

October 25, 2016

Ms. Michelle Arsenault National Organic Standards Board USDA-AMS-NOP 1400 Independence Avenue, SW Room 2648-So., Ag Stop 0268 Washington, DC 20250-0268

Docket: AMS-NOP-16-0049

RE: Handling Subcommittee – 2018 Sunset Summaries for Handling

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment to the National Organic Standards Board (NOSB) on its 2018 Sunset Review for non-agricultural and agricultural substances allowed in "organic" and "made with" products.

The Organic Trade Association (OTA) is the membership-based business association for organic agriculture and products in North America. OTA is the leading voice for the organic trade in the United States, representing organic businesses across 50 states. Its members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's Board of Directors is democratically elected by its members. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

OTA thanks NOSB for carefully considering each handling input scheduled to sunset in 2018. It's critical that NOSB hear from certified handlers on whether these inputs are consistent with and essential to organic handling, or whether there are other effective natural or organic alternatives available.

OTA is submitting results to our electronic surveys that were created for each input under review for 2018. The surveys were created and made available to **every NOP certificate holder** and include 7-10 questions addressing the **necessity (farm and livestock) or essentiality (handling)** of the National List input under review. The names of the companies submitting the information are confidential (not disclosed to OTA). To ensure wide distribution of the surveys beyond OTA membership, OTA worked with Accredited Certifying Agencies (ACAs) and OMRI to distribute the survey links to all of their clients as well as to targeted clients they know are using the inputs under review. OTA also worked through its Farmers Advisory Council (FAC¹) to help assist in distribution to NOP certified farmers.

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



The comments submitted at this time include everything we have received through October 25, 2016. We have received the following total responses:

• 205.605(a) Nonsynthetic, Non-agricultural: 21

• 205.605(b) Synthetic, Non-agricultural: 18

• 205.606 Agricultural: 3

• Total: 42

National List Criteria

Materials that have been placed onto the National List for use in handling should remain on the National List if: 1) they are still essential to and compatible with organic production and handling practices; 2) there are no commercially available alternative materials (natural, organic) or practices; and 3) no new information has been submitted demonstrating adverse impacts on humans or the environment (OFPA SEC. 2118 [7 U.S.C. 6517 and 6518] National List). Furthermore decisions must be transparent, non-arbitrary, and based on the best current information and in the interest of the organic sector and public atlarge.

Based on survey results and/or feedback received directly by members, the following materials meet the essentially criteria listed above. If we have clearly noted if we have not yet received feedback on a particular substance. The lack of feedback however does not necessarily mean the substance is not being used. We are continuing to work in improving our ability to reach every operator. Our comments focus on the necessity and essentiality. We are not aware of any new information on adverse impacts on humans and on the environment.

Non-agricultural non-synthetic (205.605(a)) Non-synthetic (non-agricultural): Allowed as ingredients in or on processed products labeled "organic" or "made with organic (specified ingredients or food group(s)).

Substance	Survey Information
Agar-Agar (5)	Handler Comments: Used as growth media for cultures for mushroom production. Certified
	for 9 years and selling products in 50 states.
	Handler Comments: Using this as a stabilizer in certified products that are sold all over US.
	Carrageenan works as an alternative. We are continuing to test alternatives. Agar-Agar is
	essential to our products.
	Handler Comments: Used as a sub-component of a conventional ingredient used in product
	certified to the MWO category products. Used as a thickener for soy cheese. Company has
	been certified since 2002. Products are sold in all 50 states and exported. No organic agar-agar
	is available and there are no suitable alternatives. Loss of this material would limit the ability
	to label as MWO and result in loss of sales. This product on a scale of 1 to 10 is rated 7 for
	essentiality.
	Handler Comments: Used in gummy candies. Certified for 1 year. Products are sold in all 50
	states. Agar Agar is an essential gelling agent in the manufacture of the organic gummy candy
	we produce. Currently there is not a source of organic gelatin. It will likely be several years
	until the pork supply chain grows enough to support organic gelatin manufacture. Until then,
	we are dependent upon a combination of Agar Agar and starches to provide the gummy texture
	that consumer's expect in a gummy product. We have evaluated carrageenan and gellan gum
	as alternatives. Both are on the National List, but not available in organic form. Agar Agar
	gives superior product quality. Our ability to produce organic gummy products would be in



