) CCFF claims essentiality as a gelling agent.

(3) Industry claims essentiality as a firming agent.

NOTE: The Cornucopia Institute has not yet reviewed this material

Carnauba Wax

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

NOSB: *Would changing this substance to an agricultural designation be a good idea?*

Input is requested on ancillary substances that may be part of wax formulations.

Petitioned/added: In 1996 **Purpose:** Fruit and vegetable coating

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Cornucopia Institute (1)
Food Processors / Handlers	WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (3) Northwest Horticultural Council	None	None
Certifiers	California Certified Organic Farmers (CCOF) (4)	None	Midwest Organic Services Association Organic Materials Review Institute (OMRI) (5) Pennsylvania Certified Organic (PCO) (6)

Notes:

- (1) Cornucopia would support relisting with annotations requiring the use of organic or compliant ancillary substances, and that consumers be informed of the presence of a coating and its ingredient listed.
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) Industry claims essentiality as a fruit coating/moisture barrier.
- (4) CCOF does not support any additional National List annotation to limit the ancillary substances allowed in carnauba wax or wood rosin.
- (5) OMRI requires that all ancillary ingredients in a formulated wax product be compliant for approval.
- (6) Carnauba wax is eligible for an agricultural designation, as it is derived from a plant and organic carnauba wax is available on the marketplace.

Citric Acid

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Citric Acid on the National List §205.605(a)

Petitioned by: Unknown in 1995 **Purpose:** Preservative, flavors, color enhancement, and nutritional fortification

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	Amy's Kitchen, Smucker Natural Foods Hain Celestial Group, Stonyfield CROPP, WhiteWave Foods (2)	None	Unidentified food processor
Ingredient Suppliers / Material Manufacturers	Ingredion, Inc. California Custom Fruits & Flavors Ciranda, Inc. DSM Nutritional Products	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (3) Association for Dressings and Sauces Juice Products Association Organic Trade Association	None	None
Certifiers	Midwest Organic Services Association	None	None

Notes:

- (1) Citric acid is produced by fermentation; some of the fermentation substrates may be derived from GMOs. "Citric acid should be re-classified as synthetic, or annotated to require use of processes that do not involve synthetic chemical reactions. If truly nonsynthetic citric acid is available, then synthetic citric acid should not be allowed. If nonsynthetic citric acid is not available, then the use of synthetic citric acid—and the citrates—should be restricted to uses that are in compliance with §205.600(b)(4)."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Dairy Cultures

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Dairy cultures on the National List §205.605(a)
The NOSB is considering removing dairy cultures from the National List since the broader listing of microorganisms may cover all currently allowed dairy cultures.

Petitioned/added: In 1995 **Purpose:** To make dairy products, also as stabilizer, flavor and acidifier

	Support Relisting (as is)	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	WhiteWave Foods (2) Stonyfield CROPP Hain Celestial Group	None	None
Ingredient Suppliers / Material Manufacturers		None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (3) Association for Dressings and Sauces Organic Trade Association	None	None
Certifiers	MOSA	OMRI, CCOF, PCO (4)	None

Notes:

- (1) "Dairy cultures *per se* meet OFPA requirements, but there are many ancillary substances that must be reviewed."
 - (2) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (3) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."
 - (4) OMRI believes that the separate listing for dairy cultures is not needed, and these can be included under the microorganisms listing on §205.605(a). PCO and CCOF would support a single listing of microorganisms that includes dairy cultures.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Diatomaceous Earth

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Diatomaceous Earth on the National List under §205.605(a)

Petitioned/Added: In 1995 **Purpose:** Food filtering aid only

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	Beyond Pesticides	None	None
Food Processors / Handlers	WhiteWave Foods (1) Amy's Kitchen CROPP Hain Celestial Group Smucker Natural Foods	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF) (2)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Juice Products Association Organic Trade Association	None	None
Certifiers	Midwest Organic Services Association	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) CCFF claims essentiality as a filtering agent.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Enzymes

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Dairy cultures on the National List under §205.605(a)

NOSB: Please submit spec sheets or names of any ancillary substances that are not listed on the provided chart or the National List.

Petitioned/added: In 1995 **Purpose:** Processing aid

	Support Relisting (as is)	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	WhiteWave Foods (2) Amy's Kitchen CROPP Hain Celestial Group Smucker Natural Foods	None	None
Ingredient Suppliers / Material Manufacturers	Ingredion, Inc. Ciranda, Inc. DSM Nutritional Products California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (3) Association for Dressings and Sauces (ADS) Juice Products Association (JPA) Organic Trade Association (OTA) (4)	None	None
Certifiers	MOSA	None	None

Notes:

- (1) BP states: "The classification of all commercial enzymes as nonsynthetic is questionable; info in TR says that chemical changes involving reactions with synthetic chemical are sometimes involved in the manufacture, extraction, or purification of enzymes. **Enzymes should be classified as synthetic unless annotated to define those that have not undergone synthetic chemical change. The review of ancillary substances should include all such substances, including those on the National List.**"
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."
- (4) Several companies and OTA provided lists of ancillary substances not on the National List generally included with enzymes.
NOTE: The Cornucopia Institute has not yet reviewed this material.

Flavors

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Flavors on the National List under §205.605(a)

NOSB: *Several questions regarding supply, commercial availability, removal from NL, essentiality and would a standardized industry questionnaire to verify compliance be helpful for certifiers and MROs?*

Petitioned/added: In 1995 **Purpose:** Food flavoring aid

	Support Relisting (as is)	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Consumer Reports (1)
Food Processors / Handlers	WhiteWave Foods (2) Amy's Kitchen Hain Celestial Group Vitasoy.	None	Stonyfield Smucker Natural Foods (3)
Ingredient Suppliers / Material Manufacturers	Elan, Inc.; California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Flavor and Extract Manufacturers Association (FEMA) Wolf, DiMatteo + Associates (WDA) Juice Products Association (JPA) Association for Dressings and Sauces (ADS) Organic Trade Association (OTA) (4)	None	None
Certifiers	None	None	MOSA; OMRI; QAI; ACA; CCOF; PCO

Notes:

- (1) Consumer Reports states: "The primary use of flavors is to recreate or improve flavors. 205.600(b)(4) states that substances should not be added to the National List if their primary use is to recreate or improve flavors. In addition, we also found 'organic natural flavors' which list as their ingredients organic oils or other organic carriers and 'natural flavor.' It appears that these materials are labeled as 'organic' even though the natural flavor is not organic, only the carrier is. We urge the NOSB to find out what those 'natural flavors' are, how they are made, and what the starting materials are."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) Smucker and Stonyfield support the annotation change for use of organic flavors when commercially available.
- (4) OTA supports relisting with amendment requiring using organic when commercially available.
- (5) PCO believes it is appropriate to retain the existing listing and add a commercial availability restriction to the categorical listing. OMRI and QAI would support the development of a standardized industry questionnaire to verify compliance.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Kaolin

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Kaolin on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Processing aid, filtering aid

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1) Smucker Natural Foods	None	None
Ingredient Suppliers / Material Manufacturers	DOW AgroSciences	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Northwest Horticultural Council (NHC) Juice Products Association (JPA) (2)	None	None
Certifiers	California Certified Organic Farmers (CCOF)	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Industry claims essentiality as filtering aid.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Lactic Acid and Salts

Sunset 2017: to be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Lactic acid on the National List §205.605(a) and formally adding Sodium and Potassium lactates to the National List under §205.605(b)

Petitioned: Lactic acid in 1995, Lactates in 2004

Purpose: Lactic acid: an acidulant, a preservative, a stabilizer, a humectant, and as a taste and flavor enhancer.

Sodium and potassium lactate: flavor enhancement and preservation of meat

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	None	None	Cornucopia Institute (1) Beyond Pesticides (1)
Food Processors / Handlers	Amy's Kitchen, CROPP WhiteWave Foods (2)	None	
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	PCC Natural Markets (3)
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (4) Association for Dressings and Sauces (ADS) Juice Products Association (JPA) Organic Trade Association	None	None
Certifiers	Midwest Organic Services Association (MOSA)	None	None

Notes:

- (1) "Lactic acid is commercially produced by fermentation, with additional steps that involve synthetic chemical reactions. Some fermentation substrates may be derived from GMOs." "Many, if not all of the uses of these materials are prohibited by §205.600(b)(4) –preservative, flavor enhancement, and creation of texture. Lactic acid should be re-classified as synthetic, or annotated to require use of processes that do not involve synthetic chemical reactions. If truly nonsynthetic lactic acid is available, then synthetic lactic acid should not be allowed. If nonsynthetic lactic acid is not available, then the use of synthetic lactic acid—and the lactates—should be restricted to uses that are in compliance with §205.600(b)(4)."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) PCC states: We ask that the NOSB and NOP revisit whether sodium lactate should be on the National List or not. Also, since some sodium lactate is being made from sugar beet, and since sugar beets now are genetically engineered (GE), we ask NOSB to ensure that any sugar beet (or corn) used to manufacture sodium lactate is organic.
- (4) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of 'organic' and 'made with organic' products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."

Magnesium Sulfate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Magnesium sulfate on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Processing aid in tofu making; a flavor enhancer

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	DSM Nutritional Products (DSM)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	None	None	None
Certifiers	California Certified Organic Farmers (CCOF) (2)	None	OMRI; ACA; PCO

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Unaware of non-synthetic sources of magnesium sulfate

NOTE: The Cornucopia Institute has not yet reviewed this material.

Nitrogen

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Nitrogen on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Preservative aid, cryogenic aid

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1) Amy's Kitchen Hain Celestial Group CROPP	None	None
Ingredient Suppliers / Material Manufacturers	Ciranda, Inc. California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Dressing & Sauces (ADS) Organic Trade Association (OTA) (2) Northwest Horticultural Council (NHC) Juice Products Association (JPA)	None	None
Certifiers	None	None	Midwest Organic services Association (MOSA)

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Industry claims essentiality as a cryogenic aid.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Perlite

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Perlite on the National List under §205.605(a)

Petitioned/added: In 1996 **Purpose:** Filtering aid

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	Ciranda, Inc.	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) Juice Products Association (JPA) (2)	None	None
Certifiers	California Certified Organic Farmers (CCOF)	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Industry claims essentiality as a filtering aid.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Potassium Chloride

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Salt substitute

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF) DSM Nutritional Products (DSM)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) (2) Association for Dressing & Sauces (ADS)	None	None
Certifiers	California Certified Organic Farmers (CCOF)	None	None

Notes:

- (1) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (2) Industry claims essentiality as a salt substitute in the cheese-making industry.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Potassium Iodide

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Food additive/dietary supplement

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) (2)	None	None
Certifiers	None	None	None

Notes:

- (1) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (2) Industry claims essentiality as a dietary supplement.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Sodium Bicarbonate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Processing aid, leavening agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1) Amy's Kitchen Hain Natural Foods CROPP	None	None
Ingredient Suppliers / Material Manufacturers	Ciranda, Inc. DSM Natural Products	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Sauces and Dressings (ADS) Organic Trade Association (OTA) (2)	None	None
Certifiers	None	None	MOSA

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Industry claims essentiality as a leavening agent.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sodium Carbonate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

Petitioned/added: In 1995 **Purpose:** Processing aid, neutralizing agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	Ingredion Incorporated California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Sauces and Dressings (ADS) (2)	None	None
Certifiers	None	None	None

Notes:

- (1) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (2) Industry claims essentiality as a processing aid.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Wood Rosin

Sunset 2017: To be discussed at the spring 2015 meeting

NOSB: *Input is requested on ancillary substances that may be part of wax formulations.*

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

Petitioned/added: In 1996 **Purpose:** Fruit and vegetable coating

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Cornucopia Institute (1)
Food Processors / Handlers	WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (3)	None	None
Certifiers	California Certified Organic Farmers (CCOF) (4)	None	Midwest Organic Services Association Organic Materials Research Institute (OMRI) (5)

Notes:

- (1) Cornucopia would support relisting with annotations requiring the use of organic or compliant ancillary substances, and that consumers be informed of the presence of a coating and its ingredient listed.
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) IFAC states: "We are not aware of any organic alternatives and *believe* failure to relist wood rosin would limit options for organic producers potentially leading to greater food waste and fewer organic products."
- (4) CCOF does not support any additional National List annotation to limit the ancillary substances allowed in carnauba wax or wood rosin.
- (5) OMRI requires that all ancillary ingredients in a formulated wax product be compliant for approval.

Yeast

Sunset 2017: To be discussed at the spring 2015 meeting

NOSB: *Since the change to this listing in 2010, has organic yeast become available in all forms, including extracted ("autolysate") yeast? Also more information needed on why, specifically, any of the ancillary substances in yeast do not meet the review criteria in the organic rule.*

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.605(a)

Petitioned/added: In 1995 and 2006

Purpose: Processing aid, leavening agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	DSM Natural Products	None	None
Wholesalers/Distributors / Retailers	Marroquin Organic International (MOI) (3)	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) Association for Sauces and Dressings (ADS)	None	None
Certifiers	California Certified Organic Farmers (4)	None	Pennsylvania Certified Organic

Notes:

- (1) BP states: Yeast is produced by fermentation, separated by physical methods from the culture. Yeast *per se* meets OFPA requirements. However, there are many ancillary substances that have not been reviewed, some of which may be problematic.
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) MOI states: We would like to recommend that in the future, the allowance of non-organic active dry yeast in organic production be discontinued since there are now three manufacturers of this product.
- (4) CCOF is encouraged by the increased use of organic yeast and supports the continued listing of nonorganic yeast while the yeast industry expands the variety of its offerings.

NOTE: The Cornucopia Institute has not yet reviewed this material.

