October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

RE: AMS-NOP-17-0024

Comments to the National Organic Standards Board

October 2017 Jacksonville, FL

National Organic Standards Board:

Thank you for this opportunity to provide comment on multiple topics. 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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others.

One of OTA's strongest assets as an organization is the diversity and breadth of its membership. Unlike many trade associations, OTA is uniquely structured to include the full value chain for the organic industry, ensuring that all segments, from farm to marketplace, have a strong voice within the organization. It also creates a platform for a diverse group of stakeholders to work together to catalyze solutions, form coalitions and collaborate on matters critical to the success of the organic sector.

Addressing critical issues and growing the organic industry are all part of our work together and it all fits in with OTA's Mission, to promote and PROTECT ORGANIC with a unifying voice that serves and engages its diverse members from farm to marketplace.

WHAT IS OTA'S COMMENT PROCESS?

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

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

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SINCE 1985 Organic trade association

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Docket: AMS-NOP-17-0024

RE: Compliance, Accreditation and Certification Subcommittee – Excluded Operations in the Supply Chain (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Compliance, Accreditation and Certification Subcommittee's (CACS) Proposal to build upon the scope and applicability of the National Organic Program's (NOP) existing guidance on "Certification Requirements for Handling Unpacked Organic Products (NOP 5031)." Consistent with NOP 5031, the scope of this proposal is directed at the ***exclusions*** provided for in § 205.101(b) of the regulations. It does not apply to ***exempt*** operations as described under § 205.101(a)), nor does it apply to handling operations that are retail establishments.

Summary

The Organic Trade Association[1] (OTA) is extremely supportive of NOSB's efforts to address the critical issue of organic fraud and we are generally in support of this proposal. We strongly believe that a regulatory modification to limit the types of operations that may be excluded from certification is imperative, but in addition we also support the important role guidance and training have in strengthening and clarifying the regulations. We believe that some operations handling unpacked products may be unaware or unclear on the requirements to be certified. **Updating and re-releasing guidance, intrinsically, should have benefits if widely publicized.** The subcommittee's proposed revision to make clear that the exclusion from certification only applies to operations that are handling packaged ***and labeled*** product should further limit the number of entities in the organic value chain that remain uncertified. The additional recommendations on guidance, training and certifier oversight are equally critical to addressing the problem.

Acknowledging that this is one of many actions that must be taken to adequately address organic fraud, OTA supports passing the proposal at this meeting. We believe the greatest benefit of revisiting NOP 5031 is to bring greater attention to its existence and elevate the need for certifiers and industry to follow it. Going forward, we encourage NOSB to work on identifying the types of operations that ***must be***

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certified via a modification to the regulations along with any additional guidance that may be needed within NOP 5031 or beyond.

We offer the following more detailed comments:
The CACS is proposing a revision to NOP 5031 with the intent to further strengthen organic integrity in the supply chain. Specifically, CACS is proposing to further clarify that a handling operation[2] is ***excluded*** from certification if:

- It only handles[3] organic products that are enclosed in a package or container;
- The products remain in the same package or container for the entire period handled; and
- *The package or container is labeled as "organic. When labeled as "organic," products must also contain the "certified organic by" certifier statement and name the handler and ingredient list (if applicable).*
- It does not process organic products.

The italicized sentence is the recommended change along with a revision that would make clear that produce operations handling unlabeled, unenclosed produce in a non-retail environment must be certified.

IMPORTANT CLARIFICATION: The scope of NOP 5031 and the CACS proposal are specific to **excluded** operations as described in § 205.101(b). Throughout the discussion portion of the proposal as well as in the recommendation itself, the term "exempt" is used. We believe this was an oversight and the term "excluded" was intended. The distinction is important because the provisions for an "exempt" operation are not the same as the provisions for an excluded operation, and they each apply to completely different types of operations and activities.

The ***exclusions*** described in the organic regulations apply to 1) a handling operation or portion of a handling operation that is only selling NOP certified products that are packaged or otherwise enclosed in a container prior to being received, and remain in the same package/container and are not otherwise processed while in control of the handling operation; and 2) a handling operation that is a retail food establishment that processes NOP certified raw and ready-to-eat food on the premises of the retail food establishment.

The ***exemptions*** apply to 1) production and handling operations selling less than $5,000 gross in organic sales; 2) a handling operation that is a retail food establishment handling but not processing organically produced products; 3) a handling operation that only handles agricultural products that contain less than 70 percent organic ingredients; or 4) and handling operation that only identifies organic ingredients on the information panel.

Further, the scope of NOP Guidance 5031 specifically states that it does not apply to handling operations that are retail food establishments. To the best of our understanding, the proposal put forth by CACS is

[2] *Handling operation.* Any operation or portion of an operation (except final retailers of agricultural products that do not process agricultural products) that receives or otherwise acquires agricultural products and processes, packages, or stores such products.

[3] *Handle.* To sell, process, or package agricultural products, except such term shall not include the sale, transportation, or delivery of crops or livestock by the producer thereof to a handler.

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intended to address excluded operations only, as described in § 205.101(b)(1), and applies to all accredited certifying agents, certified organic handlers and non-certified handlers of certified organic products. Consistent with the scope of 5031, it carves out retail food establishments.

Organic fraud cannot be tolerated and everyone has role in preventing it

The discovery of verified import fraud and the results of the Office of Inspector General (OIG) audit of NOP clearly call for changes to improve import verification and the integrity of the global organic supply chain. From OTA's view, fraud cannot be tolerated in the organic system, inside or outside of the United States. Anytime there is fraud anywhere in the organic system, it threatens the value of the organic chain, and hurts organic farmers wherever they farm. The oversight of foreign organic suppliers and the enforcement of organic standards must be rigorous and robust. The integrity of the organic certification process and the commitment to compliance and enforcement are the lifeblood of the organic industry, and ensure a level playing field for U.S. organic farmers. Therefore, strong action is needed to improve the effectiveness of controls throughout the organic product supply chain.

To adequately address the situation, several approaches are needed. Everyone has a role, and both the private and the public sector must engage. OTA is proactively working on several fronts to address the situation, and we are engaged in strategies ranging from legislative action to private sector initiatives. An immediate action we took was to convene a member task force to develop an industry best practices guide to use in managing and verifying global organic supply chain integrity. The purpose of the Guide is to provide businesses engaged in the organic trade with a risk-based approach for developing and implementing a written organic fraud prevention plan to assure the authenticity of organic products by minimizing vulnerability to organic fraud and mitigating the consequences of occurrence. The Guide, as adopted by businesses engaged in organic trade, will become the industry standard reference for achieving integrity across complex organic supply chains.

Given the CACS proposal for the fall 2017 meeting, the task force is also taking time to provide feedback on the three questions in the proposal and provide additional examples for "template of clarification." See page 5.

A modification to the organic regulation is needed more than guidance

In addition to the key role industry plays in protecting organic integrity and the work to develop a best practices guide, OTA has been pursuing legislative changes for the next Farm Bill to give NOP the tools it needs to prevent fraud. Our direction was shaped by a survey we conducted through which over 500 organic stakeholders communicated that a top priority is a stronger program to increase the transparency and tracking of international trade. The feedback from members helped shape our Farm Bill priorities around creating healthy organic markets with a focus on NOP and trade oversight.

As a result, on September 28, 2017, Representative John Faso (R-NY) introduced the Organic Farmer and Consumer Protection Act, which would make significant strides to improve the oversight of global organic trade, create a level playing field for American organic farmers, and establish a better system to ensure the integrity of organic. Bipartisan co-sponsors of the bill include Reps. Rodney Davis, Chairman of the House Agriculture Subcommittee on Horticulture (R-IL), Michelle Lujan Grisham, Ranking Member of the House Agriculture Subcommittee on Horticulture (D-NM), Glenn Grothman (R-WI), Lisa Blunt Rochester (D-DE), and Darren Soto (D-FL).

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The **Organic Farmer and Consumer Protection Act (OFCPA)** provides support and necessary funding for NOP to keep pace with industry growth and to carry out compliance and enforcement actions in the U.S. and abroad. It strengthens the emphasis on the NOP's authority and capacity to conduct investigations to keep organic markets strong; it invests in technology and access to data to improve tracking of international organic trade; and it helps provide the necessary information to ensure a transparent marketplace.

Specifically, the legislation does the following to modernize the global oversight system:

1. Authorizes funding for the National Organic Program to keep pace with organic industry growth;
2. Provides one-time funding for technology systems to modernize and improve international trade tracking systems and data collection;
3. Improves effective oversight, robust investigations, and enforcement across the entire supply chain.
4. Directs coordination and provides access to available cross-border documentation systems administered across other federal agencies and departments;
5. **Requires USDA to close regulatory loopholes by mandating that uncertified entities, such as ports, brokers, importers and online auctions, become certified;**
6. Requires USDA's National Organic Program to issue an annual compliance report to Congress, which would include domestic and overseas investigations and actions taken.

Most relevant to the CACS proposal is point #5, which calls for a modification to the regulations to limit the type of operations that are excluded from certification under 7 CFR §205.101. The language in the marker bill reads:

> MODIFICATION OF REGULATIONS ON EXCLUSIONS FROM CERTIFICATION. – Not later than 1 year after the date of the enactment of this Act, the Secretary of Agriculture shall issue regulations to limit the type of operations that are excluded from certification under section 205.101 of title 7 Code of Federal Regulations, and any other corresponding sections.

We bring this legislative action to the attention of NOSB because of the obvious and important intersection it has with NOP's request to NOSB to provide recommendations on improving the oversight and control procedures to verify organic claims for imported products.

OTA generally supports the CACS proposal to amend NOP 5031

On August 10, 2017, NOP released a memorandum requesting that NOSB provide recommendations on improving the oversight and control procedures that are used by AMS, certifiers, and operations to verify organic claims for imported organic products. The memo states that AMS will provide information and reports to guide and assist NOSB in this work.

OTA appreciates the proposal put forth for the fall 2017 meeting. We believe it's a good start and likely the first recommendation of more to come. NOP Guidance 5031 is an important piece of work that stemmed from the knowledge that certain non-certified brokers, distributors, and traders lack the regular oversight of ACAs and NOP, opening the door for conventional products to be mislabeled as organic. The guidance was released in January 2014 with the intent to clarify that only operations that receive and

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distribute products in the same container – without reopening, relabeling or otherwise processing them – are excluded from the certification requirements of the regulations.

In NOSB's recommendation to NOP in 2010, NOSB stated that handlers of unpackaged organic products, such as grain, soybeans, hay, milk, and livestock, are not excluded from certification unless they meet these criteria. Seven years later, OTA remains concerned that the clarification contained in the existing guidance has not reached many operations or may be poorly understood. For example, we do not see how any port that engages in unloading and loading organic grain can go uncertified. Our understanding of the regulation and corresponding guidance is that certification should be required. We're also unclear on how an uncertified broker can buy, sell and direct movement of certified organic product in open top bins or totes from a certified organic farmer to an uncertified retailer using an uncertified transportation company. OTA advocates for regulatory change and guidance that that does not allow either of these situations.

CACS is asking the following questions:

1. ***What negative impact might there be on the trade and movement of organic product with these clarifications?***
   - **Response**: Overall, any negative impact should be minimal. Operations that understand the regulations as written, with the clarification of existing guidance, are already certified. Those operations that are not certified are either unaware that they are required to do so, or are deliberately and unlawfully circumventing certification. We believe release of revised guidance will help address both situations, but again, ultimately a regulatory change is needed. We expect the guidance will have an impact on operations that will need to become certified or change their labeling practices. Either way, time and cost will be involved. However, we do not view this as a negative impact. We believe that ultimately everyone in the organic supply chain should be certified. The positive impact the guidance may have in decreasing the number of entities that are not certified far outweighs any negative impacts there might be.

2. ***What economic impact might there be based on these clarifications?***
   - **Response**: Operations that have avoided certification with the intent to deceive, or operations that were unclear on the requirements to be certified will either exit the market or get certified. If the fraudulent operations exit, the total supply of product is decreased by the amount of fraudulent product on the market and the price received by legitimate operators will increase. To actually quantify the economic impact requires knowing 1) the supply of legitimate organic product; 2) the supply of fraudulent organic product; and 3) the total demand for organic product. Operations that have not gotten certified out of ignorance will have to pay for certification, raising their costs to those of competitors who are already certified. The net effect in the latter case will be negligible, with the additional cost passed on to downstream buyers. We assume that the economic impact for an operation that didn't need to be certified previously (due to the broader application on the exclusion clause) will increase, as they will now have extra costs. This may cause an increase in the cost of products.

3. ***What impact will these clarifications have on maintaining organic integrity?***
   - **Response:** OTA believes that ultimately the entire value chain needs to be certified to have integrity. Exemptions were established where the amount of product sold was insignificant in the market place or the operation was selling a product retail to consumers. The exclusions in

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the regulation are largely outdated given the size and significance of the organic industry. We support the guidance because it provides an opportunity to re-release existing guidance that is likely overlooked and it could decrease the number of uncertified operations in the supply chain, and there will be a more visual representation of "organic" on product passing through an excluded operation. This, in turn, will support all efforts to maintain organic integrity.

As stated earlier, to adequately address the situation, we believe a modification to the regulations to limit the types of operations that are excluded is needed and that work is in progress. A bigger question that needs to be addressed is fraud perpetrated by certified organic operators. This brings us full circle back to private sector supply chain best practices, increasing NOP's authority and capacity to conduct investigations to keep organic markets strong, investments in technology and access to data to improve tracking of international organic trade, access to available cross-border documentation systems administered across other federal agencies and departments, and regular reporting to Congress on investigations and actions taken.

Template for clarification - OTA has added to the subcommittee's template for clarification starting with #8. We have also flagged a few subcommittee examples that create more confusion than clarity. However, we expect a template can be worked out through the NOP rulemaking process. Overall, a template will be very helpful in guidance. Below the chart we have included comments on areas in need of further clarification and/or topics we would like NOSB to look at.

#	Handling Action of operation	Product already enclosed in a container	Product already labeled as organic?	Does operation need to be certified	Example
1	Package a product	n/a	n/a	Yes	Bakery making bread
2	Package a product	n/a	n/a	Yes	Labeling blank cans of already packed soup
3	**Sell a product (Note, further clarification is needed – see below)**	No	No	Yes	Brokering Grains (whether or not taking physical possession) or Fruit distributor where fruit is in open trays and fruit itself **is not** stickered
4	Sell a product	Yes	No	Yes	Distributor of enclosed product that is not specifically labeled as organic.
5	**Sell a product (Note, further clarification is needed – see below)**	No	Yes	***No, but still comply with 205.272**	Fruit distributor where fruit is in open trays and fruit itself **is** stickered
6	Sell a product	Yes	Yes	***No, but still comply with 205.272**	Distributor of packed and organically labeled product in discreet enclosed containers.
7	Transit a product	n/a	n/a	***No, but still comply with 205.272**	Operations that load and unload unlabeled products would need to be certified as required under #4. However, the operation transporting would not require certification.
8	Handle a product	Yes and No	Yes and No	Yes	Port of entry/exit loading and

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					unloading packaged and unpackaged products.
9	Store a product	Stored in open produce totes	Yes	Yes	Storing certified organic produce in a cooler. Product is received in open top bins and placed directly in coolers. No labeling or packaging
10	Selling a product	Yes	Labeled as organic but does not include the certifier statement	Yes	Wholesaler that is selling organic apples delivered to the distribution center in cardboard totes with lids. The apples are stickered "organic" but do not include the certifier statement.
11	Sell a product	?	Yes, on the immediate container of the product	?	Fruit distributor where fruit is in open trays and fruit itself **is not** stickered, however the fruit trays are labeled as organic with the certifier statement.
12	Handle a product	No	Yes	? Is this handling or processing?	Produce department of retail operation is receiving boxes of lettuce. In the prep room they are trimming and washing the lettuce prior to arranging in the produce display. Above the lettuce a store generated sign reads "Organic Lettuce" alongside the USDA seal.
13	Handle a product	Yes	Yes	??	Bulk department of retail operation is receiving bags of certified organic grain. They are opening the bags and emptying into bulk grain bins. Store generated labels are created that included "certified organic grain," the USDA seal, and the name of the supplier.

*See clarification #1

Areas in need of further clarification

OTA requests that NOSB further explore the following topics/ issues:

1. Does the regulation, as written, require excluded operations as described in 205.101(b)(1), to follow the requirements for the prevention of contact with prohibited substances and commingling as set forth in §205.272 as well as the labeling provisions of § 205.310??
   - NOP 5031 explicitly states that all handling operations, whether certified or not, must prevent commingling with non-organic products and contact with prohibited substances. It also states that handlers must maintain adequate documents. OTA agrees, and we believe this is generally understood to be the case. However, these additional requirements in the regulation apply only to ***exempt*** operations and ***excluded retail food establishments***. A close read of section 205.101 does not apply the requirements of § 205.272, the labeling provisions of § 205.310 or the "records to maintained" to excluded operations as described in 205.101(b)(1). OTA believes that all three should apply to ***any*** exempt or excluded operation described under 205.101. The

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existing regulation as written narrowly and inconsistently applies these requirements, and it has created confusion for ACAs and certified operations for many years. There is a standard practice to apply these requirements. However, we don't believe it's fully supported by the regulation.

2. OTA requests clarification on example #3 in the "Template for Clarification"
   - In example #3, the fruit is sold in an open tray and the fruit is not stickered. The template clarifies that the fruit distributor needs to be certified. It is unclear whether the fruit tray is labeled as organic (with certifier statement) and whether the fruit tray is considered an "enclosed container." Based on existing guidance and the proposal, it appears that the fruit distributor would not need to be certified provided the fruit tray is labeled. However, we're unclear on whether the open fruit tray is considered an "enclosed container."

3. OTA requests further guidance on the term "enclosed in a container."
   - The regulations exclude operations that are selling products that are "packaged or otherwise enclosed in a container." NOP Guidance 5031 states that fruit and vegetable wholesalers that package or label containers of certified organic produce for sale as organic must be certified. What if wholesalers are moving and selling produce containers (wholesale containers such as open trays, open bins or totes) but they are not packaging or labeling product? In **example #5**, in the template for clarification, a fruit distributor is selling fruit in ***open*** trays, and the fruit is stickered presumably with an "organic" label and the "certified by" statement. The clarification is that the fruit distributor does not need to be certified. Given that the distributor is selling fruit in "open trays," we are unclear why the operation would not need to be certified given that the fruit is not "enclosed in a container.