	trade association
	jeopardy if this material is removed from the National List and sales would be negatively effected. This product on a scale of 1 to 10 is rated 10 for essentiality. Handler Comments: Agar-agar is a natural thickener derived from seaweed that is used by our company. This ingredient has properties similar to gelatin and so acts as a vegetarian alternative. There are no other non-animal derived polysaccharides that have the same properties as agar-agar.
Animal Enzymes (2)	Handler Comments: Used in making crackers, shelf stable dinners, and frozen snacks. Certified for more than 25 years. Products are sold in all 50 states. Critical to cheese making. Without enzymes cheese products would be discontinued or we would have to move to nonorganic cheese removing the organic dairy component from our products. Essential to our organic products and operation (1). Handler Comments: Used in Cheese Powders, Grated Cheeses, Block Cheeses, and Cheese Concentrates. Specifically for fat and Protein breakdown for flavor development Company has been certified for 18 years. Products are sold in all fifty states and are exported to several countries. Non-Animal natural Enzymes are Available but organic enzymes are not available. The enzymes are needed to develop flavor. Without this material we could not obtain the proper flavor characteristics. Loss of this material would result in loss of business. Critically
Calcium Sulfate, mined (3)	Handler Comments: Used in Tofu as a coagulant or firming agent. Our company has been certified for 16 years. Products are sold in all 50 US states and other countries. There are other firming agents, such as magnesium and glucono delta-lactone, but they are not equivalent for all types of tofu. The alternatives do not work as well. We have conducted research (e.g. R & D trials) on the use of allowed natural or organic alternatives. There are no alternative management practices that would eliminate the need for the specific substance. Without this substance our tofu would have not have the right texture, which would result in loss sales. On a scale of 1 to 10, Cellulose is critical to our operation (10). Handler Comments: Used in Tofu as a coagulant or firming agent. Our company has been certified since 2002. Products are sold in all 50 US states and other countries. At this time not used in our tofu making process, however, we would request it remain on list as an alternative. At this time magnesium chloride is available for tofu manufacture. Currently it would have no effect if this material were removed however we would like to have an alternative in the toolbox. There are no organic alternatives. Essentiality on a scale of 1 to 10: 4 Handler Comments: Calcium sulfate is used in the manufacture of tofu to cause the soy protein to curd and to develop firm texture. This substance has been used throughout history by tofu manufacturers to provide a specific texture which, while firm, is still softer than magnesium chloride/nigari tofu. Calcium sulfate is used by our soy cheeze supplier (used in the manufacture of the tofu they use as an ingredient for the cheeze).
Carrageenan (6)	Handler Comments: Used in certified organic beverages, frozen desserts, fruit fillings as a stabilizer and thickener. Our company has been certified for 16 years. Products are sold in all 50 US states and other countries. We have researched alternatives extensively. Other gums are available, but they don't have equivalent properties. Alternatives don't work as well in all applications. The loss of this material would impact our operation by impacting our organic products. Specifically it would make for inferior texture and mouth-feel. Loss of this material would result in lost sales. On a scale of 1 to 10, this material is critical to our operation (9). Handler Comments: Our company has been certified for 10 years. Products are sold in all 50 US states. We are phasing carrageenan out of all products; we will no longer have carrageenan in anything by mid-April this year. Last product we have that used it was whipping cream, where it is a stabilizer. Alternatives were not always easy to find and we did discontinue one product b/c we couldn't successfully reformulate. But most products were successfully reformulated with an alternative that is easily available. No impact to our operation if this