2017 SUNSET MATERIALS - §205.605(b)

Acidified Sodium Chlorite (ASC)

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting ASC on the National List §205.605(b)

NOSB: *Is the substance essential for organic food production? Since the material was last reviewed, have additional commercially available alternatives emerged?*

Petitioned/added: 2006/2009

Purpose: Sanitizing agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	None	Beyond Pesticides (1)	None
Food Processors / Handlers	Amy's Kitchen WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition (OPWC)	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA)	None	None
Certifiers	None	None	OMRI (3)

Notes:

- (1) BP states: "The use of acidified sodium chlorite should be allowed to sunset. In addition, alternatives to chlorine are available, and to the extent that the NOSB believes that disinfection is necessary, it should recommend that NOP guidance promote those alternatives."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) "OMRI would appreciate clarification of the current annotation specifically with regard to formulas and permitted ancillary ingredients for "indirect food contact surface sanitizing. "Please clarify during your discussion the NOSB's intent for ancillary substances in ASC formulas."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Alginates

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Alginates on the National List **§205.605(b)**

Petitioned by: Not known, on 04/26/95 **Purpose:** Stabilizers, thickeners, emulsifiers

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (1)	None
Food Processors / Handlers	Amy's Kitchen; WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (3) Association for Dressings and Sauces (ADS) (4) Juice Products Association (JPA) (5)	None	None
Certifiers	None	None	None

Notes:

- (1) BP states: "Alginates are synthetic derivatives of brown seaweeds. Brown algae concentrate heavy metals and radioactivity, so those contaminants will be present either in the finished product, the waste stream, or both. The use of alginates is to create textures, and is therefore incompatible with organic regulations. **Alginates should be removed from the National List unless they have allowed uses for which they are essential.**"
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) IFAC states: "There is no supply of organically produced alginic acid or alginates in the world." and "If the NOSB chooses to delist any of these substances, the quality, number and types of "organic" and "made with organic" products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."
- (4) ADS states "These substances are important ingredients of existing organic products, which meet consumer expectations. Maintaining these ingredients on the National List provides access to a variety of ingredients to encourage product innovation to meet consumer demand in this growing food segment."
- (5) JPA states that manufacturers have incorporated these substances into their current formulas or processes. If removed, current manufacturing processes and formulas would need to be revised to accommodate alternative ingredients, which would have a significant economic impact on the food industry.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Ammonium Bicarbonate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List under **§205.605(b)**

Petitioned/added: In 1995 **Purpose:** Processing aid, leavening agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1) Hain Natural Foods	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) (2)	None	None
Certifiers	None	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Industry claims essentiality as a leavening agent.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Ascorbic Acid

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

Petitioned/Added: 1995 **Purpose:** Preservative, antioxidant, color enhancement, and dietary supplement

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	None	None	Beyond Pesticides (1)
Food Processors / Handlers	Amy's Kitchen, Smucker Natural Foods Hain Celestial Group CROPP WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF) DSM Nutritional Products (DSM)	None	None
Wholesalers/Distributors / Retailers		None	None
Trade Associations / Industry Consultants	International Food Additives Council(IFAC) (3) Association for Dressings and Sauces (ADS) Juice Products Association (JPA) Organic Trade Association (OTA)	None	None
Certifiers	Midwest Organic Services Association	None	None

Notes:

- (1) BP states: "Ascorbic acid is added to many foods to fortify them to original, pre-processing Vitamin C levels. It is a synthetic antioxidant/preservative. There are natural and organic alternatives. **Ascorbic acid should be removed from the National List.** "
 - (2) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (3) IFAC states: "If the NOSB chooses to delist any of these substances, the quality, number and types of "organic" and "made with organic" products available would decrease significantly. We **believe** these ingredients all lack organic alternatives completely or in a volume suitable to meet demand and, therefore, are appropriate for relisting."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Calcium Hydroxide

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

Petitioned/Added: 1995 **Purpose:** Processing aid, buffering and firming agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	None	None	Beyond Pesticides (1)
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group WhiteWave Foods (2)	None	
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Dressings and Sauces (ADS) Juice Products Association (JPA)	None	None
Certifiers	None	None	None

Notes:

(1) BP states: "Calcium hydroxide use as a firming agent is not compatible with OFPA criteria. **The listing should clarify which uses are permitted.** Although NOP's sunset policy does not allow this change to be made as part of the sunset process, we suggest that in this case, the change should be made to make the listing consistent with §205.600(b)(4) and ensure that OFPA criteria are met. Therefore, the NOSB must make the change through a two-stage process of removing the listing and creating a new listing. The USDA Office of General Counsel has previously ruled that a petition is not necessary for this process. In fact, the first National List did not arise based on petitions."

(2) WhiteWave supports the relisting of all the 2017 sunset materials.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Calcium Phosphates: mono-, di-, tri-basic

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *Have there been any changes in the sources of the raw materials from which the calcium or the phosphate are derived?
Any changes in the manufacturing process?*

Petitioned/Added: 1995 **Purpose:** Processing aids, dough conditioners, leavening, buffering and firming agents

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	Beyond Pesticides (BP) (1) Consumer Reports (CR) (2)	None	None
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group WhiteWave Foods (3)	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF)	None	None
/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (4) Association for Dressings and Sauces (ADS) Organic Trade Association (OTA)	None	National Organic Coalition (NOC)
Certifiers	MOSA	None	None

Notes:

- (1) BP states: "Recent studies have shown that inorganic forms of phosphate, such as calcium and sodium phosphates, cause hormone-mediated harm to the cardiovascular system. This is an important line of research that should be investigated by the HS. The NOSB should seek to eliminate the use of inorganic phosphates in organic food. If it is not possible to totally eliminate them, the listings should be annotated to eliminate uses prohibited by §205.600(b)(4) to ensure OFPA criteria are met."
 - (2) CR states: "Phosphate food additives should not be used if they are merely "useful" to processors, especially given their impact on human health. If the additive is not essential, it should not be used to protect organic consumers from high phosphorus load. We identified several organic processed foods that contain phosphate food additives, and identical products by other manufacturers that do not contain these additives. These additives **do not appear to be essential**, and thus fail the criteria in OFPA for inclusion on the National List."
 - (3) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (4) IFAC states: "Calcium phosphates provide critical leavening functionality in many baked goods, as well as providing two essential nutrients (calcium and phosphorus) to food products. It is also used in a variety of products in addition to bakery wares. There are no alternative organic substances or other practices that would make these food grade substances unnecessary."
 - (5) "NOC urges the NOSB to consider the recent research on human health impacts during the sunset review of calcium phosphates."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Carbon Dioxide

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

Petitioned/Added: 2007 **Purpose:** Carbonation agent; extracting agent; propellant and preservative

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group Smucker Natural Foods WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	APGR Green, Inc.	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition (OPWC) (2)	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) Juice Products Association (JPA)	None	None
Certifiers	Midwest Organic Services Association (MOSA)	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) OPWC states: "As distributors of fresh produce, OPWC's support for relisting carbon dioxide is based on its use as a pest control material that can be applied in a confined space and can come in contact with certified organic product. This use of carbon dioxide is often overlooked by certified organic handlers of all types."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Chlorine Materials: calcium hypochlorite, chlorine dioxide, sodium hypochlorite

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *Is the substance essential for organic food production? Since the material was last reviewed, have additional commercially available alternatives emerged? The HS encourages current users of chlorine materials to provide detailed comments describing the situations in which they are the most appropriate or effective antimicrobial for a given application.*

Petitioned / added: 1995 **Purpose:** Disinfecting and sanitizing agents

	Support Relisting	Oppose Relisting	Neutral
Farmers / Citizens	2	None	6
Public Interest Groups	None		Beyond Pesticides (1) Center for Food Safety (2)
Food Processors / Handlers	Amy's Kitchen; Smucker Natural Foods; Hain Celestial Group; CROPP; WhiteWave Foods (3)	None	Unidentified business
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition (OPWC) (4)	None	None
Trade Associations / Industry Consultants	Northwest Horticultural Council (NHC) Juice Products Association (JPA) Association for Dressing & Sauces (ADS) Organic Trade Association (OTA) (6) GS Long	None	National Organic Coalition (NOC) (5)
Certifiers	MOSA; CCOF	None	PCO; OMRI (7)

Notes:

- (1) BP states: "The subcommittees must take into consideration the widespread impacts of chlorine manufacture, use, and disposal. They should try once more to clarify limitations on the use of chlorine. We recommend that all three listings for 'chlorine materials' be replaced with the following language: Chlorine materials, only as present as residual chlorine levels in water delivered by municipal or other public water systems, which shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act. Shall not be used in higher concentrations in direct contact with food, crops, or cropland.
(i) *Calcium hypochlorite.*
(ii) *Chlorine dioxide.*
(iii) *Sodium hypochlorite.*
In addition, alternatives to chlorine are available, and to the extent that the NOSB believes that disinfection is necessary, it should recommend that NOP guidance promote those alternatives."
- (2) Center for Food Safety supports the NOC recommendations.
- (3) WhiteWave supports the relisting of all the 2017 sunset materials *indiscriminately.*
- (4) OPWC states: "OPWC strongly supports the relisting of all sanitizers and disinfectants with their respective current annotations."

- (5) NOC supports the annotation amendment as suggested by BP. NOC also states: “In addition, NOC suggests the following: The use of chlorine on food contact surfaces should be handled separately from the use of dissolved chlorine in tank situations, especially on foods that can absorb some of the wash water.”
- (6) Industry claims essentiality.
- (7) OMRI states: “Please indicate whether ancillary substances should be discussed at this time, as most chlorine materials are formulated with stabilizers and inerts.”

Citrate Salts (Calcium, Potassium, Sodium)

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting Citrate salts on the National List **§205.605(b)**

Petitioned by: Unknown in 1995 **Purpose:** Preservative, flavors and color enhancement, acidulant and buffer agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	1
Public Interest Groups	None	None	Beyond Pesticides (1)
Food Processors / Handlers	WhiteWave Foods(2); Stonyfield (3); Hain Celestial Group (3)	None	
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF) (4) DSM Nutritional Products (DSM) (5)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Dressings and Sauces (ADS) (6) Organic Trade Association (OTA) (5) Juice Products Association (JPA) (3)	None	None
Certifiers	MOSA (Calcium citrate), CCOF (Sodium citrate)	None	None

Notes:

- (1) BP states: “Citric acid is commercially produced by fermentation, and several different processes are used. Fermentation uses large quantities of water and creates much waste with high BOD and many contaminants. Some fermentation substrates may be derived from genetically modified organisms.” “The *citrates* should be restricted to uses that are in compliance with §205.600(b)(4).”
 - (2) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (3) Sodium citrate only
 - (4) Calcium and sodium citrate only.
 - (5) Potassium and sodium citrate only.
 - (6) Removal of [calcium and sodium citrate] from the sunset list would severely limit our ability to manufacture high quality organic products.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Ethylene

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: The subcommittee is considering editing the annotation and removing its allowed use for the de-greening of citrus. If you use this material for the de-greening of citrus, please let us know why you need to use it, and what the impact on your operation would be if it were removed from the list.

Petitioned/Added: 1995 - 2010 **Purpose:** Processing aid (de-greening and ripening agent)

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition (OPWC) (2)	None	None
Trade Associations / Industry Consultants	None	None	None
Certifiers	California Certified Organic Farms (CCOF)	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) OPWC states: "Ethylene is a very important material for organic produce wholesalers' successful importation of certified organic tropical fruit."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Ferrous Sulfate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

Petitioned/Added: 1995 **Purpose:** Processing aid in animal feed; a dietary supplement

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA)	None	None
Certifiers	None	None	None

Notes:

(1) BP states: "Ferrous sulfate should be phased out. Iron fortification is required for 'enriched' cereal and flour products, but in those cases, a form of iron that is less destructive of other food values should be substituted. Alternatively, less processed forms can be used that do not require fortification."

(2) WhiteWave supports the relisting of all the 2017 sunset materials.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Glycerides, mono- and di-

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: The HS subcommittee would like to better understand the extent of use of glycerides (mon- and di-) in drum drying. Are glycerides essential to organic food production? Discuss alternatives available and essentiality of mono and di glycerides.

Describe the effects on your operation if glycerides were removed from the National List.

Petitioned/Added: 1995 **Purpose:** Processing aids, emulsifiers, and release agents; also used as ancillary substances

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	Amy's Kitchen WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF) (2)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA)	None	None
Certifiers	None	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) CCFF states: "Mono and di glycerides are important emulsifiers used in key organic products we produce to ensure there is no fat separation. Usage level is minimal at less than 0.25%. Without the use of mono and di glycerides our customers would not be able to use our organic products containing them."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Hydrogen Peroxide

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

NOSB: *Is hydrogen peroxide essential for organic food production? Since the material was last reviewed, have additional commercially available alternatives emerged?*

Petitioned/Added: 1995 **Purpose:** Sanitizing agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	Amy's Kitchen CROPP Hain Celestial Group Smucker Natural Foods WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	California Custom Fruits & Flavors (CCFF) (3)	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition (OPWC)	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) (4) Northwest Horticultural Council (NHC) Association for Dressings and Sauces (ADS)	None	None
Certifiers	MOSA	None	Organic Materials Research Institute (OMRI) (5) Pennsylvania Certified Organic

Notes:

- (1) BP states: "The advantage of hydrogen peroxide is **its nontoxic residue**, but concentrated hydrogen peroxide is a powerful oxidizer. When the NOSB reviews needs for sanitizers, it should ask whether concentrated hydrogen peroxide is needed."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) CCFF states: "A key sanitizing agent that is highly oxidizing, thus effective against most microorganisms (including pathogens)."
- (4) Industry claims "critically essential".
- (5) OMRI states: "Please indicate whether ancillary substances should be discussed at this time, **as most hydrogen peroxide products are formulated with stabilizers and inerts**. Both the technical grade active ingredient (TGAI) and final commercial products contain formulants. Hydrogen peroxide is used for other purposes besides as a sanitizer. For example, it is used to bleach organic lecithin, as well as an ingredient in toothpaste and other personal care products. Please consider these uses as well for essentiality purposes."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Magnesium Carbonate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *The HS subcommittee is considering removing this material from the National List. If you use this material, please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the list.*

Petitioned/Added: 1995 & 2005 **Purpose:** Filtration aid, buffering, drying, anti-caking, and color retention agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	None	None	None
Certifiers	None	None	Midwest Organic Services Association

Notes:

(1) BP states: "Magnesium carbonate was petitioned as a filtration aid, but other uses include pH adjustment, drying agent, anti-caking agent, and color-retention agent. Since this use is allowed only in 'made with organic' foods, it does not threaten organic integrity."

(2) WhiteWave supports the relisting of all the 2017 sunset materials.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Magnesium Chloride

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: (1) *If you use this material, please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the List.* (2) *If this material continues to be allowed, should it be reclassified as Non-synthetic because it is derived from seawater by brine drying or should the annotation be changed?* (3) *If this material continues to be allowed, should its uses be limited to production of tofu?* (4) *Is Nigari an FDA allowed food ingredient?*

Petitioned/Added: 1995/1999 **Purpose:** Processing aid, color enhancement, coagulant, firming agent (tofu)

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group Vitasoy (2) WhiteWave Foods (3)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA)	None	None
Certifiers	California Certified Organic Farmers	None	Pennsylvania Certified Organic (PCO) (4)

Notes:

- (1) BP states: "Made by a nonsynthetic process, so magnesium chloride does not belong on §205.605(b). If it is to appear on the National List for Handling, it should be on §205.605(a). While the coagulant use for making tofu is consistent with organic practices, the use for color enhancement is not if magnesium chloride is correctly listed as synthetic on §205.605(b), so if magnesium chloride derived from sea water remains on §205.605(b), an annotation should be added, "as a coagulant in making tofu.""
- (2) Vitasoy states: "Magnesium chloride is used as a coagulant in the tofu making process. Magnesium chloride produces a specific type of tofu texture that cannot be duplicated with other coagulants. Elimination from the National List would be extremely detrimental to all tofu manufactures in the United States."
- (3) WhiteWave supports the relisting of all the 2017 sunset materials.
- (4) "PCO suggests that an updated technical report is needed to fully understand the processing techniques used to formulate food---grade magnesium chloride."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Magnesium Stearate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

- NOSB:** (1) *If magnesium stearate was removed from the National List what impact would this have on your operation?*
 (2) *Since last review are there alternatives to the use of this material? If so which ones are most effective in your operation?*
 (3) *Since the last review what health impacts have been clearly associated with magnesium stearate?*

Petitioned/Added: 1995 **Purpose:** Processing/formulation aid, flowing/binding, anticaking agent, tablet lubricant

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides	Cornucopia Institute (1)
Food Processors / Handlers	WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (3)	None	None
Certifiers	Certified California Organic Farmers	None	None

Notes:

- (1) Cornucopia states: “There are environmental consequences from the production of the oils necessary for its manufacture. Thus ***the evaluation*** of magnesium stearate ***must take into consideration the use of pesticides/genetic engineering*** in the non-organic production of oils used for its manufacture and the availability of organic oils or sustainably produced palm oil for this purpose.
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) IFAC notes that the NOSB is considering the removal of this ingredient because it was delisted from GSFA in 2010 by the CCFA. IFAC notes that this was done because several producers and users of the substance failed to submit information to CCFA indicating that they were still making and/or using magnesium stearate. ***The substance was not removed due to any safety or health concern.*** Since it was removed from the GSFA, users and producers have come forward to support its use and indicate to CCFA that it is still an important ingredient in international trade. Thus, CCFA is currently considering and expected to adopt new provisions for magnesium stearate following petitions from users of the substance requesting that it be relisted in the GSFA. ***Failure to relist magnesium stearate*** would significantly ***limit the range of organic supplements*** that remain in high demand among consumers.