4. Should NOP Guidance 5031 incorporate handling operations that are retail food establishments that ***process*** agricultural products? Currently it carves out **all** retail food establishments.
   - NOP Guidance 5031 states that the guidance does not apply to handling operations that are retail food establishments. The definition of 'handling operation' gives exception to final retailers of agricultural products **that do not process** agricultural products. Most retail food establishments include a "portion of the handling operation" that process agricultural products. Processing is defined as cooking, baking, curing, heating, drying, mixing, grinding, churning, separating, extracting, slaughtering, cutting, fermenting, distilling, eviscerating, preserving, dehydrating, freezing, chilling, or otherwise manufacturing and includes the packaging, canning, jarring, or otherwise enclosing food in a container. OTA believes further guidance is needed to clarify when retail establishments should be certified. See example #12 and #13.

     OTA encourages NOSB to further explore the certification requirements for retail establishments and to consider the NOSB recommendation submitted to NOP in 2014 on clarification and guidance on retail compliance and certification. The recommendation that was unanimously passed remains unaddressed by NOP.

5. Increased oversight and enforcement action for **input fraud** remain critical
   - An additional type of fraud the organic sector must continue to address is the willful misrepresentation of the compliance status of inputs used in organic production and handling. These may involve fertilizers, pesticides, feed additives, or animal drugs used by producers

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that contain substances prohibited by § 205.105. They may also include the willful misrepresentation of non-organic ingredients that are adulterated so that they do not meet their standard of identity or do not meet the annotations on § 205.605 or fail to meet the requirements for non-organic ingredients that are referenced in § 205.301(f). Enforcement actions against fraudulent practices for these inputs are not authorized under the Organic Foods Production Act, and USDA does not have direct jurisdiction over the regulations of inputs sold to organic producers and handlers. Instead, the responsibility is put on the certified parties to document the compliance of the inputs, with verification done by Accredited Certifying Agents (ACAs) that are accredited by the USDA's National Organic Program and Materials Review Organizations (MROs) that act under contract from the ACAs.

Two specific fraud cases in 2011 involved the deliberate addition of synthetic liquid nitrogen fertilizers to products represented as compliant with the USDA organic standard. The U.S. Department of Justice convicted the suppliers who sold the products for mail fraud, but the case took years to gather evidence and prosecute, with thousands of certified organic acres having a prohibited substance applied. Another case involved the concealment of a prohibited inert ingredient in a technical grade active ingredient (TGAI) used to formulate a pesticide product claimed to meet USDA organic standards. The case involved civil action between the EPA registrant and an MRO. The case was eventually settled in the MRO's favor and the EPA issued a "stop sale" order against the company for misbranding and false claims. Again, that was after organic farmers used the product in good faith.

Other cases may involve falsified affidavits for feed and food additives. With the growing volume of feed and food additives produced using excluded methods and the rapidly changing technology involved in their production, it has become difficult to find primary sources that comply with the standard. An affidavit signed in good faith one year may not hold up to scrutiny the next.

Enforcement action for input fraud involves cooperation with multiple jurisdictions and reliance on fraud laws other than the Organic Food Production Act for prosecution. Many states do not forbid fertilizers prohibited for organic production to be labeled as "Organic" fertilizers. Feed additives are also regulated at the state level. The EPA has jurisdiction over pesticides and checks label claims for organic production to be compliant with the USDA Organic standard, but misrepresenting pesticides that don't have a label claim is a low enforcement priority, particularly with pesticides that are exempt from registration under FIFRA §25(b). The U.S. Food and Drug Administration regulates food additives and animal drugs. Thus, fraudulent claims would need to be prosecuted under the Food, Drugs, and Cosmetic Act. However, uses and applications that are prohibited under the USDA Organic regulation are not necessarily in violation of the FD&CA, putting these inputs in a legal gray area.

Given the situation, increased oversight of material review and USDA accreditation of MROs remain central to the solution. OTA has long advocated for NOP accreditation of MROs and we continue to urge further action on the unanimously passed NOSB 2011 recommendation to NOP that supports a new Material Scope for NOP accreditation and requires accreditation of MROs. Unfortunately, this recommendation has not been adequately addressed by NOP. We

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recognize the revised NOP Policy 11-4 aims to improve the process for harmonizing how material review decisions are accepted across the sector, but we continue to believe this action falls short of the oversight and enforcement that is needed because it does not provide NOP with legal authority over MROs. OTA understands that the larger problem of grain fraud from Eastern Europe is under the spotlight and input fraud is likely low on everyone's priority list. However, the vulnerability for input fraud is high and its prevention is equally essential to the health and well-being of the organic sector. OTA is emphasizing the need for NOSB to include input fraud in its deliberations moving forward.

In closing, OTA supports the subcommittee's recommendation to approve this proposal on excluded methods in the supply chain. We agree that NOP will be able to make any needed modifications to the recommendation based on the comments received when NOP publishes draft guidance.

In addition to the proposed revisions to NOP 5031, we are also extremely supportive of the subcommittee's recommendation to NOP to, with a strong emphasis on #4:

1. Provide in the guidance additional examples of operations that need to be certified and those excluded (aka template);
2. Provide additional training to certifiers and certified handlers on proper ways to verify that organic certification documents of purchased products matches product as labeled when purchased from a non-certified operation, including training on how to audit to this requirement;
3. Provide additional guidance to certified handlers and certifiers on proper audit trail documentation for purchases of unpackaged, unlabeled product from certified operations that will sufficiently connect sale, receipt, and integrity of unlabeled product; and
4. Include in the accreditation audit of certifiers a verification that this policy is properly interpreted by the certifier.

On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Gwendolyn V. Wyard

Gwendolyn Wyard
Vice President, Regulatory and Technical Affairs
Organic Trade Association

cc: Laura Batcha
Executive Director/CEO
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RE: Certification, Accreditation, and Compliance Subcommittee – Eliminating the Incentive to Convert Native Ecosystems to Organic Production (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Certification, Accreditation, and Compliance Subcommittee's (CACS) proposal on eliminating the incentive to convert native ecosystems to organic production.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

Position

The Organic Trade Association supports CACS's proposal that would prevent land newly converted from native ecosystems to enter into organic production for a period of 10 years. We agree with the subcommittee that converting native ecosystems directly to organic production does not align with organic production principles, and a disincentive is required to prevent this practice. CACS's proposed timeline of 10 years provides an adequate disincentive, without completely shutting new land out of organic production, and we appreciate the clarification that this proposal would not affect land used under the wild-crop standard. However, we believe that additional work is needed by CACS on this proposal to address concerns that our membership has brought forward:

- Definitions are needed for "cropping" and "grazing" to ensure consistent application of this proposed regulation. Additionally a definition for "native ecosystem" is needed to ensure these types of habitat are protected.
- Grazing has occurred on vast areas of native ecosystems across the West through Forest Service grazing permits. Has CACS considered how this practice intersects with its goal of eliminating the incentive to convert native ecosystems to organic production?
- Small dairies in the Northeast often also manage woodlots on their operation, which may be considered native ecosystems. Under this proposal, it appears as these operations would be prohibited from converting woodlots to pasture to expand herds and remain compliant with the organic pasture requirements. OTA suggests CACS consider this scenario and revise its proposal

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to allow for more flexibility, so that organic producers can manage their land resources to accommodate expansion of their operations.

Data Collection

CACS requested input from Accredited Certifying Agents (ACA) on how much land would have been affected should this proposal have become rule prior to 2016. We agree that it is important to have data on how a particular proposal will affect the overall industry, and gathering this data from ACAs will be helpful. We would also encourage NOSB to suggest questions to USDA's National Agricultural Statistics Service (NASS) that could be included in the next organic producer survey to shed light on how much land is converted from native ecosystems to organic production. For example, the following questions could be added to NASS' Organic Producer Survey under questions related to Operation Characteristics:

- Over the past 5 years, how many acres were converted to organic from land that had never been farmed before (i.e. native ecosystems)?
- Over the next 5 years, how many acres do you anticipate will be converted to organic from land that has never been farmed before (i.e. native ecosystems)?

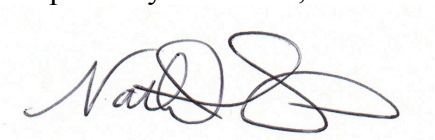
Having solid data included in NASS surveys will lay the necessary groundwork for National Organic Program (NOP) rulemaking as suggested by CACS in its proposal.

Conclusion

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

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



Nathaniel Lewis
Farm Policy Director
Organic Trade Association

cc: Laura Batcha
Executive Director/CEO
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October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Crops Subcommittee – Anaerobic Digestate (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Crops Subcommittee's Proposal on Anaerobic Digestate

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

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

Anaerobic digestate is an important organic waste product that should have a place on organic operations. However, NOSB must consider two important aspects to anaerobic digestate prior to making any future recommendations on this input:

- **Feedstocks:** All carbon-based waste inputs (manure, compost, anaerobic digestate) are made up of feedstocks that undergo certain processes. Currently, only recycled paper without colored or glossy ink is allowed as synthetic feedstock to organic approved compost. NOSB should always evaluate which feedstocks should or should not be allowed in these types of inputs before moving forward with recommendations on rulemaking.

- **Human Pathogens:** Despite the fact that organic standards are not a food safety regulation, it is

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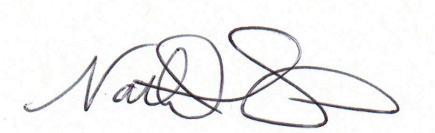
imperative that NOSB evaluate and include standards for reducing pathogens from inputs that have the potential to harbor human pathogens. These standards are contained in the regulations themselves for compost (7 CFR 205.203(c)(2)) and in Guidance Document NOP 5006 for dehydrated manure. Similar standards should be researched and established for anaerobic digestate containing manure, and perhaps even for anaerobic digestate that does not contain manure. Regardless, any metric used to eliminate the 90- or 120-day pre-harvest interval for inputs containing manure must be clear, widely accepted, and validated by science.

Lastly, the Organic Trade Association recommends that CS prioritize a comprehensive review of anaerobic digestate products as a whole to ensure that Material Review Organizations (MROs) and Accredited Certifying Agents (ACAs) are evaluating these materials consistently, to consider if any synthetic feedstocks should be allowed in approved anaerobic digestate, and to evaluate whether specific metrics to reduce pathogens can be adopted to remove pre-harvest intervals for anaerobic digestate that contains manure. Encouraging the recycling of carbon-based wastes aligns with organic principles, and OTA supports the use of manure, compost and anaerobic digestate. However, allowance of any of these types of inputs must be balanced with an evaluation of all feedstocks entering into the process, and whether a specific process adequately reduces pathogens to justify elimination of pre-harvest restrictions.

On behalf of our members across the supply chain and the country, we thank the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



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Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Crops Subcommittee – Strengthening and Clarify the Requirements for Use of Organic Seed **(Proposal)**

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Crops Subcommittee's Proposal on Strengthening the Organic Seed Guidance (NOP 5029).

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

Summary of OTA's Position
OTA commends the work of the Subcommittee on releasing an extensive proposal intended to strengthen the organic regulations on organic seed usage and to further address the use of seeds and crops at risk from GMO contamination. While we support the majority of the proposal and recognize that it addresses most of the suggestions that OTA raised in our fall 2016 comments, we believe that a few substantive changes are critical as it relates to guidance. As a result, the proposal related to guidance **should not be passed** at this meeting. We would like to see the sections on guidance brought back to the Subcommittee for further work, and a revised version released for comment prior to the spring 2018 NOSB meeting.

In summary, OTA strongly supports the proposal to amend the organic regulations at § 205.204 as written. As a stand-alone motion, we would support passing the regulatory proposal at this meeting.

Although we support the majority of the proposed changes to NOP's Organic Seed, Annual Seedlings and Planting Stock Guidance (NOP 5029), we urge the Subcommittee to address the following sections and accept our requested revisions:

- **5029-4 (Policy):** The underlined italicized text proposed in 5029-4 should be removed.

> *Producers must prevent and avoid contamination from excluded methods in seed of at-risk-crops (corn, soybeans, canola, alfalfa, beets, chard, cotton, rice and summer squash).*

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We agree that NOP 5029 should be amended to reiterate the already existing prohibition on excluded methods just as the Subcommittee proposed in section 4.1.2(c). Any further language or guidance on protecting or preventing seed from contact with GMOs should simply reference NOSB's recommendation on "Prevention Strategy Guidance for Excluded Methods," NOP's existing guidance on Commingling and Contamination Prevention (NOP 5025) and NOP's Policy on Genetically Modified Organisms (PM 11-13). Trying to include only parts of other guidance may create confusion. We believe the best approach is for the related guidance to be referenced and reviewed in its entirety.

- **4.1.2(c) (Sourcing of Seeds):** The proposed sentence in section 4.1.2(c) should be revised to read:

  Track changes: §4.1.2(c) On-farm variety trials of organic seed may be used by producers to evaluate and document equivalency and quality of varieties that are available as organic seed. ~~Trials are encouraged and records should be kept of results to show inspectors, but they are not mandatory.~~

  Cleaned version: §4.1.2(c) On-farm variety trials of organic seed may be used by producers to evaluate and document equivalency and quality of varieties that are available as organic seed.

  It is not necessary ***in guidance*** to state that ***encouraged*** trials are not mandatory. Adding "but they are not mandatory" in effect discourages a practice that the guidance is encouraging. We suggest striking the last sentence and adjusting the first to simply state that, "On-farm variety trials of organic seed may be used by producers to evaluate and document equivalency and quality of varieties that are available as organic seed." This suggests the option but does not mandate the practice.

- **4.1.3 (Sourcing of Seeds):** The proposed addition to this section should be removed:

  Contamination from GMO consideration: non-organic seed can be used if organic seed cannot be sourced because of GMO contamination.

  The use of excluded methods (GMOs) is prohibited in organic production, and handling and organic agricultural products should have minimal if any GMO contamination. A proposal that formally recognizes contaminated organic seed as an acceptable reason to use non-organic seed contradicts basic production principles, disincentives the requirement to produce and use organic (non-GMO) seed, and it does not acknowledge certifying agents roles in determining whether GMO contaminated seed is non-compliant or a result of unavoidable contact. Furthermore, without the establishment of a seed purity standard, it makes an already challenging compliance determination even harder. We do not believe this proposed language is needed nor helpful.

- **4.2.1(b)(1)(i) Record Keeping for Organic Producers:**
  - The Subcommittee is proposing to retain the existing guidance stating that, "three or more seed or planting stock sources must be contacted." The Subcommittee is instead recommending that FIVE sources MUST be contacted for **seed of at-risk-crops**. Consistent with comments that were submitted by numerous organic stakeholders, including OTA, to NOP on its draft guidance in 2012 and to NOSB on its fall 2016

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discussion document, OTA strongly urges NOSB to pass a proposal specifying a ***minimum*** of five sources for ALL seed **along with the criteria** we have provided in the body of our comments below. OTA believes guidance stipulating an **exact number** of sources that should be contacted is less important than describing the criteria or conditions that should help determine the number as it relates to the potential number of suppliers offering the desired organic equivalent variety.

- OTA acknowledges the Subcommittee's reasoning for not including a proposal for guidance specific to an Organic Systems Plan (OSP) **goal** for increasing organic seed usage. However, given the proposal to amend the organic regulations to **require** producers to demonstrate **improvement** in sourcing and use of organic seed and planting stock each year until full compliance is achieved, it now seems appropriate to draft supporting guidance that would address the documentation organic producers are maintaining to communicate their transition to organic varieties and annual increase by percentage used or acreage planted.

- **4.4.4 Role of Certifying Agents**
  - The proposal to add language to section 4.4.4 on page 113/137 of the NOSB packet is not consistent with the proposed change in the summary section on page 117/137. The phrase "and using commercially available" was omitted from the summary. We request that proposal on page 117 be revised so that it is consistent with the language on page 113:

    4.4.4 Certifying agents should review an operation's progress in obtaining organic seeds, planting stock and transplants by comparing current source information to previous years
    a. If sufficient progress is not demonstrated, a certifying agent may ask for a corrective action plan and require additional seed sources be researched, encourage variety trials, or require additional steps to procure organic seed.
    b. Non-compliances should be issued for repeated lack of progress in sourcing and using commercially available organic seed over time.

We offer the following more detailed comments:
OTA agrees that the NOP regulations need to be amended to require demonstrable improvement over time, and NOP's existing Organic Seed, Annual Seedlings and Planting Stock Guidance (NOP 5029) needs to be revised to support this rule change and reflect the current state of the organic seed industry.

Tremendous strides have been made in the past decade to increase the availability of organic seed and planting stock, yet much greater improvement is needed. According to a 2016 Organic Seed Alliance survey that included responses from certified organic farmers in 47 states, only 27% reported that they used 100% organic seed. This demonstrates a minor improvement compared to 2009 data, where 20% of farmers were using 100% organic seed. Specific to field crops (including corn and soy), field crop growers, on average, planted 78% of their acreage to organic seed compared to 72% in 2009. More encouraging is that 56% reported using 100% organic seed for field crop acreage compared to 47% in 2009. Most respondents had less than 80 acres in field crops, whereas 13% of respondents had more than 480 (Hubbard, K. and J. Zystro. 2016. *State of Organic, 2016*, Organic Seed Alliance).

We understand the complexity of organic seed issues, and we recognize that the organic seed sector has not yet caught up to fully meet the diverse and regional demands of organic production. Still, in part due

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to a poor regulatory framework, the existing seed guidance as written does not reflect the progress that has been made in the organic seed sector since the regulations and the 2005 and 2008 NOSB recommendations were written. Since then, the number of companies supplying organic seed has grown tenfold, and more educational resources and tools exist to support the sourcing and planting of organic seed. For these reasons, it is time that NOP's regulations are amended, and guidance on sourcing organic seed and planting stock is updated.

Crops at risk from GMO contamination might need to be acknowledged, emphasized and have additional requirements for sourcing seeds.

In response to many years of discussion on ways to ensure seed purity for at-risk crops, the Handling Subcommittee is exploring possible places in NOP 5029 where seed purity from excluded methods could be included.