	material is removed. Carrageenan is less than essential to the continued success of our organic
	products.
	Handler Comments: Used in certified organic dairy and non-dairy beverages (nut milks,
	grain-based beverages, etc.) as a stabilizer and thickener. Our company has been certified for
	30 years. Products are sold in all 50 US states and other countries around the world. We have
	researched alternatives. Carrageenan is critical for the suspension of particulates, protection of
	proteins, and for adding viscosity and texture. There are various types of carrageenan as well,
	and each provides a different mix of these functions. There are no organic versions of
	carrageenan. Other hydrocolloids with similar functionalities are not available in organic forms
	either. Research is on-going, however the best alternatives are not available as organic
	(example: gellan gum). Carrageenan is difficult to replace. The loss of this material would
	impact our operation significantly. Our products will be unstable over shelf-life, with
	significant settling of ingredients and clumping. Viscosity will be noticeably different,
	affecting the sensory attributes of the product. Significant financial effect from label changes,
	and typical lack of time to use up ingredients on hand and find suitable replacements. Loss of
	sales from consumers who are unhappy with the negative changes made to a product they have
	been purchasing for years. On a scale of 1 to 10, this material is critical to our operation (10).
	Handler Comments: Our company processes certified organic meat products such as deli
	meats. Our company has been certified for 3 years. Products are sold in one state. We do not
	use carrageenan and do not believe it should be in food, as too many consumers have problems
	digesting it. No impacts to our operation if the material is removed from the National List.
	Carrageenan is not essential to our products.
	Handler Comments: Used in certified plant-based beverages and dairy as an emulsifier,
	stabilizer, & thickener. Products are sold all over the United States and exported. Currently
	testing alternatives. We may not be able to make some products if carrageenan is removed
	from the National List. On a scale of 1 to 10, this substance is important to the continued
	success of our operation (6).
	Handler Comment: Certified since 1988. Products are sold all over the United States.
	Currently we're only using carrageenan in ultra-pasteurized heavy cream; however the last
	production is happening towards the end of May. Our comments will reflect that. Gellan gum
	is working as an alternative. Carrageenan on a scale of 1 to 10 is a 1 – not essential to the
Glucono delta-	continued success or our organic products. Handler Comments: Used in Tofu as a coagulant or firming agent. Our company has been
lactone (2)	certified for 16 years. Products are sold in all 50 US states and other countries. Alternatives do
	not have the same properties. We have conducted research (e.g. R & D trials) on the use of
	allowed natural or organic alternatives. There are no alternative management practices that
	would eliminate the need for the specific substance. Without this substance our tofu would have a Horder texture, which would result in loss sales.
	Without this substance our tofu would have a Harder texture, which would result in loss sales.
	On a scale of 1 to 10, this material is critical to our operation (10).
	Handler Comments: Used as an acidifier in dairy products sold all over the US. There are no
	suitable alternatives. None available. If this material were removed from the National List we
	would not make our organic products. Glucono delta-lactone is essential to the continued
Tantania Asid (2)	success of our organic products and operation. On a scale of 1 to 10 it is critical (10).
Tartaric Acid (3)	Handler Comments: Used in Organic Pancake, Waffle & Muffin Mix as a leavening agent. The ellowed alternative is natural and elthough not contified, mosts the criteria to be considered.
	The allowed alternative is natural and although not certified, meets the criteria to be considered
	organic. It is manufactured from grapes, a by-product of wine making and grape juice
	production. Furthermore, the raw materials used are not genetically modified, irradiated nor
	produced using sewage sludge. Have not tried an organic version and we're not aware of one
	that exists. The natural alternative we are using today, works well for our product. No suitable cost effective organic alternative exists. Tartaric acid is widely used as a leavening agent in the
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baking industry. To be competitive and expand organic opportunities in the mainstream market, as well as compete with conventional products, it is essential for the continued allowance of tartaric acid. We are a small business and a new start-up company. We have invested in packaging, boxes, and ingredients. Should tartaric acid be removed from the National List, we will be forced out of business. Tartaric acid is essential to our products (10).

Handler Comments: Used in seasoning packets (for flavor) that are in grain based side dish mixes. Our company has been certified for 14 years. Our products are sold to various stores throughout the entire country. We also export various products to other countries such as Canada and Japan. Our current seasoning suppliers do not know of any suitable alternatives. Malic acid may be similar, but would not be considered natural. A combination of citric acid and lactic acid maybe similar, but would still not be able to provide the same flavor. When creating seasonings our priority is to create an organic seasoning and if we are unable to do so, we look to natural and allowable ingredients. This type of research is completed with our R&D team when products are first created. Using other alternatives would result in a product would not taste the same. This could result in consumers no longer liking the product because the flavor profile has changed. If sales go down, we may have to discontinue the product. Potential removal of products from the marketplace due to decreased sales. On a scale of 1 to 10, tartaric acid is critical to our operation (9).