Nutrient Vitamins and Minerals

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

NOSB: *Since the technical review document was not back in time for review, the Handling Subcommittee urges input regarding ancillary substances used with these materials.*

Petitioned/Added: 1995 **Purpose:** Fortification, supplementation, antioxidants, coloring agents

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Consumer Reports (CR) (1)	Food and Water Watch Beyond Pesticides (BP) (2)
Food Processors / Handlers	Smucker Natural Foods Stonyfield; CROPP Hain Celestial Group WhiteWave Foods(3)	None	None
Ingredient Suppliers / Material Manufacturers	DSM Nutritional Products (DSM) California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	National Organic Coalition (NOC) (4) Organic Trade Association (OTA) (5) Association for Dressings and Sauces (ADS) Juice Products Association (JPA)	None	None
Certifiers	Midwest Organic Services Association California Certified Organic Farmers	None	Pennsylvania Certified Organic

Notes:

- (1) CR: “We urge the NOSB **to remove “nutrient vitamins and minerals” from the National List.** The handful of nutrients that are required by law and are not yet on the National List should be petitioned individually, with an annotation specifying that it should only be added to foods that are required by law to contain that particular nutrient in a synthetic version.”
- (2) F&WW and BP: “We recommend amending this listing **to restrict the use** of any supplemental vitamins and minerals **to only those instances** in which FDA regulations **require such supplementation.** Although such a change—or the changes proposed by AMS—could occur only through a petition under the current sunset policy, we suggest that in this case, the change should be made to make the listing consistent with §205.600(b)(4) and ensure that OFPA criteria are met.”
- (3) WhiteWave supports the relisting of all the 2017 sunset materials.
- (4) “NOC is concerned with the indiscriminate addition of synthetic nutrients to organic foods. The “nutrient Vitamins and minerals” listing has an annotation: “in Accordance with FDA 21 CFR 104.20, Nutritional Quality Guidelines For Foods.” We urge the NOSB to advise the NOP to change the annotation to ensure that this listing adequately restricts “nutrient Vitamins and minerals” allowed in organic foods to those that are considered essential by the FDA.”
- (5) Industry claims “critically essential”.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Ozone

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *Is ozone essential for organic food production? Since the material was last reviewed, have additional commercially available alternatives emerged? Describe situations in which it is the most effective antimicrobial for a given application.*

Petitioned/Added: 1995 **Purpose:** Disinfectant, post-harvest treatment

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers	None	None	None
Citizens	None	None	2
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group WhiteWave Foods(2)	None	None
Ingredient Suppliers / Material Manufacturers	Ciranda, Inc. California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	Organic Produce Wholesalers Coalition (OPWC)	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) (3) Association for Dressings and Sauces (ADS) Northwest Horticultural Council (NHC) (4)	None	None
Certifiers	Midwest Organic Services Association	None	None

Notes:

- (1) BP states: "The advantage of ozone is its nontoxic residue, but ozone is a powerful oxidizer. When the NOSB reviews needs for sanitizers, it should ask whether ozone is needed."
 - (2) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (3) OTA: "Ozone is an effective and environmentally benign substance used to reduce/control microorganisms for food safety purposes."
 - (4) NHC: "While considered a synthetic compound, produce that comes in contact with equipment sanitized with ozone can be certified organic as long as ozone is used only in this manner. The expense is greater than that of chlorine, but ozone works faster, creates fewer byproducts, and is generated using onsite equipment. Ozone is used in at least 50% of packinghouses handling organic tree fruit."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Phosphoric Acid

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *Is the substance essential for organic food production? Since the material was last reviewed, have additional commercially available alternatives emerged? Describe situations in which it is the most effective cleaner for a given application.*

Petitioned/Added: 2003 **Purpose:** Cleaning agent

	Support Relisting	Oppose Relisting	Neutral/Concerns
Farmers	None	None	None
Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	Amy's Kitchen WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	DSM Nutritional Products (DSM) California Custom Fruits & Flavors (CCFF)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Northwest Horticultural Council (NHC) Organic Trade Association (OTA) (3) Association for Dressings and Sauces (ADS) International Food Additives Council (IFAC) (4)	None	None
Certifiers	Midwest Organic Services Association	None	Pennsylvania Certified Organic

Notes:

- (1) BP states: "Phosphoric acid poses environmental problems in manufacture and disposal, and health risks during use. Because its use is slightly different from the other materials examined here, there may not be a more compatible substance in this list. We encourage the NOSB to continue to seek safer alternatives."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) OTA: "Critically essential."
- (4) IFAC states: "As phosphoric acid has unique functionality, is safe, and is compatible with organic principles, IFAC strongly encourages the relisting of this substance."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Potassium Acid Tartrate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: (1) *Is clarification needed as to precisely which material is allowed?* (2) *If you use this material please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the List.*

Petitioned/Added: 1995 **Purpose:** Leavening and buffering agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	Hain Celestial Group (HCG) (1) WhiteWave Foods (WWF) (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Juice Products Association (JPA) Association for Dressings and Sauces (ADS) Organic Trade Association (OTA) (3)	None	None
Certifiers	Certified California Organic Farmers	None	None

Notes:

- (1) HCG states: "We use it in many organic baked goods. We request that potassium acid tartrate remain on the national list."
 - (2) WhiteWave supports the relisting of all the 2017 sunset materials.
 - (3) OTA states: "Loss of this material would result in impaired quality and marketability of products and loss of sales. Critically essential."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Potassium Carbonate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *If you use this material please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the list.*

Petitioned/Added: 1995 **Purpose:** pH control, alkalizing and leavening agent

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	CROPP WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	Ingredient, Inc. Ciranda, Inc. (2)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Dressings and Sauces (ADS)	None	None
Certifiers	Certified California Organic Farmers (CCOF) (3)	None	None

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

(2) Ciranda states: "Alkalizing agent for cocoa since 1828 and there is no acceptable alternative."

(3) CCOF states: "Allowing this material expands organic acreage and maintains a high demand for organic products by ensuring that value-added organic products are produced and can compete with conventional products in the marketplace."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Potassium Phosphate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

NOSB: *If you use this material please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the List.*

Petitioned/Added: 1995 **Purpose:** pH control in dairy products, sequestrant, emulsifier

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Consumer Reports (1)	None
Food Processors / Handlers	Hain Celestial Group WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Association for Dressings and Sauces (ADS) International Food Additives Council (IFAC) (3) Organic Trade Association (OTA)	None	None
Certifiers	None	None	National Organic Coalition (NOC) (4)

Notes:

(1) See comments for calcium phosphates.

(2) WhiteWave supports the relisting of all the 2017 sunset materials.

(3) IFAC states: "Potassium phosphates provide efficient pH buffering to products, and also provide both potassium and phosphorus to the product. There are no alternative organic substances or other practices that would make these substances unnecessary. As such, IFAC strongly encourages the NOSB to relist this important ingredient for organic production."

(4) See comments for calcium phosphates.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sodium Hydroxide

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *If you use this material please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the List.*

Petitioned/Added: 1995 **Purpose:** Cleaning agent, pH control, alkalizing agent, processing aid

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	None
Food Processors / Handlers	Amy's Kitchen, Hain Celestial Group WhiteWave Foods (1)	None	None
Ingredient Suppliers / Material Manufacturers	DSM Nutritional Products (DSM) Ciranda, Inc.	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Juice Products Association (JPA) Organic Trade Association (OTA)	None	None
Certifiers	None	None	Midwest Organic Services Association Pennsylvania Certified Organic California Certified Organic Farmers

Notes:

(1) WhiteWave supports the relisting of all the 2017 sunset materials.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sodium Phosphate

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

NOSB: *If you use this material please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the List.*

Petitioned/Added: 1995 - 2001

Purpose: Emulsifier, stabilizers, preservatives, and to create certain textures in dairy foods

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Consumer Reports (CR) (1) Beyond Pesticides (BP) (2)	None
Food Processors / Handlers	Stonyfield, Hain Celestial Group CROPP WhiteWave Foods (3)	None	None
Ingredient Suppliers / Mat. Manufacturers	DSM Nutritional Products (DSM)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) Association for Dressings and Sauces (ADS) International Food Additives Council (IFAC) (4)	None	National Organic Coalition (NOC) (5)
Certifiers	None	None	MOSA

Notes:

(1) See comments for calcium phosphates.

(2) See comments for calcium phosphates.

(3) WhiteWave supports the relisting of all the 2017 sunset materials.

(4) IFAC states: "Sodium phosphates provide many important functions in dairy foods due to their ability to stabilize casein proteins, to interact with proteins and the fat-water matrix to promote emulsification, and to disperse proteins and flavors in reconstituted milk powders. They are also very effective buffers, allowing dairy foods to maintain the appropriate pH characteristics for safety and flavor, while using a minimum level of these food ingredients. There are no alternative organic substances or other practices that could be substituted or would make the use of this ingredient unnecessary. Removal of sodium phosphate from the National List could significantly reduce the availability of certain organic dairy products at a time when the demand for these products continues to grow."

(5) See comments for calcium phosphates.

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sulfur Dioxide

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *If you use this material please let us know what you use it for and why, and what would be the impact on your operation if it was removed from the list.*

Petitioned/Added: 1995 **Purpose:** Antioxidant to prevent spoilage and oxidation in wine

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	Beyond Pesticides (BP) (1)	None	None
Food Processors / Handlers	WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Juice Products Association (JPA)	None	None
Certifiers	None	None	None

Notes:

- (1) BP states: "Sulfur dioxide is a synthetic preservative, but it is limited in the listing to use only in wine labeled "made with organic grapes," which does not threaten the integrity of the organic label."
 - (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Tocopherols

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List §205.605(b)

NOSB: *The provided table shows ancillary substances used in common tocopherol formulations.*

Please provide information as to whether these ancillary substances or others are also used in organic tocopherol formulations.

Petitioned/Added: 1995 **Purpose:** Antioxidants

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Food Processors / Handlers	Hain Celestial Group WhiteWave Foods (2)	None	None
Ingredient Suppliers / Material Manufacturers	DSM Nutritional Products (DSM) (3)	None	None
Wholesalers/Distributors / Retailers	None	PCC Natural Markets (PCC) (4)	None
Trade Associations / Industry Consultants	Juice Products Association (JPA) Association for Dressings and Sauces (ADS) Organic Trade Association (OTA)	None	None
Certifiers	California Certified Organic Farmers (CCOF) (5)	None	Midwest Organic Services Association Pennsylvania Certified Organic (PCO) (6)

Notes:

- (1) BP states: "The Handling Subcommittee must investigate the availability of natural tocopherols. If, as the comment quoted above states, natural tocopherols are available, then they should be removed from §205.605(b) and petitioned for §205.605(a). The NOSB should encourage the production of organic tocopherols by placing an expiration date on the §205.605(a) listing."
- (2) WhiteWave supports the relisting of all the 2017 sunset materials.
- (3) DSM states: "Tocopherols are a necessary antioxidant required for stability of fish oil. They are food additive in all developed countries and are permitted in infant formula. They are a necessary additive to stabilize many different foods. Tocopherols should be renewed."
- (4) PCC states: "We urge the NOSB to prohibit synthetic tocopherols in organic foods (notably infant formula) because they are harmful to health and natural tocopherols are widely available. Synthetic tocopherols are inconsistent with consumer expectations."
- (5) "CCOF does not support any additional National List annotation to limit the ancillary substances allowed in tocopherols."
- (6) "It is PCO's understanding that if rosemary extract is used as the source material for the non-organic tocopherols, the rosemary extract is not required to be organic. Please clarify if this reading of the annotation is incorrect."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Xanthan Gum

Sunset 2017: To be discussed at the spring 2015 meeting

Discussion: Sunset Review. Comments regarding relisting on the National List **§205.605(b)**

NOSB: *Are there any ancillary substances used in xanthan gum such as carriers or solvent remaining in the final product?*

Petitioned/Added: 1995 **Purpose:** Stabilizer, thickener, emulsifier, suspending agent, foam enhancer

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	Consumer Reports (CR) (2)
Food Processors / Handlers	Amy's Kitchen Hain Celestial Group WhiteWave Foods (3)	None	None
Ingredient Suppliers / Manufacturers	California Custom Fruits & Flavors (CCFF) CP Kelco (4)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	International Food Additives Council (IFAC) (5) Juice Products Association (JPA) Association for Dressings and Sauces (ADS) Organic Trade Association (OTA)	None	None
Certifiers	None	None	OMRI (6)

Notes:

- (1) BP states: "Xanthan gum is produced by fermentation of crop pathogenic bacteria in a complex nutrient broth, extracted by a difficult process involving a number of synthetic solvents. Effluents from manufacture are unknown, as are ancillary substances. it is not clear what criteria the NOSB should apply in classifying materials like xanthan gum. In addition, it is not clear how the NOSB should evaluate the manufacture and compatibility of a product made by such a process. Xanthan gum should be removed from the National List unless it has allowed uses for which it is essential."
- (2) CR states: "The primary use of xanthan gum is to recreate or improve texture. 205.600(b)(4) states that substances should not be added to the National List if their primary use is to recreate or improve textures. Given this as well as the potential concerns about xanthan gum's human health impacts, we believe that xanthan gum should have an updated technical review before the Sunset vote at the Fall 2015 meeting."
- (3) WhiteWave supports the relisting of all the 2017 sunset materials.
- (4) CP Kelco states: "Xanthan gum is also an important ingredient in special dietary considerations and is widely used in foods for populations with allergies and celiac disease (such as wheat replacements). Xanthan gum is safe, is aligned with organic principles and does not have organic alternatives. Additionally we request that the USDA NOP and NOSB consider changing the listing of xanthan gum to §205.605(a) as a non-synthetic. Xanthan gum is produced through the natural process of bacterial growth the same as gellan gum which is listed at §205.605(a). Xanthan gum belongs on §205.605(a)."
- (5) IFAC states: "As xanthan gum is safe, aligns with organic principles and lacks organic alternatives, IFAC urges that the substance be relisted on the National List. Because xanthan gum is produced through the natural process of bacterial growth, IFAC also encourages the NOSB to consider listing this substance as a non-synthetic at § 205.605(a)."