We agree that NOP 5029 should be amended to reiterate the already existing prohibition on excluded methods as the Subcommittee proposed in section 4.1.2(c). OTA requested this change in our comments on NOP's draft guidance in 2011 and in our comments to NOSB last fall. However, any further language or guidance on protecting or preventing seed from contact with GMOs should simply reference NOSB's recommendation on "Prevention Strategy Guidance for Excluded Methods," NOP's existing guidance on Commingling and Contamination Prevention (NOP 5025), and/or NOP's Policy on Genetically Modified Organisms (PM 11-13). Accordingly, we request that the following underlined italicized text proposed in **5029-4 (Policy)** be removed:

> *Producers must prevent and avoid contamination from excluded methods in seed of at-risk-crops (corn, soybeans, canola, alfalfa, beets, chard, cotton, rice and summer squash)*

The inclusion of an isolated phrase such as "producers must prevent contamination of excluded methods in seed" is potentially problematic and confusing without the greater context and explanation that is offered in the policy on genetically modified organisms and NOP's guidance specific to practices to avoid contact with GMOs. Until a seed purity standard is developed, we strongly urge NOSB to simply clarify that non-organic seed must be commercially unavailable in organic form and produced without the use of excluded methods. Where appropriate, we support including reference to existing guidance on prevention measures to avoid contamination for seed of at-risk-crops. An example of where this could be done is with the proposed language in section 4.4.5 which OTA supports:

> *4.4.5 Certifying agents should review the prevention measures taken to avoid contamination for seed of at-risk crops*.

4.1.3 (Sourcing of Seeds): OTA agrees that GMO contamination in seed could be a valid reason to not use organic seed; the commercial availability clause in the organic standards accommodates this unfortunate situation. However, we do not believe including the proposed language as a recognized option in formal guidance is helpful. Therefore, we are requesting that the following proposed language be removed:

> *Contamination from GMO consideration: non-organic seed can be used if organic seed cannot be sourced because of GMO contamination.*

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The use of excluded methods (GMOs) is prohibited in organic production and handling, and organic agricultural products should have minimal if any GMO contamination. We also know that 1) the presence of detectable GMO residue alone in an organic seed does not necessarily constitute a violation of the NOP regulations; 2) the non-compliance status of GMO contaminated seed must be determined by a certifying agent: **and** 3) NOP regulations do not establish GMO tolerance levels. A proposal that formally recognizes contaminated organic seed as an acceptable reason to use non-organic seed not only disincentives the requirement to produce and use organic (non-GMO) seed, it flies in the face of organic production principles. It also does not acknowledge certifying agents' roles in determining whether GMO contaminated seed is non-compliant. Without the establishment of a seed purity standard, it makes an already challenging compliance determination even harder. We do not believe this proposed language is needed nor helpful.

Continuous improvement

OTA has consistently supported the need to stress the goal of continuous improvement in guidance to improve ongoing efforts to use organic seed and planting stock. We acknowledge, however, that the organic regulations do not explicitly require "improvement." This is problematic because the intent of the allowance in 7 CFR § 205.204(a) to use non-organic seed under certain conditions was to provide a transition time for the industry while the production of organic seed and planting stock caught up to its demand. However, 15 years later, the increased use of organic seed and planting stock has been less than robust. Commercial availability has been applied inconsistently since the implementation of the rule, and the level at which certifiers monitor and enforce the use of organic seeds and planting stock varies significantly.

Given the situation, we agree that a regulatory change is needed. OTA strongly supports the proposal to amend the organic regulations at § 205.204 as follows (new language in *underlined italics*):

> **§ 205.204 Seeds and planting stock practice standard.**
> (a) The producer must use organically grown seeds, annual seedlings, and planting stock: *Except,* That,
> (1) Non-organically produced, untreated seeds and planting stock may be used to produce an organic crop when an equivalent organically produced variety is not commercially available: *Except,* That, organically produced seed must be used for the production of edible sprouts;
> *(i) Improvement in sourcing and use of organic seed and planting stock must be demonstrated every year until full compliance with (a) is achieved.*

OTA believes this is a practical proposal that signals to the broader organic sector that organic seed is important to organic integrity, and that further investments in organic seed will have a positive ripple effect that leads to more high-quality seed options that are well-suited to organic systems. It's important to note that the revised language will not force farmers to use organic seed that isn't a good fit for their production system and markets. The recommendation simply requires organic operations to take extra measures to demonstrate improvement over the years. If a particular variety or type of seed is simply not available in organic form, an organic operator would not be penalized.

Organic seed usage as an Organic System Plan "goal"

OTA acknowledges the Subcommittee's reasoning for not including a proposal for guidance specific to an Organic Systems Plan (OSP) **goal** for increasing organic seed usage. However, given the proposal to

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amend the organic regulations to **require** producers to demonstrate **improvement** in sourcing and use of organic seed and planting stock each year until full compliance is achieved, it now seems appropriate to draft supporting guidance that would address the documentation organic producers are maintaining to communicate their transition to organic varieties and annual increase by percentage used or acreage planted. OTA suggests the following language or similar could be added under **section 4.2.1(b) of NOP 5029**:

> Records showing whether, from year to year, the operation has, through continuous improvement, increased the overall use of organic seed and planting stock. For example:
> - For row crops/field crops and specialty crops grown on substantial amounts of acres, the percentage of total crop acreage planted with organic seed and/or planting stock year after year would be an appropriate measure of improvement.
> - For specialty crops grown in diverse varieties on smaller acreages, an appropriate measure of improvement would be no less than 5% increase.

Documentation of quality, quantity and equivalent variety

OTA agrees with the Subcommittee that it is reasonable for ACAs to ask for improvement in compliance with the organic seed and planting stock requirements to use organic seed over time and to impose increased efforts to achieve compliance if progress is too slow. We support the suggested changes made to 4.2.1(a) and the addition of 4.1.2(c) with the exception of the last part of the sentence.

4.1.2(c) (Sourcing of Seeds): We suggest section 4.1.2(c) be revised to read:

Track changes: §4.1.2(c) On-farm variety trials of organic seed may be used by producers to evaluate and document equivalency and quality of varieties that are available as organic seed. ~~Trials are encouraged and records should be kept of results to show inspectors, but they are not mandatory.~~

Cleaned version: §4.1.2(c) On-farm variety trials of organic seed may be used by producers to evaluate and document equivalency and quality of varieties that are available as organic seed.

It is not necessary ***in guidance*** to state that ***encouraged*** trials are not mandatory. Adding "but they are not mandatory" in effect discourages a practice that the guidance is encouraging. We suggest striking the last sentence and adjusting the first to simply state that, "On-farm variety trials of organic seed may be used by producers to evaluate and document equivalency and quality of varieties that are available as organic seed." This suggests the option but does not mandate the practice.

4.2.1(b)(1)(i) Record Keeping for Organic Producers: The Subcommittee is proposing to retain the existing guidance stating ***three or more*** seed or planting stock sources must be contacted. The Subcommittee is instead recommending that FIVE sources MUST be contacted for **seed of at-risk-crops**. OTA does not believe this is consistent with the comments received on this topic to date.

Ultimately, OTA believes guidance stipulating an **exact number** of sources that should be contacted is less important than describing the criteria or conditions that should help determine the number as it relates to the potential number of suppliers offering the desired organic equivalent variety. Consistent with comments that were submitted by numerous organic stakeholders, including OTA, to NOP on its draft

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guidance in 2012 and to NOSB on its fall 2016 discussion document, OTA strongly urges NOSB to pass a proposal specifying a ***minimum*** of five sources for ***ALL seed*** and include the following supporting criteria:

Certified operations should contact seed or planting stock sources to ascertain the availability of organic seed or planting stock for all crops grown.

- These sources must be companies that offer organic seed and planting stock.
- The number of seed or planting stock sources contacted should be relative to the number of companies potentially supplying the organic equivalent variety being procured and to the quantity (commercial vs. backyard) of seed needed.
- Documentation regarding this search should be maintained as part of record keeping, and should include the dates of organic seed sourcing attempts. Sourcing dates should be verified to confirm the grower attempted sourcing efforts in sufficient time to actually be possible (e.g. 3-6 months for off-the shelf quantities and 12-18 months for large quantities of high-density crops such as baby leaf lettuce, spinach, arugula, kale).

4.4.4 Role of Certifying Agents: The proposal to add language to section 4.4.4 on page 113/137 of the NOSB packet is not consistent with the proposed change in the summary section on page 117/137. The phrase "and using commercially available" was omitted from the summary. We request that proposal on page 117 be revised so that it is consistent with the language on page 113:

> *4.4.4 Certifying agents should review an operation's progress in obtaining organic seeds, planting stock and transplants by comparing current source information to previous years*
>
> *a. If sufficient progress is not demonstrated a certifying agent may ask for a corrective action plan and require additional seed sources be researched, encourage variety trials, or require additional steps to procure organic seed.*
>
> *b. Non-compliances should be issued for repeated lack of progress in sourcing and using commercially available organic seed over time.*

Handlers supplying seed to contract growers

OTA thanks NOSB for addressing this issue. It is critical that NOP's guidance address certified operations (i.e. handlers) that contract with growers and mandate specific types of seed or planting stock.

Buyers are often certified handlers who contract with producers to grow certain varieties that are often not available as certified organic. If a certified handler (buyer) mandates a particular variety to be planted ***and the buyer/handler is responsible for sourcing the seed***, the certified handler should be held responsible for determining if the variety is commercially available as organic, and this information should be included in the producer's Organic System Plan. It should also apply to certified seed handling operations such as brokers, and to growers who contract with operations that raise annual seedlings for transplants. Questions about contractual agreements and seed/planting stock should be raised during inspections, and the information must be addressed in the producer's Organic Systems Plan, since in reality these contracts, not the farmers, dictate whether organic or non-organic seed/planting stock is purchased and planted. As explained in the proposal, this consideration was included in the 2008 NOSB

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recommendation but was not included in NOP's final guidance despite requests made in public comments.

OTA acknowledges that the organic seed use requirements in the regulation specify "producers." This is exactly why guidance in this area is needed. The reality is that the buyer/handler is responsible for sourcing the seed while it is the producer's responsibility to demonstrate the sourcing efforts to the certifier. ***Guidance that explicitly references the producer's responsibility to include sourcing information in the Organic Systems Plan would support growers in their ability to collect this information.***

Organic Seed Finder

OTA thanks the Subcommittee for providing its thoughts and suggestions on this topic. OTA again emphasizes that perhaps the most important tool that can help certified producers, handlers and certifying agents in their efforts to source and evaluate the availability of organic seed and planting stock is a searchable national database of available organic varieties. We are interested in the option of having certifiers provide organic seed availability of their certified clients to the National Organic Program, in such a way as to include this information in a separate field in the National Organic Program Organic Integrity Database. Operators could then search that field for a specific variety of organic seed, and all certified operations who carry that seed would then be found. OTA would like to see NOSB further develop this option and explore its feasibility with NOP.

Accredited Organic Certifier and Organic Inspector Training

As stated in our fall 2016 comments, certifiers have the important job of communicating organic seed requirements to organic producers and handlers, granting approval for the use of non-organic seed due to the commercial unavailability of organic seed, issuing non-compliances when adequate searches are not conducted, and reinforcing the need for continuous improvement as appropriate. This job comes with great challenges given the time, resources and complexity involved in verifying a claim that a particular seed variety is "commercially unavailable."

Consistent implementation of the organic seed requirements and NOP guidance will significantly be improved through trainings for certifiers and inspectors. OTA's appreciates NOSB's willingness to work with ACAs, IOIA and other stakeholders on developing the requirements that should be met as part of a comprehensive training on organic seed use and determination of commercial availability. OTA supports this approach.

Conclusion

OTA is committed to and strongly supports the further development of the organic seed and planting stock industry, and we are committed to finding solutions to meet this goal. The goal of our efforts should be to promote the continued growth and improvement in organic seed and planting stock production, and subsequent usage by organic growers without hurting or putting undue burdens on growers. The intent is not to have non-compliances handed down to farmers trying to comply with the seed and planting stock commercial availability section of the Rule. Instead, the intent is to maintain NOP guidance that will help ensure the consistent application and enforcement of organic seed requirements, which, in turn, will promote the breeding, development and production of a greater diversity of varieties well suited for organic production systems.

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On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Gwendolyn Wyard
Vice President, Regulatory and Technical Affairs
Organic Trade Association

cc: Laura Batcha
Executive Director/CEO
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October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Crops Subcommittee – Hydroponics and Container-Growing Recommendations (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Crops Subcommittee's Proposal on Hydroponics and Container-Growing Recommendations.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

Summary

The Organic Trade Association supported NOSB's 2010 recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures when it was passed, and we have consistently maintained that position ever since. We supported NOSB's view that entirely water-based systems (hydroponics and aeroponics) should be prohibited in organic, and that organic container production should meet strict and appropriate production standards. We agreed with NOSB in 2010 that container production must implement practices that ensure a "natural and diverse soil ecology" is supported in the container, and that broader organic concepts such as maintaining and improving biodiversity and soil and water quality must be implemented on these types of farms.

We support this approach because it focuses on the outcomes of an organic management system rather than on restricting the use of inputs. In addition, it recognizes that while organic regulations must be flexible enough to accommodate site-specific conditions, all organic production requirements must be met on each operation, not just the use of allowed inputs. We also support the approach outlined in the 2010 NOSB Recommendation because it includes a comprehensive set of requirements for container producers to ensure these production systems adhere to the full suite of organic practices, rather than focus narrowly on a single aspect. This position has not changed, and we remain committed to ensuring that the ongoing work on this issue build upon the 2010 NOSB recommendation and utilize clear and consistent definitions for each type of production system under consideration.

The Crops Subcommittee (CS) has presented two views on how to clarify the 2010 NOSB

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recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures. The majority proposal and minority view align on a number of issues and demonstrate consensus in some areas:

- Container systems should be allowed in organic, with appropriate production standards established for these types of operations.
- Products from entirely water-based systems (i.e. hydroponics and aeroponics) should not be allowed to be labeled "organic."

OTA is encouraged to see NOSB developing consensus around certain areas of this issue, and we applaud both the majority and minority of the CS for putting forward substantive suggestions to further refine production standards for container producers. The majority proposal includes numerical guidelines for how and when nitrogen-based fertilizers can be added to organic container systems, and it re-defines "hydroponics" as any type of soil-less production that does not meet the proposed requirements for container systems. The minority view builds on the 2010 NOSB recommendation, adds requirements to ensure organic container systems foster a diverse soil ecology, and retains the original 2010 definition for "hydroponics." Both the majority recommendation and the minority view include concepts and approaches which are new to organic stakeholders, and this is the first open comment period for the public to provide feedback on a number of new provisions in the recommendation.

To remain consistent with our previous positions on this topic, the Organic Trade Association does not support the entirety of the recommendation passed by the CS. The definition proposed for "hydroponics" is a stark departure from previous definitions for this term, and we believe that defining a term based on what *it is not* does not lay solid groundwork for rulemaking. Instead, OTA suggests CS retain the definition accepted by NOSB in 2010. Additionally, it is not clear that the CS majority recommendation on container production guidelines ensures that these operations will "support a natural and diverse soil ecology," which was a hallmark of the 2010 NOSB recommendation, and one that OTA continues to believe is an essential feature of organic container production.

OTA has worked with our membership to develop comments on both the majority proposal and the minority view, and we offer the following more detailed comments:

MAJORITY PROPOSAL

Definitions

OTA's previous comments to NOSB on this topic have highlighted the need to first develop clear, accurate, and consistent definitions for each type of production system being considered. This need is underscored by recent rhetoric that has attempted to label container production systems as "hydroponic" based on an unclear definition for the term. Our view is that the definitions proposed in the 2010 NOSB recommendation adequately describe the various types of soil-less systems currently under organic management and should remain as a baseline when developing recommendations.

Hydroponics: The CS majority proposal includes a new definition for "hydroponics" in this recommendation:

> ***Hydroponics.*** Any container production system that does not meet the standard of a limit of 20% of the plants' nitrogen requirement being supplied by liquid feeding, and a limit of

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> 50% of the plants' nitrogen requirement added to the container after the crop has been planted.

OTA appreciates the challenge facing NOSB in accurately defining types of operations along the soil-less growing spectrum. We recognize that inconsistent use of terms, due to a lack of final definitions, has led to confusion and further controversy in this discussion. However, we do not support defining a particular type of production by what it is not, particularly when NOSB is also proposing to prohibit that type of production. Instead, OTA suggests CS retain the definition accepted by NOSB in 2010:

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

Retaining the original definition would align the majority and minority proposals and allow forward progress on motions to clarify which types of production are and are not allowed in organic.

Soil: The CS has retained the definition for "soil" drawn from the Soil Science Society of America Glossary in this recommendation. OTA understands the need to have soil defined in the organic regulations for this recommendation. However, we remind CS that "soil" became a defined term in 7 CFR 205.2 with the release of the Organic Livestock and Poultry Practices Final Rule in January 2017 (scheduled to go into effect November 14, 2017). We strongly encourage CS to craft its future recommendations on hydroponics and containers using the current regulatory definition for "soil:"

> ***Soil.*** The outermost layer of earth comprised of minerals, water, air, organic matter, fungi, and bacteria in which plants may grow roots.

Motions to Prohibit

CS brings forward three separate motions to prohibit "aeroponics," "aquaponics," and "hydroponics." It has been OTA's consistent position since 2010 that "aeroponics" and "hydroponics," as defined in the 2010 NOSB Recommendation, be prohibited in organic production. OTA has not changed that position.

- We do not take exception to CS recommendation to prohibit "aeroponics." This motion reaffirms NOSB's 2010 recommendation that also recommended prohibiting "aeroponics."
- We cannot support CS proposal to prohibit "hydroponics," since CS has proposed a new definition that we do not believe accurately describes "hydroponic" operations. OTA would not have taken exception to the proposal to prohibit "hydroponics" had CS retained the 2010 definition.
- OTA does not take a position on CS proposal to prohibit "aquaponics."

Recommendation for Container Systems

CS has proposed new guidelines for container systems, specifically CS recommends that no more than 20% of the crop's total nitrogen requirement be delivered through liquid feeding, and that no more than 50% of the crop's total annual nitrogen requirement be added to the system after the crop is planted. OTA does not support this approach, as CS has not adequately justified that limitations on how and when nitrogen is added to a container system will achieve an outcome that ensures a "natural and diverse soil ecology."