Handler Comments: Used in sour candies for sour flavor. Enhances fruit flavors. Our company has been certified for 1-year. Our products are sold in all states. Tartaric has a unique sour intensity and product stability that is superior to other acids. Yes, we have researched others acids but they are less stable to warm temperature environments. No known organic alternatives. Loss of this material would result in product quality being adversely affected. On a scale of 1 to 10, tartaric acid is critical to our operation (8).

Cellulose (7)

Handler Comments: Used in Dietary supplement tablets as a drying agent. Company has been certified for 3 years. Products are sold in across the US states; products are also exported to other countries. There are no alternatives available and there are no alternative management practices that would eliminate the need for the specific substance. If we were no longer allowed to use this substance, we would not be able to produce certified tables; there are no suitable alternatives available. We would not be able to produce these products and current and future revenue would be lost. On a scale of 1 to 10, Cellulose is critical to our operation (10). Handler Comments: Used in cheese products as an anti-caking agent. Products are sold in across the US states. There are no alternatives that we are aware of. We've conducted research and the alternatives were ineffective. If we were no longer allowed to use this substance, we would need to stop making the products. On a scale of 1 to 10, Cellulose is critical to our operation (10).

Handler Comments: Used in cheese products as an anti-caking agent. Company has been certified for 14 years. Products are sold across the US states and exported to Japan, Canada, Mexico and Taiwan. There are no alternatives that we are aware of that would have the same technical effect. Without this product the shredded cheese would lump together. If we were no longer allowed to use this substance, we would loose sales from decreased desireability of the product quality. On a scale of 1 to 10, Cellulose is important to the continued success of our operation (6).

Handler Comments: Used as a filtering aid for juice concentrate processing. Company has been certified for 20 years. Products are sold across the US states. No organic or natural alternatives available for certain types of products. Yes, we use other alternatives but different fruits require different types of filtering aids. We would have difficulty processing organic fruit juice concentrates if this material were removed from the National List. Economically we would loose sales due to quality issues. Essentiality on a scale of 1 to 10 is 10. Critically



essential.

Handler Comments: Some of our suppliers may use cellulose as a filtering aid (i.e. vinegar), and, as an anti-caking agent. At this time no suppliers use in a casings. Company has been certified since 2002. Products are sold across the US states and exported. We are not aware of any alternatives. Loss of this material from the National List would result in a loss of products and sales. On a scale of 1 to 10, Cellulose is essential to the continued success of our operation (7)

Handler Comments: Used as a processing aid as an anticaking agent. Company has been certified for 20+ years. Products are sold across the US states. We have researched Rice Hulls and Silicon Dioxide as alternatives but they do not work adequately. Dressing would look undesirable with large clumps of cheese if we did not use this material and this would result in loss of business. On a scale of 1 to 10, Cellulose is essential to the continued success of our operation (8).

Handler Comments: Used Grated Cheese To Prevent Clumping and aid in free flowing product. Company has been certified for 18 years. Products are sold across the US states and to several other countries. We have researched starch, rice hulls, and silicon dioxide (available alternatives) however these do not provide the same functionality that cellulose provides. We have further tests in progress to evaluate the above alternatives. Loss of this material would result in excessive clumping and reduced flowability of products and this would highly reduce manufacturing efficiencies. On a scale of 1 to 10, Cellulose is essential to the continued success of our operation (10).

Potassium Hydroxide (5)

Handler Comments: Used as pH adjustor in the extraction of organic annatto color, which is used in a wide variety of organic products. Company has been certified for 20 years and sells products in all 50 states. The function is for color. Company is not aware of any other way to make organic annatto and is not aware of any other alternatives or management practices that would work. Without this ingredient they would not meet consumer expectations for product. Consumers want their Colby cheese to be orange for example. On a scale of 1 to 10, potassium hydroxide is essential to the continued success of the operation (8).

Handler Comments: Used for extracting color from annatto seeds and for making NOP certified soap. Products are sold in all states and exported. Turmeric as alternative coloring agent not sufficiently stable. There is nothing to replace potassium hydroxide. If this material were removed from the National List none of our liquid soaps could any longer be certified. It would be very bad and we might not renew certification then and this would be challenging to our core business model. On a scale of 1 to 10, potassium hydroxide is essential to the continued success of our operation (9).