(6) OMRI states: “We would like the NOSB to consider whether xanthan gum is more appropriately classified as nonsynthetic and should be moved to 205.605(a). Although the 1995 TAP report references the extraction of salts of xanthan gum, current manufacturing processes indicate that it is a product of a naturally-occurring biological process (fermentation), and the gum is then precipitated out of solution with isopropyl alcohol, which is later removed by flash evaporation. The precipitation would be considered a physical process and does not chemically change the gum.”

NOTE: The Cornucopia Institute has not yet reviewed this material.

2017 SUNSET MATERIALS - §205.606

Orange Shellac, unbleached

Sunset 2017: To be discussed at the spring 2015 meeting

NOSB: *Input is requested on ancillary substances that may be part of wax formulations.*

Discussion: Sunset Review. Comments regarding relisting on the National List under §205.606

Petitioned/Added: In 2002

Purpose: Fruit and vegetable coating

	Support Relisting	Oppose Relisting	Neutral/ Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1) Cornucopia Institute (2)
Food Processors / Handlers	WhiteWave Foods (3)	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Trade Association (OTA) (4) Northwest Horticultural Council (NHC)	None	None
Certifiers	None	None	None

Notes:

- (1) BP: “The evaluation of orange shellac must investigate the use of pesticides in the non-organic production of the host species and the potential availability of organic orange shellac if the demand existed. The HS must identify allowed ancillary substances and ensure that toxic chemicals are not permitted. Finally, the NOSB must consider the question of whether orange shellac as formulated and applied to fruit meets consumer expectations for organic produce.”
- (2) Cornucopia would support relisting with annotations requiring the use of organic or compliant ancillary substances, and that consumers be informed of the presence of a coating and its ingredient listed.
- (3) WhiteWave supports the relisting of all the 2017 sunset materials.
- (4) Industry claims essentiality: “This ingredient is essential to organic processing.”

CROPS SUBCOMMITTEE

Exhaust Gas

Petition: To add to listing on §205.601

Subcommittee vote: The subcommittee found exhaust gas to be incompatible with OFPA criteria,
Yes:0, No:5, Abstain:0, Absent:2, Recuse:0.

Petitioner: H&M Gopher Control **Purpose:** Rodent control

	Support Listing	Oppose Listing
Farmers	None	None
Citizens	None	7 (1)
Public Interest Groups	None	Beyond Pesticides (BP) (2) Consumer Reports Cornucopia Institute (3)
Food Processors / Handlers	None	None
Ingredient Supplier / Manufacturer		None
Distributors / Retailers	None	None
Trade Associations	None	Organic Produce Wholesalers Coalition (OPWC) (4) Organic Trade Association (OTA) (5)
Certifiers	None	None

Notes:

- (1) A citizen states: "Exhaust gas used in rodent burrows would contaminate the air and land. It would also be counter productive as it would kill predators such as snakes and owls that are good controls for rodents."
- (2) BP states: "Exhaust gas does not belong in any of the categories of allowed synthetic inputs in OFPA §6517(c)(1)(B)(i)."
- (3) Cornucopia states: "The TR does not provide sufficient published data on how exhaust gases might be adsorbed or affect soil microorganisms."
- (4) OPWC states: "We agree with the subcommittee concerning impacts on non-target species and soil microorganisms which are so important to the maintenance of a healthy environment for production of organic fruits and vegetables."
- (5) OTA states: "Vitamin D₃ (rodenticide is an allowed alternative for exhaust gas)."

Calcium Sulfate

Petition: Add synthetic calcium sulfate “FGD gypsum” on §205.601

Subcommittee vote: Calcium sulfate is not essential for organic farming due to the many alternatives to synthetic gypsum and voted against its listing. It was felt that non-essentiality outweighs the recycling benefits associated with the use of FGL gypsum.

Listing Motion: Calcium Sulfate, produced by the flue gas desulfurization (SGD) process, Yes:0, No:6, Abstain:0, Absent:1, Recuse:0

Petitioner: American Coal Ash Association **Purpose:** An agricultural soil amendment

	Support Listing	Oppose Listing
Citizens	None	12 (1)
Farmers	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (2) Cornucopia Institute (3) Consumer Reports
Food Processors / Handlers / Manufacturers	None	None
Distributors / Retailers	None	None
Trade Associations	None	Organic Produce Wholesalers Coalition (OPWC) (4) Organic Trade Association
Certifiers	None	None

Notes:

- (1) A citizen states: “Testing would be required to determine whether a particular batch of gypsum contains toxic contaminants such as heavy metals.”
- (2) BP states: “Since ample non-synthetic gypsum is available, and price and convenience are not among the evaluation criteria, this use of synthetic gypsum does not appear to be compatible.”
- (3) Cornucopia states: “A study by the Electric Power Research Institute that lists 29 contaminants, mostly heavy metals that may be found in flue gas desulfurization gypsum.”
- (4) OPWC states: “Many of the growers who supply fresh fruits and vegetables use calcium sulfate as a soil amendment but not have reported difficulties in sourcing calcium sulfate from natural sources.”

3-decene-2-one

Discussion: Petition to add 3-decene-2-one” on §205.601

Subcommittee vote: Due to the availability of non-synthetic alternatives on the market, the Crops Subcommittee is in agreement that the material fails the essentiality, compatibility and consistency criteria and should not be allowed for use in organic production. Listing Motion, Yes:0, No:5, Abstain:0, Absent:1, Recuse: 0

Petitioner: AMVAC Chemical Corporation (makers of SmartBlock)

Purpose: For post-harvest prevention of sprouts in potatoes

	Support Listing	Oppose Listing
Citizens	None	
Farmers	Wong Potatoes, Inc. (1)	None
Public Interest Groups	None	Beyond Pesticides Cornucopia Institute (2) Consumer Reports
Food Processors / Handlers / Manufacturers	Nelson’s Vegetable Storage Systems, Inc. (3)	None
Distributors / Retailers	None	None
Trade Associations	None	Organic Produce Wholesalers Coalition (OPWC) (4)
Certifiers	None	None

Notes:

- (1) Wong Potatoes states: “The need for this product is even more necessary for the growing export business. Although clove oil (eugenol) which is a NOP- listed material is available for this use, we have since discovered that it is not as efficacious as SmartBlock. To control sprouting over the course of a storage season, we typically have to make 1 to 3 applications of clove oil, which increases cost.”
- (2) Cornucopia states: “No TR has been requested for 3D2 and the crops subcommittee found the petition sufficient. How can a petition be found sufficient if there is no independent analysis of the substrate through a TR?”
- (3) Nelson’s Vegetable Storage Systems, Inc states: “I work with some of the potato chip companies on getting the best sprout control possible without affecting the quality of the overall potato chip. This has been a challenge and not as successful as we have wanted on organic potatoes. I do feel that organic potatoes, not only for chips but also for French fries and fresh market, would increase with good sprout control.”
- (4) OPWC states: “OPWC members who supplied information about the methods they use for postharvest handling of potatoes do use clove oil successfully to control sprouting on the potatoes they supply to the fresh market. Specifically, use of a clove oil product, in conjunction with storage at about 38°F and appropriately high humidity levels, results in inhibition of sprouting sufficient for movement of the product from farm, through the wholesale chain, and to the retail market.”

Discussion Document: Protecting Against Contamination in Farm Inputs

	Commented
Farmers	3 (1)
Citizens	82 (2)
Public Interest Groups	Beyond Pesticides (BP) (3) The Cornucopia Institute (4) Mow and Sow Organic Consumers Association (OCA) (5) <ul style="list-style-type: none"> • OCA gathered 22,347 signatures against CAFO manure
Food Processors / Handlers	None
Ingredient Suppliers / Manufacturers	Kreher Enterprises, LLC (6)
Distributors / Retailers	None
Trade Associations / Consultants	None
Certifiers/Materials Review	Midwest Organic Services Association (MOSA) (7) Quality Assurance International (QAI) (8) Organic Materials Review Institute

Notes:

- (1) Farmer states: "There will not be enough manure for farmers attempting an organic transition if this material is prohibited from organic. If there are problems of residues, deal with it on an individual basis."
- (2) Citizen states: "Factory farm waste is contaminated with hormones, antibiotics, pesticides, disease organisms, heavy metals, and other undesirable substances, including some disease-causing agents, such as e.g. *Salmonella* and *E. coli* bacteria, that may survive the composting process."
- (3) BP states: "The NOSB could benefit from the implementation of the unanimously-passed NOSB recommendation (Spring 2013) for an open docket to receive public comment and input on an ongoing basis, informing Subcommittee work."
- (4) Cornucopia states: "Many herbicide-sensitive crop plants show complete crop failures to persistent herbicides well below the 1 ppb level making testing impossible. A ban on pyridine carboxylic acids and other persistent herbicides use is the only way to prevent inevitable crop failures from drift or compost." This material acts as the "coal mine canary" of contaminated inputs.
- (5) OCA states: "Increasingly, factory farm manure is processed by methane digesters. Methane digesters often mix "manure with other substrates such as industrial wastes, grass clippings, food industry wastes, animal byproducts (slaughterhouse waste), or sewage sludge."
- (6) Kreher Enterprises states: "Roxarsone, contained arsenic and was a common product used in broiler production until the issue of Arsenic levels in the chicken was raised and this product pulled from the market." "Please be careful not to smear my product because of what is done somewhere else."
- (7) MOSA states: "There is a great deal we could proactively consider, and it may be too much for our capabilities."
- (8) QAI states: "requiring that manures or composts from organic operations be used exclusively would not be a viable option due to limited availability."

2016 SUNSET MATERIALS

Ferric Phosphate

Discussion: Sunset Review. Comments regarding relisting on §205.601

Subcommittee: The subcommittee found no concerns regarding the continued listing of Ferric Phosphate. Farmers have testified that ferric phosphate is essential. The justification for this motion is that the whole NOSB needs to consider and vote on each material, rather than just a subcommittee. Motion to remove Ferric Phosphate, Yes:2, No:3, Abstain:0, Recuse:0, Absent:2.

Purpose: A slug and snail bait

	Support Relisting	Oppose Relisting	Neutral
Citizens	5 (1)	48	None
Farmers	Earthbound Farm (2) 2 acre VT mixed vegetable farm (3) Abounding Harvest Mountain Farm (AHMF) (4)	None	None
Public Interest Groups	None	Beyond Pesticides Cornucopia Institute (5) Consumer Reports (6)	None
Food Processors / Handlers / Manufacturers	Neudorff USA (7)	None	None
Wholesalers/Distributors / Retailers	None	None	None
Trade Associations/consultants	Organic Produce Wholesalers Coalition (OPWC) (8) Organic Trade Association (OTA) (9) Independent Organic Services, Inc.	None	None
Certifiers/Materials Review/Extension	California Certified Organic Farmer (CCOF) (10) Vermont Organic Farmers (VOF) (11) CSU Extension specialist (12) Oahu Army Natural Resources Program (OANRP) (13) Washington State Dept. of Agriculture Organic Program	None	Organic Materials Review Institute (OMRI) (14) Midwest Organic Services Association

Notes:

- (1) A citizen states: "Although harmless to molluscs and earthworms alone as it naturally occurs in soil, ferric phosphate is allowed to be combined with chelating agents such as EDTA or EDDS, synergists that make it toxic to snails and slugs, but also earthworms and beneficial soil life."
- (2) Earthbound Farm states: "It would be detrimental to organic vegetable production on the Central Coast of California if we were to lose ferric phosphate bait products for control of the gray garden slug (*Agriolimax reticulatus*) in crops such as romaine lettuce, cauliflower and celery."
- (3) A Vermont farmer states: "Sluggo was highly effective, cost effective, and made a very big difference in my bottom line."

- (4) AHMF states: "I use it in place of far more toxic options to reduce slug damage on my citrus crop."
- (5) Cornucopia states: "Ferric phosphate alone is not effective because it is not as readily absorbed by the bodies of the slugs and snails with out a chelating agent and ferric phosphate in combination with EDTA is not compatible with organic agriculture."
- (6) Consumer Reports states: "Whether an inert or not, EDTA should not be in use in organic."
- (7) Neudorff USA states: "Inert ingredients are not a key issue here, nor should they cloud the discussion of the material under consideration: ferric phosphate."
- (8) OPWC states: "A review of growing practices indicates that producers of many types of fruit and vegetable crops consider ferric phosphate a necessary material for slug control, especially since it is the only material currently listed for this use under the NOP standards."
- (9) OTA states: "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."
- (10) CCOF states: "CCOF has reviewed the literature summaries cited by NOSB in the petition to remove ferric phosphate and found no strong evidence that EDTA causes significant harm to earthworms."
- (11) VOF states: "Ferric Phosphate is a critically important material for organic strawberry growers in Vermont, and in years with high snail/slug pressure, for other crops as well (leafy greens, etc.)."
- (12) A CSA extension specialist states: "I cannot agree that adequate alternatives exist for control of slugs."
- (13) A researcher for OANRP states: "Because of Sluggo, we have detected significant increases in both the survival and germination of two endangered native Hawaiian plant species: *Schiedea obovata* and *Cyanea superba*."
- (14) OMRI has 17 products listed with ferric phosphate as the active ingredient.

Hydrogen Chloride

Discussion: Sunset Review. Comments regarding relisting on §205.601

Subcommittee: The Crops Subcommittee voted to continue the listing of Hydrogen Chloride based on essentiality and lack of alternatives.
Motion to remove Hydrogen Chloride, Yes: 0, No: 5, Abstain: 0, Recuse: 0, Absent: 3

Purpose: Cottonseed delinting

	Support Relisting	Oppose Relisting	Neutral/Clarification Needed
Citizens	None	3 (1)	None
Farmer	3 (2)	None	None
Public Interest Groups	Beyond Pesticides (BP) (3)	Consumer Reports (CR) (4)	Cornucopia Institute (5)
Manufactures/Suppliers	Whitewave Foods	None	None
Distributors / Retailers	Texas Organic Cotton Marketing Cooperative (TOCMC) (6)	None	None
Trade Associations	Organic Trade Association	None	None
Certifiers	None	None	None

Notes:

- 1) A citizen states: "The use of hydrogen chloride supports the chlorine chemical industry, which is responsible for pollution by some of the most toxic chemicals known, including dioxins and PCBs."
- 2) A farmer states: "Without the use of hydrogen chloride, the U.S. organic cotton industry would be virtually eliminated."
- 3) BP states: "We support the relisting of HCl in recognition of the lack of alternatives of organic cotton growers. In view of the extreme hazard posed by gaseous hydrogen chloride, we ask the NOSB to put its voice behind support for research and development of alternative methods of delinting cotton seed in preparation for planting."
- 4) CR states: "HCl should not be relisted, a compliance date should be set so the industry can immediately begin to build demand for natural alternatives to HCl."
- 5) Cornucopia states: "The feasibility of various coated cottonseed as an effective alternative to the acid delinting process for organic seed production has not been explored."
- 6) TOCMC states: "Greg Holt, the USDA-ARS researcher working on mechanical delinting indicated that they have advanced from working with a benchtop model to beginning the process of building a prototype."

2017 SUNSET MATERIALS - §205.601

Ammonium Soaps

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As a large animal repellent only, no contact with soil or edible portion of crop

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers / Citizens	None	None	None
Public Interest Groups	None	None	Cornucopia Institute (1) Beyond Pesticides (BP) (2)
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	CROPP Cooperative (3)	None	None
Trade Associations	Northwest Horticultural Council (NHC) (4)	None	None
Certifiers/Materials Review	None	None	Organic Materials Review Institute

Notes:

- (1) Cornucopia states: "Research indicates ammonium soaps are only 50% effective, but their limited use does not cause harm."
- (2) BP states: "The listing should not be allowed for application to water."
- (3) CROPP states: "Since it is the odor that functions as the repellent and with no soil or edible fruit contact there is no danger of contamination of crops or soil. It is a very practical large animal repellent."
- (4) NHC states: "It is of particular importance to tree fruit growers."

Boric Acid

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used as an insecticide for ants and cockroaches

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	None	None	None
Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	CROPP Cooperative (2)	None	None
Trade Associations / Industry Consultants	Northwest Horticultural Council Organic Produce Wholesalers Coalition (OPWC) (3)	None	None
Certifiers / Materials Review Organizations	California Certified Organic Farmers	None	Pennsylvania Certified Organic

Notes:

- (1) BP states: “Natural alternatives include diatomaceous earth and boiling water. Management practices include sanitation, exclusion, sticky barriers, sticky traps⁴ and removal of host plants for aphids.”
 - (2) Cropp states: “It is an effective way to kill an entire anthill and to use in small cracks and crevices where sticky barriers and traps won’t work.”
 - (3) OPWC survey respondent states: “Boric acid is critical for crawling insect control. It is essentially the only pesticide listed for use in out-buildings, warehouses, processing plants, etc. On farms, boric acid is used in livestock operations and storage areas”
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Copper Sulfate/Fixed Copper

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As plant disease control, as a soil amendment

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	McDougal and Sons (1) 8	None	None
Citizen	6	3	None
Public Interest Groups	Beyond Pesticides (BP) (2) Cornucopia Institute (2) National Organic Coalition (NOC) (3) Center for Food Safety Consumer Reports	None	
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	Juice Products Association Organic Produce Wholesale Coalition	None	Organic Trade Association Accredited Certifiers Association, Inc. (ACA) (5)
Certifiers/Materials Review	Vermont Organic Farmers Ohio Ecological Food and Farm Association (OEFFA) (4) California Certified Organic Farmers	None	Organic Materials Research Institute Pennsylvania Certified Organic Midwestern Organic Services Association

Notes:

- (1) A farmer states: "With the loss of antibiotics Lime sulfur and Coppers have been indispensable tools to control Fireblight."
- (2) BP and Cornucopia state: "We recommend that the Crops Subcommittee further investigate the particular uses of copper products in plant disease control to determine when they are necessary and **should propose an annotation for specific uses and rates.**"
- (3) NOC states: "We support renewing fixed coppers and copper sulfate on the National List while we simultaneously call for immediate, targeted research to identify management practices and less toxic alternative materials for addressing disease control in the wide range of crops produced by organic farmers"
- (4) OEFFA states: "We want to encourage further research into other viable disease management tools for use in organic production. Alternating between hydrogen peroxide and copper applications, further reduce the use of copper."
- (5) ACA states: "Respondents to the question 'Are ACAs requiring testing?' were split, 50% indicated they were requiring testing; 50% indicated they were not requiring testing."

Ethylene

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: For post-harvest ripening of tropical fruit and degreening of citrus

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	None	None	None
Citizen	1	None	None
Public Interest Groups	None	Cornucopia Institute (1) Beyond Pesticides (BP) (2)	None
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	Organic Produce Wholesalers Coalition (OPWC) (3) Accredited Certifiers Association (ACA) (4)	None	None
Certifiers/Materials Review	None	None	None

Notes:

- (1) Cornucopia states: “The supplemental TR from 2011 has unanswered questions, specifically how ethylene gas is applied and how it can be applicable to smaller growers.”
- (2) BP states: “The need to produce uniform flowering of pineapples is only essential for a particular style and scale of pineapple culture. The NOSB is not obliged to approve synthetic materials that make every style and scale of agriculture possible. Rather, it is the responsibility of organic growers to use methods consistent with organic practices.”
- (3) OPWC states: “Simply put, in OPWC’s experience, without ethylene, organic tropical fruit would not be readily found in produce aisles.”
- (4) ACA survey respondent states: “I would say for large organic pineapple farmer, ethylene is absolutely necessary. I don't know of any other way to produce pineapples consistently on a yearlong basis. For the smaller farmers, they tend to grow pineapples seasonally and don't need or rely on ethylene.”

Fish Emulsion

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used as a fertilizer

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	None	None	None
Citizen	None	7 (1)	None
Public Interest Groups	None	Beyond Pesticides (BP) (2)	Organic Consumers Association (OCA) (3)
Food Processors / Handlers / Manufacturers	Dramm Corp (4)	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	Organic Produce Wholesalers Coalition Northwest Horticultural Council	None	Organic Materials Review Institute
Certifiers/Materials Review	California Certified Organic Farmers	None	Organic Materials Research Institute (OMRI) (5) Pennsylvania Certified Organic (PCO) (6)

Notes:

- 1) A citizen states: “Fish emulsion made from factory farmed fish or shellfish should also be banned.”
 - 2) BP states: “While some liquid fish products are made from fish waste, 39 others are made from whole fish harvested for the purpose.⁴⁰ Fish that do not have commercial value may have ecological value.⁴¹ Use of discarded fish parts as fertilizer may also remove food from marine ecosystems.
 - 3) OCA states: “Fish emulsion should not contain synthetic phosphoric acid and be called organic.”
 - 4) Dramm states: “They are produced from fish scraps that would otherwise be dumped en masse in landfills, natural bodies of water, or watersheds. (It is not economically viable to produce fish fertilizers from whole fish, thereby avoiding direct risks to fisheries sustainability it is a true by-product).”
 - 5) OMRI states: “We do not permit manufacturers to pH adjust fish and other ingredients together. For example, if fish solubles are first blended with calcium carbonate (a basic substance) and then pH adjusted, more acid would be needed to bring the final product’s pH down to 3.5. However, we do not know the interpretations of other material review organizations. We would also like the NOSB to discuss whether this listing includes non-fin fish (e.g., crab, shrimp) products.”
 - 6) PCO states: “It has been PCO’s practice to require the pH of the liquid fish product to be measured prior to the liquid fish being blended with other ingredients.”
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Horticultural Oils

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: For insect and plant disease control

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	12	None	None
Citizens	None	7	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	CROPP Cooperative (2)	None	None
Trade Associations / Industry Consultants	Northwest Horticultural Council (NHC) (3) Juice Products Association Organic Produce Wholesalers Coalition	None	Organic Trade Association
Certifiers / Materials Review Organizations	California Certified Organic Farmers	None	Pennsylvania Certified Organic

Notes:

- (1) BP states: "The listing for horticultural oils should be annotated in a way that protects workers from inhalation hazards, and nontarget arthropods from harm. If this is not possible, horticultural oils should be delisted. We suggest this worker protection annotation: "Steps to meet worker protection standards must be documented in the Organic System Plan."
 - (2) CROPP states: "Horticultural oils are a nontoxic insect management. There have not been any changes in use or alternatives that make horticultural oils unnecessary."
 - (3) NHC states: "These oils are especially important to tree fruit growers, as their crops are particularly pest prone. This amendment is used universally by organic tree fruit growers. Horticultural oils can be used to fight powdery mildew."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Insecticidal Soaps

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As insecticides for soft-bodied insects

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Citizen	1 (1)	4	None
Farmer	Harmony and Campbell Orchards Roy Farms 5	None	None
Public Interest Groups	Cornucopia Institute (2)	Beyond Pesticides (BP) (3)	None
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers		None	None
Trade Associations/Consultants	Organic Produce Wholesalers Coalition Northwest Horticultural Council Juice Products Association Organic Trade Association (OTA) (4) 3 consultants	None	None
Certifiers /Materials Review	California Certified Organic Farmers (CCOF) (5)	None	Midwest Organic Services Association Organic Materials Research Institute

Notes:

- (1) A citizen states: "The introduction of naturally based agricultural chemicals that are more user and environmentally friendly have proven to be a significant aid to Organic Farmers."
- (2) Cornucopia states: "Insecticidal soaps are not persistent as they are quickly metabolized in the environment."
- (3) BP states: "Insecticidal soaps are broad-spectrum synthetic insecticides. Since they are nonselective, they kill predatory arthropods – especially the more vulnerable larval stage."
- (4) OTA states: "All respondents use insecticidal soap products "routinely" and rate them as "critical" to the success of their operations."
- (5) CCOF states: "These materials have no residual activity, which minimizes their impact on beneficial insects including honey bees."

Lignin Sulfonate

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As a dust suppressant, chelating agent, and soil amendment

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	2	None	None
Citizen	None	3	None
Public Interest Groups	None	Beyond Pesticides	Cornucopia Institute (1)
Food Processors / Handlers / Manufacturers	Ligno Tech USA (2)	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	Northwest Horticultural Council Organic Produce Wholesalers Coalition (OPWC) (3)	None	Organic Trade Association (OTA) (4)
Certifiers/Materials Review	None	None	California Certified Organic Farmers (CCOF) (5)

Notes:

- (1) Cornucopia states: “We support the relisting of lignin sulfonate for use as a dust suppressant and as a chelating agent because of its safety and essentiality for these uses. Lignin sulfonate should be removed for use as a plant or soil amendment because there are safer alternatives to increasing organic matter in soil that do not result in the same risks for high biological oxygen demand (BOD) in waterways.”
- (2) Ligno Tech USA states: “Customers use a number of different lignin sulfonates to formulate micronutrients for use in organic crop production and the loss of these products as being organically certified would have a significant impact on their businesses.”
- (3) OPWC states: “This is important to us as a chelating agent for sulfate forms of micronutrients, especially if pH of soil is on the higher side.”
- (4) OTA survey respondent states: “We spray it on our high-traffic tractor roads around our vineyard to keep the dust down during our very dry summers here in western Oregon. Dust in the vine canopy is not a good thing so we need to use something for dust control. We use calcium lignin sulfonate as a binder or chelating agent for our organic fertilizer manufacturing process. The calcium lignin sulfonate greatly helps us granulate our organic fertilizer materials. Without this product, we would not be able to manufacture a high nitrogen organic fertilizer for growers who greatly need this type of fertilizer.”
- (5) CCOF states: “Members who use lignin sulfonate primarily apply it as a dust suppressant, which helps prevent mite infestations in crops.”

Magnesium Sulfate

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used as a soil amendment in magnesium deficient soils when deficiency is documented.

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	None	None	None
Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	CROPP Cooperative	None	None
Trade Associations / Industry Consultants	Organic Produce Wholesalers Coalition (OPWC) (2)	None	None
Certifiers / Materials Review Organizations	None Midwest Organic Services Association (MOSA) (3)	None	California Certified Organic Farmers (CCOF) (4)

Notes:

- (1) BP states: "Magnesium sulfate should be allowed to sunset. Synthetic plant nutrients should not be taking the place of organic soil-building practices."
- (2) OPWC survey respondent: "Magnesium is essential and necessary for normal plant growth. Deficiencies create detrimental plant disorders that are especially pronounced in strongly acidic, light, sandy soils, where magnesium can be easily leached away."
- (3) MOSA states: "Epsom salts are very commonly used. Magnesium sulfate is an AAFCO mineral in 196 products."
- (4) CCOF states: "379 OSPs include Magnesium Sulfate."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Microcrystalline Cheesewax

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used to seal the plug or sawdust spawn to inoculate logs for growing mushrooms

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	None	None	None
Citizen	1 (1)	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (2) Cornucopia Institute (3)
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	None	None	None
Certifiers/Materials Review	None	None	Midwest Organic Services Association

Notes:

- (1) A citizen states: “Microcrystalline cheesewax has a better soy alternative so please demand mushroom growers to switch to that.”
- (2) BP states: “Natural soy wax from domestically-produced non-GMO soybeans –made by hydrogenating soy oil— is now available and was not considered when microcrystalline cheesewax was listed. Microcrystalline cheesewax should remain on the National List until soy wax is listed and determined to be sufficiently available.”
- (3) Cornucopia states: “A more in-depth Technical Report is completed on the current state of food grade waxes produced by green chemistry (currently commercially available) which utilizes less toxic, energy-saving processes, and plant byproducts.”

Newspaper/Recycled Paper

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As a mulch, without glossy or colored ink

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers / Citizens	7	None	1
Public Interest Groups	None	None	None
Food Processors / Handlers / Manufacturers	None	None	Cornucopia Institute (1)
Distributors / Retailers	None	None	None
Trade Associations	Organic Produce Wholesalers Coalition Juice Products Association	None	None
Certifiers	California Certified Organic Farmers (CCOF) (2)	None	Pennsylvania Certified Organic (PCO) (3) Midwest Organic Services Association

Notes:

- (1) Cornucopia states: “There has been an exponential increase in the use of colored graphics and photography in daily papers since the last Technical Review was prepared and it is not easy to separate colored from black inks.”
- (2) CCOF states: “Mulch materials may become increasingly important for CCOF members in California due to the drought and the need to retain more moisture in the soil. It is used as a feedstock in commercial composts, and it is used in the manufacture of the commercial weed mat product WeedGuardPlus. Newspaper appears to be a benign material that would appeal particularly to very small growers.”
- (3) PCO states: “There have been some questions from operators regarding the extent to which they must sift through their newspaper piles to ensure “no glossy or colored inks” are used.”

Pheromones

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used for insect control

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	18 (1)	None	None
Citizens	5	None	None
Public Interest Groups	None		Beyond Pesticides (BP) (2)
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	CROPP	None	None
Trade Associations / Industry Consultants	Organic Produce Wholesalers Coalition (OPWC) (3) Juice Products Association	None	None
Certifiers / Materials Review Organizations/Extension	None California Certified Organic Farmers (CCOF) (4) Washington State Department of Agriculture Organic Extension (5)	None	None

Notes:

- (1) A farmer states: “When used in conjunction with mating disrupting pheromones and a Virus that only harmful to codling moth we achieve favorable results. When one of these is removed excessive application of the others is required with very poor results.
- (2) BP states: “We support the following listing, which we believe captures the sense of the conditions for exempting pheromone products from regulation: §205.601(f) As insect management. Pheromones, provided that they are identical to or substantially similar to natural pheromones as defined in 40 CFR 152.25(b), in passive dispensers, without added toxicants, and with only approved inert ingredients.”
- (3) OPWC states: “This material is very important in production of many crops—in our case, it is used extensively by growers of tree fruit. Used in traps and for mating disruption for insect pests. Especially necessary for orchard pests, notably codling moth.
- (4) CCOF states: “Pheromone use has increased as various formulations have been developed for specific target species. Commonly used formulations are various Checkmate and ISOMATE products. These materials are often the best choice for organic growers dealing with invasive species.”
- (5) Washington extension agent states: “Pheromone mating disruption can provide sufficient control in orchards with relatively low populations, but is generally insufficient with higher populations and must be augmented with other controls. Virtually every commercial organic apple and pear orchard is at risk of codling moth infestation. Therefore, almost all orchards use mating disruption.”

NOTE: The Cornucopia Institute has not yet reviewed this material.

Plastic Mulches

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used for weed control.

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	8	None	None
Citizens	2	None	None
Public Interest Groups	None		Beyond Pesticides (BP) (1)
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Produce Wholesalers Coalition (OPWC) (2) Northwest Horticultural Council (NHC) (3)	None	None
Certifiers / Materials Review Organizations	None	None	Organic Trade Association (OTA) (4)

Notes:

- (1) BP states: "The NOSB should modify the listing for plastic mulch to limit its use to those cases in which organic mulches or cover crops cannot perform the necessary function."
- (2) OPWC grower states: "Plastic Mulch is always a concern of NOSB but losing this would mess up a lot of OG operations. Labor is too expensive to not use plastic mulch."
- (3) NHC states: "Critics advance the claim that extreme weather conditions may cause a de-polymerization event to occur within the plastic, meaning that trace amounts of potentially toxic monomers could be released into the environment. However, in the highly unlikely event that this were to take place, the amount of monomers released would presumably be so infinitesimal that, along with the fact that the chances of contact with any fruit meant for human consumption being essentially zero, its contingency is of negligible concern."
- (4) OTA survey respondent states: "'We always use black plastic mulch when we establish a vineyard. We do not irrigate and the black plastic mulch is critical to us getting the baby vines growing well over their first three years in the ground. We always take the black plastic up after it has been in for 4-5 years', and 'If we could not use black plastic mulch then we would have to invest heavily in irrigation.'"

NOTE: The Cornucopia Institute has not yet reviewed this material.

Potassium Bicarbonate

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: For plant disease control

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	2 (1)	None	None
Citizens	1 (2)	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (3)
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Produce Wholesalers Coalition (OPWC) (4) Northwest Horticultural Council (NHC) (5)	None	None
Certifiers / Materials Review Organizations	California Certified Organic Farmers	None	None

Notes:

- (1) A farmer states: "Along with Sulfur, Potassium Bicarbonate is one of the few materials that is effective on powdery mildew in stone and pome fruits. It is unique in that it can be mixed with oil and that it acts as a contact fungicide, killing the mildew post infection. It is an important part of the control program for a very challenging disease and as such should be maintained on the approved products list."
- (2) A citizen states: "Potassium bicarbonate has widespread use in crops, especially for neutralizing acidic soil. It is also an effective fungicide against powdery mildew and apple scab. Potassium bicarbonate has even been known to be used in bottled water."
- (3) BP states: "Potassium bicarbonate in many situations may be more environmentally sound and safer for applicators and other farmworkers than the other synthetic alternatives."
- (4) OPWC states: "We use this as an important fungal control in greenhouses. Economical, readily available and has low toxicity."
- (5) NHC states: "An invaluable tool used by organic tree fruit growers to fight apple scab and powdery mildew. 100% of regional organic tree fruit growers use this amendment."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sodium Silicate

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used to adjust the specific gravity in flotation tanks for pears

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	None	None	None
Citizen	1	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	None	None	None
Certifiers/Materials Review	None	None	None

Notes:

- 1) BP states: "The use for fiber processing did not receive much attention in the technical review. Its health impacts on workers and essentiality for that use are not clear. The summary by the Crops Subcommittee did not mention this use or ask questions about it. It is not clear whether sodium silicate might have a preservative effect on pears."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sticky Traps/Barriers

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: Used for insect control

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	12	None	None
Citizens	5	None	None
Public Interest Groups	None		Beyond Pesticides (BP) (1)
Food Processors / Handlers	None	None	None
Ingredient Suppliers / Material Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations / Industry Consultants	Organic Produce Wholesalers Coalition (OPWC) (2) Juice Products Association	None	None
Certifiers / Materials Review Organizations	California Certified Organic Farmers	None	None

Notes:

- (1) BP states: "Like a number of other materials in this section, sticky traps suffer from the shortcoming of having the potential to kill non-target organisms. Many can be used in such a way that the likelihood of trapping non-target animals is low. The CS should explore the possibility of an annotation that ensures the targeted use of these traps."
- (2) OPWC states: "Used frequently for insect control especially in greenhouses, processing plants, storage areas etc. Often used in conjunction with pheromones and other lures."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Sulfur Materials (lime sulfur/elemental sulfur)

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As plant disease control (lime sulfur) and a soil amendment (elemental sulfur)

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Citizens	8	None	None
Farmers	5 (1)	None	None
Public Interest Groups	None	None	Beyond Pesticides Cornucopia Institute (2)
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	CROPP Cooperative (3)	None	None
Trade Associations/Consultants	Organic Produce Wholesalers Coalition (OPWC) (4) Juice Products Association Humic Products Trade Association Northwest Horticultural Council (NHC) (5) G.S. Long Company (GSLC) (6)	None	None
Certifiers /Materials Review	Washington State Department of Agriculture	None	Midwest Organic Services Association Organic Trade Association (OTA) (7)

Notes:

- (1) A farmer states: "In general, this sunset process seems ridiculous. These products have been used for years and are essential to organic production. Organic production is hard enough with the few tools that we have. Please do not cripple my organic farm practices and the organic industry overall."
- (2) Cornucopia states: "We recommend that the Crops Subcommittee investigate the particular uses of lime sulfur and elemental sulfur in plant disease and insect control to determine when they are necessary, and the committee should propose an annotation for specific uses."
- (3) CROPP states: "Elemental sulfur is important as a soil amendment and has increased in usage over recent years. It is used in soils to buffer the effects of high pH and high calcium. There are no known alternatives."
- (4) OPWC states: "Critically important on our farm—use it as a dormant spray to control insects on blueberries."
- (5) NHC states: "Approximately 95% of regional tree fruit growers use lime sulfur. It is believed that all regional organic tree fruit growers are using elemental sulfur."
- (6) GSLC states: "Lime sulfur is a critical tool in chemical thinning apples at blossom timing. Bloom thinning is important to prevent biennial bearing."
- (7) OTA states: "Lime Sulfur is our "Dormant Spray" and we only use it once a year and it is a critical spray for us. It keeps the Willamette Mites off our vineyard and also helps kill off any over-wintering mildew spores."

Vitamin D₃

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.601

Purpose: As rodent control, in a bait station above ground, below ground it may be used loose

	Support Relisting	Oppose Relisting	Neutral / Seeks Clarification
Farmers	Phillips Mushroom Farms (PMF) (1)	None	None
Citizen	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (2) Cornucopia Institute (3)	None
Food Processors / Handlers / Manufacturers	None	None	None
Distributors / Retailers	None	None	None
Trade Associations/Consultants	Northwest Horticultural Council Organic Produce Wholesalers Coalition (OPWC) (4)	None	Organic Trade Association (OTA) (5)
Certifiers/Materials Review	None	None	California Certified Organic Farmers Organic Materials Research Institute

Notes:

- (1) PMF states: "There are very few alternatives for rodent control aside from the physical, which is what we do inside of our facilities. For the outside of our facilities this is an important tool."
- (2) BP states: "Nontarget animals may be poisoned directly or through secondary poisoning.²³ Its toxicity to target and nontarget animals has resulted in poisoning of children and pets, as well as nontarget wildlife."
- (3) Cornucopia states: "data showed that Vitamin D3 has a long retention time in the blood (25 days) and this could lead to a higher risk to predators."
- (4) OPWC states: "Critical for rodent control in our blueberry field and storage facilities."
- (5) OTA survey respondent: "There are very few alternatives to this material in organic operation and none that we would feel comfortable using."

MATERIALS SUBCOMMITTEE

Discussion Document: Excluded Methods Terminology

	Commented
Farmers / Citizens	
Public Interest Groups	Beyond Pesticides Center for Food Safety (CFS) (1) Friends of the Earth Food and Water Watch National Organic Coalition
Food Processors / Handlers	None
Ingredient Suppliers / Manufacturers	Nature's Path
Distributors / Retailers	Albert Lea Seed House (ALSH) (2)
Trade Associations / Consultants	Wolf, DiMatteo + Associates (WDA) (3) Organic Trade Association (OTA) (4) Organic Produce Wholesalers Coalition
Certifiers	International Organic Inspectors Association (IOIA) (5)

Notes:

- (1) CFC states: "We urge the NOSB and NOP to not open up the regulations or try to alter the definition in any way. We view the list of methods named in the Excluded Methods definition as illustrative, not comprehensive. Therefore, it is not necessary to list every new breeding technology when the overall description encompasses a broad swath of significant, new and emerging technologies adequately. If there are ambiguities or concerns, these can be met by issuing guidance."
- (2) ALSA states: "it is premature to establish a threshold for unwanted GE contamination in conventional seed used in organic systems."
- (3) WDA states: "We believe that more scrutiny needs to be applied to the use of non-organic seed. We encourage ACAs and the NOP to be more diligent in requiring organic seed and only allow nonorganic seed when it has been well-documented that organic seed is not available and that the non-organic seed is untreated and non-GMO."
- (4) OTA states: "We strongly suggest working with NOP to incorporate clarification on terminology into guidance, so that terms and definitions can be more easily updated and stay current with evolving technologies and products."
- (5) IOIA states: "Measures to be implemented should be taken within the context of the NOPs current Sound And Sensible position. For example, is it appropriate to place a wholesale prohibition on the use of conventional crop wastes for compost or mulch, particularly if there is not a threat of contamination of the organic crop with GMO pollen? Genetic testing, if implemented, must include the provision of a reasonable background level, particularly as tests become increasingly more adept at detecting GMOs. If not implemented carefully, these measures will serve only to reduce the crop input choices of producers and make organic certification even less appealing and more onerous for producers."

Nanoparticles

	Commented
Farmers	None
Citizens	1 (1)
Public Interest Groups	Beyond Pesticides (2) Center for Food Safety (CFS) (3) Cornucopia Institute (4) National Organic Coalition
Food Processors / Handlers	None
Ingredient Suppliers / Manufacturers	None
Distributors / Retailers	PCC Natural Markets (5)
Trade Associations / Consultants	None
Certifiers	None

Notes:

- (1) A consumer states: "The pulmonary toxicity of airborne particles...is known that toxicity is strongly related to particle size."
- (2) BP states: "The NOP must not depend on other agencies with less protective purposes to take the lead in preventing the intrusion of unwanted technology into organic products and production. The NOP Policy Memo 15-2 exhibits gross disrespect in the "NOSB process" and is at odds with the policy passed by the deliberative body."
- (3) CFS states: "we have repeatedly presented evidence to the NOSB demonstrating our concerns and underscoring why the technology is incompatible with organic, on numerous occasions."
- (4) Cornucopia states: "Experts on nanotechnology are virtually unanimous that nano-scale materials have the potential for structure-dependent health effects that are uniquely different than their larger counterparts."
- (5) PCC states: "FDA told manufacturers they should not assume nano ingredients are safe, and they should study nanoparticles to determine if they need regulation."

LIVESTOCK SUBCOMMITTEE

Acidified Sodium Chlorite (ASC)

Discussion: Petitioned to be added to the National List at 205.603(a) as a disinfectant, sanitizer and medical treatment, and at 205.603(b) for use as a topical treatment, for the intended use on organic livestock as a pre and post teat dip.

Subcommittee vote: The Livestock Subcommittee voted to recommend this material be added to the National List on 1/27/2015

Purpose: For use on organic livestock as a pre and post teat dip treatment, acidified with lactic acid or other GRAS acid

	Support	Oppose	Neutral / Seeks Clarification
Farmers/Citizens	7+ 10 signatures (1) (2)	5 (3)	None
Public Interest Groups	None	Beyond Pesticides (BP) (4) Consumer Reports (CR) (5)	Cornucopia Institute (6)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	North Star Cooperative, Inc. (NSC) (7) Organic Trade Association (OTA) (8) Daniel Giacomini (9) CROPP Cooperative	None	Midwestern Organic Services Association
Scientists	None	None	None
Certifiers	Certified California Organic Farmers	None	None

Notes:

- 1) A farmer states: "ASC is one of the safest and most effective germicides available today. After use it breaks down into lactic acid and sodium chloride (salt) that are both found naturally in milk. ASC is related to chlorine in name alone and when ASC degrades it does not form the same chlorine species of concern as does hypochlorite (bleach)."

- 2) A citizen states: "As someone who was referred to as 'Mr. No' during my time on the NOSB, I believe there are far too many materials on the National List, but I strongly support the Livestock Committee's recommendation to add Acidified Sodium Chlorite to 603 for use as a pre- and post-dip in organic dairy production."
- 3) A citizen states: "Acidified sodium chlorite (ASC) is a secondary direct antimicrobial food treatment and used for indirect food contact surface sanitizing. Chlorine compounds contained in ASC are strong oxidizing agents and very toxic."
- 4) BP states: "We oppose the addition of ASC for three reasons: 1)ASC is not compatible with organic production, 2) ASC and chlorine chemistry is harmful to humans and the environment, and 3)ASC is not necessary."
- 5) CR states: "The [Livestock] committee's review shows that this substance does not meet any of the National List criteria and should therefore not be included in on the National List."
- 6) Cornucopia states: "ASC appears to have promising utility for organic dairy producers. However, scientific data is lacking on potential detectable residues in milk (as are present with many teat dips) and any associated impacts on human health. In addition, any potential approved use, or restricted use, should take into consideration the environmental liabilities as have been conveyed in the written comments from Beyond Pesticides regarding chlorine-based compounds."
- 7) NSC states: "Our organization works with numerous organic dairy producers that want to utilize an ASC teat dip for the prevention of mastitis and to improve the overall udder health and well-being of a milking herd while maintaining well established practicing organic standards."
- 8) OTA states: "ASC [is a] synthetic alternative treatment for which there is no wholly natural alternatives (i.e. [this] substance would be used as [an] alternative for currently allowed synthetics), so the addition of [this] substance would not necessarily result in the increased use of synthetic substances in organic livestock production."
- 9) Daniel Giacomini states: "ASC is compatible with organic production practices. It is essential for organic production because it has been proven effective and producers should not be limited on acceptable alternatives to maintain herd health."

2017 SUNSET MATERIALS - §205.603

Aspirin

Discussion: 2017 Sunset Review. Comments regarding relisting on §205.603

Purpose: Used to control pain, inflammation and body temperature in livestock

	Support	Oppose	Neutral / Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	CROPP Cooperative (1) Western Organic Dairy Producers Alliance Hubert Karreman, VMD (2)	None	Organic Trade Association (OTA) (3)
Scientists	None	None	None
Certifiers	Washington State Department of Agriculture (WSDA) (4)	None	Midwest Organic Services Association (MOSA) (5)

Notes:

- (1) CROPP states: “[Aspirin] has a wide safety margin with low risk of side effects associated with related NSAID drugs. Common conditions in which farmers employ aspirin include mastitis, soft tissue injuries, arthritis, and fever.”
- (2) Dr. Karreman states: “Aspirin is usually given orally, which makes it easy and usable for farmers in an emergency when flunixin is not available. It was originally derived from white willow, which contains salicylic acid, the active material. There are botanical tinctures such as feverfew and white willow which

would have pharmacologic amounts of compounds which reduce fever but may not reduce pain and inflammation. Additionally, these tinctures are not so widely available as is aspirin and aspirin is useful for three indications (fever, pain, inflammation) and not just one.”

(3) OTA states: “The general response to OTA’s survey is that aspirin is widely used to reduce inflammation, pain and fever.”

(4) WSDA states: “This is an important material for the industry to reduce inflammation in dairy cattle and is an active part of a herd health plan.”

(5) MOSA states: “Very widely used.”

NOTE: The Cornucopia Institute has not yet reviewed this material.

Atropine

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Used to dilate the eye, reduce eye spasms, and reduce pain from eye surgery or disease

	Support	Oppose	Neutral / Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	CROPP Cooperative (1) Western Organic Dairy Producers Alliance Hubert Karreman, VMD (2)	None	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwestern Organic Services Association

Notes:

(1) CROPP states: “This product is important to the humane treatment of organic animals. It is used by veterinarians in the treatment of pinkeye to keep the pupil dilated during times of spasm. Pinkeye is common in cattle. It can also be used as a pre-op medicine prior to anesthesia.”

(2) Dr. Karreman states: “Keeping atropine on the list (derived from the plant *Atropa belladonna*, and which may actually be a natural and not need to be on 205.603) will allow veterinary practitioners the flexibility in using it during treatment for pinkeye if they think the case merits its use.”

NOTE: The Cornucopia Institute has not yet reviewed this material.

Copper Sulfate

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Used as a foot bath for controlling hoof rot in dairy animals

	Support	Oppose	Neutral / Seeks Clarification
Farmers/Citizens	Ginger Hill Cheryl May	None	None
Public Interest Groups	None	Organic Consumers Association (OCA) (1) Beyond Pesticides (BP) (2)	National Organic Coalition (NOC) (3)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations / Consultants	Western Organic Dairy Producers Alliance CROPP Cooperative (4)	None	Hubert Karreman, VMD Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwestern Organic Services Association

Notes:

(1) OCA: Acquired more than 22,000 petition signatures at http://salsa3.salsalabs.com/o/50865/p/dia/action3/common/public/?action_KEY=16140

(2) BP states: “The major concern is disposal of the copper sulfate solution, which is ultimately spread on the land with manure. It is possible that maximum soil copper loading rates may be exceeded in a relatively short time. [Alternatives] include the use additional dietary supplements (i.e., feeding of iodine, feeding of zinc methionine), free stall (cubicle) design, limiting contact with gravel or rocky surfaces, and hoof trimming practices. Zinc sulfate has been petitioned for the use.”

(3) NOC states: “We cannot lose sight of the fact that copper products are toxic and the elemental copper in the formulations is persistent. They can be toxic to aquatic life, to wildlife, including birds and mammals, to the workers who apply them and to those who ingest, breathe or come into contact with copper. When copper builds up in soils it can be detrimental to earthworms and other beneficial soil organisms and suppress nitrogen fixation rates by Rhizobium.”

(4) CROPP states: “Copper sulfate footbaths are used on many dairies as part of their overall hoof hygiene program. The use of a foot bath that contains copper sulfate has proven helpful in controlling the spread of foot rot.”

NOTE: The Cornucopia Institute has not yet reviewed this material.

Electrolytes

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: For correcting metabolic imbalances in livestock due to dehydration

	Support	Oppose	Neutral / Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Hubert Karreman, DVM (1) Western Organic Dairy Producers Alliance	None	Pennsylvania Certified Organic Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association (MOSA)(2)

Notes:

(1) Dr. Karreman states: "These are indispensable for correcting metabolic disturbances due to dehydration. They are often needed to be given IV but often for baby calves they are given orally. These are basic to proper care for animals in various conditions arising from many different causes."

(2) MOSA states: "We request clarity on single ingredients allowed. Example - sodium lactate; calcium gluconate; calcium propionate, glycine, etc."

NOTE: The Cornucopia Institute has not yet reviewed this material.

EPA List 4 Inerts

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1) Consumer Reports (CR) (2) Food and Water Watch (FWW) (3)	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	None	None	Western Organic Dairy Producers Alliance Organic Trade Association (OTA) (4)
Scientists	None	None	None
Certifiers	None	None	Midwestern Organic Services Association (MOSA) (5)

Notes:

- (1) BP states: “Nonylphenol ethoxylates (NPEs) are toxic environmental pollutants with safer alternatives. Because the major use of NPEs is as a surfactant, most studies have concentrated on impacts on aquatic and semi-aquatic species. NPEs are highly acutely toxic to aquatic organisms, medium to high in chronic toxicity, medium to high in persistence, and exert estrogenic effects on a wide range of organisms. Breakdown products, especially nonylphenols (NPs), are much more toxic than NPEs;1,2 and are also estrogenic.3 EPA rates persistence medium to high; degradation
- (a) 1. EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.
 - (b) 2. Andrea Lani, 2010. Basis Statement for Chapter 883, Designation of the Chemical Class Nonylphenol and Nonylphenol Ethoxylates as a Priority Chemical and Safer Chemicals Program Support Document for the Designation as a Priority Chemical of Nonylphenol and Nonylphenol Ethoxylates, Bureau of Remediation and Waste Management, Maine Department of Environmental Protection.
 - (c) 3. Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses
- (2) CR states: “We believe that the NOSB should make every effort to move forward with its work on the Inerts Working Group and place additional pressure on the NOP to move forward with the NOSB’s proposed rulemaking, while also taking every step possible to uniformly apply the National List criteria to each

synthetic inert ingredient. **We urge the NOSB to amend the inert substances listing to include a 2 to 3 year expiration date, so as to apply much needed pressure on the completion of the inert ingredient task force and NOP. ”**

- (3) FWW states: “We support the proposal of the Crops Subcommittee to annotate the listing for List 4 inerts to eliminate the use of nonylphenol ethoxylates. List 4 inerts are listed on §205.603(e) for use in livestock products, as well as on §205.601(m) for crop products. Therefore we believe the proposal should apply to both listings.”
- (4) OTA states: “List 4 is no longer current, and NOSB and NOP are developing oversight mechanisms in collaboration with EPA for a modernized approach to reviewing inert ingredients. OTA supports this effort. We encourage NOSB to devote its resources to advising USDA and EPA on designing an inerts review program that is commensurate with organic principles.”
- (5) MOSA states: “Allowed inerts need clarification.”

NOTE: The Cornucopia Institute has not yet reviewed these materials.

Excipients

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Substances that serve as the vehicle or medium for a drug or other active substance, including colorants, flavor enhancers

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Hubert Karreman, VMD (2) Western Organic Dairy Producers Alliance (WODPA) (3)	None	Organic Trade Association
Scientists	None	None	None
Certifiers	Certified California Organic Farmers (CCOF) (4) Washington State Department of Agriculture (WSDA) (5)	None	Midwest Organic Services Association (MOSA) (6)

Notes:

- (1) BP states: "The LS should make a commitment to identifying and reviewing the excipients used in organic production. A process for doing so is laid out in two NOSB recommendations on "inert" ingredients from April 2010 and October 2012. Meanwhile, we recommend that the NOSB place an expiration date on the listing for excipients to ensure that the NOP feels an urgency to assist with the project."
- (2) Dr. Karreman states: "While I am very happy that excipients are on the list... the definition is actually kind of limiting when in view of all the various product formulations out there. If anything it should be expanded, but that cannot be done during sunset."
- (3) WODPA states: "These products are vitally important for assuring that approved active ingredients are available to producers; since actives don't exist on their own."
- (4) CCOF states: "The present annotation is not clear. It allows for almost anything to be allowed as an excipient, but materials reviewers have to research using multiple databases (CFR Code of federal regulations title 21, GRAS database, EAFUS database, etc.) to gather that information. A clear annotation should to state which specific excipients, if any, would not be allowed. Synthetic excipients are in almost every livestock healthcare product. Information on them is very difficult to obtain from manufacturers in certain cases like teat dips."
- (5) WSDA states: "While we recognize that the broad allowance for excipients may not be implemented consistently amongst accredited certification agencies, our experience is that it is a critical part of a successful animal health care system."
- (6) MOSA states: "[We] recognize that there is some lack of clarity with defining 'drug'. We also request recognition of specific lists where materials must be listed."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Fenbendazole

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: parasiticide for use on cattle, sheep, goats (when directed by a vet), swine, poultry

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	Cornucopia Institute (1)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Hubert Karreman, VMD Western Organic Dairy Producers Alliance (WODPA) (2)	None	Organic Trade Association
Scientists	None	None	None
Certifiers	Certified California Organic Farmers	None	Washington State Department of Agriculture (WSDA) (3) Midwest Organic Services Association (MOSA) (4)

Notes:

(1) Cornucopia

(a) requests the following **annotation**: *“Prohibited in slaughter stock. May only be used in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be represented as organic, either as “100% organic” or as contributing organic ingredients in a “95% organic” or “made with organic” product for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period of breeding stock. Only for use by or on the lawful written order of a licensed veterinarian. Synthetic parasiticides must not be administered on a routine basis.”*

(b) The current TAP is from 1999. A new TR is not yet available to the public. This is totally unacceptable as it impedes efforts by citizens and organizations to make informed summary reviews of the substance. There is a considerable amount of new scientific information on fenbendazole that has been published since 1999.

- (2) WODPA states: "The availability of this product is important in the event that cattle or calves become infected with parasites. This is one of three currently approved parasiticides. The producer should have several options. Withholding time should be shortened. This product is important to the humane treatment of organic animals."
- (3) WSDA states: "6 of the 42 dairy operations WSDA Organic Program certifies include ivermectin on their materials list. While this material may not be needed every year, the wet climate in the Pacific Northwest can create conditions where preventative practices may fail and a synthetic parasiticide is needed. WSDA Organic Program has no organic producers with fenbendazole or moxidectin on their Organic System Plans."
- (4) MOSA states: "Plan for use must be approved. Emergency use only."

Flunixin

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Used to treat pain, inflammation and fever - stronger than aspirin

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	CROPP Cooperative (1) Western Organic Dairy Producers Alliance (WODPA) (2) Hubert Karreman, DVM	None	Organic Trade Association (OTA) (3)
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association (MOSA) (4)

Notes:

- (1) CROPP states: "Flunixin is a nonsteroidal anti-inflammatory (NSAID) drug used for the treatment of pain, inflammation, and pyrexia (fever). This drug contributes significantly to the comfort and welfare of ill or injured animals. It remains an important analgesic with properties different from those of other available drugs."
 - (2) WODPA states: "Flunixin is an NSAID (non-steroidal anti-inflammatory drug) related to aspirin, but about 100 times as strong. Flunixin provides pain relief, fever reduction, and controls inflammation. Relief is provided within a short time and animals will often resume eating within 30 minutes. Rapid return to eating is important in the animals recovery. Aspirin, a much less effective product, is not a suitable replacement. Flunixin is far superior in relieving abdominal pain due to colic and other digestive disturbances."
 - (3) OTA states: "A farmer submitted the following response to OTA's survey: "On rare occasions, prescribed by a vet for an acute situation with one of our cows."
 - (4) MOSA states: "Not very common, but in use on some farms."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Formic Acid

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Allowed for use as a pesticide within honeybee hives

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	Beyond Pesticides (BP) (1)	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (2)	None	Organic Trade Association Hubert Karreman, VMD
Scientists	None	None	None
Certifiers	None	None	MOSA

Notes:

- (1) BP states: "We encourage the LS to assess formic acid in light of new information in the TR and input from beekeepers to determine its effectiveness and hazards relative to other alternatives that have been and may be identified."
 - (2) WODPA recommends relisting this product for use within honeybee hives.
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Furosemide

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Reduces edema (swelling/fluid build-up) in cattle

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1)	Hubert Karreman, VMD (2)	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	MOSA

Notes:

- (1) WODPA states: "Furosemide is used for the treatment of physiological parturient edema of the mammary gland and associated structures. A diuretic-saluretic for prompt relief of edema. This product is important to the humane treatment of organic animals."
- (2) Dr. Karreman states: "This is a compound which could be sunsetted. Its use is very limited and there are other natural compounds that can off-set it, such as coffee, as far as being a diuretic (stimulates urination). I submitted this material in the original "batch" in 2002 but no longer think it is necessary."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Glucose

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: A simple sugar used in electrolyte solutions to accelerate absorption of solutes (electrolytes)

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance CROPP Cooperative Hubert Karreman, VMD (1)	None	Organic Trade Association (OTA) (2)
Scientists	None	None	None
Certifiers	None	None	Midwestern Organic Services Association (MOSA) (3)

Notes:

(1) Dr. Karreman states: "This is a critically vital compound to have available for large animals, especially dairy cows."

(2) OTA survey respondent states: "Used in treating ketosis, which doesn't happen very often. But without treatment the cow will continue to go downhill."

(3) MOSA states: "Commonly used electrolyte ingredient."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Glycerin

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: byproduct of biodiesel production, allowed as a livestock teat dip in §205.603(a)(12), but conventionally used as a feedstock and oral supplement

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODP) (1) Hubert Karreman, VMD	None	Organic Trade Association (OTA) (2)
Scientists	None	None	None
Certifiers	None	None	None

Notes:

(1) WODPA states: "This product is needed as an oral supplement to follow-up dextrose/glucose IV for ketosis. Glycerin works in the rumen to create new sugars in vivo. Glycerin is also tied to Chlorhexidine. This product is important to the humane treatment of organic animals."

(2) OTA survey respondent states: "It is an ingredient in a teat dip that is used at each of 2 daily milkings on each milking cow. It provides an emollient to the teat dip to keep cow's teats from chapping and getting irritated."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Ivermectin

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: A parasiticide for use on cattle, sheep, goats (when directed by a vet), swine, poultry

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	Cornucopia Institute (1)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (2)	Hubert Karreman, DVM (3)	Organic Trade Association
Scientists	None	None	None
Certifiers/Extension	Certified California Organic Farmers (CCOF) (4)	None	Washington State Department of Agriculture (WSDA) (5) Midwestern Organic Services Association (MOSA) (6)

Notes:

(1) Cornucopia requests the following:

- (a) To add the annotation: "Prohibited in slaughter stock. May only be used in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be represented as organic, either as "100% organic" or as contributing organic ingredients in a "95% organic" or "made with organic" products for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period of breeding stock. Synthetic parasiticides must not be administered on a routine basis.
- (b) The most current TAP is from 1999. A new TR is not yet available to the public. There is a considerable amount of new scientific information on ivermectin that has been published since 1999.

- (2) WODPA states: "The availability of this product is important in the event that cattle or calves become infected with parasites. This is one of three currently approved parasiticides. The producer should have several options. Withholding time should be shortened. This product is important to the humane treatment of organic animals."
- (3) Dr. Karreman states: "Ivermectin is toxic to dung beetles, which are an integral part of pastureland ecology. Moreover, ivermectin and moxidectin are macrocyclic lactones, a type of antibiotic. Since antibiotics as active substances are prohibited in organic livestock use (and fortunately soon, too, in plant use), the inclusion of ivermectin and moxidectin is questionable."
- (4) CCOF states: "Viable alternatives to these synthetic options [for parasite control] are not readily available and can be difficult to acquire. The use of fenbendazole is much less common [than ivermectin]. Ivermectin is quite common in organic production; however, its effectiveness may prevent livestock producers from seeking non-synthetic alternatives."
- (5) WSDA states: "6 of the 42 dairy operations WSDA Organic Program certifies include ivermectin on their materials list. While this material may not be needed every year, the wet climate in the Pacific Northwest can create conditions where preventative practices may fail and a synthetic parasiticide is needed. WSDA Organic Program has no organic producers with fenbendazole or moxidectin on their Organic System Plans."
- (6) MOSA states: "Plan for use must be approved. Emergency use only."

Lidocaine

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Local numbing anesthetic

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	Cornucopia Institute (1)	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance Hubert Karreman, VMD (2)	None	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association

Notes:

- (1) Cornucopia states: "Lidocaine is a relatively safe, effective, widely available, local anesthetic used to reduce pain in an animal during veterinary surgical procedure or during dehorning. 90-day withholding periods seem excessive and shorter withholding periods are supported by research."
- (2) Dr. Karreman states: "This is a true local anesthetic (numbs only the area to be worked on, in contrast to butorphanol which is a systemic anesthetic). There are no alternatives that have been advanced unless cocaine is allowed (doubtful!). The withholding time should be re-evaluated, just as the withholding times of parasiticides should be."

Lime, Hydrated

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: allowed as an external pest control, used conventionally to cauterize wounds and deodorize animal waste

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance Hubert Karreman, VMD (1)	None	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	MOSA

Notes:

(1) Dr. Karreman states: "This is a much needed compound for the stated uses in its listing. It is also very, very helpful to prevent hoof problems when used in a walk through box. Its use can reduce the use of copper sulfate."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Magnesium Hydroxide

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: allowed on the order of a licensed veterinarian, antacid used to alkalize the rumen and increase magnesium in the bloodstream

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1) Hubert Karreman, VMD	None	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	MOSA

Notes:

(1) WODPA states: "This product is important to the humane treatment of organic animals. It is a compound which helps correct grass tetany (low magnesium in the blood stream) which occurs in the lush growing times of spring pasture. It is also a good antacid for possible rumen acidosis."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Magnesium Sulfate

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: supplement for livestock on low magnesium pastures and/or high potassium pastures

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1) Hubert Karreman, VMD (2) Paul Sachs	None	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association

Notes:

(1) WODPA states: "This product is administered by the intravenous or intramuscular routes as an electrolyte replenisher or anticonvulsant. This product is important to the humane treatment of organic animals."

(2) Dr. Karreman states: "This is a good natural laxative. Actually, why is it on the synthetic list?"

NOTE: The Cornucopia Institute has not yet reviewed this material.

Mineral Oil

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Allowed for topical use and as a lubricant

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Hubert Karreman, VMD Western Organic Dairy Producers Alliance	None	Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association (MOSA) (1)

Notes:

(1) MOSA states: "Commonly used topically with fly control products and also used as a lubricant."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Moxidectin

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Parasiticide for cattle, sheep, goats (when directed by a vet), deer

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	Cornucopia Institute (1)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (2)	Hubert Karreman, DVM (3)	Organic Trade Association
Scientists	None	None	None
Certifiers	California Certified Organic Farmers	None	Washington State Department of Agriculture (WSDA) (4) Midwest Organic Services Association (MOSA) (5)

Notes:

- (1) Cornucopia is neutral on the relisting of moxidectin as a parasiticide **with the following annotation:**
 - (a) *Prohibited in slaughter stock, allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be labeled as provided for in subpart D of this part for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period for breeding stock. Synthetic parasiticides must not be administered on a routine basis. For control of internal parasites only.*
- (2) WODPA states: "The availability of this product is important in the event that cattle or calves become infected with parasites. This is one of three currently approved parasiticides. The producer should have several options. Withholding time should be shortened. This product is important to the humane treatment of organic animals."

- (3) Dr. Karreman states: "Moxidectin is less [toxic than ivermectin is to dung beetles] but somewhat worse for fish if it gets in the water, if I recall correctly. Moreover, ivermectin and moxidectin are macrocyclic lactones, a type of antibiotic. Since antibiotics as active substances are prohibited in organic livestock use (and fortunately soon, too, in plant use), the inclusion of ivermectin and moxidectin is questionable."
- (4) WSDA states: "6 of the 42 dairy operations WSDA Organic Program certifies include ivermectin on their materials list. While this material may not be needed every year, the wet climate in the Pacific Northwest can create conditions where preventative practices may fail and a synthetic parasiticide is needed. WSDA Organic Program has no organic producers with fenbendazole or moxidectin on their Organic System Plans."
- (5) MOSA states: "Plan for use must be approved. Emergency use only."

Oxytocin

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: For use in post-parturition therapeutic applications, to increase contractions that assist in recovering from uterine prolapse

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1)	None	Hubert Karreman, VMD (2) Organic Trade Association (OTA) (3)
Scientists	None	None	None
Certifiers	None	None	MOSA

Notes:

- (1) WODPA states: "Its use is limited to postparturition therapeutic applications. An example being treatment of an animal with a prolapsed uterus which has been replaced and needs rapid contraction so as to not re-prolapse. This product is important to the humane treatment of organic animals."

- (2) Dr. Karreman states: “[Oxytocin’s] use, if any, should be limited to emergency post-partum therapeutic application of an animal with a prolapsed uterus which has been replaced and needs rapid contraction so as to not re-prolapse. **Oxytocin, however, may be being used incorrectly in helping animals with mastitis to let their milk down better. This was not one of the annotations that it was granted.**” See comment below for example.
- (3) OTA survey respondent states: “To help fresh cows give their milk down so they have complete milk out to prevent illness. Used on a selective basis but vital when we need it.”

NOTE: The Cornucopia Institute has not yet reviewed this material

Peroxyacetic/Peracetic Acid

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: For equipment and facility sanitization

Notes: NO COMMENTS SUBMITTED THAT PERTAIN TO THE LIVESTOCK SUBCOMMITTEE

Phosphoric Acid

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: For equipment cleaning, *provided that* no direct contact with organically managed livestock or land occurs

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	3 (1)	None
Public Interest Groups	None	Beyond Pesticides (BP)(2)	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (3)	None	Organic Trade Association Hubert Karreman, VMD
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association (MOSA) (4)

Notes:

- (1) A farmer states: "Phosphoric acid is used to remove deposits on equipment and has health risks during use."
- (2) BP states: "Phosphoric acid poses environmental use in manufacture and disposal, and health risks during use. Because its use is slightly different from the other materials examined here, there may not be a more compatible substance in this list. We encourage the NOSB to continue to seek safer alternatives."
- (3) WODPA states: "The use of this product as an equipment is critical to the health of the animals and humans."
- (4) MOSA states: "Common dairy sanitizer."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Poloxalene

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: For the emergency treatment of bloat

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1)	None	Organic Trade Association (OTA) (2) Hubert Karreman, DMV (3)
Scientists	None	None	None
Certifiers	None	None	MOSA

Notes:

(1) WODPA states: "This product is good for pasture bloat."

(2) An OTA survey respondent states: "We have never had a case of pasture bloat but I would also like to have poloxalene on the list in case we started having problems with it."

(3) Dr. Karreman states: "This material, while good for pasture bloat ("frothy bloat") does have good alternatives to it, such as olive oil and other oils."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Procaine

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Local anesthetic requiring 90-day withdrawal period for slaughter animals and 7-day withdrawal for dairy animals

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1)	None	Organic Trade Association Hubert Karreman (2)
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association (MOSA) (3)

Notes:

- (1) WODPA states: "This product is very important for animal pain suppression. It is a true local anesthetic. It only numbs the area to be worked on. Withholding time should be shortened. WODPA recommends relisting."
 - (2) Dr. Karreman states: "See comment for lidocaine as these two materials are virtually the same. Lidocaine is easy to come by whereas procaine (by itself) is not in the US."
 - (3) MOSA states: "We do not observe this material being used."
- NOTE: The Cornucopia Institute has not yet reviewed this material.

Sucrose Octanoate Esters

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Surfactants (closely related to soaps) that have a mode of action similar to insecticidal soaps; used as insecticide/miticide

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	Beyond Pesticides (BP) (1)
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (2)	None	Hubert Karreman, VMD Organic Trade Association
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association

Notes:

- (1) BP states: "A limited number of experiments have shown SOEs not to affect a range of predators and parasitoids that are killed by insecticidal soaps. Impacts on soil fauna have not been established. They have low toxicity to humans and are produced in a closed system.
 - (a) The TRs provide insufficient information to evaluate SOEs relative to OFPA criteria.
 - (b) The LS should seek further information concerning the relative efficacy and hazard of SOEs in control of varroa mites."
- (2) WODPA states: "This product is a biochemical insecticide/miticide manufactured from sugar and vegetable oil-derived fatty acids. It is important in pest control."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Trace Minerals

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: For diet enrichment or fortification when FDA approved

	Support	Oppose	Neutral/No Stance
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1) Paul Sachs	None	Hubert Karreman, VMD (2) Organic Trade Association (OTA) (3)
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association

Notes:

(1) WODPA states: "These products are extremely important for overall herd health and reproduction. Inject able forms should be allowed for treatment as needed."

(2) Dr. Karreman states: "These are vitally needed for animal health. Injectable forms should be allowed for treatment as needed."

(3) The following responses to OTA's survey were submitted:

(a) "Trace minerals are vital to our dairy animals for health and well being."

(b) "We use organic (redmond brand) trace minerals with selenium; Our area is a selenium deficient and it is necessary as an additive to maintain animal health and a good breeding program."

(c) "We do not have very many choices for organic trace minerals with selenium; Availability is sporadic (trying to buy ahead when possible) There is a redmond salt block with selenium that we can not use because of the binder in the block...such a minute item makes our choices even more limited."

NOTE: The Cornucopia Institute has not yet reviewed this material.

Vaccines

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: To increase immunity to diseases. Administration is required under §205.238.

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	None	None
Public Interest Groups	None	None	None
Distributors/Handlers	None	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Western Organic Dairy Producers Alliance (WODPA) (1) Hubert Karreman, VMD (2) CROPP Cooperative	None	Organic Trade Association (OTA) (3)
Scientists	None	None	None
Certifiers	None	None	Midwest Organic Services Association

Notes:

- (1) WODPA states: “These products are extremely important for overall herd health. They are used to prevent diseases that could completely decimate a herd. Thus, vaccines are important to the humane treatment of organic animals. Nosodes are not a good option since they are used during an epidemic.”
- (2) Dr. Karreman states: “No alternatives have emerged since the last review and I doubt if there ever will be. The only thing which is close are the homeopathic class of compounds called nosodes. However, a true nosode is to be made from actual disease materials and used in the face of an outbreak, much like it was in the human epidemic of yellow fever. Vaccines help to *prevent* disease. And yes, all types of vaccines should be allowed. In fact, most of the newest ones, such as the recently tested new Ebola vaccine is derived from mutant bovine cells through genetic engineering.”
- (3) OTA survey respondent states: “We use vaccines for all stages of animal productions (baby calves, yearlings and brood cows. Our area is very wet and the animals need protection from lepto, blackleg and other Clostridial diseases. We also need protection for Tetanus and IBR, BVD and BRVD. The use of these vaccines make it so we do NOT need to use antibiotics for treatment.”

NOTE: The Cornucopia Institute has not yet reviewed this material.

Vitamins

Discussion: 2017 Sunset Review. Comments are regarding relisting on §205.603

Purpose: Allowed for diet enrichment or fortification when FDA approved

	Support	Oppose	Neutral/Seeks Clarification
Farmers/Citizens	None	78 citizen comments submitted (1)	None
Public Interest Groups	None	National Organic Coalition (NOC) (3) Consumer Reports (CR) (4) Food and Water Watch (FWW) (5)	None
Distributors/Handlers/Brands	Hain Celestial	None	None
Ingredient Suppliers	None	None	None
Manufacturers	None	None	None
Retailers	None	None	None
Trade Associations/Consultants	Hubert Karreman, VMD (6) Western Organic Dairy Producers Alliance (WODPA) (7) CROPP Cooperative (8)	None	None
Scientists	None	None	Jean Marie Naples, Ph.D. (9)
Certifiers	None	None	Midwest Organic Services Association

Notes:

- (1) Citizens state: "Synthetic vitamins and other nutrients should not be added to food."
- (2) A citizen states: "Synthetic vitamins and other nutrients added to organic food when required by law should be replaced by law with green organic solutions."
- (3) NOC urges the NOSB to advise the NOP to:
 - (a) "Correct the annotation of the "nutrient vitamins and minerals" listing to correct the inaccurate cross-reference to 21 CFR 104.20." They write, "We urge the NOSB to advise the NOP to change the annotation to ensure that this listing adequately restricts "nutrient vitamins and minerals" allowed in organic foods to those that are considered essential by the FDA."
 - (b) "No later than July 1, 2015, inform manufacturers who have added the synthetic and nonorganic nutrients to organic foods outside the scope of the CFR that they must change their formulations to come into compliance with all products currently in stream of commerce within six months of this notification. This would include the six nutrients that the NOSB specifically rejected in 2012."

- (4) CR states: "We are concerned with the widespread and seemingly indiscriminate addition of synthetic and non-organic "nutrients" to organic foods. For the 2017 Sunset review of "Nutrient Vitamins and Minerals" on 205.605(b), we urge the NOSB to remove "nutrient vitamins and minerals" from the National List."
- (5) FWW states: "We urge the NOSB to advise the NOP to change the annotation to ensure that this listing adequately restricts "nutrient vitamins and minerals" allowed in organic foods to those that are considered essential by the FDA."
- (6) Dr. Karreman states: "These are vitally needed for animal health. Injectable forms should be allowed for treatment as needed. The NOP has not yet acted on the petition for injectable electrolytes that I submitted and the NOSB unanimously voted to recommend to be on 205.603."
- (7) WODPA states: "These products are extremely important for overall herd health and reproduction. Inject able forms should be allowed for treatment as needed. These products are important to the humane treatment of organic animals."
- (8) CROPP states: "During the grazing season our members do not regularly supplement the ration with vitamins supplements. The winter months are when they most likely use a Vitamin ADE supplement along with a mineral mix. Most organic-approved mineral packages are fortified with vitamins. The main reason farmers will use additional mineral and vitamin supplementation are:
 - (a) Reproductive performance: heat detection, longer open days, failure to breed back.
 - (b) Hoof problems: lameness, hairy warts.
 - (c) High somatic cell count.
 - (d) Poor soil mineralization and or low mineral levels in their forages.
- (9) Dr. Naples states: "Synthetic vitamins and other nutrients should be added to organic food only when required by law. Consumers expect superior nutrition from organic food that comes from its production in an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity."

NOTE: The Cornucopia Institute has not yet reviewed this material.

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