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20% Limit on Liquid Feeding – It appears that CS justifies its recommendation to limit liquid feeding to 20% of the crop's total nitrogen requirement by comparing all classes of liquid organic fertilizers to sodium nitrate. In this justification, CS assumes that all liquid fertilizers are comprised of immediately plant-available soluble mineral salts (i.e. Nitrate, Nitrite and Ammonium). We do not believe this assumption to be true, as most liquid organic fertilizers do not contain significant levels of plant-available soluble mineral salts, but rather contain plant nutrients that are mostly tied up in more complicated amino acid and carbon-based molecules. In contrast, sodium nitrate dissolves immediately into solution as a plant-available nitrate, and restrictions on its use are justified. **Since we do not believe this recommendation is based on a full understanding of how organic liquid fertilizers behave in container systems, we cannot support it as a requirement.**

50% Limit on Nitrogen Additions after Planting Crop – CS is proposing to limit the amount of nitrogen fertilizer added to a container after the crop is planted to 50% of its annual fertilizer requirement. OTA understands CS's basis for this recommendation is largely around alignment with international standards and an assumption that plant nutrients delivered through additions of solid organic soil amendments and fertilizers will better achieve the outcome of ensuring a "natural and diverse soil ecology." We are also concerned that this requirement could create conflicts with other organic practice standards, including 7 CFR 205.203(c), which requires that organic producers manage their operations "in a manner that does not contribute to the contamination of crops, soil, or water by plant nutrients…"

- How does this requirement ensure that containers can support a "natural and diverse soil ecology?"
- Has CS evaluated whether this requirement could create situations where young plants cannot utilize nitrogen quickly enough, and leaching of plant nutrients occurs?

Due to these unanswered questions about this new proposal for container production, the Organic Trade Association cannot currently support this requirement.

MINORITY VIEW

OTA supports the minority view to build upon and clarify the 2010 NOSB recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures. This is a logical approach to take, as the 2010 recommendation was passed nearly unanimously, and it established a set of definitions to describe the various types of soil-less production systems. Additionally, OTA has always supported establishing requirements that ensure organic container production can support a "natural and diverse soil ecosystem." OTA believes this outcome is what sets organic container producers apart from their conventional counterparts, and should be one of the defining features of a certified organic container system. The requirement that "4 trophic levels" be present in a container to demonstrate compliance with this outcome has merit because it focuses on the biology of the system as opposed to inputs, which is in line with organic principles, and we encourage NOSB to continue refining this concept into a full proposal for future discussion.

Our membership has shared that lab tests that can identify individual species and assess the overall diversity of soil organisms are readily available and relatively inexpensive. These lab tests combined with onsite observations of larger soil organisms like earthworms and arthropods could form the basis for a

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standard that certifiers can verify on an annual basis and that ensures the system is "capable of supporting natural and diverse soil ecology." We also support the requirement that growing media be 50% carbon-based material to ensure organic container producers are not utilizing 100% inert media sources in their systems.

Overall, OTA supports the trajectory that the minority has brought forward, and we encourage CS to incorporate its outcome-based approach in future proposals on hydroponics and containers.

OTHER CONSIDERATIONS

It is important that CS consider all crop production requirements when developing recommendations on soil-less growing systems. The majority proposal focuses squarely on the inputs used in these systems, and does not address how these systems should adhere to additional requirements such as crop rotation, natural resources, and biodiversity. We recommend CS consider suggestions from organic stakeholders and bring forward proposals to ensure these systems meet all of the organic crop production requirements. For example, the minority view builds upon the 2010 NOSB Recommendation that addresses the full suite of crop production requirements, and California Certified Organic Farmers has developed a comprehensive set of production requirements for crops grown in any type of these soil-less systems. As CS and NOSB continue towards a goal of compromise, consensus, and recommendations pertaining to how soil-less production systems should be regulated under the organic standards, recommendations should cover all crop production requirements and should not focus entirely on narrow restrictions on inputs.

CONCLUSION

The Organic Trade Association is encouraged to see that CS has arrived at some areas of consensus on a topic that has generated significant controversy. Specifically, CS reaffirms that container production should be allowed with appropriate guidelines, and that entirely water-based production be prohibited from organic production. This reaffirms the 2010 NOSB recommendation and the resolution passed by NOSB in 2016. While OTA does not support the guidelines for container production proposed by the CS majority proposal, we applaud CS for bringing forward substantive recommendations for the public to consider and on which to comment—we all should recognize this is a sign of progress.

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Nathaniel Lewis
Farm Policy Director
Organic Trade Association

cc: Laura Batcha
Executive Director/CEO, Organic Trade Association

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October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Crops Subcommittee – Field and Greenhouse Container Production (Discussion Document)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Crops Subcommittee's Discussion Document on Field and Greenhouse Production.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

Summary

The Organic Trade Association has always supported the development of strict and appropriate production standards for container production that align with organic production principles. These standards should address production concerns specific to container production both in greenhouses and in the open field. We appreciate the opportunity to provide feedback on the three areas brought forward in this discussion document (artificial lighting, synthetic mulches, and reuse of containers and media). However, we urge the Crops Subcommittee (CS) to ensure that future recommendations focus on practices that are unique to container production and avoid developing a double standard for practices used in both container and soil-based production. These three areas of concern do play a role in evaluating container production systems. However, they could also apply to producers growing in the soil.

Artificial Light

CS asks for feedback on whether the amount of artificial light should be limited and whether there should be requirements for the type (e.g. full spectrum, UV, etc.) of light used in organic container production. It is important that standards be flexible enough to accommodate differing natural photoperiods based on latitude or season. Limiting the amount of artificial light may make sense in certain circumstances, should its use compromise organic principles. However, CS has not brought forward situations where this may be the case. We urge caution in developing prescriptive requirements without a specific outcome in mind. In the case of poultry production, limiting the use of artificial light makes sense, as prolonged photoperiods for egg-laying chickens to stimulate production can cause stress and can create an animal welfare concern. OTA supports the limits on artificial light included in the final Organic Livestock and

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Poultry Practices regulation, but we would want additional justification on how limitations on artificial light aligns with organic crop production principles before moving forward with a recommendation on this issue.

Organic stakeholders have pointed to the energy usage involved with artificial lighting as justification for limiting its use. However, if NOSB wishes to look at energy efficiency within organic systems, we would encourage not singling out a single factor (artificial lighting), but rather look at these systems as a whole and develop recommendations that could address energy efficiency across the entire supply chain: artificial lighting, fuel for tractors and distribution, refrigeration, fertilizer manufacturing, etc.

Lastly, since artificial lighting could be used by both container and soil-based producers, we encourage the development of future recommendations to cover all organic crop producers, not only those who grow in containers.

Synthetic Mulches

In this discussion document, CS raises some serious concerns related to the use of durable synthetic mulches that remain in the field for multiple seasons. Water infiltration, soil sterilization, the potential for run-off and erosion, and the potential for reductions in biodiversity are all valid concerns that warrant consideration by CS in developing recommendations. However, the use of synthetic mulches is not unique to container production, and we encourage CS to develop recommendations that ensure the proper use of synthetic mulches on all organic production systems. Synthetic mulches are an important weed control tool for organic producers, but the use of these materials should not come at the expense of other organic production values like biodiversity, soil conservation, and pest and disease management. Developing additional guidelines governing the use of synthetic mulches is warranted, and these guidelines should apply whenever synthetic mulches are used, not just in container production systems.

Disposal of Crops and Containers

OTA has supported comprehensive guidelines for container production since NOSB passed its 2010 recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures. This recommendation stressed that growing media should be recycled and shall not be disposed of as waste. OTA supported this aspect of that recommendation, and we support the CS minority view that has added the requirement that containers be reused or recycled at the end of the crop's life. We believe the reuse and recycling of media and containers align with organic production practices and should be a requirement for organic producers who grow crops in containers as well as for soil-based growers who may grow transplants in containers prior to planting in the soil.

Conclusion

The Organic Trade Association supports CS's ongoing effort to develop recommendations for standards that will ensure organic container producers align with organic production principles. The three issues raised in this discussion document warrant further consideration by CS in developing future recommendations. We also encourage CS, as it continues its work on development of comprehensive regulations for container production, to consider developing recommendations on the following additional areas:

- Biodiversity – soil, plants, insects, and animals
- Water Management
- Excess Plant Nutrient Management

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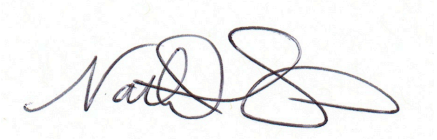
- Crop Rotation

Furthermore, as CS evaluates each of these areas, we urge caution in developing recommendations that would only apply to container producers for practices employed by both container and soil-based producers

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



Nathaniel Lewis
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October 11, 2017

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National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
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Docket: AMS-NOP-17-0024

RE: Crops and Livestock Subcommittees – 2019 Sunset Survey Summaries for 205.601 (Synthetic Substances Allowed for Use in Organic Crop Production) and 205.603 (Synthetic Substances Allowed for Use in Organic Livestock Production)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment to the National Organic Standards Board (NOSB) on its 2019 Sunset Review process.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. 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 crop and livestock input scheduled to sunset in 2019. It's critical that NOSB hear from certified producers on whether these inputs are consistent with and necessary for organic production, or whether there are other effective natural or organic alternatives available.

OTA is submitting the results to our electronic surveys that were created for each input under review for 2019 and collected for the first and second review period. 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 (FAC[1]) 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.

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The comments submitted at this time include everything we have received through October 11, 2017. We have received the following total responses:

- 205.601 Allowed Synthetic Crop Inputs: 24
- 205.603 Allowed Synthetic Livestock Inputs: 8
- **Total: 32**

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 necessary 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 at-large.

Based on survey results and/or feedback received directly by members, the following materials meet the necessity criteria listed above. The sunset materials under review that are not listed below did not receive any survey responses. 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.

Synthetic Substances Allowed for Use in Organic Crop Production (§ 205.601)

Substance	Survey Information
Copper Sulfate and Fixed Copper	**Producer Comment**: Copper is the only chemical that is approved to stop leaf curl in Stone Fruits **Producer Comment**: Copper sulfate is used as fungicide against Fusarium Solani and Botrytis. Copper is involved with carbohydrate and nitrogen metabolism. It is also linked to chlorophyll performance. Copper sulfate is used as fertilizer when a deficiency is documented. Other products based on peroxide hydrogen and natural ingredients as Bacillus subtilis are not as effective in disease control treatment as Copper Sulfate is. As fertilizer, Copper sulfate has a faster dispose by the plant than other products copper based. **Producer Comment**: Downey mildew is an especially pervasive problem, which threatens our organic spinach production. Fixed copper is one of the few (if not the only) tools we can use to combat difficult diseases like downy mildew and bacterial leaf spot. We continuously evaluate other organic-compliant alternatives, but none of these materials are as effective as copper is.

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Humic Acids	**Producer Comment**: Humic acids are some of the building blocks of the soil food web. Without them, farming organically would be all but impossible. There is absolutely nothing that can truly replace Humic acids! Without this Organic farming's future would be in jeopardy **Producer Comment**: We add them to irrigation water to increase the availability of nutrient elements to the plants and also it is included in our compost tea process for promoting the growth of microbiological organisms. There no other alternatives at this moment. **Producer Comment**: Humic acid helps breakdown the nitrogen in substrate and protects plants from salts. Helps in bacteria break down. No alternatives **Producer Comment:** It is one of the only methods to control fireblight that we have available. There are no alternative products effective against fireblight.
Sticky Traps/Barriers	**Producer Comment:** Sticky Traps are vital in our organic operation. They are a big part of our success in the pest control program. We use Sticky Traps as follow: 1. Sticky traps are placed in all crop production areas to massively catch white flies, trips and aphids. 2. To catch pest (white flies, trips and aphids) manually. 3. To monitor pest populations and determinate if an allowed input for pest control is necessary. To increase use of allowed inputs for pest control and beneficial insects are the alternatives. **Producer Comment:** Helps me assess the level of insect pressure on the farm and where I have trouble spots **Producer Comment:** Sticky traps are important tools in our integrated pest management program. When preventative, mechanical, and physical measures fail to prevent pests, sticky traps and barriers are sometimes necessary to prevent insects and other pests from damaging our crops. As an organic grower, we're limited in the organic-compliant tools, which are available to us. Part of good integrated pest management program is using a wide array of materials and tools depending on the crop, soil, and environmental conditions. **Producer Comment:** We use sticky traps and tape to monitor populations of pests on a weekly basis during the growing season to allow us to properly time control measures. They are removed prior to harvest. No organic alternatives exist as far as we have been able to determine.
Chlorine Materials	**Producer Comments:** Equipment sanitation and possible use for treatment of water sources. Best practices for equipment sanitation involve two opposite approaches to preventing biofilm formation. If Chlorine is taken away then a powerful, and well researched, method of eliminating pathogens on food contact surfaces will severely increase food safety risks to the consumer. **Producer Comments:** We use Chlorine Dioxide to maintain the irrigation lines clean of plant pathogens and biofilm, which could plug irrigation emitters. Allowed alternative is hydrogen peroxide, which is less effective. That way, we would need more quantity to obtain the same effect and also presents faster degradation when is in contact with organic matter. **Producer Comments:** Used to disinfect irrigation lines and tools, collection buckets and berry cleaning equipment as well as refrigerators where berries are stored for consumer sales. There are a limited number of sanitizers available for use at a time when food safety requirements are increasing for farmers. Sanitizers are not interchangeable. Some work better in wet, hot environments others work better in cold. We need every tool. **Producer Comments:** We use chlorine in post-harvest wash water. There are very few organic-compliant sanitizers available, which can be used for direct food-contact. The

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	sanitizers that are available for use, like chlorine and PAA, are critical for proper food safety. **Producer Comments:** Sanitation at harvest, for harv. machine sanitation, and in processing plant for sanitation of wash water. Very few organic alternatives, but industry needs to be open to new science **Producer Comments:** It is used in 4% solution to clean drip lines of organics. It is used in food safety to disinfect packing lines. This is by far the most effective and affordable product available.
Micronutrients	**Producer Comments:** Micronutrients are crucial to plants well-being and growth. We are adjust plant levels by constantly monitoring lab analysis. Micronutrients are applied by foliar sprays, irrigation systems and directly into the soil. There no other alternatives at this moment. **Producer Comments:** Micronutrients are important in plant health and plant physiological functions. No alternatives. **Producer Comments:** Zinc sulfate applications reduce the cadmium uptake into leafy greens, specifically spinach. We use zinc sulfate in very specific regions where we have soil high in cadmium. Cadmium uptake is a concern in leafy greens, specifically spinach. We try not to grow spinach in regions where cadmium is high, but our soil quality is sometime limited. There are few other tools available to reduce cadmium uptake.
Herbicides, soap-based	**Producer Comments:** Soap-based herbicides are important tools in our integrated pest management program. When preventative, mechanical, and physical measures fail to prevent pests, soap-based herbicides are sometimes necessary for weed control. While there are other herbicides available, the applications are not always appropriate depending on the crop type, soil quality, and other environmental factors. As an organic grower, we're already limited in the pest management tools available to us.
Potassium Bicarbonate	**Producer Comment:** Used for disease management of powdery mildew in highly susceptible varieties of apple. There are alternatives, but to avoid resistance to one material all must be used in rotation.
Biodegradable Mulch-Film	**Producer Comment:** It is used to increase production, reduce weed pressure, save water, get cover crops planted fore efficiently and to save on labor. Biodegradable mulch films allow us to plant cover crop faster in the fall when time is of the essence. It also decreases the number of passes a tractor needs to be in a field. It also saves the man hours used in removing the plastic mulch. According to USDA organic regulations, polyethylene mulch film must be removed at the end of the season. It is too dirty to recycle, therefore it ends up in a landfill. **Producer Comment:** It allows for quick turns of beds, saves hours in plastic removal costs, reduces strain on landfills, and saves money in dumpster fees. Current plastic is hard to remove, wasteful of a diminishing resource, and hard on the environment.

Synthetic Substances Allowed for Use in Organic Livestock Production (§ 205.603)

Copper Sulfate	**Producer Comment:** Topical treatment used in a manner that minimizes accumulation in soil. No effective alternatives on the national list. **Producer Comment:** As a footbath for cows, and a spot treatment in foot wraps for more affected cows, for foot rot and heel warts. I do not know of any alternatives.
Chlorhexidine	**Producer Comment:** It is the active ingredient in Dermasoft teat dip. We use this powdered

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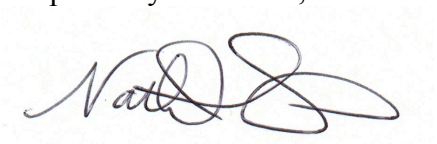
	teat dip in winter because regular iodine teat dips cause frostbite. Our cows live and eat largely outdoors in a somewhat exposed barnyard at 1600 ft. elevation. We would not be able to humanely milk cows in the winter without powdered teat dip.
Glucose	**Producer Comments:** Used as a medical treatment. No alternatives currently allowed.
Lidocaine	**Producer Comments:** Pain management, critical for animal welfare. No alternatives. **Producer Comments:** As a local anaesthetic for dehorning calves (routine) and any other operations that may need to be performed (seldom). Not sure of alternatives.
Tolazine	**Producer Comments**: Used for pain management, critical for animal welfare. No alternatives.
Chlorine Materials	**Producer Comments:** Sodium hypochlorite is routinely used to sanitize many surfaces to kill pathogenic microorganisms. Chlorine dioxide is routinely used to kill pathogenic microorganisms in water lines because sodium hypochlorite is corrosive to the pipes. No alternatives currently allowed.

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.

On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



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Farm Policy Director
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October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Livestock Subcommittee – 2019 Sunset Review: Oxytocin and Procaine

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Livestock Subcommittee's Proposal to remove two substances, Oxytocin and Procaine, as part of its 2019 Materials Sunset Review.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

Oxytocin
The Organic Trade Association ultimately supports the Livestock Subcommittee's (LS's) proposal to remove Oxytocin from the National List. We recognize that there are multiple natural alternatives available to address many of the post-parturition complications that can arise in organic dairy cattle. We also recognize that the allowance of Oxytocin prevents some organic producers from claiming that their products are "hormone free" despite the fact that Oxytocin is not a growth hormone.

Removing a livestock medication used for specific and potentially life-threatening medical issues will always require careful consideration. Should NOSB vote to remove Oxytocin, it will result in some producers needing to treat animals for serious conditions and having to ship those treated animals to a conventional operation. Simultaneously, removing Oxytocin will push producers to explore and embrace natural alternatives that have proven to be effective for most of the medical conditions typically treated by Oxytocin. This is a delicate balancing act. However, the Organic Trade Association believes that sufficient advances in natural alternatives have occurred to justify removal of Oxytocin from the National List. We support LS's proposal to remove.

Procaine
Procaine functions as a pain reliever when performing surgery or physical alterations on livestock. Lidocaine also is allowed for this purpose and is generally more widely utilized by veterinarians. Additionally, current formulations of Procaine often include antibiotics, which means these formulations are prohibited in organic livestock production. It is unclear how much antibiotic-free Procaine is used, if

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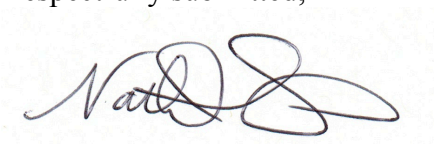
ever, by veterinarians on organic livestock operations. In addition, it appears that producers and veterinarians are indifferent to removing this substance from the National List since they are all accustomed to using Lidocaine. However, we do recognize that organic livestock producers have a limited toolbox, and it is critical that they have access to tools that help to reduce pain and suffering in the animals they raise. Procaine is one of these tools, yet it does appear that producers and veterinarians are not using it, and it is nearly impossible to find formulations that are compliant with organic regulations. Therefore, unless new information is submitted to NOSB in this public comment period that highlights specific conditions that necessitate the use of Procaine, the Organic Trade Association does not take exception to LS's proposal to remove Procaine from the National List.

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



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1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Livestock Subcommittee – Petitioned Substances: Sulfur and Hypochlorous Acid (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Livestock Subcommittee's Proposal on two petitioned substances: Sulfur and Hypochlorous Acid.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

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

Hypochlorous Acid
OTA supports the majority of the LS ***not*** to add Hypochlorous Acid to the National List at 7 CFR 205.603 as a medical treatment, specifically for treating wounds and pinkeye. We agree that there are multiple alternative materials available for treatment of wounds and pinkeye. Additionally, we recognize that

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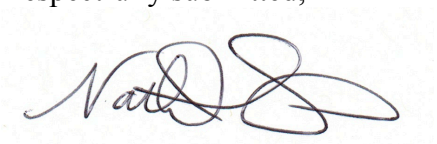
other chlorine materials (chlorine dioxide, sodium hypochlorite, and calcium hypochlorite) are currently only allowed for use in disinfecting and sanitizing facilities and equipment on organic livestock operations, and the petitioner did not adequately justify why this form of chlorine should be allowed for use directly on organic livestock to disinfect wounds and treat pinkeye. **Due to the availability of alternative materials and the lack of necessity for hypochlorous acid as a medical treatment, we support LS recommendation *not* to add Hypochlorous Acid to the National List.**

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



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Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Livestock Subcommittee – Clarifying "Emergency" for Use of Synthetic Parasiticides in Organic Livestock Production

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Livestock Subcommittee's Proposal on Clarifying "Emergency" for Use of Synthetic Parasiticides in Organic Livestock Production.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

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

Better Suited for Guidance
The current organic regulations already have requirements for an organic dairy producer's preventive health management plan to address parasites including selection of species and types of livestock for resistance to parasites and establishment of housing, pasture conditions, and sanitation practices that minimize occurrence of parasites. OTA believes that the additional language to 7 CFR 205.238(c) proposed by LS is redundant to the current regulations and may be too prescriptive to be included in the

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regulations themselves. OTA encourages LS to propose that these specific parameters be developed into NOP guidance rather than rulemaking.

Clarifying "Routine Use"

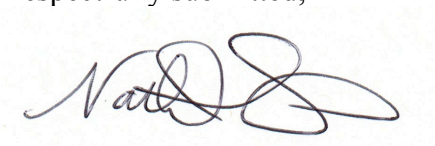
In our comments to LS for the Spring 2017 NOSB meeting, we requested that LS not focus on clarifying or defining the term "emergency," but rather focus on clarifying the current definition for "routine use of parasiticide." We appreciate LS's decision, in this more recent proposal not to propose a definition for "emergency," but we still see value in developing guidance on how and when Accredited Certifying Agents (ACAs) can consistently identify the "routine use of parasiticide" so that corrective actions can be taken. This clarification should be incorporated into a larger guidance document on appropriate use of synthetic parasiticides in dairy animals.

Conclusion

The Organic Trade Association supports the ongoing work of LS to clarify "emergency" use of parasiticides, particularly in the wake of previous NOSB proposals to reduce milk-withholding times and to remove ivermectin from the National List. However, OTA suggests that the specific descriptions of preventive practices outlined by LS in its proposal be included in a proposal for development of guidance that also addresses how ACAs can identify "routine use of parasiticide" on an organic livestock operation. Guidance that addresses both how producers can justify the "emergency" use of parasiticides as well as how ACAs can consistently identify "routine use of parasiticide" will ensure a level playing field for organic dairy producers and ensure that reductions in milk withholding times proposed by NOSB will not result in a misuse of these materials.

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,



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October 11, 2017

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National Organic Standards Board
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1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Handling Subcommittee – Reclassification of Potassium Acid Tartrate (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Handling Subcommittee's Proposal to reclassify Potassium Acid Tartrate (Cream of Tartar) from a non-agricultural synthetic substance to an agricultural non-synthetic substance, and move the substance accordingly from § 205.605(b) to § 205.606 of the National List. We support the proposal as written, and we urge NOSB to pass it at this fall 2017 meeting.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. 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 supports the Handling Subcommittee's proposal to reclassify Potassium Acid Tartrate (commonly referred to as "cream of tartar") from its current status as a synthetic non-agricultural substance to an agricultural ingredient.

Potassium Acid Tartrate is currently listed on the National List as an allowed "**non-agricultural, synthetic**." It is also an ingredient commonly referred to as "cream of tartar" that is derived from agriculture and commonly found in the baking cabinet of household kitchens. It is most notable for its central role in making perfect homemade meringue. We agree that its current classification as a synthetic non-agricultural substance does not make sense given that it is derived from the wine lees (agricultural) during the winemaking process through mechanical and natural means utilizing hot water, filtering, cooling and precipitation. No reagents or solvents are involved in the process.

OTA supports the proposal to classify and list this substance as an **agricultural substance** for the following reasons:

- It is derived from wine grapes (crops);
- It is a by-product of wine making;
- During its extraction, it does not undergo a chemical change (aka remains non-synthetic). It forms

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naturally through a precipitation process and, in fact, is the residue left on wine barrels;

- It is a product of minimal processing;
- The source and manufacturing process, when cross-referenced with the Classification of Materials Guidance (NOP 5033-1) and the Agricultural vs. Non-agricultural Decision Tree, results in an "agricultural" determination;
- No other method of manufacture is used. It's a by-product of winemaking only;
- The classification as "agricultural" could incentivize the production of organic Potassium Acid Tartrate (organic cream of tartar).

We recognize that Potassium Acid Tartrate could be viewed as "non-agricultural" given the definition of 'non-agricultural' under § 205.2 (Definitions) of the USDA organic regulations:

> ***Non-agricultural substance.*** A substance that is not a product of agriculture, such as a mineral or a bacterial culture that is used as an ingredient in an agricultural product. For the purposes of this part, a non-agricultural ingredient also includes any substance, such as gums, citric acid, or pectin, that is extracted from, isolated from, or a fraction of an agricultural product so that the identity of the agricultural product is unrecognizable in the extract, isolate, or fraction.

One could argue that Potassium Acid Tartrate is a "fraction of an agricultural product" and that the "identity of the agricultural product (wine grape)" is unrecognizable in the cream of tartar itself. One could also make this argument for organic sugar (picture a pile of white crystals), or of guar gum, non-amidated forms of pectin and corn starch, all of which are listed as "agricultural" on 205.606 of the National List. It is important to recognize the ambiguity of the 'non-agricultural' definition in the regulation and its historical placement in the development of NOP's Classification of Materials Guidance. The Agricultural vs. Non-agricultural Decision Tree was explicitly developed to address the ambiguity of the 'nonagricultural' definition and the contradiction in the examples provided (pectin and gums). OTA supports the Handling Subcommittee's approach to use the Decision Tree designed for this exact purpose, and we agree with the determination.

In addition to improving the consistency of the National List, we believe this proposal offers incentive and opportunity for the development and use of organic cream of tartar. Given the limited amount of USDA certified organic wine, we don't see the production of organic cream of tartar being realistic at this time, but recognition of its agricultural status and the fact that it is derived from wine may incentivize the next steps towards processing organic forms. OTA intends to spread the word and let the entrepreneurs of the world know of this opportunity.

In closing, OTA appreciates the subcommittee's efforts to improve the consistency of the National List and to propose regulatory changes that may encourage the development and use of organic ingredients. OTA believes this proposal exemplifies forward thinking and should be approved at this meeting.

On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

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Respectfully submitted,

Gwendolyn Wyard
Vice President, Regulatory and Technical Affairs
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October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Handling Subcommittee – 2019 Sunset Survey Summaries for 206.605 and 205.606

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment to the National Organic Standards Board (NOSB) on its 2019 Sunset Review process.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. 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 2019. It is 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 the results to our electronic surveys that were created for each input under review for 2019 and collected for the first and second review period. 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 (FAC[1]) 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.

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The comments submitted at this time include everything we have received through October 11, 2017. We have received the following total responses:

- 205.605(a) Non-synthetic, Non-agricultural: 19 + 10 (new as of 10/10)
- 205.605(b) Synthetic, Non-agricultural: 17 + 9 (new as of 10/10)
- 205.606 Agricultural: 5 + 3 (new as of 10/10)
- **Total: 63**

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 at-large.

Based on survey results and/or feedback received directly by members, the following materials meet the essentially criteria listed above. We are not aware of any new information since the 2017 review regarding the availability of alternatives or adverse impacts on humans and on the environment. We have included the information received during the 2017 review as well.

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
Bentonite	**2019 Sunset Responses** **Handler Comment**: Used as a filtering agent for protein stability in white wines. Certified for 18 years. Selling products in 50 states. It is a naturally occurring volcanic clay that carries a slight negative charge. The clay, when swelled with water reacts with unstable proteins in wine that carry a slight positive charge. These unstable proteins then precipitate out and are removed either by racking or filtration. This process prevents protein hazes in wines that may have been subjected to high temps during storage and/or transport. The bentonite is always removed before bottling and there is no residual left over in finished bottled wine. There may be alternatives but they would most likely be man-made and or highly processed natural material. Bentonite is mined and used unadulterated, therefore its use in Organic processes should continue. We have not conducted research on other alternatives. Bentonite is the best Organic material for the above stated use. Loss of this substance would result in a lower quality, unstable product. 10- Critically essential to organic processed products. **Handler Comment**: Used as a filtering aid in organic oils. Certified for 15 years. Selling products in 50 states and other countries. No organic alternatives are available. Loss of this substance would result in inferior appearance of products and possible rancidity and ultimately lost sales. 9- Critically essential. **Handler Comment**: Used as a stabilizer and filter aid for hard cider and wine. Certified for 12 years. Selling products in California. No organic alternatives are available. Loss of this substance would compromise quality, cost and shelf life of products and likely removal from organic status. 10-

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	Critically essential. **Handler Comment**: In the wine industry, bentonite is used to absorb proteins from white or rose wines. If not removed, these proteins may cause a haze or precipitate in the wine. Although the treatment is called "heat stability," this comes from the testing method. The wine may develop the haze in the marketplace without having been exposed to excessive heat or mishandling. Certified for 13 years. Selling products in California. Unaware of any allowed alternatives, although this is an area of research. Organic is not available as far as I know. We did, about ten years ago, try a protease enzyme that was supposed to decrease the need for bentonite. (Crystalzyme). It did not work very well and I believe they have stopped making it. Grapes have proteins and they become unstable in alcoholic solution. Addition of tannins can help sometimes. I don't see how we could send white wines into the marketplace without this material. The haze can be really ugly. Loss of this material would be devastating for the organic program. 10- Critically essential. **New (fall 2017) Handler Comment:** Used as a filtering aid for juice concentrate/processing. Company has been certified for 22 years. National sales and some export. Function is as a filtering agent. Bentonite does not have any organic alternatives and is one of a few filtering aids needed for specific uses. Loss of this material would result in difficulty processing organic fruit juice and concentrates. High risk for economic effects. The essentiality of this substance on a scale of 1-10 is 10. **2017 Sunset Responses** **Handler Comment**: Used as a filtering agent in our certified juice concentrates. Certified for 8 years and selling products nationwide and exporting. There are no alternatives for this product/process. If the material is removed, we could not filter our concentrates. 9- Critically essential. **Handler Comments:** Bentonite is used for organic juice concentrate processing as a filtering aid. No other natural or organic sources are known with the same specific function. This input is rated as critically essential to organic processing. The loss of allowance would result in lost quality and loss of sales.
Diatomaceous Earth	**2019 Sunset Responses** **Handler Comment**: Used as a filtering aid in organic wine processing. Certified for 18 years. Selling products throughout all 50 states. It is used as a filter aid when filtering high solids grape juice lees and wine. There are other filtration alternatives and processes that can filter high solids juice and/or wine, however, they are relatively new to the industry and very expensive. We hope to eventually replace diatomaceous earth with one of these technologies, but for now DE is an excellent cost-effective solution for filtration that has been used for a long time. DE is a natural organic material. It is mined from the earth and is not processed other than mechanical grinding/sieving. While we have conducted research trials on alternatives, we still feel that DE should remain an approved material for use in organic wine processing until viable alternatives are widely available. With respect to alternative management practices, grape juice is inherently high in solids and microorganisms. Filtration is essential to high quality winemaking. Loss of DE from the National List would result in a lower quality product. Other technologies are cost prohibitive for smaller winemaking operations. DE is critical to our operation (9 out of 10 for essentiality). **Handler Comment**: Used as a filtering aid in organic oils and fats. Certified for 25 years. Selling products throughout the USA at manufacturer's locations. Canada, Australia, Southeast Asia. D.E. is the gold standard for oil filtration. Unaware of any organic alternatives. It is critical to our operation (10 for essentiality). **Handler Comment**: Used as a filtering aid or our organic oils. Certified for 15 years. Selling products throughout in all 50 states. Possibly bentonite as an alternative, but diatomaceous earth works better for most of our oils. Loss of this material would result in decreased appearance and possible rancidity and loss of sales. It is critical to our operation (10 for essentiality). **Handler Comment**: Used as a filtering aid or our organic flavor extracts. Certified for 10 years.

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	Selling products in multiple states and countries. To the best of our knowledge, there are no replacements or alternatives. We haven't found anything to conduct trials on. Possibly bentonite as an alternative, but diatomaceous earth works better for most of our oils. If this material were removed from the National List, we would have to remove several items we that are currently certified. If we have to remove several items that are currently selling, that would hurt us economically. Currently organic sales are approximately 10-15% of our business and are growing each year. The essentiality of this substance on a scale of 1-10 is 10. **Handler Comment**: Used as a filtering aid in organic honey and maple syrup. Certified for 12 years. Selling products in 30 states. No replacements or alternatives are allowed. Bag filtering could be used but that would cost more and take much more time and the honey does not have the bright shelf appeal. Loss of this material would result in a large amount of material that needs to be disposed of in a landfill. The essentiality of this substance on a scale of 1-10 is 9. **New (fall 2017) Handler Comment:** Used as a filtering aid for fruit juice and concentrates. Company has been certified for 22 years. National sales and some export. No alternatives to our knowledge. Loss of this material would affect the quality of our products. There would be a high economic loss and if we could not use this material. The essentiality of this substance on a scale of 1-10 is 10. **2017 Sunset Responses** **Handler Comment**: Used as a filtering aid in our certified organic juice products. Certified for 18 years and selling products nationwide and exporting. There are no alternatives for this product/process. If the material is removed, we will no longer produce organic juice concentrates. 10-Critically essential. **Handler Comments:** Diatomaceous earth is used to remove insoluble and impurities in solutions. We do not use this directly but it is used by some of our suppliers. Diatomaceous earth improves the quality, flavor and appearance of ingredients without leaving a residual in the ingredient. Applications where used include vinegar and sugar processing. **Handler Comments:** Used as a filtering aid for juice concentrates. It's used in combination with other filtering aids such as bentonite and perlite. All have a specific use and must remain on the National List. There are no other alternatives. This is critically essential to organic processing. **Handler Comments:** Used for organic honey filtration (processing aid). Operation has been certified for six years. Products are sold in 31 states. Currently no foreign export. Not familiar with any alternatives. It is possible to do a strained honey product without the Diatomaceous earth but it does not have the same clarity as filtered honey and crystallizes faster. Currently our entire organic honey customer base is for filtered organic honey. Without this material, we would no longer be able to process filtered organic honey. Diatomaceous earth is critically essential to our operation.
Nitrogen	**2019 Sunset Responses** **Handler Comment:** Used in shelf stable low acid foods (including infant food) and powdered infant formula to purge oxygen from the container to prevent degradation over shelf life. Certified for 10 years. Selling products in 50 states. Alternatives? No. Alternative management practices? None. The essentiality of this substance on a scale of 1-10 is 10. **Handler Comment:** Used as a nitrogen flush to displace oxygen; stabilizes products. Certified for 20 years. Selling products in 50 states. Not aware of any alternative materials or practices. Prolongs shelf life of product making it more desirable to resellers. Loss of this material from the NL would have environmental impacts - More waste and need to increase production, causing more production to be necessary and increasing costs to consumers. It saves cost to us and the consumer in the long run. The essentiality of this substance on a scale of 1-10 is 9. **Handler Comment:** Used as a refrigerant and cleaning agent to remove oil residue. Primarily in cooling products as well as flushing oil systems for cleaning. Certified for 25 years. Producing products throughout the USA at manufacturer's locations. Canada, Australia, Southeast Asia. What alternative cryogenic liquefied gasses are available? Nitrogen is 78% of the atmosphere. Without this

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	material, we could not cool products rapidly. Could not clear oil residue from processing equipment. We would need to need to use a more hazardous refrigeration or cleaning product. Loss of this material would require us to redesign the entire manufacturing operation. The essentiality of this substance on a scale of 1-10 is 10. **Handler Comment:** Used as a nitrogen flush to displace oxygen and prevent oxidative rancidity for organic oils, seeds and beverages. Certified for 15 years. Not aware of any alternative materials or practices. Producing products in 50 states and other countries. Loss of this material would result in rancid products and loss of sales. The essentiality of this substance on a scale of 1-10 is 10. **Handler Comment:** Used as a packaging aid for organic leafy greens and produce. Certified for 30+ years. Producing products in all of the United States Canada, Mexico, Japan, Taiwan, Korea, and Thailand. Produce has an extremely short shelf life, but a nitrogen flush can help maintain the quality of the product by preventing oxidation. Nitrogen is a non-synthetic non-agricultural material. There are no organic alternatives, which can reduce oxidation in produce. Organic produce would have a much shorter shelf life with the allowance of this material. We would have to discard more organic produce because the perishability would increase. The essentiality of this substance on a scale of 1-10 is 9. **Handler Comment:** Used to keep the head space in cans rigid AND keeps product from oxidizing. Canned coffee and concentrate products. Certified for 5+ years. Producing products in all 50-and some export to Asia. Not very many alternatives available and are more expensive-limited dosing systems available as well. Quality also suffers under alternatives they are not as effective. No organic alternatives. Cans would not be able to be shipped via truck and railroad as cans on the bottom would be crushed. As well, concentrate would suffer with 'cheesy' aroma and flavor as oxidation in the bottle on the shelf occurs. Loss of this material would have economic effects that would be high and shelf life would have to be reduced which might cause some retailers to no longer carry the product. The essentiality of this substance on a scale of 1-10 is 9. **Handler Comment:** Removes oxygen before sealing to prevent oxygenation of food. Used for our organic canned soups, beans and vegetables. Certified for 7 years. Producing products nationally available, not exported. No alternatives to my knowledge. Without this material quality would diminish as colors/flavors oxygenate. May also force us to use preservatives. Preservatives bring their own set of concerns. Addition of chemical preservatives could raise costs. The essentiality of this substance on a scale of 1-10 is 10. **New (fall 2017) Handler Comment:** Used for ground herbs and spices that are sold alone or are used as ingredients in seasoning mixes. Company has been certified for 20+ years. Products are sold throughout the U.S., Mexico and Canada. The nitrogen is used to flash freeze the spices during grinding. This reduces the heat caused by the grinding process, allowing for greater retention of color, flavor and aroma. There are not alternatives that are effective. Loss of the material from the National List would result in reduced quality and marketability. Reduced competitiveness compared to conventional spices. Negative economic effects would be experienced if nitrogen were no longer allowed to be used and loss of organic product. Ground spices would be lower in quality and would be less competitive with conventional spices. The essentiality of this substance on a scale of 1-10 is 8. **New (fall 2017) Handler Comment:** Used for organic Walnut packaging. Company has been certified for 12 years. Selling in all 50 as far as we know and currently exported to Canada. The nitrogen gas flush in the bag helps provide a dry, oxygen free environment, which prolongs shelf life and reduces rancidity. Alternatives include Air. Widely available on Earth (and mostly organic and natural) is ~78% Nitrogen. Unfortunately the ~21% Oxygen causes problems with rancidity. We currently use air, but would like to switch to a modified atmosphere "Nitrogen Flush" once we have our sealed bag line up and running. Refrigeration is currently used, but hard to force once the product leaves the plant. Loss of this material would result in shorter shelf life of our product. No environmental effect if it is not allowed. However, the alternative of forced refrigeration increases energy consumption and food waste if not properly performed. The economic impact if the material is

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	removed is that it closes specific markets to us (i.e. anywhere other than North America) as well as larger retail operations. The essentiality of this substance on a scale of 1-10 is 3. No label. **New (fall 2017) Handler Comment:** Used for Shelf-stable soup, stews, beans, grains and sauces. Company has been certified for 7 years. Selling in all 50 states. Function is to remove oxygen before sealing, improving quality and color. No alternatives to our knowledge. Removing Nitrogen could require the introduction of other compounds on the National List that are less innocuous. Loss of this material would reduce the quality of product, and might require the addition of compounds that consumers would not like. Could substantially impact sales. The essentiality of this substance on a scale of 1-10 is 9. **New (fall 2017) Handler Comment:** Used for bagged animal feed. Company has been certified for. Selling in 48 states. No international currently, but planned for export in next two years. It is used to flush oxygen to allow for longer product life in sealed bag. We would be happy to discuss any as no alternatives, including management practices, have been found. Loss of this material would decrease product life and overall quality. It will put organic feed at a disadvantage over conventional bagged feed and make wider adoption of organic products more difficult. The essentiality of this substance to the continued success of our business on a scale of 1-10 is 8. **New (fall 2017) Handler Comment:** Used for manufacturing of aseptic juices and some canned product as a processing aid for packaging. Company has been certified for 22 years. National sales and some export to Canada. Not aware of any alternatives. We could not produce our products without this material - quality affects. We would not sell the organic products that require the use of nitrogen. The essentiality of this substance on a scale of 1-10 is 10. **New (fall 2017) Handler Comment:** A nitrogen flush is commonly used to displace and manage oxygen levels for our organic aseptic packaged products. Several of our organic vegetable oils (i.e. flaxseed, chia) require a nitrogen flush for both refrigerated and shelf stable offerings. It serves as an important protective measure against oxidation, which may adversely affect stability and Omega-3 levels. No suitable alternatives have been identified. **New (fall 2017) Handler Comment:** Used in our dietary supplements. Selling in all 50 states and Canada. Nitrogen may be used in the production or packaging of oxygen-sensitive products i.e. N2 sparge to remove oxygen from water in preparing a Vitamin C solution; N2 blanket during blister packing; etc. No known alternatives that meet GMP specifications. Loss of this material would remove the ability for our Vitamin C products to be shelf stable. Would need to remove organic certification from the relevant products. The essentiality of this substance on a scale of 1-10 is 10. **<u>2017 Sunset Responses</u>** **Handler Comment:** Producing shelf-stable, thermally processed products. Certified for five years. Selling products in all 50 states. Use preserves quality or product by reducing oxidation. There are no alternatives to our knowledge. Quality would diminish through oxidation resulting in reduced consumer preference for our products. Critical to organic processing. **Handler Comments:** Liquid nitrogen is used in cryogenic cooling/freezing in the frozen food industry. Nitrogen is currently used by some of our suppliers. The nitrogen dissipates into the air after freezing and does not remain in the food product. **Handler Comments:** Used as a packaging aid for canning. It keeps the can firm by displacing air. Products are sold throughout the states. There are no alternatives available or other management practices that would work in place. Nitrogen is critically essential our organic business. **Handler Comments:** Used for IQF tomatoes. Company has been certified for 13 years. Products are sold in 10 states and exported to other countries. Used to (flush) replace oxygen. No known alternatives or practices. Loss of this material would result in discoloration of tomatoes during storage. Product color will be refused by customer. Significant reduction to shelf life. We would likely stop the production of organic. Essential – critical.

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	Handler Comments: Used as a packaging aid for canning. Keeps the can firm by displacing air. Certified for 13 years. Products are sold throughout U.S. and Canada. No known alternatives or practices. Loss of this material would result is loss of quality and thus loss of sales. Essential – critical.
Sodium Carbonate	**2019 Sunset Responses** **Handler Comments:** Used as a leavening agent, neutralizer in baked goods, ice cream, frozen novelties, soy base extraction. Certified for over 25 years. Selling products in all states. Have not found a suitable alternative. If we could no longer use this substance, we would stop making these products. Sodium carbonate is critically essential to the processing of our products (10). **Handler Comments:** Used as a pH adjuster in organic laundry detergents. Certified for 8 years. Selling products in all states. No organic or natural alternatives are available. We have not conducted research on alternatives because we do not know of any. If we could no longer use this substance, the product would not function as it needs to be maintained in a higher pH environment. Loss of this substance would be devastating to our company (product discontinuations, layoffs). Sodium carbonate is critically essential to the processing of our products (10). **Handler Comments:** Used to adjust pH and (when combined with organic acids) to produce a fizzy sensation in confections. Certified for 2 years. Selling products 50 U.S. states, Canada, and Asia-Pacific countries. Organic or natural alternatives? There are alternate salts that have similar functionality, but they are not currently on the National List. Not aware of anything to test or trial. No alternative management practices that could be used. If no longer allowed, it would not be possible to produce a fizzy organic confection. This substance is essential to processing the organic products. **New (fall 2017) Handler Comment:** Used in various organic bakery products and mixes as a leavening agent. No suitable alternatives have been identified.

205.605(b) Synthetic: Non-agricultural (non-organic) substance allowed as ingredients in or on processed products labeled "organic" or "made with organic (specified ingredients or food group(s)).

Acidified sodium chlorite	**2019 Sunset Survey Responses** **Handler Comment:** Used as a sanitizer for a wide variety of organic products. Certified for many years. Selling products to all 50 states and we export to Canada and a few other countries. There are a few sanitizers available but each works best in certain applications. The requirements for sanitary conditions continue to increase and consumers benefit from this change. To meet these increasing requirements, we need every sanitizer in our toolbox. There are sanitizers which have been developed that are more effective than the ones allowed with organic but have not been petitioned for addition to the National List so we are already operating at a disadvantage. There are no organic alternatives for sanitizers. Some have suggested we use herbal extracts, which are not compatible from a flavor or scent perspective with food production and have been demonstrated to not be as effective as the sanitizers currently in use. Would not meet current food safety requirements. Presumably, we' would have more product that did not meet our requirements and which we'd have to throw away. Acidified sodium chlorite is essential for our organic processing. On a scale of 1 -10 it is 10, for critical. **Handler Comment:** Used for processes including the cleaning and sanitizing of equipment used in milling, sorting, packaging of organic raw beans and in processing organic cooked and dehydrated bean products. Certified for 4 years. Products are sold in 40 different states. Not currently exported out of the country. Sodium hypochlorite is used for utensil and equipment sanitizer. It also appears as an ingredient in approved cleaners for equipment surfaces. Chlorine products are the most effective, available and economical product for cleaning and sanitizing. They are crucial for food safety. The efficacy of Sodium Hypochlorite is widely known and documented. Discussions with sanitation chemical suppliers have told us that there are no other natural or organic alternatives that will have the same effect in cleaning and sanitizing our surfaces. Food Safety must be paramount in the food industry. We may not be able to produce organic products anymore if we cannot effectively clean the

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	cooking and dehydrating equipment. Potential for pathogen growth as well as other bacterial issues. The economic effects would be severe should these chemicals be removed from the approved list. Essential and critical (10). **New (fall 2017) Handler Comment:** Acidified Sodium Chlorite is used as an antimicrobial in our poultry "ready-to-eat" facilities. It is essential to our pathogen control strategy and is highly effective. **2017 Sunset Responses** **Handler Comment:** Certified for at least 11 years. Selling products in all states and exported to Hong Kong and Canada. ASC is used as a processing aid/sanitizer to control microbes on the surface of meat, poultry, seafood and fruits and vegetables. There are no suitable alternatives. We believe ASC is the best antimicrobial intervention for organic broiler processing. We have tested other alternatives but they are not as effective in controlling salmonella and campylobacter on fresh chicken carcasses and parts. Alternative management practices? None that will be as effective in meeting the USDA pathogen reduction program. Loss of this material would result in reduction of available organic poultry to market and economically a reduction in organic poultry revenue. Essentiality? 10 Critical. **Handler Comments:** ASC is under consideration as a sprouting seed disinfection treatment, as a possible alternative to the 20,000 ppm calcium hypochlorite that is currently recommended by FDA. If ASC is taken off the allowed list, there will be no incentive to consider it as an alternative to 20K chlorine in organic production. In terms of "allowed equally effective" organic or natural alternatives, I don't know of any presently. There has been some promising peer-reviewed research on competitive exclusion, but presently no "allowance" for this approach. There aren't any alternative management practices, not to my knowledge; seed can become contaminated from a number of environmental sources, even using GAPs. We are not presently using it, since it has not been approved for our specific use by EPA or FDA, but it is under consideration. If we could use it, research results suggest it could significantly enhance sprout safety. If it is not allowed, then things will stay pretty much the way they are now: periodic recalls, sporadic outbreaks, two major retailers not carrying sprout products, and generally lousy safety image. ASC is effective at 200 ppm, compared to 20,000 ppm calcium hypochlorite, which is not as effective. Allowance of ASC would arguably result in a lower negative environmental impact. The sprout industry continues to be economically depressed by high-profile outbreaks and recalls. The use of ASC could improve confidence, and contribute to significant growth of the sprout industry. Essential to critically essential.
Carbon dioxide	**2019 Sunset Survey Responses** **Handler Comments:** Used to chill products rapidly. Used for our organic bakery products. Certified for 15 years. Products sold through the United States. There are no natural or organic alternatives. Should we no longer be allowed to use this substance, we would have overcooked unacceptable products that would result in lost sales. This product is essential to our organic processed products (9). **Handler Comments:** Used in our grain storage. Certified for 45 years. Selling to products in 50 states. No suitable alternatives or management practices we know of. Immediate use of grain after harvest which is not practical since we harvest once a year and products are produced all year. CO2 is essential. On a scale of 1 -10 it is 10, for critical. **New (fall 2017) Handler Comment:** Used for carbonation for juice beverages. Company has been certified for 22 years. National sales with some export to Canada. No alternatives to our knowledge. Without this material we could not make organic carbonated beverages. The essentiality of this substance on a scale of 1-10 is 10. **New (fall 2017) Handler Comment:** Carbon dioxide is used in all of our modified atmosphere packaging, as well as a coolant (dry ice and gas) throughout all of our processes used at our poultry processing facilities. **New (fall 2017) Handler Comment:** Used in our dietary supplements including herbal extracts. Selling in all 50 states and Canada. Carbon Dioxide is extensively used to extract soluble compounds from organic herbs. Water extraction can be used but not at the scale or with the same consistency or

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	across as many. We would not be able to continue to produce or include organic herbal extracts without this material. We would need to reformulate or remove organic certification. The essentiality of this substance on a scale of 1-10 is 10. **2017 Sunset Responses** **Handler Comment:** Used in organic carbonated beverages. Certified for 18 years and selling products nationwide. There are no alternatives. We would not sell carbonated beverages if removed. 10- Critically essential. **Handler Comments:** Carbon dioxide is used by some of our suppliers in the control of pests in the storage of grains and rice. It is used both for freezing foods and for accelerated cooling, a critical food safety procedure. The carbon dioxide dissipates into the air after the cooling/freezing is complete and does not remain in the food product. We do not currently use carbon dioxide in manufacture but would like to have this as an option in the future should we need additional cooling on new products. **Handler Comments:** Used as a processing aid (carbonation) in our carbonated Ready to Drink (RTD) beverages. Company is headquartered in Northern California. We utilize co-packing facilities in California, Oregon, Florida and Pennsylvania. Our products have national distribution. Several of our RTD products are also sold in Canada and Norway. No alternatives are available. If carbon dioxide were removed, organic product effects would all be negative. It would require re-formulation of our entire line of RTD products as the product could not exist in its current form. Our entire process for producing, shipping and selling our RTD products would need to change and could become extremely expensive, possible rendering the product obsolete. This material is critically essential to our operation.
Chlorine materials	**2019 Sunset Responses** **Handler Comment:** Used as a sanitizer for food safety and cleaning surfaces. Certified for 25 years. Selling products throughout the USA. There are no organic alternatives or fully effective natural alternatives. Regardless of alternatives, Chlorine is critically essential to the continued success of our organic products (10). **Handler Comment:** Used as a sanitizer. Chlorine-based sanitizers are ubiquitous in manufacturing. Certified for 25 years. Selling products throughout the USA at manufacturer's locations. Canada, Australia, Southeast Asia. There are no organic alternatives or fully effective natural alternatives. Regardless of alternatives, Chlorine products are well documented as an effective agent to eliminate pathogens on surfaces, equipment, and tools. Loss of this material in organic handling could result in foodborne pathogen outbreaks, recalls, lawsuits, etc. Chlorine is critically essential (10). **Handler Comment:** Used as a sanitizer in organic poultry processing to control microbial growth in water systems. Certified for 15 years. Selling products throughout all 50 states. Sodium hypochlorite is an alternative. However, it is too corrosive to use in water lines. There are no effective natural or organic alternatives. Loss of this material in organic handling could result microbial growth and food safety problems. Facilities may need to close and there would be major economic effects. Chlorine is critically essential (10). **Handler Comment:** Used as a sanitizer for a wide variety of organic products. Certified for 20 years. Selling products throughout all 50 states. Sodium hypochlorite is an alternative. However, it is too corrosive to use in water lines. There are no effective natural or organic alternatives. Chlorine is critically essential (10). **Handler Comment:** Used as a sanitizer for leafy greens and produce. Certified for 30+ years. Selling products in all states and Mexico, Canada, Japan, Taiwan, Korea and Thailand. Food safety is critical for our products. There are very few sanitizers available for direct food contact. Chlorine is an effective disinfectant in both post-harvest and processing wash water, as well as on food-contact surfaces. There are no effective natural or organic alternatives. If we are unable to ensure the food safety of our product, we would be unable to sell it. Chlorine is critically essential (10).

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	Handler Comment: it is not used in the finished product; it is used to sanitize the environment that the product is made in. Certified for 15+ years. Selling products across the country. Peracetic acid is used as an alternative for some items but not for certain metal items. There are no alternative management practices that would eliminate the need for this material because raw seeds and grains will always have microbial loads. With FSMA coming, and the growing focus on prevention of food risk, it's going to be tough if this is removed from the options as a sanitizer. There are no effective organic alternatives. Chlorine is critically essential (8). **New (fall 2017) Handler Comment:** Chlorine bleach is used as a sanitizer on food contact surfaces. Company has been certified for 20+ years. Selling throughout the United States, Mexico and Canada. Alternatives are somewhat available, but with concerns of safety of personnel handling the materials. Alternate management practices would not eliminate the need for the sanitizer. Other sanitizers are more expensive and have greater safety concerns. If chlorine were not allowed to be used, there would be negative economic health effects. The essentiality of this substance on a scale of 1-10 is 9. **New (fall 2017) Handler Comment:** Used as a sanitizer in our process facility. Company has been certified for 22 years. National sales and export to Canada. PAA is an alternative is some instances. Food safety always is the primary goal. There is no alternative that completely eliminate the need for chlorine. Loss of this material would result in food safety issues. We cannot run a plant without proper materials to clean and sanitize. The essentiality of this substance on a scale of 1-10 is 10. **New (fall 2017) Handler Comment:** Chlorine materials are definitive components in almost all of our cleaning and sanitizing compounds used in all of our poultry processing facilities and are crucial for food safety. We also would utilize chlorine materials as a backup intervention if anything ever happened to our main intervention system (PAA). **New (fall 2017) Handler Comment:** Used for Cleaning of dairy processing equipment. Certified for 10 years. There are no alternatives that have the same functionality. Loss of this material could negatively impact food safety and that would be severely damaging to our business. The essentiality of this substance on a scale of 1-10 is 10. **2017 Sunset Responses** **Handler Comment:** Used as a sanitizer in many of our certified organic manufacturing facilities. Certified for 18 years, selling products nationwide and exporting. There are some alternatives but chlorine is essential when alternatives are not as effective. GMP' - food safety requires sanitation. We would not sell organic products if removed. 10- Critically essential. **Handler Comments:** Calcium hypochlorite, chlorine dioxide and sodium hypochlorite are used as algicides, disinfectants and sanitizers in the handling and processing of organic crops. These are critical for food safety purposes. Along with our own use in sanitation, our suppliers use chlorine in the cleaning of equipment and food contact surfaces, again a critical food safety activity. **Handler Comments:** Used as a sanitizing agent in most organic processing facilities. Other sanitizers do not work as well. Poor sanitation could lead to serious illness. Dead consumers do not buy organic products. Critically essential. **Handler Comments:** This ingredient is used in our cleaner and, along with sodium hydroxide, provides a very high quality cleaning of the system. No alternatives are available that meet the same functionality and quality of cleaning that is possible with this ingredient. Any quality issue due to a lesser quality of cleaning would affect all products at our facility. Any quality or food safety issue due to using a lesser quality alternative ingredient would devastatingly affect the economic health of our facility. No alternatives exist that have proven to have the log reductions needed. Good Agricultural Practices (GAP) can help, but are not a 100% guarantee to prevent contamination from pathogens. Without this material, we would have difficulties complying with FSMA and more consumers could become ill. Critically essential. **Handler Comments:** SODIUM HYPOCHLORITE is used to control the PH in water for a triple wash system that washes cut product, which works with Citric acid. We conduct 10 days' shelf testing

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	per customers' request and products not washed do not survive 8-10 day study. With chemicals, we have had 12-15 days good, edible shelf life. Without the listing for chlorine, product might not make it to 10-day shelf life as required by each vendor and would need to change to 6-day shelf life for some products.
Magnesium chloride	**2019 Sunset Survey Responses** **Handler Comments**: Used in certified organic dietary supplements for the purpose of supplementing magnesium in the diet. Certified for over 10 years. Products sold in all 50 U.S. states and Canada. Allowed alternatives? No organic minerals exist as they are not a product of agriculture and are often mined substances, purified and standardized for use in dietary supplements. These may be considered a natural substance. Alternative management practices? No, this exact substance is required by the body and is considered an essential nutrient. Should we no longer be allowed to use this substance, we would not in good conscience create multivitamins or magnesium supplements that do not include magnesium as a nutrient, due to the stark deficiencies across the population. We would simply forego organic certification in most cases. Lacking organic certification would have financial fallout, as the food-based dietary supplement sector is health and growing. People look for the seal. On a scale of 1 – 10, this material is critically essential (10). **Handler Comments:** Used as a coagulant in certified organic tofu to make soft tofu. Certified for 15 years. Selling in all 50 states. There are not allowed organic or natural alternatives. Should we no longer be allowed to use this substance, our products would have unacceptable texture that would lead to loss of sales. On a scale of 1 – 10, this material is critically essential (10). **New (fall 2017) Handler Comment:** Used in dietary supplements, multivitamins as an essential source of magnesium. Company has been certified for 10+ years. Selling in all 50 states + Canada. No alternative substitutes. We would have to remove an essential nutrient from multivitamins or remove organic certifications The essentiality of this substance on a scale of 1-10 is 10. **2017 Sunset Responses** **Handler Comments:** Companies selling to 50 states and many other countries. Certified from 13 to 15 years. Magnesium chloride is used in the manufacture of tofu to cause the soy protein to curd and to develop firm texture. Other calcium and magnesium-based products do not give the same result. The magnesium chloride we use is naturally derived from seawater. Loss of this material would cause organic tofu production to go away. The texture would be horrible. We would go out of business. Critically essential to organic tofu processing.
Potassium acid tartrate	**2019 Sunset Survey Responses** **Handler Comments:** Used as a leavening agent in many organic bakery products and many baking mixes. We are not aware of any organic or natural alternatives. Loss of this material would result in poor leavening and unacceptable products resulting in discontinued products that would have a negative economic impact. Essential to organic processing. (10 on a scale of 1 to 10) **2017 Sunset Responses** **Handler Comments:** Used in many types of baked goods. Sold in 50 states and other countries. Certified for over 10 years. Leavening agent. Other acids have undesirable effects in the products. Loss of this material would result in impaired quality and marketability of products and loss of sales. Critically essential.
Sodium phosphates	**2019 Sunset Responses** **Handler Comments:** Used in Shelf Stable Liquid Cheese Sauce. Certified for 18 years. Products sold in all 50 states + Canada. Sodium phosphate has two functions in shelf stable cheese sauce. First, it acts as an emulsifier by binding to the calcium in the casein protein to allow it to dissolve and integrate into cheese sauce with fat, protein, and water. Second, it adds sodium to the finished product, which reduces the water activity and acts as an antimicrobial in the final sauce allowing it to be shelf-

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	stable. Alternatives? Sodium Citrate is an alternative emulsifier but is not as effective and would require considerably more to achieve the same emulsification and stabilizing properties. We have researched alternatives. Currently no available ingredients have provided enough efficacy through the heat treatment and over shelf life to act as a viable replacement. Once an ingredient proves theoretical inhibition of C. botulinum; heat stability, finished product stability and a microbial challenge study when need to be conducted. No alternative management practices at this time - Sodium Phosphates are a critical factor in the microbial models for shelf stability. Loss of this material would result in all organic and organic complaint shelf-stable cheese sauces being discontinued This substance is essential (critical, 10 on a scale of 1 to 10) to our organic processed products. **Handler Comments:** Used in salad kits as an emulsifier for the cheese. Certified for 30+ years. Products are sold in all of the United States, Canada, Mexico, Korea, Taiwan, Japan, and Thailand. There are no alternatives for specific cheese and dairy-making processes. Our research teams are continuously looking for organic alternatives, but have yet to find certified organic items to replace these products. Loss of this material on the National List would prevent us from using cheese in our salad kits. Essential to organic processing. (8 on a scale of 1 to 10) **Handler Comments:** Used as an emulsifier in organic cheese powders. Many snack products that use powdered organic cheese. Certified for 15 years. Products sold in all 50 states and also exported. There are no effective alternatives available. There are also no alternative management practices that would eliminate the need for the specific substance. If this substance were no longer allowed, there would be oil separation resulting in an oily product that would result in decreased product sales. This substance is essential (critical, 10 on a scale of 1 to 10) to our organic processed products. **Handler Comments:** Used as to prevent clumping and separation of powdered cheese. Certified for 25+ years. Products are sold in all of the United States. We have tested alternatives but they do not work. We would not make these products of this material were removed from the National List. Essential to organic processing. (10 on a scale of 1 to 10) **2017 Sunset Responses** **Handler Comments:** Used as an emulsifier in organic cheese products. Vital to the operation. No other alternatives are acceptable. We could not make the product without these emulsifiers. We would be unable to produce an organic cheese product. Critically essential.

§ 205.606 – Non-organically produced agricultural products allowed as an ingredient in or on processed products labeled as "organic" only when the product is not commercially available in organic form.

Substance	Survey Response & OTA Position
Casings	**New (fall 2017) Handler Comment:** Used for organic sausages and hotdogs. Selling in 50 states, exported globally, too many to list. Function is as a collagen gel for use in enrobing hotdogs and sausages. No organic options, but this is collagen gel. Collagen casings/natural casings are a different technology. This is collagen gel for co-extrusion/enrobing. We would not be able to serve organic customers without this material. The essentiality of this substance for our organic products on a scale of 1-10 is 10.
Konjac Flour	**New (fall 2017) Handler Comment:** Currently in use. It's a primary ingredient, not a thickener, and we are not aware of organic alternatives.
Pectin (non-amidated forms only)	**2019 Sunset Responses** **Handler Comment:** Used as a structural (gelling) agent in organic gummy vitamins (also used in jams and gummy candies). Company is selling in all 50 states and Canada. Certified for 8 years. No organic pectin alternatives exist. No alternative management practices that we are aware for gummy production. It is the industry standard along with gelatin. There are also no organic gelatins. We would not be able to make vegetarian organic gummy vitamins without pectin. There would be no path. This would lead to substantial lost revenue due to non-organic status of our gummy multivitamin line. 3

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	million dollars lost revenue for next year (estimated). Essential (10, critical). Ancillary substances: Pectin comes from plant (fruit) source. We are not aware that there are any carriers, preservatives or stabilizers in the pectin. **Handler Comment:** Used as a stabilizer, thickener to set product in fruit prep, jams and jellies. Company is selling in all 50 states. Certified for 25 years. Have not found a suitable alternative. We would not make our products if pectin were removed from the NL. Essential (10, critical). **Handler Comment:** Used as a thickener in fruit fillings for bakery products. Company is selling in most states as well as other countries; certified for 15 years. With respect to alternatives, other thickeners on the National List do not have equivalent properties; no organic alternatives. Loss of this material from the National List would make the fillings unstable and they would separate during the baking process. The products would be unacceptable and would not sell. The essentiality of pectin is rated as a 10 on a scale of 1-10. Critical ancillary substance for pectin is sucrose as a standardizer. **Handler Comment:** Used as a thickener in fruit preserves and fruit snacks. Company is selling in all 50 states; certified for 25 years. Unaware of any functional organic pectin or other alternatives or other alternative management practices. Loss of this material from the National List would likely cause the discontinuation of the product line, as there is no alternative known with suitable functionality. The essentiality of pectin is rated as a 10 on a scale of 1-10. Critical ancillary substance for pectin is sucrose as a standardizer. **Handler Comment:** Used as a gelling agent that also enhances flavor release in organic confectionary products. Company is selling in all 50 states as well as Canada and Asia-Pacific countries; certified for 2 years. Alternatives include similar gelling agents such as gelatin, agar, and gellan gum. None of these are currently available in an organic form. Yes, we do use other gelling agent and blends. However, pectin has unique characteristics and is seen by consumers as label friendly. Pectin has a unique texture and flavor release that consumers enjoy. We would not be able to produce the products for which consumers are asking if we lost this material from the National List. Our sales would decrease if pectin were no longer available. The essentiality of pectin is rated as a 10 on a scale of 1-10. Critical ancillary substance for pectin that are used for standardizing texture and pH include sugar, dextrose, organic acids (citric or tartaric), and buffer salts (sodium citrate or sodium tartrate). **New (fall 2017) Handler Comment:** Used for Organic gummy vitamins (also used in jams and gummy candies). Company has been certified for 8 years. Selling in all 50 states. Function is as a structural (gelling) agent. No organic pectin alternatives exist. No alternative management techniques work that we are aware for gummy production. It is the industry standard along with gelatin. There are also no organic gelatins. Without this material, we would not be able to make vegetarian organic gummy vitamins. There would be no path. This would result in substantial lost revenue due to non-organic status of our gummy multivitamin line. 3 million dollars lost revenue for next year (estimated). The essentiality of this substance on a scale of 1-10 is 10. Pectin comes from plant (fruit) source. We are not aware that there are any carriers, preservatives or stabilizers in the pectin. **New (fall 2017) Handler Comment:** Pectins are extensively used in the preparation of organic products (gummies, jellies, jams, etc.). Certified for 10+ years. Selling in all 50 states + Canada. The only alternative is gelatin, which is not favorable for our vegan and vegetarian customers nor is it offered as organic. Gelatin is not a reasonable solution for us due to its manufacturing process. New alternatives that are vegan and vegetarian need to be developed. We would not be able to manufacture gummy vitamins without pectin. We would have to remove organic certification from our gummies (and therefore lose our competitive advantage). The essentiality of this substance on a scale of 1-10 is 10.

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	2017 Sunset Responses **Handler Comment:** Essential gelling agent in fruit snacks. Provides a unique texture with excellent flavor delivery. No organic alternatives that meet its function. Critical. Used in fruit spreads, yogurt fruit filling, gummy confections as a bulking agent, thickener and stabilizer. Companies have been certified for 13-15 years. Products are sold throughout the United States and Canada. Our company diligently obtains commercial availability documentation looking for organic sources. None are available. No workable alternatives available. Others do not provide the same properties. If one were available, it would be tested in our laboratory immediately. Eliminating this ingredient would eliminate our organic business. All of our organic products use pectin as their base ingredient. If it were no longer allowed, the products would be discontinued. Quality and form of products would be compromised. Decreased quality and marketability. This ingredient is essential to organic processing. **Ancillary Substances:** Trisodium Citrate, Sucrose. Spec sheets do not list any ancillary substances. Sucrose, sugars

In closing, we thank the Board for its time and commitment. The Organic Trade Association is committed to collecting information from our broad membership and beyond to assist NOSB in determining whether a substance on the National List remains essential to organic handling.

On behalf of our members across the supply chain and the country, the Organic Trade Association thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Gwendolyn Wyard
Vice President, Regulatory and Technical Affairs
Organic Trade Association

cc: Laura Batcha
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October 11, 2017

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Avenue, SW
Room 2642-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Materials/GMO Subcommittee – Excluded Methods Terminology (Proposal)

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Materials Subcommittee's Proposal on Excluded Methods[1] Terminology.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. 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 the Materials Subcommittee for its diligence on this challenging topic. We have been pleased to have the opportunity to comment on this complex topic for the past several NOSB meetings, and we commend the work accomplished and the progress that has been made. In summary, OTA supports the process of clarifying the definition of "excluded methods." However, we are challenged to support the proposal as its written because it does not include definitions for the terms and methods being considered. It also leaves the actual definition of "excluded methods" as written into the organic regulations out of the document entirely. The purpose of this work is to provide clear up-to-date definitions that will result in consistent determinations. We urge the Materials Subcommittee to continue its work on this topic but to improve the quality of the proposal by including definitions and descriptions that we can work with to ensure everyone is operating on the same page.

We offer the following more detailed comments:
The Materials Subcommittee is requesting comments from organic stakeholders on its proposal to update the NOP regulatory definition of "excluded methods" through guidance. This process is ongoing and for

[1] 7CFR205.2 (National Organic Program Regulations) - **Excluded Methods**: A variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production. Such methods include cell fusion, microencapsulation and macroencapsulation, and recombinant DNA technology (including gene deletion, gene doubling, introducing a foreign gene, and changing the positions of genes when achieved by recombinant DNA technology). Such methods do not include the use of traditional breeding, conjugation, fermentation, hybridization, in vitro fertilization, or tissue culture.

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this particular October 2017 meeting, the focus is on the terminology chart and several of the "to be determined" methods that are listed.

OTA recognizes that the definition of "excluded methods" was based on the efforts of NOSB in 1995, and is now outdated. Organic producers and handlers as well as Accredited Certifying Agencies (ACAs) and USDA's National Organic Program (NOP) must have clear and up-to-date definitions to make consistent and concrete determinations regarding compliance with the prohibition of GMOs. For this reason, we continue to be supportive of the work being done to move forward a recommendation to NOP. We're concerned, however, that the working document with the terminology chart and list of methods at this juncture, is lacking important background information and definitions for NOSB, NOP and stakeholders to uniformly work with.

The Regulatory Definition of Excluded Methods

OTA believes that any proposal moving forward needs to include and highlight the only definition for genetic engineering (excluded methods) we currently have in the organic regulation. Leaving it out of the document entirely actually makes the review of new technologies more difficult and may cause our work to stray further from the intent of the law. OTA believes the definition of 'excluded methods' includes a sentence that needs to be maintained and held central to these discussions:

> "Excluded Methods: A variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production."

Although the definition was written pre-2000, this first sentence provides a key foundation that should not be lost. The Excluded Methods Terminology document of August 30, 2016, included the definition of 'excluded methods' right out of the gate. In order to best facilitate the process going forward and help newcomers to the conversation, OTA urges NOSB to continue to include the definition of 'Excluded Methods' as found under 7 CFR 205.2 of the regulations.

Cisgenesis, Intragenesis and Agro-infiltration

Based on the definitions OTA referenced on-line, we believe cisgenesis, intragenesis and agro-infiltration are methods used to genetically modify organisms consistent with the NOP definition of 'excluded methods.' We're challenged, however, to support this proposal as written because it lacks critical information not only to adequately inform the reader's position but also to support a clear recommendation to NOP. Specifically, the proposal does not provide definitions for the three methods designated as 'excluded methods" or for any of the other terms on the "to be determined" list. The comments made in the "notes" section of the proposal are helpful, particularly for agro-infiltration, but we believe clear scientifically referenced definitions are imperative. The definitions and explanations we looked at on-line may not be the same definitions the subcommittee used or the ones that various stakeholders used to inform their positions and comments.

One specific concern we noted when looking at various definitions and practices related to 'cisgenesis' is its relationship with "Cell Fusion within Plant Family," as listed in the "TBD" section of the terminology chart and described in the NOP memo (NOP-13-1) released in 2013. The "notes" section of Discussion Document of August 30, 2016, described cisgenesis as a "very broad term that may need to be divided into some allowed and some excluded techniques." If the subcommittee considered various techniques

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and determined that the broad term is fine as is, those discussions are unknown to stakeholders. Our concern is that the classification of cisgenesis as an excluded method, without including a definition or further clarification in the proposal, could be confused to include cell fusion within the plant family that has been going on for decades and has been considered "conventional breeding" rather than genetic engineering (GE).

Our understanding is that "cisgenesis" refers to "the genetic modification of a recipient plant with a natural gene from a crossable—sexually compatible—plant. Such a gene includes its introns and is flanked by its native promoter and terminator in the normal-sense orientation." (Shouten *et al*. (2006) Therefore, in cisgenesis, a single gene is being moved using GE techniques. Cell fusion within the plant family, on the other hand, involves merging many genes that fall within the same taxonomic plant family, e.g., the genome, and was allowed under the 2013 NOP memo because many Brassica crops are developed using cell fusion within the same plant family (*Brassicaceae*) and the donor or recipient organisms are not derived using techniques of recombinant DNA technology. The technique is a decade-long practice that has been considered conventional breeding. It is for this same reason that the Codex definition of "modern biotechnology" exempts cell fusion within a plant family. We believe the distinction is important, and needs further clarification in the Materials Subcommittee Proposal.