Handler Comments: Buttermilk (used as an ingredient in buttermilk blend powder (pH adjuster)- it is also used in the production of cocoa and annatto (ingredients we source). Company has been certified since 1998. Products are sold in all states and exported. I hope ingredient suppliers will respond with better information. My response focuses primarily on the buttermilk blend. There are no alternatives. Loss of this material would result in elimination of several certified products. The economic impact would be enormous if we lost chocolate milk and other products. This material on a scale of 1 to 10 is critically essential (10).

Handler Comments: Used to make certified organic liquid, gel and paste soaps; saponification process. We use KOH as a processing aid to convert organic oils into organic soap crystals. Certified since September 2003. Sell products in 50 states and several other countries. Alternatives are not available to any scale. We have made potassium carbonate from ashes and KOH from calcium hydroxide and potassium carbonate when teaching in Africa. KOH is essential in the production of liquid, gel and paste soaps used for body care, pets, and cleaning. Natural liquid soaps are the alternative to un-natural detergent chemicals. The loss of



this material would result in greater use of detergent chemicals with resulting environmental degradation. We would also go bankrupt. This material is essential to our products and business (10 - Critical).

Handler Comments: Used in Cheese Powders and Cheese Concentrates and Fermentations as a pH Adjuster. Company has been certified for 18 years. Products are sold in all fifty states and are exported to several countries. Sodium Hydroxide is an alternative, however it provides a different flavor than Potassium Hydroxide. We could not keep our products in pH range and there would be flavor differences if this material came off the National List. This would ultimately result in loss of business. Essential to our business. 10 Critical, on the scale of 1 to 10.

Silicon Dioxide (6)

Handler Comments: Products are sold in all 50 states and they are exported. Company has been certified since the inception of the CA program. Silicon Dioxide is used in our certified Organic syrup solids and oligodextrins. It functions as a flow agent for very hygroscopic carbohydrates used in processed foods. There are no alternatives that work. The rice hulls "contain" a lot of silicon dioxide, but it is essentially encapsulated in the lignin that forms the structure off rice hulls. This encapsulation means that the action of the molecular silicon dioxide on the water and on the carbohydrate does not occur. Many powders, spices in many cases, can do fine with non-SiO2 agents, primarily using "fibrous" materials. It is the action of the fibrous nature of the rice hulls that works for some products. The fact that the rice hulls do NOT function as a defoamer shows that the physical structure of the silicon dioxide (which is responsible for the anti foaming) is not active and helps to explain why the rice hulls do not work in very sensitive hygroscopic carbohydrates such as our products. Without silicon dioxide our products would turn into unusable bricks instead of powders and as a result we would no loner make organic syrup solids and oligodextrins and they would no longer be available for use in organic products. There are no alternatives available and there are no alternative management practices that would eliminate the need for the specific substance. On a scale of 1 to 10, this silicon dioxide is critical to our operation (10).

Handler Comments: Used in dry mixes and spice blends as an anti-caking agent. Company has been certified for 16 years. Products are sold in all 50 states and other countries. Alternatives, such as rice hulls, do not work as well. We have conducted research on the use of organic alternatives. There are no alternatives available and there are no alternative management practices that would eliminate the need for the specific substance. The loss of this material from the National List would result in clumps in product and subsequently lost sales. On a scale of 1 to 10, this silicon dioxide is critical to our operation (10).

Handler Comments: Used as a defoamer. Company sells organic products throughout the U.S. and we export as well. We have researched but have not found any alternatives that work. If silicon dioxide were removed from the National List we would not make our products anymore. This product is essential to the continued success of our organic products and operation. (10)

Handler Comments: Used in fruit snacks and cheese powders as an anticaking or flow agent depending on the application. Certified for 25 years. Sell products in 50 states. Organic rice hulls are an alternative that have worked in some applications. We have tested these in several forms and worked with the supplier to resolve functional issues that we continue to see in our finished product when we use the rice hulls. We continue to actively research their use. We've been unable to find any other alternatives. We have conducted multiple trials in conjunction with the supplier of an organic alternative both at their facility and ours. Consumers expect the product to perform like the non-organic alternative. Snacks that stick together because they are gummy are not acceptable. If this material were removed we would have to discontinue the product line or accept lower sales with the resulting loss in acreage for the other organic ingredients. On a scale of 1 to 10, this silicon dioxide is critical (essential) to our operation



(10).