In closing, OTA continues to be extremely supportive of moving recommendations forward to NOP that will not only improve the practices used to keep GMOs out of organic seed, feed and crops, but will also clarify the standards and terminology used for making clear and consistent compliance determinations. In the case of this proposal, we would like to see it go back to the subcommittee and be revised to include the definition of 'excluded methods' as found in 7 CFR 205.2 as well as definitions and explanations for the terms being considered.

On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Gwendolyn Wyard
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October 11, 2017

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USDA-AMS-NOP
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Room 2648-So., Ag Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-17-0024

RE: Materials Subcommittee (MS) – Discussion Document on Seed Purity

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the Materials Subcommittee's Discussion Document on Seed Purity.

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 over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

The subcommittee is requesting additional comments on four NOSB documents released for public comment over the past five years:

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

OTA submitted extensive comments on each one of the discussion documents listed above. We acknowledge that it is not necessary to resubmit our comments However, we would like to highlight and reiterate our top-line message from our April 2016 comments regarding the need to collect data through a formal and systematic process and request an update on NOSB's efforts to establish a USDA-appointed Seed Purity Task Force.

OTA requests an update on the status of convening a seed purity task force

The subcommittee discussions, as reflected in the Materials/GMO Subcommittee notes, move from a request to NOP in August 2016 to form a task force to inform a proposal on thresholds for seed purity, back to exploring contamination issues via a discussion document that will inform a proposal for spring 2018. The progression on this topic appears to be moving backwards vs. forward (**See Appendix** A).

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After three discussion documents, a report, a proposal on prevention strategies to keep GMOs out of organic agriculture and an expert panel on seed purity, we are still not to the point of making a comprehensive proposal. Among the four ideas that were presented in the **Spring 2016 Discussion Document,** the one that received the most support was establishing a USDA appointed Seed Purity Advisory Task Force that would develop an effective data collection framework and process, interpret the collected data, and design a crop-specific threshold feasibility study based on the testing results that would inform a NOSB proposal. Accordingly, in August 2016, the Materials Subcommittee Chair submitted a request to NOP to convene a task force to evaluate seed purity. There is no mention of this activity in the MS Discussion Document for this fall 2017 meeting, and we're concerned that efforts in this area may have fallen off the agenda and work plan.

OTA continues to advocate for a USDA-appointed Seed Purity Task Force

OTA is urging NOSB to further pursue the feasibility of convening a USDA-appointed task force. As discussed over several NOSB meetings, many—including OTA—agree that a seed purity standard is an appropriate critical control point to begin to use analytical methods and standards in organic production to limit GMO presence and meet consumer expectations. Many also believe it is not possible to put forward a workable proposal or standard at this time because of various obstacles identified through the NOSB public comment process and a shared need to collect more data to shape an effective and fair standard.

OTA continues to believe that a USDA-appointed Seed Purity Advisory Task Force is the next step in the process and on-going discussion about contamination issues is not going to solve the issue. We do not support putting forth a proposal unless it is aimed at a formal plan for collecting data. Public comments were in strong support of the need to collect data as the next step and we believe the collection process needs to be carried out by a task force that would systematically design threshold feasibility studies (per crop), identify partners and develop a 3-5 year action plan for moving forward. This panel of experts would not only design the framework for the data collection the organic community continues to call for, but it would also act as an expert panel to interpret the data being collected. This, in turn, would help shape a NOSB recommendation to NOP on appropriate crop-specific testing thresholds for seed.

Enabling data collection through a Seed Advisory Task Force is the place to start

OTA supports the idea of a seed purity standard. However, it must be established per crop through a careful and deliberate process based on adequate data. OTA expects a threshold will likely need to be established to have a workable seed purity standard. We can expect that any established threshold is going to need to be acceptable to consumers and realistic for seed growers. It would also need to be established on a crop-by-crop basis.

As explained by the subcommittee in previous discussion documents and supported by numerous public comments over the past 5 years, there is shared need to collect more data to shape an effective and fair seed purity standard. OTA agrees. We also emphasize that any data collection effort that will yield statistically significant and meaningful results needs to be designed systematically according to established sampling protocols and testing specifications. The project also needs to be adequately funded. For this reason, OTA believes that a USDA-appointed Seed Purity Advisory Task Force is the place to start.

In the April 2016 Discussion Document on "Next Steps for Improving Seed Purity," a suggestion was made to call upon Accredited Certifying Agencies (ACAs) via guidance to collect testing data. We want

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to reiterate that we **do not** agree that the starting place is guidance for ACAs to conduct testing and gather data. We also have concerns about forming or utilizing an informal ad hoc working group to the do the work. A data collection effort that yields statistically significant and meaningful results needs to be designed systematically according to established sampling protocols and testing specifications. The advisory task force we continue to recommend would be convened by USDA and would not only design the framework for a feasibility study but would also act as an expert panel to interpret the data collected. This, in turn, would inform a NOSB recommendation to NOP on appropriate crop-specific testing thresholds. We recognize the realities of our current administration and the limited chance of USDA convening a seed purity task force anytime soon. We also believe we cannot move forward without more data to shape an effective and fair seed purity standard and the formation of a task force needs to remain in the queue for future consideration.

> **OTA RECOMMENDATION:** Continue to work towards the establishment of a seed purity advisory task force appointed by USDA. The primary function of the seed purity task force will be to design a feasibility study based on testing (data collection) that would be administered and carried out by USDA. The study would evaluate a rigorous yet realistic threshold supporting a seed purity standard for non-organic seed. We recommend the task force design a 3-5 year action plan that includes regular updates to NOSB with a final recommendation.

Conclusion

The use of GMOs is prohibited in organic production and handling. OTA continues to be extremely supportive of moving recommendations forward to NOP that will improve the practices used to keep GMOs out of organic seed, feed and crops. With respect to establishing a seed purity standard, OTA strongly urges NOSB to continue discussions with NOP on convening a Seed Purity Advisory Task Force or to explore other means that would allow for the collection and interpretation of data through a formal and systematic process involving an expert panel. The data and expert panel, in turn, would help shape a NOSB recommendation to NOP on appropriate crop-specific testing thresholds.

On behalf of our members across the supply chain and the country, OTA thanks the National Organic Standards Board for the opportunity to comment, and for your commitment to furthering organic agriculture.

Respectfully submitted,

Gwendolyn Wyard
Vice President of Regulatory and Technical Affairs
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Appendix A: Materials Subcommittee notes from 9/2016 – 7/2017

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Appendix A: Materials Subcommittee notes from 9/2016 – 7/2017

***Materials/GMO Subcommittee Notes on Seed Purity 9/13/2016*:** The Materials Subcommittee requested on the August Executive call that NOP convene a task force to evaluate seed purity. NOP indicated that it would not be possible for the current year, but it would consider the request at a later date. The group discussed how best to alert stakeholders to the fact that the MS made the request, and to keep it in the queue for future consideration. The NOSB chair offered to discuss this with NOP so it remains a priority. It will remain on the MS work agenda and will be incorporated into the work agenda that will be projected at the fall meeting.

Materials/GMO Subcommittee Notes on Seed Purity 12/13/2016: ZS noted the difficulties associated with the new administration, and securing funding for projects such as this, and is not sure this will move forward quickly. Several iterations of this document have been presented for public comment over the last couple of years. DS will take the lead and the MS will discuss it in January.

Materials/GMO Subcommittee Notes on Seed Purity 1/10/2017: On the next Executive team call, the MS Chair will repeat the request for the creation of a task force on seed purity. The proposal on seed purity could include thresholds for seed purity, and the Subcommittee feels that a task force would be the most successful way to gain ground on this topic. The group will develop a proposal for this topic.

Materials/GMO Subcommittee Notes on Seed Purity 5/9/2017: The group discussed the path forward for this project, and feel that given the complexity of the topic and feedback from stakeholders on previous iterations, a discussion document would be the best vehicle. Several MS members will co-lead the review. One member noted that he has received input from stakeholders and that this is a topic of great interest. The MS Chair suggested laying out a project plan with goals and timelines, and the group discussed the formation of a working group and the possibility of inviting speakers to future MS calls to address the group.

Materials/GMO Subcommittee Notes on Seed Purity 6/13/2017: The three co-leads have a meeting scheduled to talk about the plan to move forward with the seed purity discussion document for the Fall 2017 NOSB meeting. EO volunteered to participate in the conversations as well.

Materials/GMO Subcommittee Notes on Seed Purity 7/11/2017: The MS is working on a discussion document exploring the genetic integrity of seeds. The goal of the document is to answer specific questions regarding contamination. The co-leads are seeking input from various stakeholders.

Materials/GMO Subcommittee Notes on Seed Purity 7/11/2017: The MS is working on a proposal for the Spring 2018 meeting. In support of its development, the group would like to post the document to the open docket to collect feedback, and perhaps give a brief update at the Fall 2017 meeting.

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The Organic Center

October 11, 2017

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-17-0024

RE: Materials Subcommittee - Research Priorities 2017 (Proposal)

Dear Ms. Arsenault:

Thank you very much for this opportunity to provide comments on the Materials Subcommittee proposal on Research Priorities for 2017.

The Organic Center is a non-profit organization with the mission of convening credible, evidence-based science on the environmental and health benefits of organic food and farming and communicating the findings to the public. We are a leading voice in the area of scientific research about organic food and farming, and cover up-to-date studies on sustainable agriculture and health while collaborating with academic and governmental institutions to fill knowledge gaps.

The Organic Center thanks the Materials Subcommittee for its recommendation on Research Priorities. We appreciate the creation of the Research Priority Framework and the efforts made by each Subcommittee to bring forth its research priorities for 2017.

We have reviewed the list of topics included for 2017, and we're particularly pleased to see the inclusion of "Alternatives to Antibiotics (Tetracycline and Streptomycin) for Fire Blight," "Plant Disease Management" and "Celery Powder." The Organic Center is actively involved in conducting and communicating research on these issues, and we expect the prioritization of these topics by NOSB may help us secure further funding.

Alternatives to Antibiotics
We directly addressed the research priority "Alternatives to Antibiotics (Tetracycline and Streptomycin) for Fire Blight" in our recently completed fire blight project, which was carried out in collaboration with researchers from the University of Washington. This projected provided critically needed information on how to prevent fire blight from decimating apple and pear orchards without the use of antibiotics. The published report includes lessons learned from a systems approach to controlling fire blight without antibiotics that have been successfully used

by dozens of Pacific Northwest organic orchardists. These strategies, along with previously existing materials, have been made available for organic orchardists to refer to as they shift to non-antibiotic control. The written report, which is publicly available, covers methods for controlling fire blight holistically as well as issues such as sanitation, vigor control, sequence and timing of control materials, spray coverage, and varietal susceptibility.

Plant Disease Management

Our research project to find organic solutions to control citrus greening disease is an ongoing project in collaboration with the University of Florida, the University of California-Davis, USDA-ARS, citrus growers, and other non-profits. The first phase of our research was recently completed looking at the efficacy of organic pesticides. One of the organic materials—Mycotrol—significantly suppressed psyllid populations. This means that organic growers have resources in their tool bag to combat this disease. We have also initiated a project to develop a farmer-friendly report that consolidates existing literature on allowable methods for combating citrus greening in organic groves. It will detail science-based best practices for organic citrus growers and will be published and distributed, free of charge, to organic citrus growers across the U.S. Finally, we are continuing to seek funding for research that takes a systems-based approach to combat both the bacterium that causes citrus greening disease and its insect vector, the Asian citrus psyllid, in organic systems.

In the past year, we have also begun research to develop Integrated Pest Management strategies for organic rice production in the Southern United States. This project is being conducted in collaboration with Texas A&M University's AgriLife Research & Extension Center, Texas A&M Department of Soil and Crop Sciences, USDA's ARS Dale Bumpers National Rice Research Center, University of Arkansas Rice Research and Extension Center, and University of Arkansas at Pine Bluff Department of Agriculture.

Flooded rice production systems used by organic farmers result in increased pressure from the diseases, weeds, and insect pests not commonly found in dryland cropping systems. This is especially problematic in the South because of the region's warm, humid environments and the long growing season. This project focuses on developing cover crop-based production systems in combination with cultivar choice and seed treatment to enhance disease, weed, insect pest, and nutrient management, allowing producers to grow organic rice more sustainably and profitably in the South.

Celery Powder

In collaboration with the Organic Trade Association's National List Innovation Working Group and the University of Wisconsin-Madison, we are investigating the potential for the development of organically grown celery or other vegetables used in the curing of organic meat products. This OREI-funded research will help identify potential varieties of organic crops that would meet the chemical specification needed for curing, while being easily incorporated into current crop rotation systems. It will also identify potential management protocols to achieve target nitrate

levels in the curing crop to produce the required shelf life and prevent bacteria in the cured meat, and to produce the desired flavor, color and texture in food.

The Organic Center is continually collecting information on research needs from multiple sectors of the organic community. We conduct industry roundtables, work with the Organic Trade Association's Farmers Advisory Council, meet with professors on our Science Advisory Board and hold one-on-one meetings with individual companies, farmers, professors, and consumers. We feel that the proposed NOSB Research Priorities for 2017 are in line with the needs of the organic industry, and appreciate the release of this report as an important resource to guide The Center's own research priorities and project development. Based on feedback we've received during our own outreach efforts, we would also like to suggest that the areas of soil health and biodiversity be considered for inclusion in the Research Priorities for 2018.

Soil Health

The U.S Department of Agriculture's Natural Resource Conservation Service (USDA's NRCS) defines soil health as "the continued capacity of the soil to function as a vital living ecosystem that sustains plants, animals and humans." While many other definitions of soil health exist, the majority of modern definitions exemplify the ecological attributes of soils, recognizing that their importance extends far beyond simple crop production.

A growing body of scientific literature evaluates the relative contribution of different management practices for improving soil health. However, significant variation in characteristics assessed and the methods used to gauge them means that oftentimes results across different studies are not comparable. Even when scientific studies do use comparable measures of soil health they may come to contradictory conclusions. Management decisions that lead to an improvement in soil quality in one study may be less effective in another suggesting that some protocols must be carefully considered based on localized conditions to achieve best results. As such, reaching solid conclusions on best-management practices for achieving optimal soil health and fertility can be difficult, particularly for organic farmers who cannot rely on formulaic recommendations for fertilizer application.

To address this concern, The Organic Center is collaborating with researchers from the University of Maryland-College Park to conduct a comprehensive review of the most current science that evaluates organic-compliant methods for optimizing soil health to develop best practices for organic farmers. Specifically, this project seeks to (1) review the literature comparing soil health on organic and conventional farms and discuss practices that differ between them that could be contributing to this difference; (2) understand variance in characterization of soil health and indicators used to assess it within the scientific literature; (3) identify science-supported best practices for maintaining and building soil health in organic systems; (4) identify practices that lead to variable results based on geography, climate, soil type, or commodity grown and therefore must be optimized based on local variables, and (5) identify areas where more research is needed.

Biodiversity

A growing body of literature suggests that organic farming systems can help conserve biodiversity. For instance, common organic farming practices such as crop rotations, use of cover crops and prohibition of synthetic pesticides have been shown to positively impact a wide range of organisms. Conserving and promoting biodiversity on farms can also provide significant benefits to the surrounding environment and the farm in the form of ecosystem services such as pollination, biological control, soil quality, and runoff reduction. These ecosystem services may reduce the need for external inputs and increase yields—improving profits and sustainability. However, different conservation practices each have associated benefits and risks that will vary based on geography, surrounding habitat, climate, local biodiversity, and the type of commodity being grown. In some cases, studies have shown that there can be tradeoffs associated with increases in biodiversity on the farm. For example, one study found that increasing insectivorous birds in fields reduces pest pressure in strawberry fields but these same birds will also indulge in the fruit, leading to reduced overall savings in crop protection (Sciligo per communication). Studies that assess not just the effect of different practices on biodiversity but also the economic costs and benefits – both short- and long-term – of those practices are key to increasing farmer adoption.

Research in the area of biodiversity will be particularly important as the National Organic Program's new Biodiversity and Resource Conservation Guidance comes online. To aid farmers and certifiers in compliance and documentation of measures to increase biodiversity on farms, The Organic Center has partnered with Dr. John Quinn of Furman University to design and disseminate a calculator that will allow farmers to document their practices and track their progress in increasing biodiversity on their farms. Because variation in farm size, type, and geographic location all influence the feasibility and effectiveness of biodiversity-friendly farming techniques, making a "one-size fits all" conservation recommendation is impossible. The proposed project will directly facilitate compliance with new NOP guidance by providing a farmer-friendly tool with an interactive front-end interface that includes the mandates released by NOP to aid farmers in technical decisions to increase on-farm biodiversity. Farmers will be able to enter specific information associated with their farming operations to evaluate numerous conservation techniques to maximize biodiversity and ecosystem services.

Organic Representation on USDA Research Boards

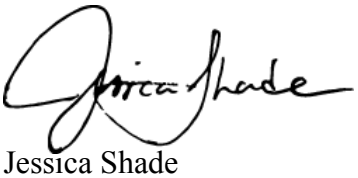
Finally, The Organic Center recently held its second Organic Confluences Conference: A Summit to Turn Environmental Evidence into Policy Practice. This summit brought together scientists, policymakers, farmers and industry to connect research on the environmental benefits of organic farming practices with policy to improve the sustainability of U.S. agriculture. One critical message that was once again voiced throughout the conference is the need to increase organic representation on agricultural advisory panels that can influence policy decisions ranging from agricultural support programs to research prioritization. By guaranteeing adequate organic representation on USDA research boards and committees, we can ensure that the organic sector's

interests and research needs are adequately and fairly represented. As such, The Organic Center is requesting that NOSB draft a letter to USDA requesting mandatory organic representation on USDA research boards and committees. The organic sector must ensure that all USDA appointed research boards include at least one member representing the interests of organic. The Organic Center encourages NOSB to take this opportunity to request that organic representation be a requirement of any USDA board or committee.

Please do not hesitate to contact us for information on the data that we have been collecting or with questions you would like us to pose the research community.

Again, on behalf of The Organic Center, I would like to extend my thanks to the Materials Subcommittee for its commitment to furthering organic agriculture.

Respectfully submitted,



Jessica Shade
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The Organic Center