Handler Comments: Used in Conventional spices that are used in products certified to the made with category. Company has been certified since 2002. Products are sold in all 50 states and exported. Rice hulls available but not used by conventional spice suppliers. Some spice suppliers have trialed rice hulls. If this product is removed from the National List it might disallow use of many conventional spices currently used in MWO products. This product is essential to the continued success of our organic products and operation. (9)

Handler Comments: Used in cheese powders as an anti-caking agent. Company has been certified for 18 years and distributes products in all states. We have researched rice hulls but they do not provide the same functionality that silicon dioxide provides and there were effects to color and flavor due to the high usage level that was required. Loss of this material would lead to a product that would clump and not be flowable, color and flavor issues; effect customers use of the product. We would loose business. This material is essential to the manufacturing of our organic products (10 on a scale of 1 to 10).

Beta-carotene Extract Color (3)

Handler Comments: Organic snack chips and crackers. Company has been certified for over 16 years. Products are sold in all 50 US states and many foreign countries. There are no alternatives because the color is sourced from specific species of algae that are not available in organic form. We have tried other allowed colors, but they do not produce the desired color. There are no alternative management practices that would eliminate the need for the specific substance. If we were no longer allowed to use this substance it would result in reduced marketability due to poor appearance and that would lead to reduced sales. On a scale of 1 to 10, this color is critical to our operation (10).

Handler Comments: Used to enhance the coloring of organic fruit juice. Company has been certified for 20 years. Products are sold nationally with international sales as well. Organic orange colors are not available and we're not aware of any other alternatives that would work. Loss of this material from the national list would result in reduction in consumer expectation of organic vs. conventional and would result in lower sales of lower quality products are manufactured. This product on a scale of 1 to 10 is rated 7 for essentiality.

Handler Comments: Used in cheese powders to add color. Company has been certified for 18 years and distributes products in all states. We have researched using annatto, turmeric, paprika extracts. They do not have the same color and do not meet our specifications. Loss of this material would result in loss of our organic cheese products and loss of sales. This material is essential (8 on a scale of 1 to 10).

Conclusion

In closing, we thank the Board for its time and commitment. OTA is committed to collecting information from our broad membership and beyond in order to assist NOSB in determining whether or not a substance on the National List remains essential to organic handling.

Again, on behalf of our members across the supply chain and the country, OTA thanks NOSB for the opportunity to comment and for your commitment to furthering organic agriculture.

Respectfully submitted,

Awardolyn V. Wyan

Gwendolyn Wyard



Vice President, Regulatory and Technical Affairs Organic Trade Association

cc: Laura Batcha Executive Director/CEO Organic Trade Association

Appendix A – Survey Questions

1. Please describe the types of certified products or processes this substance is used in:
2. How many years has your company been certified organic?
3. Where is your organic production located (state, region, country, etc):
3. Where is your organic production located (state, region, country, etc).
4. How many states are your products sold in? Are they exported to other countries?
5. What is the function of the substance in your products or processes (e.g. stabilizer, thickener, flavor, sanitizer, etc.)?
6. Describe the availability of allowed alternatives (organic or natural) for this substance in terms of quality, quantity and form:
quantity and form.
7. If available, have you conducted research (e.g. R & D trials) on the use of allowed natural or organic alternatives?
8. Are there any alternative management practices that would eliminate the need for the specific substance?
9. NOSB is requesting information about the ancillary substances (e.g. carriers, preservatives, stabilizers) that may be used in xanthan gum. Based on the ingredient statement provided in specification sheet that accompanies the xanthan gum you purchase, please list any ingredients that are added and remain in the product you buy. Note: The "ancillary substances" should be listed in the ingredient statement found on the specification sheet.



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

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

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

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

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

1 Less	2	2	4	5 More	(7	0	0	10 Critical
Essential	Z	3	4	Essential	0	/	ð	9	10 Critical

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

If you would like assistance or guidance in submitting comments to NOSB, please provide your email address, and OTA staff will contact you directly: