October 1, 2020

National Organic Standards Board
USDA – AMS
1400 Independence Ave, SW
Washington, DC 20250

**RE: AMS-NOP-20-0041**

# NOC Comments to the National Organic Standards Board

## SPRING 2020

October 28-30, 2020
Cedar Rapids, Iowa – Virtual Meeting

National Organic Standards Board:

The National Organic Coalition (NOC) is a national alliance of organizations working to provide a "Washington voice" for farmers, ranchers, environmentalists, consumers, and industry members involved in organic agriculture. NOC seeks to advance organic food and agriculture and ensure a united voice for organic integrity, which means strong, enforceable, and continuously improved standards to maximize the multiple health, environmental, and economic benefits that organic agriculture provides. The coalition works to assure that policies are fair, equitable, and encourage diversity of participation and access.

Below we provide comments on a wide range of topics for consideration by the Board.

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# State of the USDA National Organic Program

Organic operations are facing unprecedented challenges right now because of the coronavirus pandemic and climate-related impacts including wildfires, hurricanes, and stronger storms. While some organic operations have benefited from the Coronavirus Food Assistance Program, many organic, direct market, and diversified operations have been excluded from existing USDA pandemic relief programs.[1] To make matters even worse, on August 10, USDA's Farm Service Agency (FSA) announced[2] that they would be reducing reimbursement rates for the organic certification cost share program, which provides reimbursements to organic farms and handling operations.

This announcement is both shocking and unacceptable. This announcement is in direct conflict with the recommendation from NOC, Organic Farmers Association, and other advocates to increase organic certification cost share reimbursement rates to 100 percent and provide reimbursements directly to certification agencies during the pandemic.[3] The 2018 Farm Bill provided new funding for the program and also directed USDA to use the program's carryover balances from previous years to fund the program for fiscal years 2019 through 2023.[4] However, through mismanagement and misrepresentation of the carryover balances, FSA is now claiming that the program is running short of funds and is unable to fulfill Congressional funding directives in the 2018 Farm Bill.

In addition, the FSA has done a huge disservice to the organic community in this time of crisis by delaying the release of funds by many months while organic operations struggle to stay in business as they weather a pandemic and loss of markets.

**NOC is calling on the NOSB to advise the Secretary of Agriculture to direct FSA to increase organic certification cost share reimbursement rates to 100 percent, to extend all applicable program deadlines to ensure that farmers who are still dealing with COVID-19 impacts have ample time to access these funds, and to provide reimbursements directly to certification agencies during the pandemic.**

NOC recognizes that we must address the immediate crises at hand, while also tending to the ongoing work needed to protect the integrity of the organic program, safeguard trust in the USDA organic seal, and to help the organic regulations keep pace with the exponential growth in the organic marketplace.

**Coronavirus Pandemic**

Organic farms, businesses, and retailers are on the front lines and face major disruptions during the pandemic, including loss of critically important markets and labor challenges. These operations are adapting, but in some cases face skyrocketing expenses as they invest in equipment, technology, sanitation, staffing, and transportation to keep employees safe, to access markets, and to provide safe and nutritious food to communities. NOC would like the NOSB to be aware of the policy recommendations we have put forward to Congress and USDA to respond to the needs of farms, farm workers, businesses, retailers, organic certification agencies, organic inspectors, and consumers during the pandemic.

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[1] https://www.nbcnews.com/business/economy/small-farmers-left-behind-trump-administration-s-covid-19-relief-n1236158

[2] https://www.federalregister.gov/documents/2020/08/10/2020-17385/notice-of-funds-availability-nofa-for-the-organic-certification-cost-share-program

[3] https://www.nationalorganiccoalition.org/blog/2020/5/8/noc-amp-ofa-seek-congressional-action-to-protect-organic-farms-and-businesses-during-pandemic

[4] https://www.nationalorganiccoalition.org/blog/2018/9/7/noc-farm-bill-score-card-ft73m

In addition to our recommendations related to certification cost share, Congress should:

- Authorize additional funds for direct payment to farmers with explicit provisions that allow farms to use whole farm revenue to demonstrate losses, and to include losses that occur over the course of 2020 (not just losses during the first several months of 2020). The second round of the Coronavirus Food Assistance Program (CFAP2), which was launched on September 21 and will remain open until December 11, does offer some improvements over the initial CFAP program. CFAP2 expands the timeframe of losses covered. CFAP 1 was only for mid-January through mid-April, whereas CFAP2 expands the coverage timeframe, often until the end of the calendar year, for many crop categories. The program also provides assistance to diversified operations in a new way that will be helpful to some organic operations.[5]
- Provide farms, farmers markets, farm stands, and food co-ops with grants to cover COVID-19 expenses, such as PPE, equipment and technology modifications, sanitation and staffing costs that essential businesses are incurring to protect workers and consumers during the pandemic.
- Authorize federally funded pay bonuses for front line food system and grocery workers, to compensate them for their essential work under hardship conditions.

To increase access to nutritious food for families who face financial hardship, Congress should increase funding for the Supplemental Nutrition Assistance Program (SNAP), which is a critical tool for providing a safety net against hunger.

Congress should modify the Supplemental Nutrition Assistance Program (SNAP) to ensure that participants are able to purchase food online in all states. Farmers, distributors, and food retailers need technical assistance to set up online systems so SNAP recipients can purchase food directly from farms, CSAs, and cooperative grocery stores. These changes to enable SNAP participants to purchase local food from organic farms are long overdue. The pandemic has highlighted and emphasized the need for policies that put good food in the hands of vulnerable communities.

The full details of our pandemic response requests are available in our letter to Congress dated May 7, 2020.[6]

**Climate Change Crisis**

Healthy soil is the cornerstone of organic agriculture and a critical solution for addressing climate change. The use of soil-building practices on organic farms helps to sequester carbon and increases resilience, allowing organic systems to tolerate, adapt to, and recover from extreme weather conditions. NOC has endorsed two pieces of climate-change legislation:

1. The Agriculture Resilience Act (H.R. 5861), which was introduced by Chellie Pingree (D-ME). This legislation would increase research and incentivize the adoption of climate-friendly farming practices with the goal of creating a food and farm system that achieves net zero carbon emissions. The bill includes several of NOC's climate action priorities,[7] including providing incentives for farmers to shift to the use of agricultural practices commonly used in organic farming, such as composting, cover cropping, and crop rotations, and increasing the maximum annual organic certification cost share reimbursement from $750 to $1000 per

[5] https://www.nationalorganiccoalition.org/blog/2020/9/22/more-money-available-for-farmers-impacted-by-pandemic

[6] NOC letter to Congress on needs of organic stakeholders during pandemic, May 7, 2020: https://app.box.com/s/khg95otgoko01huy63nthfa04pingn4w

[7] More details about NOC's climate action priorities are available online here: https://www.nationalorganiccoalition.org/blog/2019/12/3/noc-weighs-in-on-the-climate-crisis

certification scope. In addition, the legislation calls for increased resources and the creation of a strategic plan to develop resource-efficient, stress-tolerant, regionally adapted livestock breeds, and crop cultivars that help build agricultural resilience to climate change.

2. The Climate Stewardship Act (S. 2452 and H.R. 4269) introduced by Senator Cory Booker and Rep. Deb Haaland. Like the Agriculture Resilience Act, the Climate Stewardship Act incentivizes climate friendly farming practices and expands climate change research related to agriculture, including organic research.

The organic regulations are strong because they require proper tillage, soil-building practices that sequester carbon, and pasture-based grazing for organic livestock. But the regulations are not being enforced as effectively as they should. The NOP must reinstate the Organic Livestock and Poultry Practices (OLPP) rule[8] and properly enforce the pasture rule. The NOP should also finalize regulations on standards that eliminate incentives to convert native ecosystems to organic production, based on the NOSB recommendation on this topic for 2018.

**NOC is requesting that the NOSB create a work agenda item that focuses on enforcement of soil-building, cover cropping, crop rotation, and biodiversity practices required in the organic regulations.** The NOSB should identify and make recommendations to strengthen organic practices for climate mitigation, adaptation, and carbon sequestration. The NOSB should make recommendations about the circumstances under which certifiers should issue noncompliances for operations that fail to adhere to the soil fertility and crop nutrient management practice standard (§205.203) and other requirements in the organic regulations related to soil health. Such an effort would serve to bolster clarity and consistency of enforcement across certifiers, hold producers to foundational principles of organic production, and strengthen organic producers' position in the climate discussions and initiatives across the country**, and give consumers even more to love about organic food.**

The NOSB should reference important work in this arena being conducted by organic stakeholder groups, including but not limited to the following resources:

- ACA Crop Rotation Best Practices from May 2019: https://www.accreditedcertifiers.org/wp-content/uploads/2019/07/ACA-Crop-Rotation-Best-Practices-5.9.2019-Final.pdf
- National Sustainable Agriculture Coalition Brief on Agriculture and Climate Change: https://sustainableagriculture.net/wp-content/uploads/2019/11/NSAC-Climate-Change-Policy-Position_paper-112019_WEB.pdf
- OFRF publications on soil health and organic farming, including *Soil Health and Organic Farming, Organic Practices for Climate Mitigation, Adaptation, and Carbon Sequestration*: https://ofrf.org/soil-health-and-organic-farming-reports/building-organic-matter-for-healthy-soils-an-overview-2/
- Friends of the Earth Brief on Pesticides and Soil Health: https://1bps6437gg8c169i0y1drtgz-wpengine.netdna-ssl.com/wp-content/uploads/2019/08/PecticidesSoilHealth_Final-1.pdf
- *Roadmap to an organic California: Benefits Report: https://www.ccof.org/sites/default/files/CCOF-RoadmaptoOrganic-Report-Final-HighRes.pdf*
- Regenerative Organic Certification standards for Soil Health and Land Management: https://regenorganic.org/wp-content/uploads/2020/09/ROC-Framework-June-2020.pdf

[8] NOC is a plaintiff in a lawsuit, led by Center for Food Safety, challenging the withdrawal of this regulation. https://www.centerforfoodsafety.org/press-releases/5294/organic-advocates-and-farmers-sue-over-trump-withdrawal-of-widely-supported-organic-livestock-welfare-rule

**The NOSB should also recommend a restriction on the use of highly soluble sources of nitrogen in organic agriculture.** Overreliance on highly soluble sources of fertility can short circuit soil-building practices that sequester carbon and is in violation the foundational "feed the soil" principle in organic agriculture. Highly soluble sources of nitrogen should be included on the list of prohibited naturals (7 CFR § 205.602 of the National List) with an annotation limiting them to no more than 20% of a crop's total annual nitrogen requirements. NOC's detailed comments on highly soluble nutrients from Spring 2020 are included as Appendix A. NOC supports the petition to prohibit the use of ammonia extract, and we have provided more detailed comments on that discussion document on page 39.

## Improvements Needed to Keep USDA Organic Program Strong

NOC also calls on the NOSB to recognize the myriad ways that the organic program must evolve and continuously improve to keep pace with the exponential growth the organic industry has experienced since the implementation of the USDA organic standards twenty years ago. The industry has matured, and supply chains have become more complex. As a result, we face both new challenges as well as new opportunities.

The NOSB should keep the following issues top of mind in considering how best to protect the integrity of the organic program.

### 1. NOSB Role and Authority

USDA must better support the work of the NOSB. NOSB members perform a critically important role in their review of new petitions and National List materials, by listening and responding to stakeholder feedback, developing discussion documents and proposals, and using their advisory role to protect organic integrity and advance the needs of organic operations with the USDA Secretary. NOC and other advocates have succeeded in securing significant boosts in funding for the USDA National Organic Program – funding has increased from $9.2 million in FY2015 to the current funding level of $16 million in FY2020. NOC is advocating for an additional increase to $20 million in FY2021.

**The NOSB should advocate with the NOP to obtain the necessary support to perform their responsibilities in the most effective way, including, but not limited to:**

- Extending NOSB meetings by an additional day when needed to allow the NOSB to conduct all necessary deliberations.
- Establishing task forces to assist the NOSB in researching and developing recommendations for complex issues and using time at NOSB meetings for task forces to report their findings.
- Providing additional funds for technical reviews to provide the NOSB with scientific and technical information to inform their work.

USDA has limited the NOSB workplan to issues that are already priorities of NOP. In its February 27, 2014, memo, NOP states that in order for an item to be added to the NOSB work plan it "must be a priority for the USDA/NOP."[9] However, OFPA gives the NOSB the duty "to assist in the development of standards for substances to be used in organic production and to advise the Secretary on any other aspects of the implementation of this chapter."[10] This duty to advise transcends NOP priorities. Indeed, as stated in 4 7 U.S.C. § 6518(a), NOSB should help to establish NOP priorities. Clearly, OFPA intends that the NOSB play a large role in setting priorities of the National Organic Program.

[9] AMS, USDA, NOP, *Memorandum to the National Organic Standards Board: NOSB Training Summary,* February 27, 2014, https://www.ams.usda.gov/sites/default/files/media/NOSB%20Memo%20Training%20Summary.pdf, p 3.
[10] 7 U.S.C. § 6518(a).

USDA/NOP restricts the scope of NOSB actions to those within the authority of the NOP/AMS, contrary to the broader scope required by OFPA. Again, OFPA requires the NOSB "to assist in the development of standards for substances to be used in organic production and to advise the Secretary on any other aspects of the implementation of this chapter."[11]

Implementation of OFPA extends beyond the arbitrary limits of the NOP. For example, organic production is severely affected by unrestrained genetic drift from genetically engineered crops. NOP has no authority to take action affecting producers of genetically engineered crops or the allowance of the use of genetically engineered seed. The USDA does have such authority. Therefore, recommendations to the Secretary concerning actions that affect the production, sale, and use of genetically engineered seed fall within the purview of the NOSB.

The NOSB work should be driven by the public process – the NOP should not have the ability to veto critically important issues that the NOSB seeks to address. The NOSB was designed to maximize public input from a community with strong and diverse views about the meaning of "organic." That input and the 2/3 "decisive vote" requirement ensure that NOSB proposals can only pass when they garner broad and diverse support from different stakeholder groups.

In the interest of protecting transparency, accountability, and the public process, NOC requests that the NOP provide more transparency regarding NOSB work agenda items that have been removed from the work agenda without explanation. **In addition, the NOSB should request that the NOP provide an update on all previous recommendations made and a rationale for lack of NOP action on those recommendations.**

NOC also requests that notes from NOSB executive committee and subcommittee calls be made available to public stakeholders in a timely way. We appreciate that the executive committee and subcommittee call notes are again being published, but waiting up to six months to publish these provides little benefit to public stakeholders who wish to engage in the process in real time.

**2. Oversight of the National Organic Program**

Currently, oversight over the NOP's accreditation system takes place through an annual "Peer Review Panel." NOC believes the NOP exerts too much control over several aspects of this process. For example, by appointing members of the panel, exerting control over which files will be reviewed, and determining what questions the panel can consider. **NOC urges the NOSB to pay close attention to the annual peer review audits and to seek ways to strengthen oversight of the NOP's accreditation functions.**

For truly independent and effective oversight, members of the panel must have demonstrated knowledge of organic certification and accreditation and should use a risk-based focus of review (i.e. examining certification of hydroponic and container operations or auditing NOP's accreditation of international certifiers in high-risk regions). The agreement with the peer review auditor should be a multi-year agreement to ensure that the peer review entity can track the NOP's corrective actions and compliance with issues that arise from the peer review audit. The Peer Review Panel must be convened annually and have an ongoing relationship with the NOP. Its membership should be determined by an outside entity, which might include members of the NOSB, and it should have the authority to request any files and look at any certifiers that it judges to be appropriate.

[11] 7 U.S.C. § 6518(a).

NOC recommends the NOP work with a third party with organic accreditation and oversight experience, such as the International Organic Accreditation Service (IOAS), to conduct annual peer review audits. One of the weaknesses with the previous NOP "peer reviews" is American National Standards Institute's (ANSI) lack of familiarity with organic systems and the organic certification process.

The NOSB should scrutinize the forthcoming 2020 peer review audit, as well as the 2019 and 2018 peer review audits, which provide information about strengths and weaknesses in the NOP's accreditation process. We believe the NOSB should demand access to the full results of these audits, flag areas where further improvements are needed in the NOP accreditation system, and assess progress made towards addressing areas of concern. For example, the 2018 peer review audit determined that the NOP does not have a sufficient number of auditors to oversee its accreditation functions. NOC believes the NOSB should use the results from subsequent peer review audits to assess if the NOP has sufficiently addressed this area of weakness and to highlight issues that have emerged from peer review audits that require further action.

**NOC has repeatedly requested that the NOP release the peer review panel report in full (not simply an executive summary), and we urge the NOSB to join us in requesting that the full results for all future reports be made accessible to the NOSB and public stakeholders.**

3. **The NOP has failed to implement NOSB recommendations**

Time and time again, the NOP has failed to implement NOSB recommendations, both through failure to act in a timely manner as well as through actions that directly contradict NOSB recommendations. This lack of adherence to the consensus recommendations of the organic community is greatly harming the integrity of the organic seal. NOC has provided a more detailed comment on this issue beginning on page 14.

The withdrawal of the Organic Livestock and Poultry Practices rule is one of the most damaging examples of USDA's failure to adhere to the recommendations of the NOSB and the will of organic stakeholder groups. As the organic industry grows and matures, organic regulations need to grow and mature as well to better reflect the intent of the organic law and to eliminate loopholes that have allowed some operations to function with organic certificates without adhering to the principles that undergird the organic seal and consumer expectations for organic.

NOC believes the NOSB and organic stakeholder groups should:

- Prioritize among those recommendations that have not been implemented and exert pressure on USDA to take action on critically important issues.
- Call on Congress to require implementation of NOSB recommendations when necessary. For example, Congress included language in FY20 appropriations legislation requiring that USDA issue a final regulation on Origin of Livestock.
- Challenge the USDA and NOP when they flout NOSB recommendations and the will of the organic community, including through legal action when necessary.
- Consider structural changes that would facilitate the enactment of new regulations for organic in a streamlined manner.

4. **Origin of Livestock**

NOC is deeply disappointed that the NOP has failed to finalize Origin of Livestock regulations by June 17, 2020, as mandated by Congress. As the organic dairy industry has grown and matured, there is an urgent need to update and improve how conventional livestock are transitioned into organic herds. A proposed

regulation had been put forward in 2015 to close a loophole that has allowed the continuous transition of conventional animals into organic dairy herds. But that regulation was never finalized and was then completely dropped from the regulatory agenda in 2018. Closing this loophole is a top priority for NOC because it has contributed to a lack of fairness and low prices for the many organic dairy producers who are following the letter and spirit of the organic regulations. USDA reopened the 2015 regulation for public comment again in the fall of 2019, but has thus far failed to incorporate public comments from 2015 and 2019 to finalize the regulation.

NOC has called on the NOP to provide a full explanation to organic stakeholders regarding the lack of forward movement on this issue. **NOC calls on the NOSB to continue to track this important issue.**

5. **Racial equity in the organic movement**

NOC calls on the NOSB to consider ways to create a more equitable and inclusive organic movement. We recognize that access to the organic movement and organic certification has not been equal across racial groups. Systematic racism has kept our movement from reaching its full potential. The organic movement can only be stronger and better positioned to meet future challenges if it represents diverse participation. **NOC encourages the NOSB to prioritize research into barriers to participation in organic certification for farmers of color and technical assistance needs for these communities.** NOC has provided a more detailed comment on this topic on page 27.

6. **Inert Ingredients Allowed in organic production**

"Inert" ingredients frequently compose as much as 99% of pesticide products, and they are not subject to the same level of scrutiny as active ingredients in organic pesticides. For this reason, they may be the most hazardous ingredients in pesticide products used in organic production. NOC has suggested a process for moving forward, as well as a long-term plan, in our detailed comments in Spring 2020, included as Appendix B, to ensure that inert ingredients are adequately reviewed without unduly burdening the NOSB. To begin this work, the NOP must develop a memorandum of understanding (MOU) with the EPA to provide a transparent process that includes the NOSB and organic stakeholders.

The NOSB should not delay in evaluating nonylphenol ethoxylates (NPEs). NPEs and their degradates, nonylphenols, are toxic and disruptive for the reproductive system. NOC supports the removal of NPEs as an "inert" ingredient allowed in organic approved pesticides. NOP must provide market clarity when it comes to "inerts" to encourage innovation of new products, lessen concerns of stakeholders over environmental and health concerns, and make future reviews of "inert" materials relevant. NOC has more detailed comments on this topic beginning on page 50.

7. **Hydroponics and Container Production**

There is a lack of consistency from one certifier to the next regarding which practices are allowed in organic for hydroponic and container systems. The continued allowance of hydroponic systems is also in opposition to the 2010 NOSB consensus recommendation to prohibit hydroponic production in organic and the separate OFPA mandate that USDA develop organic standards in consultation with the NOSB.[12] The NOP's policy on hydroponic and container systems should be guided by NOSB recommendations.

Hydroponic systems and many container systems are inconsistent with both the foundational principles of organic farming and the certification requirements of the National Organic Program as set forth in OFPA, especially with regards to soil fertility. Fostering soil fertility is not optional, and any allowed practices that

[12] 7 U.S.C. § 6503(c) (OFPA §6503 (c) ("In developing the program under subsection (a), and the National List under section 6517 of this title, the Secretary shall consult with the National Organic Standards Board established under section 6518 of this title.")

cannot meet this mandatory requirement are inconsistent with OFPA. For these reasons, the Center for Food Safety, a NOC member organization, along with a coalition of organic farms and stakeholders, **filed a lawsuit** in March 2020 challenging the USDA's decision to allow hydroponic operations to be certified organic.[13] The lawsuit asks the Court to stop USDA from allowing hydroponically produced crops to be sold under the USDA Organic label.[14] NOC is supportive of this legal challenge to USDA's actions with regards to hydroponic operations.

**8. Clarity on 3-year transition period**

In August and September of 2020, ACA, NOC, and OFA conducted a certifier survey to learn more about certifier practices regarding when a three-year transition is required after the application of a prohibited substance. The survey results demonstrate the high level of variation between certifiers in how they apply the three-year transition requirement in different situations. NOC has provided a more detailed comment beginning on page 31. The NOP must clarify the requirement for a three-year transition for crop production in greenhouses and facilities after the application of a prohibited substance. **The NOSB should actively engage in this process by requesting a work agenda item, requesting stakeholder input, making recommendations to the NOP, and by asking the NOP to provide clarity so all certifiers and organic operations are held to the same standard.**

**9. Excluded methods**

New genetic manipulation techniques are being introduced at an increasingly rapid pace. Organic stakeholders and accredited certifiers must have clarity on which genetic techniques and methods are allowed and which are prohibited under the organic regulations. The NOSB and NOP must provide that clarity.

The organic community and NOSB have been clear in their opposition to genetic engineering in organic agriculture and the need to provide a transparent process and certainty to the organic community about what is excluded, what is allowed, and why.

**NOC urges the NOSB to act with great care to ensure that excluded methods are kept out of organic production and to move forward in its evaluation of new genetic techniques with urgency using the process and criteria laid out by the NOSB in 2016.[15]**

NOC provided a more detailed comment on this topic in Spring 2020. We have included that comment in Appendix C.

**10. Strengthening Organic Enforcement Proposed Rule**

NOC strongly supports the Strengthening Organic Enforcement (SOE) proposed rule.[16] NOC thanks the USDA Agricultural Marketing Service (AMS) and National Organic Program (NOP) for their commitment to making regulatory changes to advance organic integrity. We urge the USDA to finalize the rule as soon as

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[13] Center for Food Safety, *Complaint for Declaratory and Injunction Relief,* March 2, 2020, https://www.centerforfoodsafety.org/files/2020-03-02--ecf-01--plaintiffs-cfs-et-al-complaint_95614.pdf

[14] Center for Food Safety, "Farmers and Nonprofits Sue Trump's USDA Over Organic Soil-Less Loophole," March 3, 2020, https://www.centerforfoodsafety.org/press-releases/5941/farmers-and-nonprofits-sue-trumps-usda-over-organic-soil-less-loophole

[15] NOSB, *Formal Recommendation: Excluded Methods Terminology Recommendation,* November 18, 2016, https://www.ams.usda.gov/sites/default/files/media/MSExcludedMethods.pdf

[16] Agricultural Marketing Service, *National Organic Program, Strengthening Organic Enforcement,* August 5, 2020, https://s3.amazonaws.com/public-inspection.federalregister.gov/2020-14581.pdf?1596545113

possible to make long-awaited improvements in the organic standards to address fraud in the organic supply chain and enforcement challenges.

NOC, NOC Members, and Network Affiliates have recognized and asked for action to address problems with fraud in the organic supply chain, especially with organic grain imports, since 2015. Issues of fraud were a focus in NOC's Pre-NOSB meeting in St. Louis in the fall of 2016, and in many subsequent meetings NOC has organized with the USDA, organic stakeholder groups, and Members of Congress. NOC strongly advocated for 2018 Farm Bill provisions to address uncertified entities, import certificates, and NOP's authority to oversee certification activities and certification agencies' foreign satellite offices. We applaud the NOP and the National Organic Standards Board (NOSB) for their sustained commitment to addressing both domestic, as well as international fraud in organic supply chains. NOC believes the SOE proposed rule is an important first step for a broader set of much-needed changes. NOC is committed to addressing these complex issues through our support of the SOE proposed rule and beyond to ensure that current gaps that allow for fraud, loopholes, and lack of enforcement are addressed to ensure integrity, consistency across certifiers, and trust in the USDA organic seal.

**NOC urges the NOSB to not only express support for the SOE proposed rule, but also to identify gaps that require further action and to ask for regular updates from the NOP to determine how those gaps are being addressed.** The CACS should review and analyze peer review audits, track progress made by the Organic Imports Interagency Working Group, ask the NOP to explain its risk-based approach to accreditation, and request more information about how funding increases are being used to strengthen the NOP's capacity to fight fraud.

The SOE proposed rule is a first step in addressing issues of supply chain traceability, fraud, equal enforcement, and consistency across certification agencies. Additional actions are needed from AMS and NOP to ensure integrity, as well as consumer and industry trust in the organic seal. The NOP should also conduct more frequent audits for certification agencies and certifiers' foreign satellite offices using a risk-based approach; work closely with the Office of Inspector General, Foreign Agriculture Service, and Customs and Border Protection to identify and crack down on bad actors; and continue making progress through the Organic Imports Interagency Working Group.

In addition, to ensure the integrity of the USDA organic program, USDA should immediately reinstitute the Organic Livestock and Poultry Practices rule to require meaningful outdoor access for poultry and egg operations, finalize Origin of Livestock regulations to close loopholes and clarify requirements for the transition of conventional dairy cows into organic herds, ensure compliance with the pasture rule for organic dairy operations, and halt the continued certification of hydroponic systems until the NOSB has fully reviewed these systems and made recommendations to the NOP about the compatibility of hydroponic systems with the requirements of the Organic Foods Production Act and its implementing regulations.

**Economic Impact Analysis**

As USDA's Regulatory Impact Analysis for the SOE proposed rule indicates, the benefits of implementing the proposed changes far exceed the anticipated costs. The proposed rule is necessary to strengthen oversight given that organic supply chains have become global and are far more complex compared to when the organic regulations were published twenty years ago. Having a stronger organic program with better enforcement will lead to greater trust in the organic seal and will contribute to the value of the organic program for organic operations, as well as organic consumers.

NOC has provided a draft version of our introductory comment on the SOE proposed rule as Appendix D.

## NOSB Work Agenda & Unheeded Recommendations

There was a time when the National Organic Standards Board (NOSB) studied issues that were brought forward by the organic community. Issues that people, literally in the field, found important or concerning were raised and added to the NOSB work agenda. The board spent countless hours working to better understand these issues and concerns, bring in subject matter experts to provide testimony, respond to questions and engage in dialogue. They asked for technical reviews and inquired to the National Organic Program (NOP) to ground any recommendations in the law and science. They put out discussion documents to garner feedback and ensure solutions and recommendations put forward could be implemented effectively without unintended consequences.

NOSB is a direct link to organic stakeholders. OFPA provides that the NOSB members represent stakeholders. When NOP supersedes the NOSB work agenda, they do not allow NOSB members to fulfill their responsibility under the law of representing stakeholder interests.

**Responsibilities of the NOSB under OFPA**

The historical role of the NOSB described above is consistent with the Organic Foods Production Act (OFPA), under which the NOSB is more than an advisory board. The authors of OFPA recognized that USDA was part of the problem that OFPA was designed to address and that only by establishing a requirement to consult with organic practitioners and proponents could USDA be guided in the development of a national organic program. The excerpts below describe the roles and responsibilities of the NOSB.

**§6503. National organic production program**

***(c) Consultation***

In developing the program under subsection (a), and the National List under section 6517 of this title, the Secretary shall consult with the National Organic Standards Board established under section 6518 of this title.

**§6505. Compliance requirements**

***(c) Exemptions for processed food***

Subsection (a) shall not apply to agricultural products that—

(1) contain at least 50 percent organically produced ingredients by weight, excluding water and salt, to the extent that the Secretary, in consultation with the National Organic Standards Board and the Secretary of Health and Human Services, has determined to permit the word "organic" to be used on the principal display panel of such products only for the purpose of describing the organically produced ingredients; or

(2) contain less than 50 percent organically produced ingredients by weight, excluding water and salt, to the extent that the Secretary, in consultation with the National Organic Standards Board and the Secretary of Health and Human Services, has determined to permit the word "organic" to appear on the ingredient listing panel to describe those ingredients that are organically produced in accordance with this chapter.

**§6506. General requirements**

***(c) Wild seafood***

***(2) Consultation and accommodation***

In carrying out paragraph (1), the Secretary shall—

(A) consult with—

(i) the Secretary of Commerce;

(ii) the National Organic Standards Board established under section 6518 of this title;

(iii) producers, processors, and sellers; and

(iv) other interested members of the public; and

(B) to the maximum extent practicable, accommodate the unique characteristics of the industries in the United States that harvest and process wild seafood.

**§6509. Animal production practices and materials**
***(d) Health care***
***(1) Prohibited practices***
For a farm to be certified under this chapter as an organic farm with respect to the livestock produced by such farm, producers on such farm shall not—

(A) use subtherapeutic doses of antibiotics;

(B) use synthetic internal parasiticides on a routine basis; or

(C) administer medication, other than vaccinations, in the absence of illness.

***(2) Standards***
The National Organic Standards Board shall recommend to the Secretary standards in addition to those in paragraph (1) for the care of livestock to ensure that such livestock is organically produced.

**§6517. National List**
***(d) Procedure for establishing National List***
***(1) In general***
The National List established by the Secretary shall be based upon a proposed national list or proposed amendments to the National List developed by the National Organic Standards Board.

***(2) No additions***
The Secretary may not include exemptions for the use of specific synthetic substances in the National List other than those exemptions contained in the Proposed National List or Proposed Amendments to the National List.

***(e) Sunset provision***
No exemption or prohibition contained in the National List shall be valid unless the National Organic Standards Board has reviewed such exemption or prohibition as provided in this section within 5 years of such exemption or prohibition being adopted or reviewed and the Secretary has renewed such exemption or prohibition.

**§6518. National Organic Standards Board**

***(a) In general***

The Secretary shall establish a National Organic Standards Board (in accordance with the Federal Advisory Committee Act) (hereafter referred to in this section as the "Board") to assist in the development of standards for substances to be used in organic production and to advise the Secretary on any other aspects of the implementation of this chapter.

***(j) Other terms and conditions***

The Secretary shall authorize the Board to hire a staff director and shall detail staff of the Department of Agriculture or allow for the hiring of staff and may, subject to necessary appropriations, pay necessary expenses incurred by such Board in carrying out the provisions of this chapter, as determined appropriate by the Secretary.

***(k) Responsibilities of Board***

***(1) In general***

The Board shall provide recommendations to the Secretary regarding the implementation of this chapter.

***(2) National List***

The Board shall develop the proposed National List or proposed amendments to the National List for submission to the Secretary in accordance with section 6517 of this title.

***(3) Technical advisory panels***

The Board shall convene technical advisory panels to provide scientific evaluation of the materials considered for inclusion in the National List. Such panels may include experts in agronomy, entomology, health sciences and other relevant disciplines.

***(4) Special review of botanical pesticides***

The Board shall, prior to the establishment of the National List, review all botanical pesticides used in agricultural production and consider whether any such botanical pesticide should be included in the list of prohibited natural substances.

***(5) Product residue testing***

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

***(6) Emergency spray programs***

The Board shall advise the Secretary concerning rules for exemptions from specific requirements of this chapter (except the provisions of section 6511 of this title) with respect to agricultural products produced on certified organic farms if such farms are subject to a Federal or State emergency pest or disease treatment program.

***(l) Requirements***

In establishing the proposed National List or proposed amendments to the National List, the Board shall—
(1) review available information from the Environmental Protection Agency, the National Institute of Environmental Health Studies, and such other sources as appropriate, concerning the potential for adverse human and environmental effects of substances considered for inclusion in the proposed National List;

(2) work with manufacturers of substances considered for inclusion in the proposed National List to obtain a complete list of ingredients and determine whether such substances contain inert materials that are synthetically produced; and

(3) submit to the Secretary, along with the proposed National List or any proposed amendments to such list, the results of the Board's evaluation and the evaluation of the technical advisory panel of all substances considered for inclusion in the National List.

***(m) Evaluation***
In evaluating substances considered for inclusion in the proposed National List or proposed amendment to the National List, the Board shall consider—
(1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;

(2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;

(3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;

(4) the effect of the substance on human health;

(5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;

(6) the alternatives to using the substance in terms of practices or other available materials; and

(7) its compatibility with a system of sustainable agriculture.

***(n) Petitions***
The Board shall establish procedures under which persons may petition the Board for the purpose of evaluating substances for inclusion on the National List.

***(o) Confidentiality***
Any confidential business information obtained by the Board in carrying out this section shall not be released to the public.

## Contrary to the requirements of the Federal Advisory Committee Act USDA exerts undue influence on the recommendations of the NOSB.

**NOP has failed to implement NOSB recommendations.**

**Categorization of NOSB recommendations that have not been implemented.**

| National List | Non-NL |
|---|---|
| Sodium nitrate | Aquaculture |
| “Inert” ingredients | Apiculture |
| Whey protein concentrate | OLPP |

| | |
|---|---|
| Carrageenan | Origin of Livestock |
| Turkish bay leaves | Nanotechnology |
| Inulin oligofructose enriched (IOE) | Hydroponics |
| Nutrient Vitamins and Minerals | Calculating the percentage of organically produced ingredients |
| | Delete the words “as ingredients” from 205.605 and 205.606, thereby clarifying that all substances used in or on organic products, including ingredients and processing aids, must appear on the National List. |
| | Excluded methods |

| **Failure to Act in a Timely Manner** | **Actions that Directly Contradict NOSB Recommendations** |
|---|---|
| “Inert” ingredients | Whey protein concentrate |
| Aquaculture | Carrageenan |
| Apiculture | Turkish bay leaves |
| OLPP | Carrageenan |
| Origin of Livestock | Nanotechnology |
| Nutrient Vitamins and Minerals | Hydroponics |
| GMO vaccines | **Inulin-oligofructose Enriched (IOE)** |
| Calculating the percentage of organically produced ingredients | |
| Delete the words “as ingredients” from 205.605 and 205.606, thereby clarifying that all substances used in or on organic products, including ingredients and processing aids, must appear on the National List | |
| Excluded methods | |

## NOP has failed to implement NOSB recommendations concerning the National List.

***Sodium nitrate***

**Sodium nitrate is listed on §602.**

(g) Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement; use in spirulina production is unrestricted until October 21, 2005.

The sunset date for sodium nitrate is listed as 10/21/2012. In April 2011, the NOSB passed the following recommendation: “Relist sodium nitrate §205.602(g) without annotation.”

The NOSB has not yet voted on the renewal of the sodium nitrate listing, even though the most recent vote by the NOSB was April 29, 2011. Five years from the review of the listing (which included a change in annotation) was April 29, 2016. Five years from the previous sunset date was October 21, 2017. If the NOSB were to consider the listing, which listing should be considered for sunset review?

***Carrageenan***

**In Spring of 2016, the NOSB voted to remove carrageenan from the National List.** On April 4, 2018, NOP announced that it was relisting carrageenan, stating: "AMS found sufficient evidence in public comments to the NOSB that carrageenan continues to be necessary for handling agricultural products because of the unavailability of wholly natural substitutes (§ 6517(c)(1)(ii)). Carrageenan has specific uses in an array of agricultural products, and public comments reported that potential substitutes do not adequately replicate the functions of carrageenan across the broad scope of use. Therefore, carrageenan continues to meet the OFPA criteria for inclusion on the National List."

***Whey protein concentrate***

**In Fall 2015, the NOSB voted unanimously to remove whey protein concentrate from §606.** NOP refused because "Public comments submitted indicated that whey protein concentrate is essential to organic processed products and is not commercially available in organic form at this time." Meanwhile, the Organic Integrity Database lists 32 suppliers of organic whey protein concentrate.

***Turkish bay leaves***

**In Fall 2015, the NOSB voted unanimously to remove Turkish bay leaves from the National List.** After five years, the listing has not been removed. It should be removed, and taken off the NOSB agenda. On July 6, 2017, NOP announced that it was keeping Turkish bay leaves on the National List because some "public comments stated that organic Turkish bay leaves are not available in the quantity or quality needed to meet organic handling needs. The comments explained that the different flavor profile of ground organic Turkish bay leaves would negatively impact finished products."

***IOE***

**In Fall 2015, the NOSB voted unanimously to remove inulin-oligofructose enriched (IOE) from the National List.** After five years, the listing has not been removed. It should be removed, and taken off the NOSB agenda. On July 6, 2017, NOP announced that it was keeping IOE on the National List because "Comments acknowledged that there are organic or alternate forms of inulin available, such as inulin from organic agave and fructooligosaccharides, but explained that these are not equivalent to inulin-oligofructose enriched, which is sourced only from chicory root and provides unique functionality for use as a prebiotic in organic infant formula. The comments indicated that an adequate supply of organic chicory root is not commercially available."

***"Inerts"***

NOP has a long history of inaction on "inert" ingredients. Active ingredients in pesticide products allowed in organic production have been carefully screened to ensure that they meet the requirements of OFPA. Because of the thorough investigation by the NOSB and the additional scrutiny given by the public in written and oral comments, the active ingredients that are allowed in organic agriculture present little hazard to people and ecosystems, from their manufacture through their use and disposal.

So-called "inert" ingredients, on the other hand, have not received the same level of scrutiny to ensure that they meet OFPA standards. Reliance on the registration of pesticide products with "inert" ingredients by the U.S. Environmental Protection Agency does not ensure that the standards of OFPA are met, given that the reviews and use allowances under the agency's authorizing legislation (the Federal Insecticide, Fungicide and Rodenticide Act) are based on different, and often incompatible, standards. In addition, "inert" ingredients make up the largest part of many pesticide product formulations. As a result, the most hazardous part of pesticide products used in organic production is often these ingredients.

And now, as "List 4 inerts" are up for sunset review, the only progress that has been made is the Spring 2016 discussion document concerning nonylphenol ethoxylates, which has languished for the past four years. The National Organic Program (NOP) has still not issued a notification to manufacturers and users of products with a request for information on current inert ingredients in use. This 'data call-in notice' was intended to capture "inert" ingredients that may not be on the comprehensive list of 126 priority "inert" ingredients and 87 "minimal risk" substances eligible for registration under FIFRA section 25(b) used in formulations allowed in organic production, which was generated by the Inerts Working Group based on data from Material Review Organizations and provided to the public as categories at the Fall 2012 meeting of the NOSB. **The notice is overdue and should be issued without further delay.**

Since, as stated above, so-called "inert" ingredients likely pose more hazards than other materials used in organic production, their review deserves a higher priority than it is being given by NOP. These comments urge that the NOSB raise the priority level of "inerts" review to ensure compliance with the law.

**NOP has failed to implement non-National List recommendations.**
Over the past 10 years, the NOSB has made at least twenty non-National List recommendations that have not advanced to rulemaking.

The Board worked to bring clarity and greater consistency for the organic industry with regard to many issues including: aquaculture production, the use of vaccines that may contain genetically altered material, a multitude of issues dealing with animal welfare, excluded methods, a prohibition on aeroponics, container production standards, certification for pet food and personal care products, apiculture, ensuring that organic standards do not unintentionally incentivize the conversion of native ecosystems, and promoting increased use of organic seed to name a few. This above chart and list are not a comprehensive accounting of the full list of unheeded recommendations, but instead are meant to be illustrative to demonstrate the scope and scale of this problem.

## NOP exerts undue control over the NOSB agenda.

As we describe in our opening comment above, the USDA has exerted undue and inappropriate influence on the recommendations of the NOSB by prohibiting the board from advancing recommendations that were inconvenient in some way for the agency.

**Examples**
In recent years, USDA has:

1. ***Established a Conflict of Interest policy that improperly influences the independent deliberation and full participation of the Board.***

The NOSB has passed a conflict of interest (COI) policy, according to which the Board decides, based on disclosed interests, whether a member must recuse himself or herself from voting or other participation. The Policy Development Subcommittee has sought to clarify that policy, but the NOP has refused to allow the NOSB to vote on the policy preferred by the subcommittee.

Instead, the NOP has insisted that the subcommittee bring to the Board a policy that gives the NOP sole authority to determine, based on information disclosed only to it –and not the full board or the public— whether a member has a conflict that requires recusal. The NOP cites discretionary authority allowing it to act, but does not give any substantial reason or justification for this action.

By taking complete control over the COI policy, USDA may determine who votes. If USDA determines who votes, then the NOSB is no longer an independent board making recommendations to the Secretary, as required by the Federal Advisory Committee Act.[17] Instead, the USDA can determine the votes by determining who votes. Up until the NOP required policy, the NOSB functioned with transparency, enabling board members and the public full knowledge of the disclosed interests of each board member on topics under consideration.

2. ***Prevented the NOSB from carrying out its duty to advise the Secretary by preventing the GMO Ad Hoc Subcommittee from recommending actions to the Secretary regarding seed purity.***

The GMO Ad Hoc Subcommittee has issued a discussion paper on seed purity issues twice. As indicated in the published notes from the subcommittee calls, the subcommittee produced a proposal that the NOP refused to publish because "portions of the draft seed purity document pertaining to compensation aspects cannot be implemented by the USDA." When asked for specific criticisms, the NOP replied that it preferred a report to an action item.

We believe that the fact that portions of a recommendation are outside the USDA's current authority is irrelevant. The AC/21, for example, produced a recommendation on crop insurance that is also outside the authority of the USDA. The Board has a duty to advise the Secretary. It should be able to carry out that duty regardless of the "preferences" of the NOP. The importance of the advice being a part of the transparency of the Board process enables NOP and the Secretary to find creative ways, with public input, to solve problems identified by the organic community. Should the Secretary believe that the advice is misdirected or inappropriate, that should become a part of the public dialogue that the NOSB facilitates.

3. ***Reversed long-standing NOSB policy on sunset.***

We have submitted lengthy comments addressing NOP actions regarding sunset and will not repeat them all here. OFPA establishes a sunset for exemptions from the general prohibition on synthetics (and nonorganic ingredients.) The term "sunset" is defined in many dictionaries, and all of those definitions include the notion that sunset is a provision of a law that will automatically be terminated after a fixed period unless it is extended by law. The NOP states that it does not need to take an action to relist. That is just not consistent with the definition of "sunset."

The NOSB has responsibility for recommending exemptions to be listed on the National List. As such, it establishes procedures to follow in arriving at recommendations. Those procedures are constrained by OFPA, which prescribes criteria, the five-year sunset, a two-thirds decisive vote, and limitations on USDA's authority. Within the parameters established by OFPA, the NOSB has set policies, contained in its Policy and Procedures Manual (PPM). Since the NOSB has the responsibility to recommend exemptions for listing on the National List, it is within the purview of the NOSB to decide how it will do so. NOSB policy calls for stating motions "in the affirmative" –that is, as a motion to (re)list—so that a two-thirds majority is required to exempt a synthetic material from the default prohibition in OFPA. In reversing this policy, the NOP is encroaching on the NOSB's authority to recommend substances for the National List.

[17] The Federal Advisory Committee Act §5(b)(3) requires that USDA must assure that the advice or recommendations of advisory committees will not be inappropriately influenced by the agency or by any special interest, but will instead be the result of the advisory committee's independent judgment.

4. ***Asserted the right to relist sunset materials in the absence of a recommendation by the NOSB and acted to relist in opposition to a recommendation by the NOSB.***

According to the process in the USDA September 16, 2013, Federal Register notice (78 FR 56811), if there is no recommendation from the NOSB to allow the material to sunset, the NOP will take action to relist the material. This is clearly in opposition to OFPA §6517(d)(2), "The Secretary may not include exemptions for the use of specific synthetic substances in the National List other than those exemptions contained in the Proposed National List or Proposed Amendments to the National List," and §6517(e), "No exemption or prohibition contained in the National List shall be valid unless the National Organic Standards Board has reviewed such exemption or prohibition as provided in this section within 5 years of such exemption or prohibition being adopted or reviewed and the Secretary has renewed such exemption or prohibition." §6517(e) makes it clear that the action required is a relisting, not a vote to delist.

In the May 3, 2013, Federal Register notice (78 FR 25879) taking action on sunset items on which the NOSB voted at its May 2012 meeting, the NOP proposes allowing uses specifically prohibited by the recommendations adopted by the NOSB. This is clearly in opposition to OFPA sections cited above.

5. ***Denied promised NOSB participation in writing guidance for biodegradable mulch film.***

The NOSB recommendation on biodegradable biobased mulch films stated, "(D) Grower must take appropriate actions to ensure complete degradation." Because there was concern about determining what those "appropriate actions" might be when conditions vary from farm to farm, the narrative supporting the recommendation stated,

It is expected that NOP, in conjunction with the NOSB, will develop guidance that explains proper practices for utilizing the biodegradable mulch film. In addition, it is expected that the inspection process and certification review will determine that biodegradation of the mulch film is occurring so that it does not accumulate in the fields where it is used.

The NOSB vote to allow biodegradable biobased mulch film may have been very different had the NOP not agreed to development of guidance in collaboration to the NOSB. This lack of follow-through and adherence to agreements undercuts the ability of the NOSB and the public to use a collaborative process to craft solutions on behalf of the organic community.

The process of developing the guidance was discussed at the October 2012 meeting. Ms. Sonnabend:

> "So we've discussed with the Department about this and they concur that while the rulemaking process is going on if we just leave it at appropriate actions we can then develop a guidance that the NOSB will recommend for and the NOP will cooperate with on exactly what those appropriate actions are, what conditions the mulch may or may not be appropriate from because we think there may be some environmental conditions, soil conditions and the like that these mulches have not been shown to break down properly and the research is still ongoing. But it would enable us to put all that in guidance along with what a certifier would do to verify that the mulch was completely broken down or that the appropriate actions were being taken."[18]

[18] Transcript of October 2012 NOSB Meeting, Lines 16-21.
https://www.ams.usda.gov/sites/default/files/media/transcriptri.pdf

In discussing workplans at both the October 2012 and April 2013 meetings, the chair of the Crops Subcommittee mentioned working with the NOP on the guidance. However, the item, which was on the workplan, was taken off the schedule.

In the Federal Register notice proposing the listing of biodegradable biobased mulch film, the USDA says,

> "AMS has not determined if [*sic*] there is a demonstrated need for guidance on the use of mulch film at this time. We understand that guidance may be needed in the future depending on the prevalence of adoption of use of mulch film by organic growers and any problems observed by certifying agents with degradation on organic fields. AMS is interested in comments on whether guidance on management practices is necessary at this time to prevent mulch film from accumulating in fields."[19]

It is clear from the transcript of the meeting that the development of guidance was an important part of the decision of NOSB members to support the listing of biodegradable biobased mulch film, so collaboration between the NOSB, NOP and the public is undermined, given that the NOP now indicates that the development of such guidance is optional. Going forward, the NOSB cannot trust agreements made by the NOP as a condition of its votes.

6. ***Pulled from the agenda of the Fall 2013 NOSB meeting a definition of production aids proposal passed by the Materials Subcommittee, after having received public comment on a discussion document at the Spring 2013 NOSB meeting.***

The Materials Subcommittee of the NOSB presented a discussion document on production aids at the Spring 2013 NOSB meeting, received public comment, and passed a proposal on August 27, 2013, (with voting continuing through August 28) to bring to the Fall 2013 NOSB meeting.

NOP removed the proposal from the Spring 2013 NOSB agenda with notification to the NOSB at the last minute. The discussion document discussed at the May 2013 NOSB meeting indicated the following:

> There has been discussion on the National Organic Standards Board (NOSB) over past years concerning the meaning of "production aids." The examples given in the Section 6517 (c)(1)(B)(i) of OFPA the are materials that have a minimal impact on food, soil, or the ecosystem. However, there have in the past been requests to allow a range of substances under this category, including (as recommended by the NOSB in August 2005) "carriers, stabilizers, adjuvants, fillers, extractants, excipients and solvents that do have an active function in the formulations of farm production aids such as fertilizers, soil amendments, compost inoculants, sanitizers, aquatic plant extracts, and fish emulsions" and "active substances used in pest control (disease, weed, insects and nematodes) that do not fit into other OFPA categories."[20]

Many on the board and in the community have identified the need for a clear definition of "production aids." The definition is critical to the board's responsibility in managing the National List. Pulling a proposal from the agenda that was passed by a subcommittee, had been subject to a discussion document, and developed with input and oversight of the NOP, without a collaborative process and a discussion further erodes public trust in the standard setting process that supports the organic label.

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[19] 78 FR 52100 August 22, 2013.

[20] NOSB Published Materials, Spring 2013, p.19.


7. ***Showed no progress on the implementation of an "inert" ingredients policy recommended by the NOSB.***

The NOSB and NOP recognized the critical need to review so-called "inert" ingredients that are allowed in materials on the National List. In 2015, in collaboration with the NOP, to begin the review of inert ingredients that currently reference the obsolete "List 3" and "List 4" no longer supported by EPA.

NOP acknowledged in its February 27, 2013, memo to the NOSB that "the obsolete references to EPA 'Lists' currently found in 205.601(m) (synthetic inerts allowed in organic crop production) and 205.603(e) (synthetic inerts allowed in organic livestock production) would be replaced with specific approved synthetic inert ingredients. The NOSB also described a plan for continued collaboration with the Inerts Working Group, which includes representatives from the NOP."[21] However, there is no evidence that the NOP is moving ahead with the plan as outlined to review "inert" ingredients, even though the NOP indicated that it intended to conduct a public notification and comment process, including:

> "Notification of the public of inert ingredients known to be in use in organic production;
>
> Notification to the public of the NOSB's review plan, including the groupings of inert ingredients for which NOSB will conduct its review; and
>
> A request for public comments regarding any other inert ingredients currently used in organic production that are not identified in the list provided by the NOP."[22]

NOC believes public trust in the organic label is harmed when the NOP does not move ahead as agreed to with the NOSB. Issues such as "inerts" review must be addressed, and they require collaboration that the NOP has rejected.

8. ***Limited NOSB workplan to issues already priorities of NOP.***

**USDA limits the NOSB workplan to issues that are already priorities of NOP.** In its February 27, 2014, memo, NOP states, "**USDA and NOP Priority:** Item must be a priority for the USDA/NOP." And again, "An item must have been a USDA and NOP priority to be on work plan." However, OFPA gives the NOSB the duty "to assist in the development of standards for substances to be used in organic production and to advise the Secretary on any other aspects of the implementation of this chapter."[23] This duty to advise transcends NOP priorities. Indeed, the NOSB should help to establish NOP priorities. This is further reflected in the responsibility, never undertaken by the NOSB, to "hire a staff director." Clearly, OFPA intends that the NOSB play a large role in setting priorities of the National Organic Program.

9. ***Restricted the scope of NOSB action to those within the authority of the NOP/AMS, contrary to the broader scope required by OFPA.***

USDA/NOP pronouncements restrict the scope of NOSB action to those within the authority of the NOP/AMS, contrary to the broader scope required by OFPA. Again, OFPA requires the NOSB "to assist in the development of standards for substances to be used in organic production and to advise the Secretary

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[21] USDA NOP Memo to the NOSB regarding NOSB Recommendations (October 2012), February 27, 2013. https://www.ams.usda.gov/sites/default/files/media/NOSB%20Memo%20Response%20to%20Rec%20from%20October%202012%20Meeting.pdf

[22] *Ibid.*

[23] 7 U.S.C. § 6518(a).

on any other aspects of the implementation of this chapter."[5] Implementation of OFPA extends beyond the arbitrary limits of the NOP. For example, organic producers have come before the NOSB asking for help when it comes to their farms being impacted by energy infrastructure. The NOP has maintained that they do not have the authority to address this issue. Therefore, recommendations to the Secretary concerning actions that could help organic farmers deal with this situation fall within the purview of the NOSB.

10. ***Changed organic policy making from one driven by the public process to one controlled by USDA, which can choose to dismiss critical issues.***

Recent USDA/NOP announcements change organic policy making from one driven by the public process to one controlled by USDA, which can choose to dismiss critical issues. For example, NOP has changed the decision-making procedure for sunset –a procedure set by a public process—reversing the standard for the decision; has limited "timely" input into the sunset process to a time when the public does not have access to subcommittee proposals; has arbitrarily removed an agenda item; has imposed a conflict of interest policy that does not require public disclosure of potential conflicts; has limited public participation in policy decisions that affect the way decisions are made about organic production; and has required that USDA/NOP priorities drive the public process. The NOSB was designed to maximize public input from a community with strong and often conflicting views about the meaning of "organic." Through that input and a definition of "decisive vote" that enforces concurrence of most of the community on any exceptions from the general rules of OFPA, the public has come to have trust in the USDA organic seal. That trust is put in jeopardy by the USDA's recent actions.

11. ***NOP has failed to protect the integrity of organic meat, milk, and eggs.***

Organic stakeholders are deeply frustrated that the NOP has not implemented recommendations that the NOSB has worked long and hard to develop on origin of organic livestock and animal welfare. Organic consumers need adequate assurance that animals in organic production systems are truly organic and are treated with respect. The Origin of Livestock and Organic Livestock Production Practices proposed rules would provide a minimum assurance.

12. ***NOP has squandered valuable expertise.***

Certain issues before the NOSB would benefit from expertise of particular NOSB members. Jay Feldman has deep expertise regarding "inert" ingredients in pesticide products. He served on the "Inerts" Working Group and helped draft recommendations on the subject that were passed by the NOSB. Those (and subsequent) recommendations have not resulted in forward movement, despite of the presence of current NOSB member Asa Bradman, who expressed a keen desire to continue the project. Dr. Bradman also has the necessary expertise and background to work on the issue of BPA in organic packaging, but this topic has been kept off the NOSB agenda and is another missed opportunity.

## The NOSB must take back control.

We urge the Board to reject the undue and inappropriate influence of the USDA that denies the NOSB and the public their due roles in setting organic policy.

In the interest of protecting transparency, accountability, and the public process, NOC requests that the NOP provide more transparency regarding NOSB work agenda items that have been removed from the

work agenda without explanation. In addition, the NOSB should request that the NOP provide an update on all previous recommendations made and a rationale for lack of NOP action on those recommendations.

NOC also requests that notes from NOSB executive committee and subcommittee calls be made available to public stakeholders in a timely way. We appreciate that the executive committee and subcommittee call notes are again being published, but waiting up to six months to publish these provides little benefit to public stakeholders who wish to engage in the process in real time.

## Minority Opinions in NOSB Subcommittee Decisions & Published Materials

NOC urges NOSB subcommittees to include minority opinions in their published materials. The omission of minority opinions does a disservice to the democratic process and all of the expertise that comes to this board. The minority views inform the deliberations of the whole board, reflect ranges of views of all stakeholders, and are common to FACA boards. The lack of a statement of minority opinion stifles informed decision making.

The organic community has a long-standing commitment to transparency, and the NOSB itself is on record as believing in transparency and creating better decision making. The unanimous vote supporting an open docket recommendation is a demonstration of the NOSB's commitment to transparency.

Minority views inform the deliberations of the board, sharing the views of individuals with expertise that needs to be heard. Including them helps to ensure that the views of all stakeholders are heard, which is an important reason for the existence of advisory committees under the Federal Advisory Committee Act.

Unfortunately, it is often the case that those who opposed a proposal in subcommittee do not share their reasoning in full board discussions. Since those full board deliberations are often conducted under time pressure, a presentation of minority views in the written materials would create greater understanding in the board and the public without adding additional time to public meetings.

Providing minority views reflects of the federal process for documenting public input, and can better serve the NOP in its work. Understanding the reason behind a requirement always helps with greater buy-in and support. When NOP publishes a rule for public comment, it must explain the reasoning leading up to it, and the inclusion of all the issues discussed in NOSB materials would facilitate this work.

## Continuous Improvement as a Community Value

Organic agriculture is not an archaic production mode, but one based in an understanding of ecology and complex systems. Organic practitioners do not seek "silver bullets," but improved ways of working with nature. In contrast to the view of organic as archaic, the organic community has always placed high value on "continuous improvement."

Continuous improvement is visible in grassroots development of innovative approaches—such as pastured poultry and organic no-till—for meeting the needs of producers and consumers while improving the environment through better soil quality, less erosion, and sequestering carbon in the soil. It is most visible in OFPA in the sunset provision, which provides for the periodic re-examination of materials used in organic based on the latest science on human health and ecological impacts and potential removal of crutches allowed through the National List.

The astronomic growth of organic products in the marketplace has, in particular, made most (if not all) of the listings on §606 obsolete. Organic agriculture is no longer small and located in a few places. It is global, and if agriculture can produce a product, it can be produced organically.

Similarly, since continuous improvement in organic is embodied in improved practices rather than silver bullets, USDA must be more willing to engage in rulemaking on practices that meet organic principles—and use progress towards those principles, rather than production goals—as a measure of improvement.

Continuous improvement implies continuous change, and this is not necessarily compatible with bureaucratic practices. Organic regulations need to be updated continuously in order to embrace continuous improvement. The regulatory process does not facilitate this need for ongoing updates to the organic regulations.. USDA must support continuous improvement by educating Office of Management and Budget (OMB) and others of the need to make frequent regulatory updates as organic grows and strives to achieve its goal of achieving "agro-ecosystems that are ecologically, socially, and economically sustainable."

## Timing of NOSB Meetings

The timing of NOSB meetings—usually April and October—makes it inconvenient for many farmers to attend. In many parts of the country, these are the busiest times for planting and harvesting. We realize that not all farmers are on the same calendar, but maintaining this schedule is a serious disadvantage to those farmers who are. We would like to see the NOSB put forward a discussion document, followed by a proposal, to move the meeting times in a way that better meets the needs of the Board and the organic community.

## Racial Equity

The 2017 Ag Census data shows that people of color are underrepresented in farming, including organic farming. For example, while over 13% of the US population identifies as Black/African American, fewer than 2% of all farms in the U.S. have Black/African American primary operators. The percent of farms with organic sales owned by Black/African Americans is even lower.[24] **According to 2017 ag census data, there are more than 100,000 farming operations owned by Native American and Black farmers in the US, but fewer than 300 are certified organic.**

We recognize that access to the organic movement and organic certification has not been equal across racial groups. Systematic racism has kept our movement from reaching its full potential. The organic movement will be stronger and better positioned to meet future challenges if it represents diverse participation. Attached as Appendix E is NOC's statement on Racial Equity. This statement is a "living" statement, and will be amended as we grow in our understanding. We also share our NOC Racial Equity in Organic Resource Page,[25] with resources collected with the help of many individuals and organizations.

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[24] 2017 Census of Agriculture: Characteristics of All Farms and Farms with Organic Sales, April 2019, United States Department of Agriculture, National Agricultural Statistical Service https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Organics_Tabulation/organictab.pdf

[25] NOC Racial Equity Resources https://docs.google.com/document/d/1ncYsoIj503oBCqVd4zZ9C2ta5I1GvoozCJB2u7WdZoE/edit#heading=h.gjdgxs

In summary, we encourage the NOSB to explore ways to encourage the NOP and organic stakeholders to expand their work and resources to further address the issue of racial equity in organic. Following are some concrete steps NOC believes the NOSB can take to move towards an equitable organic system.

Through a preliminary literature review, NOC identified access to land, resources, and technical assistance as some of the main barriers to participation in organic agriculture for Black, Indigenous, and people of color (BIPOC) farmers:

1. **Access to land.** Land ownership and control over land is important for organic certification because organic operations must demonstrate that their land has been free of prohibited substances for a three-year period before crops can be harvested and sold as organic. In addition, land must have distinct and defined boundaries and buffer zones to prevent contact with prohibited substances. For these reasons, it is important to understand how BIPOC farmers have been dispossessed of land and the impact that has on their participation in organic certification.
    a. **Stolen land.** From the birth of our country to today, the United States Government seized 1.5 billion acres of native land. "As late as 1750—some 150 years after Britain established Jamestown and fully 250 years after Europeans first set foot in the continent—[Native Americans] constituted a majority of the population in North America […] Even a century later, in 1850, they still retained formal possession of much of the western half of the continent."[26] The 1887 General Allotment Act and 1906 Burke Act directly led to the loss of 90 million acres of Native American land.[27] The Morrill Act of 1862 worked by turning land expropriated from tribal nations into seed money for higher education. "Today, the vast majority of agricultural lands on reservations are leased to non-Indian ranchers, often at less than fair-market value. In addition, income from these lands goes off the reservation instead of to the Indian landowners who experience high rates of unemployment and often live in poor economic conditions.[28] According to BIA [Bureau of Indian Affairs], the federal government holds about 46 million acres in trust for tribes (tribal trust land) and more than 10 million acres in trust for individual Indians (individual trust land).[29] The loss of tribal lands combined with the mixed ownership patterns within reservation boundaries poses serious challenges to the sovereignty and self-determination of Indian nations."[30]
    b. **Black farmer dispossession.** In 1910, one in seven farmers were African Americans and African Americans held titles to approximately 16 to 19 million acres of farmland. Over the next century, 98% of Black farmers were dispossessed through discriminatory practices at USDA and various federal programs. Black farmers were often denied loans and credit, lacked access to legal defense against fraud, and experienced "outright acts of violence and intimidation" resulting in a 90% loss of Black-owned farmland in the US.[31] Today, 98% of private rural land is owned by white people, while less than 1% is Black-owned. The

[26] Watch how the U.S. Stole Land from Native Americans https://www.fastcompany.com/3040647/watch-how-the-us-stole-land-from-native-americans
[27] Indian Land Tenure Foundation https://iltf.org/land-issues/issues/
[28] *Ibid.*
[29] Indian Issues, Agricultural Credit Needs and Barriers to Lending on Tribal Lands https://www.gao.gov/assets/700/699019.pdf
[30] High Country News, Land Grab Universities (March 2020) https://www.hcn.org/issues/52.4/indigenous-affairs-education-land-grab-universities
[31] Data for Progress: Land Access for Beginning and Disadvantaged Farmers https://filesforprogress.org/memos/land_access_for_beginning_disadvantaged_farmers.pdf

USDA's systemic bias against Black and minority farmers "is well documented" and affirmed by the 2010 Pigford vs. Glickman class action lawsuit, which resulted in a $1.25 billion settlement. Black farmers continue to experience discrimination in access to credit, seeds, and other assistance, and face foreclosure at six times the rate of their White counterparts.[32]

Some of the recommendations addressing land access issues, proposed by multiple organizations (Data for Progress,[7] Soul Fire Farm,[33] National Young Farmers Coalition) and gleaned in NOC's preliminary literature review, include the following:

a. Strengthen loan guarantees and improve access to credit and technical assistance for BIPOC and beginning farmers.
b. Expand FSA grant and loan guarantee programs (such as the Highly Fractionated Indian Land Loan Program and Indian Tribal Land Acquisition Loan Program) for land acquisition for beginning and socially disadvantaged farmers under sustainable agriculture covenants.
c. Establish lending guidelines for SBA and private loans to low-income resident farmers and BIPOC-led farmer cooperatives.
d. Earmark funds for down-payment assistance and financial support grants for new farmers practicing sustainable agriculture through the first 10 years of operation.
e. Establish robust anti-discrimination guidelines and oversight of USDA practices.
f. Appoint a USDA-led "land commission" to conduct a periodic national-scale land tenure study to provide a holistic perspective on socio-economic, political, and market-based factors limiting BIPOC access to land.

2. **Access to information**. Similar discriminatory practices have led to an unequal distribution of technical assistance. Some recommendations in this area include:
    a. Expand funding and training for organic agriculture.
    b. Increase funding for the USDA Conservation Programs, specifically the Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP), and conservation Stewardship Program (CSP), with increased on-ground staff and technical assistance capacity to successfully service their regions.
    c. Eliminate match requirement for USDA's Beginning Farmer and Rancher Development Program (BFRDP) grant awardees to ensure that all organizations and service providers can best train the next generation, particularly in areas of high need and low resources.
    d. Support programs such as the Federally Recognized Tribal Extension Program which provides competitive grants to tribal extension programs that enhance tribal farming and ranching operations.

**NOSB Recommendations**

In light of the barriers explored above, NOC is making the following recommendations to the NOSB.

**1. Research**

A first step to addressing disparities in representation is understanding the source of these disparities and underrepresentation. NOC encourages the NOSB to prioritize research into **understanding barriers to**

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[32] Vann R. Newkirk III, "The Great Land Robbery," The Atlantic, September 2019. https://www.theatlantic.com/magazine/archive/2019/09/this-land-was-our-land/594742/

[33] Soul Fire Farm & Northeast Farmers of Color alliance – Food Sovereignty Action Steps (2018) https://docs.google.com/document/d/1dt0hicyhGdJSKlC3qyE1AbG9fdDrONjUh_M_bE0KMGs/edit#bookmark=id.rji88dqczea2

**participation in organic certification for farmers of color**. This research should include continual learning and understanding how the USDA and other institutions that have perpetuated centuries of discrimination. Research into barriers to participation in organic certification should provide relevant information to support the actions of USDA's Office of the Assistant Secretary for Civil Rights and should also support the development of technical assistance and outreach specifically designed to best serve BIPOC farmers and the unique challenges they face.

NOC also supports a research priority area suggested in Union of Concerned Scientists' Policy Brief of May 2020, to develop "markets for ethnic specialty crops and culturally relevant fruits and vegetables, leveraging the skills of immigrant and refugee farmers, helping them thrive while also contributing to local economies."[34]

2. **Technical assistance**

Technical assistance and outreach must serve farmers of color, recognizing traditional ecological knowledge and management as best practices. The contributions made by BIPOC to organic and sustainable food systems are vast and often go unacknowledged. NOC encourages the NOSB to recommend that USDA support investment in community programs offering materials in multiple languages and formats, providing translation assistance, and streamlined paperwork. NOC also encourages the NOSB to recommend that the NOP reenergize previous outreach and education efforts on organic agriculture, with a specific focus on outreach to socially disadvantaged groups and ensuring this information is accessible (language, where the information is found, dissemination strategies, etc.).

Examples of such previously existing programs include:

- the "Sound and Sensible Initiative,"[35] identifying and removing barriers to certification, streamlining the certification process, focusing enforcement, and working with farmers and processors to correct small issues before they become larger ones, with the overall goal to make organic certification accessible, attainable, and affordable for all operations.
- "Organic 101" series,[36] a USDA blog post series that explored different aspects of the USDA organic regulations in a digestible format.

For the outreach and support to be truly relevant, we encourage the NOSB to support the hiring of linguistically and culturally competent representatives both at the certifier level, and at the agency level (USDA NOP, FSA, NRCS, and other USDA agencies).

3. **Equity of Infrastructure and Information**

The "NOP Documents and Resources Available in Spanish" page links to a copy of the regulations in English.[37] Creating an inclusive movement requires that materials be available in other languages. We understand that some certifiers, such as CCOF, have translated the regulations into Spanish, and suggest that the NOP contract with CCOF or another entity to provide access to the translated materials on the NOP's website. NOC encourages the NOSB to work with the NOP to identify languages that the organic

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[34] (May 2020) Union of Concerned Scientist & HEAL Food Alliance Policy Brief https://www.ucsusa.org/sites/default/files/2020-06/leveling-the-fields.pdf

[35] UDSA NOP Sound and Sensible Initiative Report, 2014 https://www.ams.usda.gov/reports/sound-sensible

[36] Organic 101: Five Steps to Organic Certification, USDA blog, February 2017 https://www.usda.gov/media/blog/2012/10/10/organic-101-five-steps-organic-certification

[37] NOP Documents and Resources Available in Spanish, https://www.ams.usda.gov/sites/default/files/media/NOPDocumentsandResourcesAvailableinSpanish.pdf

materials should be translated into, and then work to identify the appropriate means of acquiring those translated materials.

4. **Representation and Leadership**

Appropriate and relevant representation is necessary to reach a truly equitable system. NOC encourages the NOSB to foster leadership of BIPOC participants in decision-making venues, including grant panels, advisory boards, and committees.

For example, the NOSB could recommend that:

- USDA create an Office of Equity to review policy proposals and mandate BIPOC participation on USDA decision-making boards.
- USDA empower the new office to legally address claims of discrimination in agricultural credit, land credit & markets, and conduct oversight of USDA practices.
- USDA examine the role of heirs property in the loss of land for Black farmers, and offer education and technical assistance for families to retain property.[7, 10]

The NOSB could also consult with federal advisory committees and organizations representing BIPOC farmers, such as the Native American Farmers and Ranchers Federal Advisory Committee, on issues related to organic agriculture, organic standards, and BIPOC participation in organic certification.

"A truly sustainable food system must be both science-based and equitable" (Union of Concerned Scientists & HEAL Alliance, 2020).[10] NOC acknowledges our own privilege as a primarily white-led coalition, and are committed to prioritizing racial equity in our organization and strategies. NOC is committed to listening, understanding, learning, amplifying, working, and acting to address and dismantle systemic racism. We are holding ourselves accountable to ensure this is a deep, long term, and sustainable commitment and look forward to partnering with the NOSB in these efforts.

# Compliance, Accreditation, Certification Subcommittee (CACS)

## Clarity on 3-Year Transition Period

In August and September of 2020, the Accredited Certifiers Association, Organic Farmers Association, and NOC partnered to conduct a survey with certifiers on certifier policies regarding the circumstances under which they require a three-year transition period after the spraying of a prohibited substance.

The goals of this survey are to:

1. Inform the work of the ACA's working group, which is focused on the *June 3rd, 2019 NOP memo on Land based Production affecting Greenhouse and Container Production*.[38] The working group intends to begin creating guidelines in the coming weeks and months to address inconsistencies and identify best practices in three-year transition period requirements.
2. Use the aggregated data we have collected to inform the National Organic Program and NOSB, identify where there is a lack of uniform interpretation, and request their review and clarification.

[38] https://www.ams.usda.gov/sites/default/files/media/2019-Certifiers-Container-Crops.pdf

3. Ultimately the goal of the survey is to bring all certifiers into alignment in this area so that together they uphold high organic integrity and provide uniform interpretation of the organic standards.

34 certifying agents participated in the survey. This represents about 44% of NOP accrediting certifying agents and 54% of ACA's membership.

The survey results demonstrate the high level of variation between certifiers in how they apply the three-year transition requirement in different situations. The survey results are attached in aggregate form as Attachment A.

There was certifier consistency for only one scenario presented in the survey. The survey results indicate that all certifier respondents require a three-year transition period after the application of prohibited substance in a greenhouse or hoop house that is growing crops in the ground.

NOC's preliminary analysis indicates that for other situations, certifiers were either evenly split or most certifiers, but not all, followed the same practices with notable outliers. Some certifiers indicated "other" for some scenarios and described various circumstances under which they would either require or not require a transition period.

In the following scenarios, certifiers were split evenly between requiring a three-year transition period and not requiring a transition period:

1. After the application of prohibited substance in a greenhouse or hoop house with a permeable floor (i.e. soil, sod, rocks, plastic, fabric, etc.) that is growing crops in containers on tables or benches.
2. After the application of prohibited substance in a greenhouse or hoop house that is growing crops hydroponically or with an aquaponic system. Most certifier respondents (61.3%) do not certify these systems at all, but for those who do, there is a lack of clarity on this issue.
3. After the application of prohibited substance inside an indoor facility that is growing crops hydroponically or with an aquaponic system. Most certifier respondents (61.3%) do not certify these systems at all, but for those who do, there is a lack of clarity on this issue.

Based on the survey results, the three above scenarios are situations for which there is a high level of inconsistency and no clear consensus among certifiers. As a result, providing clarity in these three situations should be a high priority for the NOP, NOSB, and the organic community. NOC believes further deliberation must take place to develop consensus within the organic community.

The following scenarios are ones in which *most* certifier respondents require a three-year transition, but for many of these situations there is a noteworthy minority of certifiers who do not require the transition period. Some certifiers responded "other" to indicate that they do not require the three-year transition uniformly for these scenarios:

1. After the application of a prohibited substance in a greenhouse or hoop house that has a permeable floor (i.e. soil, sod, rocks, plastic, fabric, etc.) and is growing transplants (grown on the ground, on pallets, on tables or benches) – 66.7% of certifier respondents require a three-year transition.

2. After the application of prohibited substance in a greenhouse or hoop house that is growing crops in containers on the ground or on a permeable ground covering (i.e. soil, sod, rocks, plastic, fabric, etc.) – 87.1% of certifier respondents require a three-year transition.
3. On the land upon which poultry houses are located after the application of a prohibited substance if the poultry house has a permeable floor (i.e. dirt or other) – 83.3% of certifier respondents require a three-year transition.
4. For the outdoor access area for a poultry house after the application of a prohibited substance – 90% of certifier respondents require a three-year transition.

The following scenarios are ones in which *most* certifier respondents do not require a three-year transition, but for many of these situations there is a noteworthy minority of certifiers who do require the transition period. For many certifiers, the presence of an impermeable floor is a key factor. Some certifiers responded "other" to indicate that they do not require the three-year transition uniformly for these scenarios, but do sometimes require it depending on circumstances (for example):

1. After the application of prohibited substance in a greenhouse or hoop house that has an impermeable (i.e., concrete, etc.) floor and is growing transplants (grown on the ground, on pallets, on tables or benches) – 57.6% of certifier respondents do not require a three-year transition.
2. After the application of prohibited substance in a greenhouse or hoop house that is growing crops in containers on an impermeable ground (i.e., concrete, etc.) – 61.3% of certifier respondents do not require a three-year transition.
3. After the application of prohibited substance in a greenhouse or hoop house with an impermeable floor (i.e. concrete, etc.) that is growing crops in containers on tables or benches – 64.5% of certifier respondents do not require a three-year transition.
4. After the application of prohibited substance inside an indoor facility that is producing crops in containers – 58.1% of certifier respondents do not require a three-year transition.
5. After the application of prohibited substance inside an indoor facility that is producing transplants – 58.1% of certifier respondents do not require a three-year transition.
6. After the application of prohibited substance inside an indoor facility that is producing mushrooms – 58.1% of certifier respondents do not require a three-year transition.
7. After the application of prohibited substance inside a greenhouse or an indoor facility that is producing sprouts – 58.1% of certifier respondents do not require a three-year transition.
8. On the land upon which poultry houses are located after the application of a prohibited substance if the poultry house has an impermeable floor (i.e. concrete or other) – 60% of certifier respondents do not require a three-year transition.

In our survey, we also asked respondents if they would allow operations with greenhouses or facilities that produce both conventional and organic crops, transplants, or planting stock simultaneously within the same greenhouse or facility to become certified as organic. For example, if someone put up a wall to separate conventional and organic production within the greenhouse, we asked certifiers to indicate if they would you allow this greenhouse to become certified. 74.2 % of certifier respondents indicated that they do allow this situation.

We also asked survey respondents if they would allow operations with greenhouses or facilities that produce both conventional and organic crops, transplants, or planting stock not simultaneously but within

the same greenhouse or facility to become certified as organic. 67.7% of certifier respondents indicated that they would allow this situation.

Finally, 56.7% of certifier respondents would allow poultry operations that raise both conventional and organic chickens simultaneously or not simultaneously within the same facility to become certified as organic.

The survey results indicate that very few certifier respondents have standard definitions for the following terms: Greenhouse, Hoop house, Facility. 84.6% do not have any standard definitions. NOC believes clearly defining these different types of production structures would be helpful in providing clarity about which situations require a three-year transition after a prohibited substance is sprayed.

**Request for Clarity**

We appreciate the memo dated June 3, 2019, explaining to certifiers the rules they must follow to determine eligibility and compliance for container systems that receive organic crop certification.[39] In its memo, the NOP uses the term "container system" to include container, hydroponic, and other plant pot-based systems (with or without soil as a growing media). NOC appreciates the clear statement from the NOP that these systems must undergo a three-year transition period. We understand that up until that point, some certifiers had been certifying container systems without requiring a three-year transition from the last application of a prohibited substance, so this clarification was urgently needed to ensure the integrity of the organic program.

As the survey results indicate, however, this memo left a lack of clarity regarding how it applies to crop production in greenhouses and facilities. While some organic certifiers and certified producers read the memo to include crop production in greenhouses and facilities under the three-year transition requirement, other organic certifiers and certified producers read the memo to not require greenhouse operations and facilities that produce crops to comply with the three-year transition requirement.

As climate change challenges organic producers to establish new production technologies and the organic market continues to grow at a rapid pace, greenhouse production is estimated to increase. We must, as an organic community, regulate and enforce organic greenhouse production under uniform national standards. When there are important differences in interpretation that have economic consequences for producers, we need clarity from the National Organic Program to make sure the USDA and accredited certifiers are working together to enforce the standards, ensuring a level playing field for producers, and protecting consumer confidence in the integrity of the USDA Organic Seal.

The current disparity of interpretation for a three-year transition is inhibiting the National Organic Program's ability to provide consistent and fair enforcement, leaving our nation's organic standards unfair and inconsistent.

The NOP must clarify the requirement for a three-year transition for crop production in greenhouses and facilities after the application of a prohibited substance. **The NOSB should actively engage in this process by requesting a work agenda item, requesting stakeholder input, making recommendations to the NOP, and by asking the NOP to provide clarity so all certifiers and organic operations are held to the same standard.**

[39] https://www.ams.usda.gov/sites/default/files/media/2019-Certifiers-Container-Crops.pdf

## CACS Work Agenda

As recently as July 16, 2019, the CACS requested to Work Agenda item on the topic of inconsistencies between certifiers.[40] This is a recognized issue that is addressed many times over through NOSB meetings, within published materials, and has been addressed during discussions regarding the proposed rule on Strengthening Organic Enforcement. NOC strongly encourages the CACS to pursue the Work Agenda item of inconsistencies between certifiers.

NOC is also requesting that the CACS review and analyze peer review audits, track progress made by the Organic Imports Interagency Working Group, ask the NOP to explain its risk-based approach to accreditation, request more information about how funding increases are being used to strengthen the NOP's capacity to fight fraud and support the NOSB, and to identify gaps that require further action to address enforcement challenges.

# Crops Subcommittee (CS)

## Proposals

## Paper Pots

**Proposal to add to 205.2 Terms Defined:**

*Paper-based crop planting aid.* A material that is comprised of at least 60% cellulose-based fiber by weight, including, but not limited to, pots, seed tape, and collars that are placed in or on the soil and later incorporated into the soil. Contains no less than 80% biobased content as verified by a qualified third party assessment (e.g. laboratory test using ASTM D6866 or composition review by qualified personnel).

**Proposal to add to 205.601 (o) Production Aids:**

Paper-based crop planting aids as defined in 205.2. Virgin or recycled paper without glossy paper or colored inks. Added pesticides or nutrients must comply with §205.105, 205.203, and 205.206.

NOC remains supportive of the work done by the Crops Subcommittee on paper pots, with reservations.

It is our understanding that the change from 65% to 60% cellulose-based content was based on manufacturer feedback and what is currently available on the market, as well as to mimic what is currently allowed with recycled newspaper. Further, it is our understanding that the biobased content was changed from 85% to 80% based on manufacturer feedback and what is currently available on the market. Regarding both of these changes, the published material notes "it is hoped that this percentage can be increased over time."[41] And pertaining to the biobased content, "that future Boards will be able to modify this annotation to reflect manufacturing technological advances that incorporate more natural materials and additional cellulose and biobased content."[42] This, too, is our hope, as well as a concern.

[40] NOSB Executive Committee Meeting notes, Page 21 of 42, https://www.ams.usda.gov/sites/default/files/media/ESNotes2019Dec.pdf.
[41] NOSB, October 2020 proposals and discussion documents, p.6 of 173.
[42] NOSB, October 2020 proposals and discussion documents, p.6 of 173.

When newspaper was first placed on the National List (NL), it was a different material than what is it is now. Unfortunately, the change in composition implies that the listing for newspaper has changed over time for the worse, and we are now basing a new material petitioned to the NL on it. The organic community has been unknowingly pushed to accept a more synthetic material because this currently listed material has changed over time to consist of more synthetics. While we appreciate the CS's expressing their hope that nonsynthetic percentages will increase in paper-based planting aids over time, we feel that including this in the cover sheet at the very minimum would help keep this concern at the fore for future reviews. We request that the Board acknowledge that this listing is known to have deficiencies that need to be looked at during future Board reviews. These include moving toward 100% biobased, biodegradable fiber content, as well as the examining of adhesives to address biodegradability.

Further, we encourage consultation with the Environmental Protection Agency (EPA), Office of Research and Development, that has a program working on the lifecycles of plastics, including biobased plastics. Based on this, as well as other research, the examination of both petroleum-based and bio-based ingredients (adhesives, etc.) needs to address biodegradability, and the annotation should allow only those that biodegrade completely to nontoxic byproducts. Although it is cumbersome to spell out which specific additives will be allowed, we remind the board that failing to do so at the beginning can lead to being overwhelmed later on, as with "inert" ingredients and ancillary substances. We favor making specific recommendations about the allowed reinforcing fibers and adhesives that can be changed as technology improves—rather than remaining vague and hence opening the door to possible undesirable additives.

The published materials also note "there is concern that the annotation specifically notes that allowed paper planting aids are not limited to those listed and that the materials will be incorporated into the soil (without reference of intent to biodegrade)."[43] Within NOC, as we discuss paper pots and the "other paper-based crop planting aids" that may be included under this definition, we have come to share this concern. "Paper-based crop planting aids" are sure to include products that we have not yet anticipated and that will not be required to be reviewed individually because of this listing. We appreciate that paper pots include very little material in volume that is being added to the soil, but are concerned that the definition of "paper-based crop planting aids" does not limit the amount of material that could be added.

There must be continued research on the impact of the portion of the material that does not decompose, including the portions that partially decompose. All of the intermediate compounds that occur during decomposition may have an impact. In addition, there must be further definition regarding who would be considered a "qualified reviewer" of the biodegradeability and percentage of biobased content. This is a complicated topic, and is one that should be clarified in guidance to ensure certifier consistency.

Finally, NOC neither supports nor opposes the inclusion of virgin paper due to a diversity of opinions on this matter within NOC.

## Wild, Native Fish for Liquid Fish Products

**Motion to amend Section 205.601(j)(8) as follows:**

(8) Liquid fish products—sourced only from fish waste, bycatch, or invasive species–can be pH adjusted with sulfuric, citric or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.

[43] *Ibid,* p.6 of 173.

**Motion to add the following definitions to Section 205.2 Terms defined:**
*Fish waste.* Waste or byproduct left over after market fish are processed for human consumption.

*Bycatch.* Incidental or discarded catch that have no economic value, fish that must be discarded because of management regulations, or fish that are killed by fishing gear (mortality).

NOC is supportive of the proposed language and feels that it is a step in the right direction, although we have several reservations. Fish-based fertilizers are widely used by organic farmers; thus, the organic industry should take a precautionary approach to protect marine ecosystems.

While it would be our preference to have "bycatch" removed from the annotation, at the very least, we suggest a minor change to the definition, as follows:

> Bycatch. Incidental or discarded catch that have ~~no~~ low economic value, fish that must be discarded because of management regulations, or fish that are killed by fishing gear (mortality).

Many fish that we now consider to be high value were bycatch at one time.

In 1997, the Organization for Economic Co-operation and Development defined bycatch as "total fishing mortality, excluding that accounted directly by the retained catch of target species." They further noted that "bycatch contributes to fishery decline and is a mechanism to overfish unintentional catch" as people can hide behind the word "bycatch" to go in and decimate a population because it is not considered economically viable. It is our concern that a targeted prohibition against wild, native fish in liquid fish fertilizers that includes bycatch does not protect the marine environment to the fullest extent. As noted in the CS materials:

> "Table 1 in the TR states that of OMRI listed products, 43.5% are derived from market fish waste for human consumption (hereafter referred to as "waste"), 3.2% from bycatch and mortality, 31.5% from meal, oil, and solubles, 12.9% from market fish waste and bycatch/mortalities, 8.9% from market fish waste, meal, oil, and solubles, and 0% from fish sources specifically and exclusively for fertilizer."

This is a bit misleading because although no fish is harvested for the use of manufacturing fertilizer, much wild fish is harvested for the use as livestock feed. Some of this ends up in liquid fish fertilizers as fertilizer manufactures buy meal from this source to be used in their process. The harvesting of wild fish for livestock feed is a cheap replacement for agricultural feed products and we feel that organic crop production should not be linked to this practice that has overfished many marine ecosystems. We agree with comments made in spring 2020 that "organics should not degrade one ecosystem—in this case, the marine environment—to promote the health of another—agriculture."[44] And further agree with the suggestion that the environmental impact should be considered in balance with all evaluation criteria. Our desire would be that fish fertilizers be made from only fish waste.

The TR makes contradictory statements. On one hand, it seems to suggest that because fish are not harvested solely for fertilizer, their use as fertilizer really doesn't matter, while on the other hand stating, "Regardless of the intended use, harvesting wild, native fish can contribute to biodiversity loss, habitat destruction, and loss of ecosystem services." Further, the TR states:

[44] *Ibid.* p.14 of 173.


> While none of the fish species known to be harvested for fish reduction purposes and which are incorporated into fish-based fertilizer products are threatened or endangered species (see Table 2), their population dynamics are not understood in many cases. It is also difficult to ascertain the effect of removing biomass, even from a sustainable fishery, considering that these species may be a food source for other species. Meal and oil fish can be critical to the function of entire ecosystems; for example, Pacific thread herring (Opisthonema libertate) and Pacific anchoveta (Cetengraulis mysticetus) are critical links in the Gulf of California, transferring energy through the food web and controlling the organization of these ecosystems.

Given that the importance of removing fish biomass is not well understood, either from the perspective of an energetic balance or from the perspective of food web dynamics, the organic industry should take a precautionary approach to protect marine ecosystems. For this reason, we agree with the recommendation that "the NOP issue an instruction to Material Review Organizations to collect data on 1) the types of fish used, 2) the percentage that is waste, by- catch and mortalities, and meal, oil, and/or solubles, and 3) farmed, wild, or invasive."

Further, there should be good practices in place that do not destroy those predatory species that are so important to the ecosystem chain. "Bycatch refers to 'discarded catch of marine species and unobserved mortality due to a direct encounter with fishing vessels and gear.' These unintentionally caught animals often suffer injuries or die." "Bycatch can be fish, but also includes other animals such as dolphins, whales, sea turtles, and seabirds that become hooked or entangled in fishing gear." The proposed definition for "bycatch" refers to fish that are killed by fishing gear. We would like to see a greater emphasis on methods that do not result in unnecessary mortality.

While we find that the most attractive option is the use of "invasive" species to process into fish products, there are unintended consequences that must be considered.

Careful consideration needs to be given to the fact that a species that is "invasive" in one place is native to someplace else. Asian carp species – probably what most people think of when they think of an "invasive fish" – are native to Asia and are considered vulnerable to extinction in the wild, but a pest in many other places. How do we know where that carp might have been caught?

Rainbow trout are native to the western U.S., but when introduced elsewhere, outcompete native species and may carry disease. Largemouth bass and other species popular among anglers can cause problems where they have been stocked for sport fishing. The enforcement issue is how to distinguish fish where they are considered "invasive" from the same fish where they are native or purposely introduced.

We request that the NOP provides guidance on "invasive species" as a way to address these challenges.

## Sodium carbonate lignin – petitioned

NOC supports the Crops Subcommittee's (CS) decision to not add sodium carbonate lignin at §205.601(j)(4). While we agree with the CS that there is no need to add another synthetic lignin product for dust suppression to the NL, our reasoning is based on the fact that sodium carbonate lignin is not consistent with organic production, as explained by our colleagues, Beyond Pesticides, in their more detailed comments.

In summary, the petitioner relies on a stated equivalence of sodium carbonate lignin and sodium lignin sulfonate, which is on the National List. There is, however, a crucial difference between sodium carbonate lignin and sodium lignin sulfonate –the latter contains sulfur, while the former, the petitioned substance is "sulfur free."

> Section 6517(c)(1)(B)(i) of the Organic Foods Production Act (OFPA) states,
>
> The National List may provide for the use of substances in an organic farming or handling operation that are otherwise prohibited under this chapter only if—
>
> (B) the substance—
>
> (i) is used in production and contains an active synthetic ingredient in the following categories: copper and sulfur compounds; toxins derived from bacteria; pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals; livestock parasiticides and medicines and production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleansers. . .

The Technical Review for Lignin Sulfonate responds to the question, "What category in OFPA does this substance fall under: (A) Does the substance contain an active ingredient in any of the following categories: copper and sulfur compounds, toxins derived from bacteria; pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals; livestock parasiticides and medicines and production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleansers?" "Lignin sulfonate is listed by inference as part of the group 'copper and sulfur compounds' in the OFPA, Section 2118 (c)(1)(B)(i)."[45]

The Technical Review submitted by the petitioner states, "By comparison, the sodium carbonate lignin is sulfur-free."[46]

Therefore, under OFPA, sodium carbonate lignin is not eligible to be included on the National List, and allowing its use would be inconsistent with organic farming and handling.

## Discussion Documents

### Ammonia Extracts – Petition

NOC agrees with the petitioner that nonsynthetic ammonia extracts should be listed on §205.602 as prohibited nonsynthetic inputs. Ammonia extracts—synthetic or nonsynthetic—are harmful to soil organisms and inconsistent with organic production. While the use of synthetic ammonia extracts can be prevented by merely not listing them on §205.601, the use of nonsynthetic ammonia extracts can be prevented only by listing them on §205.602.

**Use of ammonia extracts is incompatible with organic production.**
In contrast to the reductionism of "conventional" chemical-intensive agriculture, the origins of organic agriculture are in holistic and ecological thinking. Historically, perhaps the most important principle of

[45] Lignin Sulfonate Technical Evaluation Report, 2011. Lines 218-228.
[46] Khalil Jradi, 2019. Memo: Assistance for the Sodium Carbonate Lignin petition submitted by Legnochem. P. 4. (P. 65 of petition.)

organic production is the "Law of Return," which, together with the foundational philosophy "Feed the soil, not the plant" and the promotion of biodiversity, provide the ecological basis for organic production. Together these three principles describe a production system that mimics natural systems.

**The Law of Return.** In an organic system, residues are returned to the soil by tillage, composting, or mulching. While most organic growers depend on some off-site inputs, most of the fertility in a soil-based system comes from practices that recycle organic matter produced on-site. The cycling of organic matter and on-site production of nutrients—as from nitrogen-fixing bacteria and microorganisms that make nutrients in native mineral soil fractions available to plants—is essential to organic production. The Law of Return is not about feeding plants, but about conserving the biodiversity (including the microorganisms) of the soil-plant-animal ecological community.

The Law of Return says that we must return to the soil what we take from the soil. Non-crop organic matter is returned directly or through composting plant materials or manures. To the extent that the cash crop removes nutrients, they must be replaced by cover crops, crop rotation, or additions of off-site materials, when necessary.

**Feed the soil, not the plant.** The dictum to "Feed the soil, not the plant" reminds us that the soil is a living superorganism that supports plant life as part of an ecological community. We do not feed soil organisms in isolation, to have them process nutrients for crop plants; we feed the soil to support a healthy soil ecology, which is the basis of terrestrial life.

**Biodiversity.** Finally, biological diversity is important to the health of natural ecosystems and agroecosystems. Biodiversity promotes balance, which protects farms from outbreaks of damaging insects and disease. It supports the health of the soil through the progression of the seasons and stresses associated with weather and farming. It supports our health by offering a diversity of foods. Ultimately, holistically healthy, truly organic farms produce healthy plants that require far fewer applications of insecticides and fungicides (even if approved for organic production).

In the case of ammonia extracts, we are particularly interested in the principle of feeding the soil rather than the crop. OFPA §6513(b) requires that organic operations establish a plan designed to "foster soil fertility, primarily through the management of the organic content of the soil through proper tillage, crop rotation, and manuring."

**The organic regulations limit substances of high solubility.**
Substances of high solubility, i.e., those materials that provide nutrients directly to the plant because they are quickly taken up into the plant from the soil solution, are counter to foundational organic principles, so they have always been restricted. Such materials are listed in §205.602 - Nonsynthetic substances prohibited for use in Organic Crop Production or the "prohibited naturals" section of the National List:

1) Calcium chloride is limited to treating a physiological disorder;
2) Potassium chloride must be used in a manner that minimizes chloride accumulation in the soil; and
3) Sodium nitrate is restricted to no more than 20% of the crop's total nitrogen requirement. (The NOSB has voted to remove the annotation, making this an absolute prohibition, but NOP has not, as yet, implemented this recommendation.)

Allowing unlimited use of highly soluble fertilizers allows organic farmers to reduce or even eliminate the use of organic materials that makes their farming system be based on these three principles. The NOP has

done a fine job in the past of restricting their use, and we hope that as new highly soluble fertilizers are developed that the NOSB and NOP continue restricting them in order to foster farming systems that meet the three foundational principles of organic production.

In the preamble to the publication of the NOP Final Rule on December 21, 2000, NOP discusses how they decided to agree with the NOSB recommendation and to put specific regulation of substances of high solubility into the annotations for each of these materials where they appear on the National List of Allowed and Prohibited Substances. NOP goes on to say, "Based on the recommendation of the NOSB, the final rule would prohibit use of these materials [substances of high solubility], unless the NOSB developed recommendations on conditions for their use and the Secretary added them to the National List."

At the time, the discussion was about mined substances of high solubility because there were no concentrated, highly soluble plant nutrient materials other than mined sources available at that time. New materials of high solubility should be prohibited or restricted. These highly soluble materials, most of which are nonsynthetic, do not appear on the National List and are used in soil-based production, as well as in some hydroponic and container systems. Highly soluble sources of plant nutrients should be prohibited or restricted through listing on §205.602 so as to not allow organic producers to stray from the foundational principle of organic production to "feed the soil, not the plant."

**Use of ammonia extracts is not necessary for organic production.**
As discussed above, the principle of "feed the soil, not the plant" is foundational to organic production. Consequently, organic practices have grown up without the use of highly soluble nutrients. Klaas and Mary-Howell Martens, writing for the Rodale Institute, provide this list of sources of nitrogen available to the organic grower: manure, compost, compost tea, alfalfa meal or pellets, leaf and plant waste compost, soybean meal, seaweed, blood meal, feather meal, and fish by-products.

**Use of ammonia extracts is harmful to the environment, including soil organisms.**
Ammonia is toxic, both to humans and to soil organisms. Applications of ammonia decimate soil fungi and nematodes. Highly soluble nutrients such as ammonia extracts move in runoff or eroded soil to surface water, where even extremely low concentrations harm aquatic life. Ammonia gas released from agriculture is a contributor to biodiversity loss.

**The allowance of ammonia extracts and other highly soluble fertilizers promotes fraudulent "organic" operations.**
Hydroponics, for example, would be impossible without the use of highly soluble fertilizers. Allowing potentially unlimited use of soluble nitrogen fertilizer would give an advantage to unscrupulous producers who substitute these inputs for the practices that define organic production.

Additionally, these materials open organic up to fraud because it is hard to distinguish between synthetic and nonsynthetic ammonia.

**Conclusion**
We urge you to approve this petition to prohibit the use of ammonia extracts in organic production.

## Biodegradable biobased mulch film

NOC acknowledges that a biodegradable biobased mulch (BBM) film would be a great asset to producers; however, we harbor great concerns regarding the agronomic, environmental, and health effects of the

breakdown. NOC appreciates the detailed questions posed by the Crops Subcommittee from the spring meeting, as well as the additions for the fall meeting. We include answers to questions from the spring meeting below, and offer additional thoughts.

The subcommittee document asks us to please comment on which of the following mutually exclusive options for regulating BDM films that are not 100% biobased you think is best:

1. Continue with the current annotation with no change;
2. Allow BDM film use followed by ploughing into soil (with some consideration for off-site transport), with monitoring and assessment to determine whether there are adverse impacts; or
3. Allow BDM film use but require that it be gathered up at the end of the season followed by on-farm or off-farm composting, if feasible; or
4. Allow BDM film use but restrict its use in certain environments where biodegradation may not occur in a reasonable time.

Given these options, we choose option #1. There are too many issues that remain unresolved when it comes to biodegradable biobased mulch film for us to choose any other option. Issues include:

1. What is the effect on overall soil health, including soil biology, when this material biodegrades?
2. What is the cumulative effect of the continued use of this biodegradable biobased mulch film, on soil nutrient balance, soil biological life, and soil tilth, when used in the same area of the field for 3-5-10 years?
3. What effect does the breakdown of these polymers have on soil and plant life as well as livestock that would graze either crop residues or forages grown the subsequent year after this mulch film was used?
4. Are there different cropping systems, climate, soil types or other factors that affect the decomposition rate (Examples would be long cold winters, or exceptionally dry conditions, such as found in a desert)?
5. Are there metabolites of these mulches that do not fully decompose, and if so, is there an effect upon soil health or biological life?

GE technologies, microplastics, nanoplastics, effects of secondary metabolites – the list goes on. The same questions asked by the NOSB for the limited scope TR in 2016 remain today. The supplemental TR was inconclusive since research on these materials is limited, and this remains the case today, with more questions arising the more we learn.

In discussing the other options provided, we would like to note that #3 makes no sense to us. These materials cannot be picked up at the end of the year, as there are many little pieces. Additionally, we are left wondering who would pay double the cost for a mulch that must still be picked up at the end of the year? And in regards to #4, organic standards shouldn't be applied unevenly in different areas of the country. That would lead to unfair business advantages.

In response to additional questions put forth by the subcommittee, we offer the following:

Additional Questions:

1. Is there any new research on BDM film use that has not been previously submitted

to the NOSB?

Unfortunately, Washington State did not get re-funded to continue their research on this. Perhaps the National Organic Program would consider commissioning Washington State to continue their research?

2. Is there any evidence that BDM films contribute to microplastic pollution in soils and freshwater or marine ecosystems?
3. Are their adequate sampling and laboratory methods available to determine whether BDM film use contributes to microplastic pollution in soils and freshwater or marine ecosystems?

We provide information on studies regarding microplastic contamination below, and note that we can find many studies on microplastic pollution in soils and freshwater or marine ecosystems; however, almost every article that we read notes that more research is needed.

4. Is the availability of biodegradable mulch a make-or-break situation for the viability of your organic system? Why?

We question how they could be, as they have not been allowed to date.

5. Plastic films are heavily used in organic berry production systems. What other organic production systems are dependent on plastic films?

We would note that it would be easier to list the crops that do not get planted into plastic film mulches than it would be to create an exhaustive list of all of the crops that do get planted into plastic film mulches.

6. Are any conventional growers using BDM and what is their experience with these materials?
7. If the NOSB recommended off-site composting of BDM, would municipal compost facilities want to receive BDM since a large proportion of the mass is supposed to be converted to CO2 within 2 years (based on the international standard)?

One of our members consulted with a general manager at a municipal composting operation regarding this question. This individual reported that his operation is contemplating banning all compostable plastics at their facility. When asked if it had to do with the biodegradability/compostability, he noted, “We are challenged primarily by a tsunami of this type of material displacing food waste in our capacity threshold. Also, it makes it very difficult to differentiate between actual plastic contaminants.” We realize these thoughts are from one facility, and we will be interested in hearing what others have to say about this matter.

8. Do non-biodegradable polyethylene or other films used in organic agriculture contribute to organic farm soil microplastics pollution even if removed at the end of the growing season?

Great question, but asking it belies the acknowledgement that biodegradable plastic mulch films will contribute to micro-/nano- plastics pollution on farms, despite the purported lack of evidence. So, yes, please let’s (the NOSB/NOP) find research that looks at plastic contamination of soils under both management systems.

9. Would it be feasible to gather up and remove BDM film at the end of the season for on-farm or off-farm composting?

As noted above, we do not believe these materials can be satisfactorily removed at the end of the year, as they are left in many little pieces.

**Questions put forth by the Crops Subcommittee and NOC responses – Spring NOSB:**

1. **Is the biodegradability of the mulch film the main issue, or should a future annotation include other issues?**

While the biodegradability of the mulch film is one of the main issues, it is not the only issue that needs to be addressed. We address several additional items here, although we in no way believe this to be an exhaustive review of all that needs to be considered.

### Biodegradability must be considered in a very broad way.

Biodegradability must be shown across many regions, soil types, and climate types. We offer further thoughts on this topic below.

We feel that biodegradable plastic mulches must be thoroughly investigated to ensure they are safe and sustainable for use in agricultural systems. If biodegradable plastic mulches are to be tilled into the soil after use, their complete breakdown needs to be ensured and verified under the wide variety of soils and environments where they may be applied. Global use of plastic mulch is high and is increasing, thus there is a growing market for biodegradable plastic mulches. Incomplete breakdown of biodegradable plastic, however, could lead to an accumulation of plastic fragments and particulates in soils.[47]

We feel that regulation of BBM should not only be reviewed with specific products listed by MROs, but also see a need for verification by certifiers that biodegradation is taking place in the local situation on the certified farm. We recognize that certifiers do not have the expertise to assess biodegradation of microscopic or molecular residuals, but we feel they should at least verify that visible pieces of the material (mulch film fragments) are not persistent in the soil after a year.

### Synthetic materials must meet all of the OFPA criteria.

As noted in the memorandum from Jennifer Tucker Ph.D. to the NOSB dated October 16, 2019, the NOP "determined that Policy Memorandum 15-1 (January 22, 2015) did not present new information or impose additional requirements compared to the 2014 final rule"[48] on biodegradable biobased mulch films in organic crop production. We thank the NOP for acknowledging that the 2014 rule and preamble establish the requirement that all polymer feedstock be 100% biobased. We fully agree.

To be clear, both biobased and biodegradability are equally important. In organic agriculture, the origins of materials are important, as well as what happens to them in the ground.

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[47] Henry Y. Sintim and Markus Flury, "Is Biodegradable Plastic Mulch the Solution to Agriculture's Plastic Problem?" Environmental Science & Technology. 2017, 51, 1068-1069.

[48] "Biodegradable Biobased Mulch Film" Memorandum to the National Organic Standards Board from Jennifer Tucker, Ph.D., October 16, 2019.

**Synthetic substances are allowed as per 205.601, provided they meet OFPA criteria, including that they do not contribute to contamination of crops, soil, or water.**

The crops subcommittee in its published materials notes:

> "An argument can be made that even though the non-biobased polymers degrading into the soil originate from petroleum (a nonrenewable fossil fuel), the use of this product could be considered environmentally friendly since it replaces plastic mulches that are currently removed at the end of the harvest season and end up in landfills that do not breakdown for decades if not centuries. The biodegradable mulches from petroleum-based polymers save labor and time, since the mulch does not have to be removed from the field and transported for disposal."[49]

On the other hand, one might argue that the ability to remove the plastic mulch at the end of the growing season offers a measure of control that would not be present with the partially biodegraded mulch film, which the grower does not even try to remove from the field. While synthetic substances are allowed as per §205.601 provided they meet OFPA criteria, including that they do not contribute to contamination of crops, soil, or water, micro- or nano particles could be produced in the degradation of the biodegradable biobased mulch film, potentially contaminating crops, soil, and/or water. Do we really want to trade removing plastic to guarantee that we are leaving microplastic behind?

> Another important consideration when measuring the amount of mulch remaining in the soil is mulch particles that are too small to see. Although measuring mulch surface area loss in field studies can provide a benchmark measurement for the biodegradation potential of a mulch product, it does not take into account the possibility that microfragments, nanofragments, or both persist in the soil (Rillig, 2012; Steinmetz et al., 2016). Recent work has focused on developing methods to detect microplastics in environmental samples (D€umichen et al., 2015; Majewsky et al., 2016), and these techniques could possibly be helpful to more accurately determine the amounts of mulch remaining after soil incorporation.[50]

Dr. Narayan, author of the study on biodegradable biobased mulch films commissioned by the NOP, further notes:

> "This accumulation of recalcitrant [polyethylene] PE mulch film fragments in agricultural soils around the world is cause for alarm because it decreases soil productivity by blocking water infiltration, impedes soil gas exchange, constrains root growth, and alters soil microbial community structures (3, 9). Plastic pollution of soils is also a threat to soil ecosystem health and function (10-12). PE micro fragments dispersed in soil and water readily absorb and concentrate toxins present in the environment (much like a sponge). Microorganisms colonize these fragments, and the birds and fishes eat them because they think it is food. This results in toxins and PE micro fragments being transported up the food chain (13)."[51]

We submit that the same could be said of biodegradable mulch film fragments. While Dr. Narayan offers his solution "to use completely soil-biodegradable mulch films that retain the performance characteristics

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[49] NOSB April 2020 proposals and discussion documents Page 14 of 115.

[50] Miles et al. "Reliability of Soil Sampling Method to Assess Visible Biodegradable Mulch Fragments Remaining in the Field After Soil Incorporation." 2017

[51] Ramani Narayan. "Biodegradable Biobased Mulch Films in Organic Cropping Systems." September 2019. Page 4 of 21.

of PE films but at the end-of-life can be plowed into the soil or recovered for on-farm composting" and attempts to demonstrate this in Scheme 1 in his paper, there are issues with his demonstration. Most obviously, the suggestion that the biodegradable mulch film would break down completely within 24 months of soil temperatures of approximately 25°C (77°F). What is the real-life situation where this would be the case? Further, how many years in the field would it take for complete degradation in less-than-ideal situations, especially the cold soils of the northern regions of our country?

"Although laboratory tests can assess the potential of a mulch product to biodegrade under certain 1conditions (ASTM International, 2012), results may vary widely under field conditions."[52]

> In theory, BDMs should be completely catabolized by soil microorganisms, converted to microbial biomass, CO2 and water (Malinconico et al., 2002; Feuilloley et al., 2005; Imam et al., 2005; Dintcheva and La Mantia, 2007; Kyrikou and Briassoulis, 2007; Kijchavengkul et al., 2008; Lucas et al., 2008). In practice, complete breakdown in a reasonable amount of time is not always observed (Li et al., 2014b). Regulators and growers cite concerns about unpredictable or incomplete breakdown and the ultimate fate of BDM constituents and their effect on soil ecosystems (Goldberger et al., 2015; Miles et al., 2017).[53]

"Currently, there is no established field method to measure the amount of BDM remaining in the soil after incorporation."[54]

> Traditional plant tests for toxicity have not been adapted to identify effects of compounds released from BDMs. First, different compounds are released at different times during the biodegradation process. Second, frequently used tests fail to reckon the changing needs and responses throughout plant development by only focusing on germination. Finally, the diversity of plant responses in the ecosystem is narrowly represented by tests that analyze early growth in a few, mostly vigorous, plant species. Despite these constraints, some effects have emerged. A phytotoxicity test of several chemicals used in bioplastics found that some exhibited a concentration-dependent inhibition of plant growth (Martin-Closas et al., 2014). Acrylate polymers used to maintain soil humidity damaged maize root and shoot development (Chen et al., 2016). Organic compounds released from mulch polymers have been found to be absorbed by crop plants (Du et al., 2009; Li et al., 2014c; Chen N. et al., 2017). Given some of the demonstrated effects on plants, these additives may also impact soil microbes and their functions, though these effects are largely unexplored.[55]

"[F]urther research is needed to understand the microbiological events that occur simultaneously, such as changes of microbial community composition and metabolic changes."[56] "Release of microplastics (MPs)

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[52] Miles et. al., 2017

[53] Bandopadhyay Sreejata, Martin-Closas Lluis, Pelacho Ana M., DeBruyn Jennifer M. "Biodegradable Plastic Mulch Films: Impacts on Soil Microbial Communities and Ecosystem Functions." *Frontiers in Microbiology*, Volume 9, 2018, Page 819.

[54] Miles et. al. "Reliability of Soil Sampling Method to Assess Visible Biodegradable Mulch Fragments Remaining in the Field After Soil Incorporation." 2017.

[55] Bandopadhyay Sreejata, Martin-Closas Lluis, Pelacho Ana M., DeBruyn Jennifer M. "Biodegradable Plastic Mulch Films: Impacts on Soil Microbial Communities and Ecosystem Functions." *Frontiers in Microbiology*, Volume 9, 2018, Page 819.

[56] Sathiskumar Dharmalingam, Douglas G Hayes, Larry C Wadsworth, Rachel N Dunlap. "Analysis of the time course of degradation for fully biobased nonwoven agricultural mulches in compost-enriched soil." *Textile Research Journal,* November 2015, SAGE Publications.

and nanoplastics (NPs) into agricultural fields is of great concern due to their reported ecotoxicity to organisms that provide beneficial service to the soil such as earthworms, and the potential ability of MPs and NPs to enter the food chain."[57]

Of further concern is the fact that the material does not completely biodegrade and could be washed into a creek or other waterway. "While very little is known about the effects of biodegradable plastics in soil, it has been shown that plastic microparticles can be toxic to aquatic organisms."[58] Additionally, if these materials are getting into the soil water on a mixed livestock and vegetable farm, could they also be getting into the livestock through the water, forage, and feed?

2. **Is there information on the toxicity or effect of all secondary metabolite residues as the product breaks down?**

We have touched on much of this previously, and would note that the answer would appear to be that yes, there is evidence of at least some toxicity from secondary metabolites. We have many concerns regarding this issue, and we are not hearing clear answers about whether these metabolites are going to be a problem. If you have it, please share that clear information with us.

Unfortunately, it would appear that the USDA/NOP commissioned this report by Dr. Narayan ("This work was supported by the U.S. Department of Agriculture's Agricultural Marketing Service under Agreement No. 19-NOPXX-MI-0002."[59]) without input from the NOSB to guide Dr. Narayan to ask the very questions that have been put forth in this discussion document.

Further, this question presupposes that we know what all of the various secondary metabolites are that may be left behind as the product breaks down. Before we can fully answer this question, all secondary metabolites need to be identified. Organic agriculture relies on a precautionary principle, and the same should apply in the case of BBM and the concerns and unanswered questions that are being raised.

3. **What is your opinion on mulch films that could be engineered to include macro or micro-nutrients or pesticides that would then make the mulch film provide more benefits than just a mulch?**

### Nutrients – Macro & Micro

Macronutrients are supplied by natural sources in organic production, and thus should not be supplied by synthetic mulch. Under §205.601(j)(7), "micronutrient deficiency must be documented by soil or tissue testing or other documented and verifiable method as approved by the certifying agent." Applying marco- or micronutrients through mulch film would not present an issue, as long as the standards are met. The sources of the macro- and micronutrients may present a concern, however.

### Pesticides

From NOC's perspective, this is a nonstarter. Blanket application of pesticides assuming that you are going to need them is not a part of the organic standards, nor in line with the principals of Integrated Pest Management. There would have to be a change of the standards to allow this, and we would be opposed

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[57] Astner et. al. "Mechanical formation of micro- and nano-plastic materials for environmental studies in agricultural ecosystems." *Science of the Total Environment.* Volume 685, 1 October 2019, Pages 1097-1106.

[58] Lönnstedt, O. M.; Eklöv, P. "Environmentally relevant concentrations of microplastic particles influence larval fish ecology." *Science* 2016, 352, 1213−1216.

[59] Ramani Narayan. "Biodegradable Biobased Mulch Films in Organic Cropping Systems." September 2019. Title Page.

to any such change. It is irresponsible and far outside of the organic realm to suggest this would be a practice allowed in organic production.

4. **Is the risk/benefit of keeping plastic mulches out of landfills part of the Organic Food Production Act criteria the NOSB should consider when reviewing this material?**

Please see our detailed comments under question #1 above.

5. **Are there any studies that track the impact on livestock or wildlife (terrestrial, avian and aquatic) that might be attracted to consume pieces of the biodegradable plastic before it has completely degraded in 2 years or secondary metabolites that remain in the soil and are taken up by crops?**

Please see our detailed comments under question #1 above. It is our understanding that the EPA is doing work on how plastics move through all levels of the ecosystem. Perhaps there will be more knowledge to be gained in this area from the work of the EPA and independent researchers.

6. **Should a future annotation try to include consideration that different soils and climates might not be able to meet the biodegradability standard set in the annotation, and how would certifiers be able to verify the use of the material met the biodegradability standard?**

We recognize that certifiers do not have the expertise to assess biodegradation of microscopic or molecular residuals, but we feel that at least they should verify that visible fragments of the material are not persistent in the soil after a year, should a biodegradable biobased mulch product be approved for use.

## Conclusion

NOC acknowledges that a biodegradable biobased mulch (BBM) film would be a great asset to producers; however, we harbor great concerns regarding the environmental and health effects of the breakdown. Almost every paper we read notes that additional research is required.

> Biodegradable plastic mulches are a promising alternative to the currently used polyethylene-based mulches, but (additional) rigorous testing is needed to ensure their use is environmentally safe. (Further) in-field testing of biodegradation under different soil and climatic conditions is needed, with particular attention to release of micro- and nanoparticles from plastics and their long-term accumulation in soils and their effects on soil quality.[60]
>
> To address the current knowledge gaps, long term studies and a better understanding of impacts of BDMs on nutrient biogeochemistry are needed. These are critical to evaluating BDMs as they relate to soil health and agroecosystem sustainability.[61]

[60] Henry Y. Sintim and Markus Flury, "Is Biodegradable Plastic Mulch the Solution to Agriculture's Plastic Problem?" Environmental Science & Technology. 2017, 51, 1068-1069.

[61] Bandopadhyay Sreejata, Martin-Closas Lluis, Pelacho Ana M., DeBruyn Jennifer M. "Biodegradable Plastic Mulch Films: Impacts on Soil Microbial Communities and Ecosystem Functions." *Frontiers in Microbiology*, Volume 9, 2018, Page 819.

For almost every argument made for the use of biodegradable biobased mulch film, we could find a counter argument noting that more research is needed. We maintain that this product is "not ready for primetime."

Natural organic mulches should be the norm in organic production. The use of natural organic materials in compost and mulch is foundational to organic. In 2001, the National Organic Standards Board (NOSB)[62] gave this definition:

> Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. These goals are met, where possible, through the use of cultural, biological, and mechanical methods, as opposed to using synthetic materials to fulfill specific functions within the system.

The NOSB went on to say that, among other things, an organic production system is designed to: "optimize soil biological activity;" "utilize production methods and breeds or varieties that are well adapted to the region;" "recycle materials of plant and animal origin in order to return nutrients to the land, thus minimizing the use of non-renewable resources;" and "minimize pollution of soil, water, and air." The use of natural mulches—including cover crops—contributes to all of these values.

Organic production systems are also intended to mimic natural ecosystems. In natural systems, plants are fed by the action of soil organisms breaking down plant residues and excreting substances that are plant nutrients. Natural mulches provide a steady diet of organic matter for those soil organisms. This function is one way that we can judge the compatibility of synthetic mulches with organic values.

## Sunset

### Soap-based algicide/demossers

205.601(a)(7) – As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems.

NOC is in support of this material remaining on the NL for use in irrigation system cleaning systems and other hard surfaces. We do not support use otherwise, such as in a body of water where one might want to get rid of algae. The annotation should specify which uses should be covered by the listing. In the absence of being able to make an annotation change during sunset review, the NOSB should make it clear in the record that this material is meant for land-based irrigation lines.

### Ammonium carbonate

205.601(e) As insecticides (including acaricides or mite control). (1) ammonium carbonate —for use as bait in insect traps only, no direct contact with crop or soil.

NOC is in favor of relisting ammonium carbonate as an insecticide for use as bait in insect traps with no direct contact with crop or soil.

[62] NOSB Principles of Organic Production and Handling. NOSB Recommendation Adopted October 17, 2001.

## Aquatic plant extracts (other than hydrolyzed)

205.601(j) As plant or soil amendments (1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.

As the NOSB and NOP strive to clean up the NL to help create clarity and eliminate discrepancies in interpretations among certifiers, the annotation for the listing of aquatic plant extracts (other than hydrolyzed) needs to be addressed.

Some certifying agencies only allow the hydroxides for extraction, while others assume the hydrolyzed extracts are nonsynthetic, making them included, as well. Interpreting the parenthetical clause "(other than hydrolyzed)" is confusing, making it unclear as to what is allowed and what is not. We request that the NOP/NL manager clarify what is meant by "other than hydrolyzed" to clarify this issue.

NOC continues to be supportive of the work done to address the environmental impacts of the use of marine algae in organic production.

## Lignin sulfonate – chelating agent, dust suppressant

NOC supports relisting lignin sulfonate as a widely used and valuable chelating agent and dust suppressant. We have heard back from industry professionals that they would be unable to pelletize material without it, and that the dust associated with many materials that are pelletized would likely be unhealthy for the people applying it. Moreover, finer particles do not spread well and would not be thrown as far by spinners, and with any wind would be lost. In addition, it is our understanding that organic feed mills would be adversely affected if this material were to be removed from the National List.

## EPA List 4 – Inerts of minimal concern

205.601(m) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances. (1) EPA List 4 – Inerts of Minimal Concern.

NOC applauds the Crops Subcommittee's bold move in voting to delist EPA List 4 "inerts," which will enforce a timeline for moving this important work forward. We note that recent history shows the mistake in not specifying a timeline in 2015. The fall 2015 NOSB recommendation on the Annotation Change – EPA List 4 on 205.601(m) and 206.603(e)[63] did not specify a timeline for a change in the "inerts" listing, and we have seen no action. While we wholeheartedly agree that it is time to address this outdated listing, at this point, it is not only about this listing alone, but about the process. It is not good governance to have expired listing such as this on the NL.

[63] NOSB to the NOP, *Formal Recommendation: Annotation Change – EPA List 4 on 205.601(m) and 205.603(e),* October 29, 2015, https://www.ams.usda.gov/sites/default/files/media/CS%20LS%20EPA%20List%204InertsAnnotation_final%20rec.pdf

NOC greatly appreciates that the NOP hired a new NL Manager in the summer of 2020 who has deep expertise that will be valuable in moving the work on inerts forward. NOC had called on the NOP previously to fill this position without delay because this vacancy had impeded the NOP's ability to make progress on the inerts issue and other critically important NOSB topics.

"Inert" ingredients frequently compose as much as 99% of pesticide products, and they are not subject to the same level of scrutiny as active ingredients in organic pesticides. For this reason, they may be the most hazardous ingredients in pesticide products used in organic production. NOC has suggested a process for moving forward, as well as a long-term plan, in our detailed comments in Spring 2020, included as Appendix B, to ensure that inert ingredients are adequately reviewed without unduly burdening the NOSB.

To begin this work, there are several areas that must be taken into consideration.

**NOP must provide market clarity when it comes to "inerts."**
NOP must provide market clarity when it comes to "inerts" to encourage innovation of new products, lessen concerns of stakeholders over environmental and health concerns, and make future reviews of "inert" materials relevant. Not doing so stifles innovation of new products, weakens the organic label, and is not good governance. To do so, NOP must move forward in a timely manner to clarify this listing on the NL.

**Collaboration with Industry is part of the process.**
NOP must make clear that this is a compliance issue, and that they have the statutory authority to move forward with real solutions. Within the Safer Choice Program (SCP) model, industry is part of the process. The NOP needs to be clear in their communication to industry that the process will move forward, whether or not they choose to participate.

**A Memorandum of Understanding (MOU) is an important part of the framework & process.**
In order to ensure clarity regarding the framework and process, in our Spring 2020 NOSB comments we outlined a detailed description of NOC's suggested procedure for evaluating "inerts" to be covered by a Memorandum of Understanding (MOU) that should be established between the EPA and NOP, along with a description of the responsibilities of each body (NOP, EPA, NOSB). The procedure we are recommending is based on the outstanding NOSB recommendations made from fall 2012 and fall 2015. NOC is recommending that the Inerts Working Group (IWG) be reestablished, with membership consisting of NOSB members with support from an NOP staff person. The MOU is essential to transparency.

There needs to be clarity in the framework and process that requires understanding the old list—e.g., the difference between 4A and 4B—and how chemicals on the two lists compare to the OFPA criteria. Further, we need to understand the OFPA criteria and how they apply to "inerts." A plan for doing so has been clearly articulated in our Spring 2020 NOSB comments attached.

As noted in the October 2015 NOSB recommendation on an annotation change for "inerts," "The Inerts Working Group has completed a comparison between the SCIL [Safer Choice Ingredients List] criteria and the NOSB criteria that are used in reviewing materials (see Appendix I). There is a lot of similarity between them but also some gaps…."[64] The EPA Safer Choice Program (SCP) is set up to address most of the OFPA criteria already; hence, the SCP review forms an excellent start for a technical review.

[64] *Ibid.* p.5.

**Identifying alternative materials to those that do not meet the OFPA criteria must be part of our approach.**
We need to begin to identify alternative materials that meet OFPA criteria when it comes to "inerts" that are found to not meet the OFPA criteria. There is strong evidence to support beginning with nonylphenol ethoxylates (NPEs).

According to the TR,

> "Virtually every environmental compartment can be contaminated through the use of NPEs. These substances generally enter the environment through wastewater, although large-scale applications of NPE dispersing agents in pesticide mixtures will also result in releases to soil, groundwater and neighboring surface waters. In the long term, contamination associated with NPE use occurs in the form of the more toxic and persistent metabolite, NP [nonylphenols]."[65]

NPs have higher levels of toxicity, estrogenic activity and environmental persistence than NPEs. The TR says,

> "However, release of NPEs to the environment from agricultural and consumer products ultimately leads to the introduction of more highly toxic and persistent NP residues. A lifecycle analysis of NPEs therefore highlights a conflict between use of these substances and the principles of organic agriculture, which seeks to avoid contamination of the environment with toxic and persistent substances."[66]

Because of concerns about the adverse health and environmental effects of NPEs, EPA's Design for the Environment (DfE) completed an alternatives assessment for synthetic surfactants, like NPEs, that are endocrine disrupting chemicals. DfE's goal is to assist in the voluntary phase-out of NPEs used in industrial detergents. The DfE assessment for NPEs reviewed several alternatives to NPE surfactants that are comparable in cost, readily available, and rapidly biodegrade to non-polluting, lower hazard compounds in aquatic environments.[67]

The NOSB should not delay in evaluating NPEs. NPEs and their degradates, nonylphenols, are toxic and disruptive for the reproductive system. NOC urges the removal of NPEs as an "inert" ingredient allowed in organic approved pesticides.

**We request that the NOSB and NOP implement the change in the listing as recommended unanimously by the National Organic Standards Board in its recommendations of April 2010 and October 2012:**
Replace the language at sections 205.601(m) and 205.603(e) with:

> As synthetic other ("inert") ingredients in pesticide formulations as classified by the Environmental Protection Agency (EPA) for use with nonsynthetic substances or synthetic substances listed in this section that are used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

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[65] 2015 Limited Scope TR: Nonylphenol Ethoxylates (NPEs), Lines 647-651, https://www.ams.usda.gov/sites/default/files/media/NPE%20Technical%20Evaluation%20Report%20%282015%29.pdf.
[66] 2015 Limited Scope TR: Nonylphenol Ethoxylates (NPEs), Lines 553-556, https://www.ams.usda.gov/sites/default/files/media/NPE%20Technical%20Evaluation%20Report%20%282015%29.pdf.
[67] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

(i) Substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b);

(ii) Reserved (for list of approved other ("inert") ingredients, with expiration dates until reviewed individually.)

**The above process may be modified according to the NOSB recommendation of October 2015.**
The recommendation of October 2015 makes three changes. First, it incorporates those "inerts" formerly on List 3:

(iii) "Inert" ingredients that are exempt from the requirement of a tolerance under 40 CFR 180.1122 – for use only in passive pheromone dispensers.

Second, it provides for petitioning new "inert" ingredients:
(iv) [Reserved] (for any other inerts individually petitioned and reviewed).

Finally, it provides for a method of evaluating other currently used "inerts":
(ii) Substances included on the EPA's Safer Chemical Ingredient List [SCIL].

Unfortunately, the last requires clarification, since materials can be included on the SCIL regardless of hazard. The SCIL is categorized by function, and individual materials are coded by acceptability according to the Safer Choice standards. Furthermore, any material exception from the general prohibition against the use of synthetics in organic production must be subject to sunset review.

The NOSB and NOP may, in collaboration with EPA, designate a sublist of the SCIL as "nonactive ingredients allowed in organic production" and solicit the assistance of the Safer Choice program in evaluating those materials to OFPA criteria. However, **all such materials—as well as those provided for under (i) (substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b)) —must ultimately be subject to sunset review according to OFPA criteria by the NOSB.**

**Conclusion: Delist List 4 "inerts."**
Replace the language at sections 205.601(m) and 205.603(e) with:

As synthetic other ("inert") ingredients in pesticide formulations as classified by the Environmental Protection Agency (EPA) for use with nonsynthetic substances or synthetic substances listed in this section that are used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

(i) Substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b);

(ii) "Inert" ingredients that are exempt from the requirement of a tolerance under 40 CFR 180.1122 – for use only in passive pheromone dispensers;

(iii) [List of all "inerts," except the "minimum risk" 25(b) substances, known to be used in organic production, as determined by the Inerts Working Group, each annotated with an expiration date between June 27, 2021 and June 27, 2026.

(ii) Reserved (for list of approved other ("inert") ingredients, with expiration dates until reviewed individually.)

**The APEs/NPEs should be removed from the list, as discussed by the Crops Subcommittee. This approach will allow the board to systematically review the "inerts" in groups over a five-year period, an approach the board has previously adopted unanimously.**

### Arsenic

NOC supports relisting arsenic at 205.602 without reservation.

### Strychnine

NOC supports relisting strychnine at 205.602 without reservation.

## HANDLING

### Petitions / Vote

#### Low acyl gellan gum

NOC opposes the addition of low acyl gellan gum on §205.605(b) of the NL because it is a synthetic additive that is not necessary for organic food production. The Organic Foods Production Act (OFPA) establishes criteria for listing materials that may be used in organic production and handling that are "otherwise prohibited." Synthetic materials are prohibited unless specifically allowed. The criteria for allowing such "otherwise prohibited" substances to be allowed in organic production and handling include that the substance "is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products" and that it "is consistent with organic farming and handling." In addition, the NOP regulations (§205.600(b)(6)) require that "any synthetic substance used as a processing aid or adjuvant" must be "essential for the handling of organically produced agricultural products."

**We feel strongly that there must be a higher bar for synthetic materials to be listed on the NL than for a nonsynthetic.**

This was clearly recognized by the handling subcommittee, "The tenets of organic production tend to favor nonsynthetic options when available."[68] Here, there is a nonsynthetic option available.

**Low acyl gellan gum is neither necessary or essential.**

Further, we see no uses listed for low acyl gellan gum make this material "necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products" or that make it "essential for the handling of organically produced agricultural products." The subcommittee materials note that:

> "Low acyl gellan gum is used in various food formulations, such as aspics; frostings; brownies and bakery fillings; gelatins and puddings; non-standardized jams and jellies; dairy drinks and soy

[68] NOSB October 2020 proposals and discussion documents, p.55 of 173.

milks; nutritional products; beverages (dairy alternative milks, dairy drinks, fruit drinks, drinking jellies, novelty drinks); beverage mixers; kefir; yogurt, sour cream and cheese where the standards of identity do not preclude its use; yogurt fruit and fruit sauces; marinades; pourable and spoonable dressings; and dairy desserts."[69]

We already enjoy all of these products in organic form without the use of low acyl gellan gum.

**Basing listings on the NL on future gains is a slippery slope.**

> "If use of low acyl gellan gum contributes to the increased growth and consumption of an organic crop and subsequent processed product, the gains to human health and environment over a conventionally produced crop and product appear to favor its compatibility with organic handling."[70]

We agree that "increased growth and consumption of an organic crop and subsequent processed product" is a gain to producers, consumers, and the environment. However, basing the listing of low acyl gellan gum on future gains that "appear to favor its compatibility with organic handling" becomes a slippery slope and sets a dangerous precedent. At what point will we draw the line?

## Ion exchange filtration

We applaud the National Organic Program (NOP) in their continued efforts to address inconsistencies between certifiers. It is time to clarify the role that ion exchange resins play in organic food processing. We strongly agree with and support comments submitted by Emily Brown Rosen on this topic.

**OFPA must guide our decision-making process when it comes to organic production.**

> "The fact that FDA considers some secondary direct food additives, (e.g. processing aids) to be food contact substances has no bearing on whether the substance is suitable for use in organic food production. The NOSB needs to follow the requirements of OFPA and the NOP regulations when it considers any ingredient or processing aid for use in organic production: they must be either organic or reviewed and appear on the National List for that use. Nowhere in OFPA or 7CFR Part 205 does it say that "food contact substances" are exempt from review."[71]

**"The organic regulations have their own special criteria that cannot be overlooked."[72]**

Giving up oversight to the FDA, an organization that does not have an organic sensibility when they are reviewing materials, is problematic. As Ms. Brown Rosen points out later in her comments, basing our decisions on what the FDA allows and does not allow sets a dangerous precedent.

> "For instances, a quick look finds FCN No. 2009, which allows a sanitizing spray containing sulfuric acid to be sprayed directly on seeds for sprouts and edible nuts. Clearly this is not permitted on

[69] *Ibid,* p.54 of 173.
[70] *Ibid,* p.55 of 173.
[71] Emily Brown Rosen, Comments to the NOSB Proposal on Ion Exchange Filtration Process and Materials Used, September 30, 2020, p.2.
[72] *Ibid,* p.4.

organic food at present. If NOSB were to decide that ion exchange resins are permitted because of status as a food contact substance, would that precedent apply to all 1493 substance? NOSB cannot justify allowing this loophole to apply to one category of use (ion exchange) and not set a precedent for all these other substances."[73]

To be clear, within the organic program we follow a precautionary principle that guides our decision making, not what the conventional market requires. "While NOP regulations strive to be consistent with other federal regulations, the organic regulations have their own special criteria that cannot be overlooked. Not every substance approved by FDA is allowed in organic food production."[74]

The NOSB should recommend that only resins and their associated recharge materials approved for this use should be allowed in organic food processing, and only when approved for listing on §205.605(b). Chemicals added during the ion exchange process must be listed on the label.

## Other

### Petition Process for §205.606

At each review of sunset materials listed at §205.606, we find ourselves asking the question, "What is the barrier for producing these ingredients in organic form?" Unfortunately, we rarely find a satisfactory answer within the subcommittee's published materials. To address this issue, we offer our full comments from Spring 2020 as Appendix F, which includes a comprehensive list of questions that need to be addressed before renewing any listing on §606. This list should also be used when determining the barriers to organic production with new petitions to §606.

Outside of sunset, it is time to stop adding listings to §606 and phase out current listings. The organic industry has matured and now all agricultural materials can be produced organically. Listing on §606 only stifles organic production of new organic crops and promotes chemical-intensive production. In the time that it takes to add new regulations, petitioners could develop the demand for the organic product.

In preparation for our comments, we began to perform some of the work that we would expect the NOSB to be doing prior to voting to relist a material to §606. We reached out to several manufacturers of glycerin listed in the Organic Integrity Database (OID) to better identify the barriers to organic production. We share our findings below with our comments on glycerin.

## Sunset

### Kaolin

**205.605(a)**

Kaolin is a fine clay, consisting primarily of hydrous aluminum silicate. Because of the small particle size, it has a high surface-to-volume ratio, making it a highly absorptive material. Although the TAP review identifies it as an anticaking agent and a processing aid that is not present in the final product, there is no

[73] *Ibid,* p.3.
[74] *Ibid,* p.4.

annotation to limit its use. Kaolin is also produced in nano-sized particles.[75] Kaolin should be annotated to specify allowed uses and prohibit the use of nano-kaolin.

### Sodium bicarbonate

**205.605(a)**

NOC supports the relisting of sodium bicarbonate. Baking soda is the kind of material that was envisioned as populating the National List—a nontoxic natural material used in home kitchens as a leavening agent.

### Waxes – nonsynthetic (wood resin)

**205.605(a) Waxes – nonsynthetic (Carnauba wax; and Wood resin)**

There is a possibility that wood rosin extracted by a processor who is not certified may have been extracted using volatile synthetic solvents. There is also a possibility that some certifiers or materials review organizations may permit formulation using ancillary substances that are not permitted in organic products. Finally, consumers should be informed of the presence of nonorganic waxes –organic fruits and vegetables are generally assumed to be 100% organic. Therefore, the listing for wood rosin should be annotated with, "Not extracted using volatile synthetic solvents; contains only ancillary substances approved for organic production; presence must be labeled on individual items."

### Ammonium bicarbonate

**205.605(b) - for use only as a leavening agent**

### Ammonium carbonate

**205.605(b) –for use only as a leavening agent**

Ammonium bicarbonate and ammonium carbonate (together ammonium carbonates) are produced from ammonia, a toxic gas, and carbon dioxide. According to the TAP review, the ammonium carbonates are the only leavening agents that are completely eliminated through the baking process. This is achieved by the emission of ammonia and carbon dioxide. NOC does not see a reason to delist either.

### Calcium phosphates (monobasic, dibasic, and tribasic)

**205.605(b)**

Phosphates have a number of impacts when used as food additives. According to the TAP review for sodium phosphate, "The toxicity of sodium phosphates is generally related to the sequestration of calcium and the subsequent reduction of ionized calcium. It is an irritant, and ingestion may injure the mouth, throat, and gastrointestinal tract, resulting in nausea, vomiting, cramps, and diarrhea."[76]

More recent studies have shown that inorganic forms of phosphate, such as calcium and sodium phosphates, cause hormone-mediated harm to the cardiovascular system. A review found that they "may harm the health of persons with normal renal function. This judgment has been made on the basis of

[75] https://www.researchgate.net/publication/297841906_The_properties_of_Nano-kaolin_mixed_with_kaolin.
[76] TAP Review for Tetrasodium Pyrophosphate, July 29, 2002, Page 3 of 13.

large-scale epidemiological studies and is supported by the latest findings of basic research."[77] This is an important line of research.

As outlined in detail in the comments of Consumers Union in 2015 and Spring 2016, research has shown that high intake of phosphorus is associated with negative impacts on bone health, kidney health, and heart health. Research also shows that phosphate food additives are more readily absorbed during digestion and lead to a higher phosphorus load, compared with phosphorus found naturally as a component of whole foods.

In Fall 2016, the HS issued a discussion document on phosphates, which made these points:

- Outside the US and Canada, the only phosphate additive allowed in organic processed food is monocalcium phosphate, and only as a leavening agent.

- During the 2015 Sunset review, the NOSB received comments including new research that indicates potential serious human health impacts from the cumulative effects of phosphates which are added to processed foods.

- The NOSB may recommend increased restrictions through annotations or removal of phosphate food additives.

- Because the health effect comes from the cumulative impact, rather than any specific phosphate alone, the NOSB was reluctant to remove any one phosphate from the National List.

Since it can be concluded that phosphates other than monocalcium phosphate as a leavening agent are unnecessary, they should be phased out. Presumably, this would greatly reduce the phosphate exposure to organic consumers. Alternatives to monocalcium phosphate should also be explored, but the action of removing other phosphates would reduce the likelihood of problems arising from use of monocalcium phosphate as a leavening agent.

## Ozone

**205.605(b)**

We are reminded every time the NOSB receives a petition for a new sanitizer or a sanitizer, disinfectant, or cleaner is reviewed at sunset of the value of a tool to aid the NOSB in determining which materials should be added to the National List.

The NOSB would benefit from a comprehensive review of sanitizers, disinfectants, and cleaners to address when a new material is petitioned or a material is reviewed at sunset. The NOSB could refer to the sanitation materials review to judge whether other materials currently on the National List meet the same need, or if there is a special characteristic to the material under review that justifies its placement or renewal to the NL. This comprehensive review may help identify areas where there are gaps in necessary

[77] Ritz, E., Hahn, K., Ketteler, M., Kuhlmann, M. K., & Mann, J. (2012). Phosphate Additives in Food—a Health Risk. *Deutsches Ärzteblatt International*, *109*(4), 49–55.

sanitizers or disinfectants which aid crops, livestock, and/or handling operations in promotion of organic food safety.

We are looking forward to the panel discussion in November.

## Sodium hydroxide – prohibited for use in lye peeling of fruits and vegetables

**205.605(b)**

Sodium hydroxide is a hazardous substance that has many uses. In contrast to the OFPA requirement that National List materials be listed "by specific use or application," the annotation for sodium hydroxide states only prohibited uses. The HS and NOSB should investigate the essentiality of sodium hydroxide for its various uses and annotate the listing to limit its use to those essential uses.

## Inulin-oligofructose enriched

**205.606(l) Inulin-oligofructose enriched (CAS # 9005-80-5)**

In Fall 2015, the NOSB voted unanimously to remove inulin-oligofructose (IOE) from the National List. At the time of the Federal Register notice, three commenters came forward, noting that IOE is not interchangeable with the separate listing for "fructooligosaccharides" (FOS) due to the unique properties of IOE. IOE is made from chicory root, which commenters noted provides the functionality and differentiates it significantly from FOS.

While this may be true, IOE does not belong on §205.606. It is a product of fermentation, and according to the patent included in the petition, IOE consists of inulin extracted from chicory "co-processed" with FOS. The inulin is extracted with hot water followed by a purification process involving treatment with lime, in which the calcium hydroxide reacts with carbon dioxide and absorbs unwanted components, leaving a residue that is further treated with ion exchange and carbon filtration. Up to that stage, it could be called an agricultural product. However, the addition of FOS, a synthetic nonagricultural, creates a synthetic nonagricultural product. Therefore, IOE does not belong on §205.606, but should be petitioned for §205.605(b).

## Kelp

**205.606(m) Kelp—for use only as a thickener and dietary supplement**

As with every sunset material on §205.606, our review must begin by asking, "What is the barrier for producing these ingredients in organic form?" Based on the fact that there are 102 suppliers of organic kelp listed in the OID, it would appear that the greatest "barrier" is the allowance for nonorganic use by the listing on §205.606.

We recognize that there *may* be a need for some types of kelp listed at §205.606—although we cannot say this definitively until more work is done to identify the different species of kelp that are needed and then further determine which of those would be available in organic form. Just as we have added the Chemical Abstracts Service Registry Number (CAS#) to synthetics to ensure clarity on what is being discussed, we must add the Latin names for species and subspecies for kelp to ensure consistency and clarity, as well as continued improvement of the NL. We included our Fall 2017 comments as Appendix G to better inform this recommendation.

"Kelp" is not well-defined. As stated in the Fall 2016 discussion document on marine materials,

> **Kelp** is a broad generic term for brown seaweeds, Class *Phaeophyceae,* in the Order *Laminariales,* with at least 30 genera and many species, and in the Order *Fucaceae* such as *Ascophyllum nodosum.* However, the term "kelp" as used in fertilizer means ANY macroalgae seaweed, brown *(Phaeophyceae),* red *(Rhodophyceae)* or green *(Chlorophyceae)* (Assoc. of American Plant Food Controls (AAPFC)). Kelp used in organic livestock production must be certified organic, but for use in processing for humans non-organic kelp is allowed. Pacific Kombu, and *Undaria innatifida* are also Kelp species. *Fucus* species are intertidal, but Laminaria species are deep water.[78]

Of the species identified as "kelp," at least two are considered to be both ecologically significant due to the structural habitats they provide and at risk of being overharvested.[79] Although kelp itself recovers from intensive harvesting,[80] kelp harvesting can have significant impacts on other members of the ecosystem.[81] There is evidence that kelp concentrates heavy metals, and it is used to monitor heavy metal contamination.[82] Arsenic poisoning has been documented from kelp supplements.[83]

While the NOSB considers, in broad terms, an approach to ensuring that organic production does not endanger marine plants and algae, the board still has a responsibility to look at the impacts of individual listings of seaweeds. Delisting kelp from §606 would be a positive step, since it would require kelp to be organically produced, which would require that harvesters comply with §205.207(b) "A wild crop must be harvested in a manner that ensures that such harvesting or gathering will not be destructive to the environment and will sustain the growth and production of the wild crop." Species that can be cultivated must be produced in compliance with the definition of "organic production," that is, "managed in accordance with the Act and regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity."[84]

## Orange shellac

205.606(r) Orange shellac-unbleached (CAS # 9000-59-3)

Consumers should be informed of the presence of nonorganic waxes –organic fruits and vegetables are generally assumed to be 100% organic. In addition, given that orange shellac comes from an insect, vegan eaters would want to know. Therefore, the listing for orange shellac should be annotated with, "Contains only ancillary substances approved for organic production; presence must be labeled on individual items; label must include 'produced from excretions of the lac insect.'"

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[78] NOSB November 2016 proposals and discussion documents Page 57 of 279.

[79] Marine plants and algae TR, 2018. Lines 523-524, 528-535, 356-360.

[80] Rothman, M. D., Anderson, R. J., & Smit, A. J. (2006). The effects of harvesting of the South African kelp (Ecklonia maxima) on kelp population structure, growth rate and recruitment. *Journal of applied phycology*, *18*(3-5), 335-341.

[81] Lorentsen, S. H., Sjøtun, K., & Grémillet, D. (2010). Multi-trophic consequences of kelp harvest. *Biological Conservation*, *143*(9), 2054-2062.

[82] David A. Roberts, Emma L. Johnston, Alistair G.B. Poore, 2008. Contamination of marine biogenic habitats and effects upon associated epifauna. Marine Pollution Bulletin 56:1057–1065.

[83] Eric Amster, Asheesh Tiwary, and Marc B. Schenker, 2007. Case Report: Potential Arsenic Toxicosis Secondary to Herbal Kelp Supplement. Environmental Health Perspectives 115(4): 606-608.

[84] §205.2.

## Cornstarch (native)

**205.606(v)**

As with every sunset material on §205.606, our review must begin by asking, "What is the barrier for producing these ingredients in organic form?" We found 11 suppliers of "cornstarch" listed in the Organic Integrity Database (OID); however, there are an additional 97 suppliers listed for "corn starch," for a total of 108 suppliers listed in the OID. It would appear that some cornstarch is sufficiently available in organic form—if not all. If the NOSB hears that there are forms that continue to be unavailable in organic form, the listing should be annotated to accurately reflect those unavailable in organic form. Maintaining a large category on 606 based on the unavailability of one or two different types of a material is a disservice to the organic marketplace. If there is the capacity to supply something as organic, we are shrinking the organic marketplace by keeping these materials on 606.

## Turkish bay leaves

**205.606(x)**

NOC supports the subcommittee's vote to remove Turkish bay leaves from §205.606 of the NL based on the apparently sufficient organic supply, support for removal from organic stakeholders, and listings on the OID.

## Whey protein concentrate

**205.606(z)**

NOC supports the subcommittee's vote to remove whey protein concentrate from §205.606 of the NL based on the more-than-sufficient organic supply, support for removal from organic stakeholders, and listings on the OID.

NOC is disappointed that in Fall 2015, when the NOSB voted unanimously to remove whey protein concentrate from the NL, the NOP relied on one comment to keep whey protein concentrate on the National List rather than trusting their own advisory board. At the time the one comment was received on the federal register, the NOP merely had to look to their own Organic Integrity Database to determine the organic supply available at the time. We feel strongly that if the NOP is going to ignore the will of their own advisory counsel, they need to have a much stronger reason than one comment. As per OFPA, the National List is to be based on the recommendations of the NOSB.[85] "The National List established by the Secretary shall be based upon a proposed national list or proposed amendments to the National List developed by the National Organic Standards Board."[86]

## Carnauba wax

**205.606(a)**

NOC supports the subcommittee's vote to delist carnauba wax from §205.606. As pointed out in the subcommittee's published materials, there are 19 listings on the OID for organic carnauba wax. Non-

[85] 7 U.S.C. § 6503(c) (OFPA §6503 (c) ("In developing the program under subsection (a), and the National List under section 6517 of this title, the Secretary shall consult with the National Organic Standards Board established under section 6518 of this title.")

[86] 6517(d) Procedure for establishing National List (1)

organic carnauba wax should not be used if organic carnauba wax is available. Since the TR documents the availability of organic carnauba wax, the HS should delist it.

## Colors (18)

**205.606(d) Colors derived from agricultural products - Must not be produced using synthetic solvents and carrier systems or any artificial preservative**

(1) Beet juice extract color (pigment CAS #7659-95-2);
(2) Beta carotene extract color;
(3) Black currant juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(4) Black/Purple carrot juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(5) Blueberry juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(6) Carrot juice color (pigment CAS #1393-63-1);
(7) Cherry juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(8) Chokeberry—Aronia juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(9) Elderberry juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(10) Grape juice color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(11) Grape skin extract color (pigment CAS#'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(12) Paprika color (CAS #68917-78-2)—dried, and oil extracted;
(13) Pumpkin juice color (pigment CAS #127-40-2);
(14) Purple potato juice (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134- 04-3);
(15) Red cabbage extract color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3);
(16) Red radish extract color (pigment CAS #'s: 528-58-5, 528-53-0, 643-84-5, 134-01-0, 1429-30-7, and 134-04-3;
(17) Saffron extract color (pigment CAS #1393-63-1);
(18) Turmeric extract color (CAS #458-37-7).

What is the barrier to organic production of colors? If carrot juice can be delisted, why can't black and purple carrot juice? Surely, these can be grown organically. These questions leave us wondering what is happening in the process to make conventional colors that is not allowed in the process to make organic colors?

The published materials note that "one [Spring 2020] comment came from a company that said they are a large manufacturer of organic colors and can supply market demands, but that price may be a deterrent for some companies. If this is the case, then there is commercial availability and price should not be a reason for relisting."[87] We could not agree more.

[87] NOSB October 2020 proposals and discussion documents, pp.82-83 of 173.

We recognize that barriers to producing these colors could be different for each of them. Pumpkin juice might have a different barrier than red cabbage. Since it is clear that the extraction and formulation process and the barriers involved for all of the different colors listed at 606 is not well understood, a limited-scope TR is needed. We strongly recommend using the questions put forth in our comments on the Petition Process for §205.606 from Spring 2020, included as Appendix F.

For farmers, finding a home for seconds that could be made into organic colors could make a huge difference in their profitability. The fact that these remain on 606 may mean that we are taking away an opportunity for an additional income stream at the farm gate. Materials should not remain on 606 simply because you cannot immediately call someone and obtain the material. We must identify the barriers to organic production to allow someone to address the barrier—the removal of hops from §205.606 of the National List is one fairly recent example where this process worked to incentivize organic production.

## Glycerin (CAS #56-81-5)

**205.606(h)**

We were surprised and disappointed to see that the Handling Subcommittee did not feel it was time to remove glycerin from §205.606 given the information provide by organic stakeholders. As stated in the spring 2015 published materials, "Petitioner has requested removal of glycerin from §205.605(b) (synthetic materials for handling), stating that there is now sufficient quantity of organically produced glycerin and that synthetic glycerin is no longer required."[88]

As part of our preparation work for writing our comments, we reached out to several manufacturers of organic glycerin on the OID—and there are many—to ask what they thought the barrier was for having organic glycerin. Of the more than 50 listings on the OID, we contacted 10 to begin this work. It didn't take long before we got answers that left us wondering why this material was still listed at 606. When asked specifically about the supply of *organic* glycerin, here are some of the responses we got:

> Today we are one of the largest suppliers of organic glycerin and trying to market to customers. We have a potential to produce 4000 metric tons annually (8.8 million pounds annually) but we are only selling about 15 percent of it. We are exhibiting in shows to market to customers. We are having provision to expand this to 200 percent if the market is ready to buy it, which would be 8000 MTS. This is much more than global demand at the moment.
>
> Due to the price gap between regular glycerin and organic glycerin, many customers do not want to change. We have a list of customers who we have approached who are using regular glycerin in organic products. They do not want to change because of price.
>
> There is enough available production capacity of organic glycerin at our side as well as with other producers/suppliers.
>
> Companies dealing in organic protein bars, cosmetics, Flavors , extracts etc. are the ones who do not want to switch for price point.

[88] NOSB April 2015 proposals and discussion documents, page 1 of 249.


It would be a great help if this regulation goes through as we can utilise our production capacity.

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We have Installed production capacity of 15000 MT per annum for Organic Glycerine and currently we are supplying 2500 MT per annum certified Organic Glycerine to various countries like USA, EU countries to use in Organic Food, Cosmetic and Nutraceuticals formulations. We can supply additional 12500 MT per annum Certified Organic Glycerine with our current production capacity, if demand rise further, we can add another 5000 MT annual production capacity of Organic Glycerine, as we are increasing our physical refining capacity of vegetable oils by 150 MTS/day (TPD).

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According to our Purchasing team, there is currently no shortage of organic glycerin and we have enough organic glycerin available.

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Per our conversation, we stock drums and totes of USDA/ NOP Certified Organic Glycerin in our USA warehouse. My manufacturer can produce 300 Metric Tons of this material each month.

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We buy, not sell. And we have no problem buying from various suppliers.

It seems obvious to us that glycerin does not belong on §205.606.

# Livestock Subcommittee (LS)

## Discussion Documents

## Fenbendazole for use in poultry – petitioned

NOC opposes the use of fenbendazole in poultry as proposed – to expand the use of fenbendazole to poultry by adding an annotation to 7 CFR §205.603(a)(23)(i) to include laying hens and replacement chickens intended to become laying hens with no withholding period and no defined parameters for use. The way this proposal is written opens the door for many abuses; it must be sent back to subcommittee for further work, or the NOSB must vote to not to expand the use of fenbendazole.

**USDA has withdrawn the Organic Livestock and Poultry Practices rule.**
The Organic Foods Production Act (OFPA) requires that only synthetic materials that are not harmful to human health and the environment, are necessary, and are consistent with organic farming and handling be allowed. The Organic Livestock and Poultry Practices rule (OLPP) would have established a baseline standard of practice for organic poultry producers that defined minimum standards for outdoor access and space indoors and outdoors. It would have required comprehensive plans to minimize internal parasite problems, including preventive measures such as pasture management, fecal monitoring, and emergency measures in the event of a parasite outbreak. In the absence of the OLPP, the NOSB cannot determine whether fenbendazole is necessary and compatible with organic practices.

**NOC opposes the addition of any kind of medication to the NL for use in organic poultry until the OLPP is reinstated—management practices must come before medications.**

As noted in the subcommittee's proposal,

> "Parasiticide use has been tolerated in organic livestock production on a limited basis to alleviate animal suffering. This has almost been, without exception, part of an integrated system of animal health management and requires documentation of a number of approaches other than intervention."[89]

Without appropriate management practices in place in the standards, how will poultry producers meet the requirement of "documentation of a number of approaches other than intervention"? We can only assume that *§205.271 Facility pest management practice standards* would apply; however, given that the standards were written with the thought that poultry practice standards would be added later, we feel this will provide a loophole for poultry producers.

Also noted in the proposal is that "studies show that sanitation of poultry runs is crucial. Pastures, yards and pens should be rotated frequently."[90] Without appropriate standards for organic poultry practices, how will poultry producers be held to these requirements?

Here again, we may look to *§205.238 (a)(3) Livestock health care practice standard. (a) The producer must establish and maintain preventative livestock health care practices, (3) Establishment of appropriate housing, pasture conditions, and sanitation practices to minimize the occurrence and spread of diseases and parasites.* However, this section of the standards applies only to breeder stock, dairy animals, and fiber bearing animals.

The April 2020 discussion document noted, "Organic producers will need to utilize preventative management practices defined in their Organic System Plan as a first line of defense for internal parasites, and if those preventative practices fail an emergency treatment of fenbendazole may be required to control internal parasites." These "preventative management practices" must be clearly defined. Without clear poultry living condition standards in organic regulations, "preventative management practices" become an issue of subjectivity, and yet another area of inconsistency among certifiers and a potential loophole for dishonest producers.

Practices that are currently required by the standards for use with ruminant livestock, specifically, good pasture management methods to control parasites, are not required for poultry. It is common knowledge that rotational pasture management is one of the most effective ways to reduce the number of parasites that animals consume. Subjectivity surrounding the issue of outdoor access in poultry is already problematic among certifiers and producers.

**Organic practices do not mimic conventional practices.**
We question the petitioned expanded use of fenbendazole that includes "replacement chickens intended to become laying hens," as well. In the poultry world, these would be referred to as pullets and are raised in a pullet house, without outdoor access, until the age of 16-18 weeks. While we appreciate the proposal telling us about how "conventional poultry producers typically administer Fenbendazole to pullets (age 17 weeks of age) or before outdoor access is given to birds to ensure birds have no internal parasites before

[89] NOSB, October 2020 proposals and discussion documents, p.111 of 173.
[90] *Ibid,* p.108 of 173.

starting egg production,"[91] we are unsure how that applies to organic birds. In theory, *§205.238(c)(2) Livestock health care practice standard. (c)The producer of an organic livestock operation must not: (2) administer any animal drug, other than vaccinations, in the absence of illness* would not support this practice—unless, of course, this practice standard would not be extended to poultry, which again creates a major loophole for the use of fenbendazole in laying hens and replacement chickens intended to become laying hens.

Further, the very next sentence of the proposal notes "when birds receive access to the outdoors they come into contact with soil and in turn come into contact with internal parasites."[92] The petitioner, as well, repeatedly points to access to the outdoors being the issue for birds coming into contact with parasites. Given that organic practices do not mimic conventional practices, the practice of treating "replacements chickens intended to become laying hens" is incompatible with organic production.

**The need for fenbendazole has not been established.**
While we have appreciated the pictures of eggs with worms in them that have been shared repeatedly, what we would most like to see is real data regarding the percent of eggs that have worms in them versus the percent of eggs that would have fenbendazole residue in them. We would like to see real data regarding the percent of eggs that are being discarded due to worm issues versus the percent of eggs that make it to consumers because they do not have worms in them.

**The definition of "emergency" has not been put into regulations.**
We share the concern of the "public commenters [who] stated their concerns that the definition of 'Emergency' had not been adopted by the NOP [and that] without 'Emergency' being adopted the use of Fenbendazole in laying hens and chickens intended to become laying hens was 'ripe for fraud.'"[93] Not only are we concerned that the definition of "Emergency" has not been adopted by the NOP for the use of parasiticides in livestock animals, we are further concerned that there has been no discussion from the LS regarding expanding this definition should fenbendazole be approved for use in poultry. §205.238(b) applies only to breeder stock, dairy animals, and fiber bearing animals, and thus does not cover the use of parasiticides in poultry.

**Concerns around spent hens being sold as organic are valid.**
While the author of the proposal noted that, "One commenter was concerned that spent laying hens might end up being used for slaughter in soups, etc. That concern is not valid as the current annotation prohibits the livestock from being used as slaughter animals after treatment with Fenbendazole."[94] We remind the LS that §205.238(5) Livestock health care practice standard. (5) Administer synthetic parasiticides to slaughter stock, was written to apply to breeder stock, dairy animals, and fiber bearing animals. For this concern to be addressed, the issue of not allowing spent hens that had been treated with parasiticides to be sold as organic would need to be codified within the standards.

## Inconsistencies in interpretation among certifiers is a recognized issue.

In the April 2020 published materials the livestock subcommittee said, "Producers and certifiers would need to work together to define what an emergency is for each producer."[95] As the NOSB and NOP strive

[91] *Ibid,* p.106 of 173.
[92] *Ibid,* p.106 of 173.
[93] *Ibid,* p.107 of 173.
[94] *Ibid,* p.107 of 173.
[95] NOSB April 2020 proposals and discussion documents, Page 84 of 115.

to clean up the NL to help create clarity and eliminate discrepancies in interpretations among certifiers, this would only serve to create more inconsistencies.

As recently as July 16, 2019, the CACS requested to work on the topic of inconsistencies between certifiers.[96] This is a recognized issue that is addressed many times over through NOSB meetings, within published materials, and has been extensively addressed within the proposed rule on Strengthening Organic Enforcement. Clear guidelines need to be provided, and the use of a parasiticide must depend on a definition of "emergency" in the NOP regulations.

**Residues of fenbendazole will be present in eggs.**
While NOC recognizes that fenbendazole is already permitted under restrictive conditions for other livestock species, it is permitted with a withholding period, as appropriate, for each class of animal, based upon residue present in the organic product – whether it be wool or milk. The April 2020 discussion document clearly states that "fenbendazole in eggs of treated chickens at zero-day withdrawal are well below the safe concentration of 2.4 ppm for residues in eggs." This alone supports a withholding period – organic consumers expect that there will be no chemical residue in organic foods.

We refer you to the more in-depth comments from Beyond Pesticides regarding residues in eggs and the metabolism of fenbendazole in poultry.

Allowing residue in eggs based on an FDA allowance in conventional eggs is a slippery slope. Using FDA allowances, which are not based on OFPA criteria, is problematic. To be clear, the FDA does not require a withdrawal time on the label for milk from dairy cattle, either, but within the organic program we follow a precautionary principle that guides our decision making, not what the conventional market requires.

> The Precautionary Principle, integrated into many international conventions and national laws, is aptly described in the Wingspread Consensus Statement on the Precautionary Principle: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action."[97]

It is our understanding that the withdrawal time is problematic due to laying houses not knowing what to do with the eggs during that time. Up until recently, the withdrawal time for dairy animals has been 90 days – 90 days of discarding milk or finding another use for it. Farmers are innovative.

**"No parasiticides and no chemical residue in our eggs."**
If organic allows fenbendazole for treatment of laying hens, there will be producers – both organic and conventional – who, based on good management practices, do not need to use it. Further, there will be commercial producers who will not allow its use, and this will become another label claim and marketing

[96] NOSB Executive Committee Meeting notes, Page 21 of 42, https://www.ams.usda.gov/sites/default/files/media/ESNotes2019Dec.pdf.

[97] Hanson, J., Hoffman E., Thomas, J.. "The Principles for the Oversight of Synthetic Biology." p.6. http://www.icta.org/files/2016/09/ICTA_Principles_Oversight-Synthetic-Biology.pdf

tool – "No parasiticides and no chemical residue in our eggs." Consumers will understand that organic will be left with an inferior quality product. This will become another practice that undermines consumer trust in the organic label, and consumers will begin to question how far reaching this practice is when it comes to organic food.

**"Many of the public comments were focused on human health concerns resulting from the FDA allowance of 2.4 ppm residual of Fenbendazole in eggs when there is no withdrawal time."**[98]
We share this concern, and would assert that the information provided in the TR and included in the LS proposal bears this concern out.

> "The TR found that infants and children are considered at a greater risk from exposure to veterinary drug residues than adults, because of their lower weight, growth and developmental stage which many risk assessment models do not include. The study also indicated increased risks to pregnant women and fetuses exposed to the drug (Boobis et al. 2017)."[99]

Perhaps the most important lesson we have learned from life since the beginning of the pandemic is that we must protect the most vulnerable among us. The very next sentence of the proposal says, "In a study of food safety risks, Fenbendazole was rated as having a **medium likelihood of occurrence** (Bobkov and Zbinden2018)."[100] The Organic Foods Production Act (OFPA) requires that only synthetic materials that are not harmful to human health and the environment, are necessary, and are consistent with organic farming and handling be allowed. Nowhere throughout the OFPA does it reference practices that "in a study of food safety risks [only have] a medium likelihood of occurrence."

Additionally, the Merck Animal Health Material Safety Data Sheet (MSDA) for panacur granules contains the following information:

> "The active ingredient fenbendazole is a benzimidazole carbamate anthelmintic that is structurally related to mebendazole. Therapeutic use of mebendazole, a substance of the same chemical class as fenbendazole, has been reported to cause gastrointestinal disturbances (transient abdominal pain), diarrhea, headache, and dizziness."[101]

And further goes on to note:

> "A number of oral subchronic and chronic animal studies have been conducted with fenbendazole and have demonstrated that the liver is the main target tissue. In addition, stomach, kidneys, blood, immune system, and central nervous system are also affected by treatment with fenbendazole."[102]

No consumer of organic products should be comfortable with a "medium likelihood of occurrence" when it comes to food safety risks. Many immune suppressed individuals turn to organic as a healthier choice. Consumers expect better, and we must do better.

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[98] *Ibid,* p.107 of 173.
[99] *Ibid,* p.108 of 173.
[100] *Ibid,* p.108 of 173.
[101] Merck Animal Health, Material Safety Data Sheet, PANACUR granules, MSDA #SP02199, Published January 13, 2011, Revised September 28, 2011, p.2. https://northamerica.covetrus.com/Content/pdfs/P025258.pdf
[102] *Ibid,* p.2.

**Conclusion**
NOC opposes the use of fenbendazole in poultry as proposed – to expand the use of fenbendazole to poultry by adding an annotation to 7 CFR §205.603(a)(23)(i) to include laying hens and replacement chickens intended to become laying hens with no withholding period and no defined parameters for use.

## Sunset

## Butorphanol

**205.603(a) As disinfectants, sanitizer, and medical treatments as applicable**
**(5) Butorphanol (CAS #-42408-82-2) - federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires:**
**(i) Use by or on the lawful written order of a licensed veterinarian; and**
**(ii) A meat withdrawal period of at least 42 days after administering to livestock intended for slaughter; and a milk discard period of at least 8 days after administering to dairy animals.**

It is our understanding that the use of butorphanol is an extra-label use and is not labeled for use in food animals. 21 CFR §522.246 addresses the use of butorphanol in dogs, cats, and horses. Under horses, the following restriction is listed:

(iii) *Limitations.* Do not use in horses intended for human consumption.

With regard to the extra-label use (ELU) in food animals under AMDUCA, we understand that butorphanol is allowed because the use is not prohibited. USDA did determine that butorphanol is listed in the Food Animal Residue Avoidance Databank (FARAD), and the listed meat withdrawal and milk discard times are twice those listed in FARAD (2007 FR Notice).[103]

Since the public expects that organic production requirements are more stringent than FDA's, and because the FDA does not have the same organic sensibility when reviewing materials and does not review them in the same way that we would within the organic industry, we ask the LS to address why this material is allowed in ruminants with products (milk and meat) intended for human consumption.

## Poloxalene

**205.603(a) As disinfectants, sanitizer, and medical treatments as applicable**
**(21) Poloxalene (CAS #-9003-11-6)—for use under 7 CFR part 205, the NOP requires that poloxalene only be used for the emergency treatment of bloat.**

Given the existence of preventive measures and more compatible treatments for the treatment of bloat in organic animals, the NOSB should not relist poloxalene unless there is strong evidence of need.

## Formic acid

**§205.603(b) As topical treatment, external parasiticide or local anesthetic as applicable**
**(2) Formic acid (CAS # 64-18-6) - for use as a pesticide solely within honeybee hives.**

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[103] USDA, 2007. National Organic Program (NOP); Amendments to the National List of Allowed and Prohibited Substances (Livestock). Federal Register Vol. 72, No. 238, Wednesday, December 12, 2007, pp.70479- 70486.

NOP must adopt apiculture rules, which would provide a framework for making decisions about materials used in organic beekeeping. Until such standards are developed, we have a difficult time commenting on materials for use in organic apiculture. In addition, we would note that without such standards in place, discrepancies among certifiers arise.

## Excipients

**205.603(f) Excipients, only for use in the manufacture of drugs used to treat organic livestock when the excipient is: Identified by the FDA as Generally Recognized As Safe; Approved by the FDA as a food additive; or Included in the FDA review and approval of a New Animal Drug Application or New Drug Application.**

**As defined in:**
**§205.2 Excipients. Any ingredients that are intentionally added to livestock medications but do not exert therapeutic or diagnostic effects at the intended dosage, although they may act to improve product delivery (e.g., enhancing absorption or controlling release of the drug substance). Examples of such ingredients include fillers, extenders, diluents, wetting agents, solvents, emulsifiers, preservatives, flavors, absorption enhancers, sustained-release matrices, and coloring agents.**

Like "inert" ingredients in pesticide products, excipients in animal medications are not necessarily biologically or chemically inactive, and are not always listed on the label. If the Board is to do its job in reviewing excipients in accordance with OFPA, it must have adequate information about the identity and function of excipients. Therefore, it must seek information from materials review organizations and animal drug manufacturers to identify the excipients that are present in products used in organic livestock production so that they can be evaluated by the Board.

**Inconsistencies in interpretation among certifiers is a recognized issue.**
How excipients are currently being reviewed in livestock health products by certifiers causes discrepancies. As the NOSB and NOP strive to clean up the NL to help create clarity and eliminate discrepancies in interpretations among certifiers, the issue of excipients needs to be addressed.

As pointed out in the 2015 technical evaluation report on excipients, and mentioned in the Best Practices for Common Material Review Issues document from the Accredited Certifiers Association (ACA):

> Although synthetic excipients did not appear at §205.603 until 2007, they have been used in livestock drugs and health care products with various interpretations by certification agencies and Material Review Organizations (MROs) as to their allowance (NOSB 2009). Since their listing on §205.603, there has still been some confusion among certification agencies about direct vs. indirect food additives, how those may be used, and their compliance with the excipient annotation (since the annotation does not stipulate 'direct' food additives and only says "approved by the FDA as a food additive"). Some certification agencies permit the use of indirect food additives only in health care products that are intended for external application (e.g., teat dips) while others do not permit them at all. Others permit indirect food additives in all types of health care products, including oral and injectable formulas. Further, despite the fact that injectable vitamins and minerals do not appear on the National List, certification agencies appear to be consistently permitting their use with excipients as part of the formula. Finally, there is some confusion about whether excipients appearing in the FDA Inactive Database for NADAs and NDAs

can be used in illegally marketed drugs as well, or if only NADAs and NDAs may contain excipients from that particular database (Fernandez-Salvador 2014; personal experience).[104]

In addition, it is our understanding that there are also discrepancies among certifiers for the allowance of GRAS materials with the "letter of no question GRAS." Some certifiers do not allow materials that are "letter of no question GRAS," because this procedure was not evaluated by the NOSB when the listing for excipients was created, but other certifiers do allow these materials as GRAS excipients.

In 2015, CCOF said that the present annotation is not clear. It allows for almost anything to be allowed as an excipient, but materials reviewers have to research using multiple databases (CFR title 21, GRAS database, EAFUS database, etc.) to gather that information. A clear annotation should state which specific excipients would be allowed.

The LS should make a commitment to addressing the issue of excipients used in organic production. We could envision this being done similarly to how we suggest addressing inerts – see our full comments on inerts under Crops.

### EPA List 4 – Inerts of Minimal Concern

**205.603(e) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.**

**(1) EPA List 4 -Inerts of Minimal Concern**

See NOC's full comments on EPA List 4 – Inerts of Minimal Concern under Crops.

### Strychnine

**Reference: §205.604 Nonsynthetic substances prohibited for use in organic livestock production. The following nonsynthetic substances may not be used in organic livestock production: (a) Strychnine.**

NOC supports relisting strychnine at §205.604 of the National List.

## Materials Subcommittee (MS)

### Excluded Methods

NOC urges the NOSB to act with great care to ensure that excluded methods are kept out of organic production and to move forward in its evaluation of new genetic techniques with urgency using the process and criteria laid out by the NOSB in 2016.[105] NOC provided a more detailed comment on this topic in Spring 2020. We have included that comment in Appendix C.

[104] 2015 Technical Review on Excipients in Livestock, lines 226-239.

[105] NOSB, *Formal Recommendation: Excluded Methods Terminology Recommendation,* November 18, 2016, https://www.ams.usda.gov/sites/default/files/media/MSExcludedMethods.pdf

## Petitions / Vote

## Marine macroalgae in crop fertility inputs

**§205.601 Synthetic substances allowed for use in organic crop production**

This proposal suggests an annotation to §205.601 (j)(1) requiring (proposed annotation changes are in red):

1) In accordance with restrictions specified in this section, the following synthetic substances may be used in organic crop production: Provided that, use of such substances does not contribute to contamination of crops, soil, or water...

(j) As plant or soil amendments.

Aquatic plant extracts (other than hydrolyzed) –Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount use is limited to that amount necessary for extraction. Harvest Parameters - "Prohibited harvest areas: established conservation areas under federal, state, or local ownership, public or private, including parks, preserves, sanctuaries, refuges, or areas identified as important or high value habitats at the state or federal level. Prohibited harvest methods: bottom trawling and harvest practices that prevent reproduction and diminish the regeneration of natural populations. Harvest practices should ensure that sufficient propagules, holdfasts, and reproductive structures are available to maintain the abundance and size structure of the population and its ecosystem functions. Harvest timing: repeat harvest is prohibited until biomass and architecture (density and height) of the targeted species approaches the biomass and architecture of undisturbed natural stands of the targeted species in that area. Bycatch: must be monitored and prevented, or eliminated in the case of special status species protected by U.S. Fish and Wildlife Service or National Marine Fisheries Service."

2) An additional listing is proposed at §205.602 prohibiting marine macroalgae unless produced in accordance with the following annotation (identical to that proposed for §205.601 (j)(1)) in order to address marine macroalgae used in non-synthetic products and therefore not covered by the annotation under Aquatic Plant Extracts. This prohibition, unless harvested in accordance with the annotation, would help safeguard that marine macroalgae harvested for and used in organic crop production do not harm the environment (proposed changes are in red):

**§205.602 Nonsynthetic substances prohibited for use in organic crop production.**

The following nonsynthetic substances may not be used in organic crop production:

(j) Marine macroalgae (seaweed)--unless harvested in accordance to the following parameters: Non-commercial harvests for whole and unprocessed seaweed are exempt from these parameters.

Harvest Parameters - "Prohibited harvest areas: established conservation areas under federal, state, or local ownership, public or private, including parks, preserves, sanctuaries, refuges, or areas identified as important or high value habitats at the state or federal level. Prohibited harvest methods: bottom trawling and harvest practices that prevent reproduction and diminish the regeneration of natural populations. Harvest practices should ensure that sufficient propagules, holdfasts, and reproductive structures are available to maintain the abundance and size structure of the population and its ecosystem functions. Harvest timing: repeat harvest is prohibited until biomass and architecture (density and height) of the targeted species approaches the biomass and architecture of undisturbed natural stands of the targeted

species in that area. Bycatch: must be monitored and prevented, or eliminated in the case of special status species protected by U.S. Fish and Wildlife Service or National Marine Fisheries Service."

NOC would like to first and foremost recognize the incredible amount of work that has gone into this proposal and the NOSB's careful and deliberative process to solicit stakeholder feedback. The NOSB has spent countless hours seeking a middle path and balancing stakeholder views.

NOC strongly supports the annotation put forward as a first step to address a broad issue. We support not setting a precedent that requires certification of other fertility inputs. We also appreciate the wording of the annotation

Our comments will further focus on suggestions for what we see as next steps in this process. The language available at §205.2 Organic Production provides the framework for our comment.

> **§205.2 – *Organic Production*. A production system that is managed in accordance with the Act and regulations in this part to respond to the site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.**

**Regulatory backing is required for enforceability.**
We support the harvest parameters detailed in the proposed language. We believe that annotation is the most effective way to introduce enforceable protective rules for marine algae. An annotation is not subject to discretionary alteration without a decisive vote of the NOSB. On the other hand, because substances on the National List are reviewed on a five-year cycle, the listings can be modernized when needed.

**Robust guidance is needed as a next step.**
The proposed annotation does a good job in outlining the "site-specific conditions" that should be taken into consideration when it comes to organic production of marine macroalgae, and has also addressed many of the "cultural, biological, and mechanical practices" that must be considered. As a next step, robust guidance is needed to clarify the requirements, as most certifiers and inspectors are not familiar with marine ecosystems. Although the annotation is specific with regard to harvest sites, harvest methods and practices, harvest timing, and bycatch avoidance, these parameters should be spelled out in more detail in guidance. A task force of experts should be employed to assist in writing guidance. We suggest the following information needs to be included and can be a starting point for guidance:

- Clarify marine algae listings on the NL by adding Latin binomials. We have attached NOC's Fall 2017 NOSB comments as Appendix G for further details.
- Indicate whether specific species, identified by Latin binomials, are allowed or prohibited in organic production due to conservation, contamination, or other sustainable harvest issues. The NOSB and NOP should be prepared to specifically prohibit use of marine algal species if the language of the annotation is not sufficient to protect them.
- Identify enforcement challenges with respect to geography, as well as species, and provide a detailed approach.
- Define the ecosystem functions of marine macroalgae to further the intent of the annotation to protect and minimize impact on all of the species that live in that community.
- Set a prohibition against the importation for growth of nonnative species of algae into an area. This is prohibited under state law in some states, but not others. By allowing this practice, it allows

all of the diseases that may come with the vegetation without knowing the affects this is going to cause.

**Continued research is needed.**
Additionally, more research is needed to identify the harvest impacts of economically important marine plant species on the surrounding marine ecosystem, including benthic and pelagic communities. The available literature tends to focus more on sustainable exploitation of seaweeds than on their ecology.

**Conclusion**
NOC strongly supports the proposed annotation and urges the NOSB to vote in favor of this action. NOC continues to be supportive of the work done to address the environmental impacts of the use of marine algae in organic production that is managed in accordance with the Act and regulations to respond to the site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. When considering this listing in the broader context of that work, the NOSB should consider the different types of seaweeds and different characteristics of each when it comes to both community biodiversity and marine algae species characteristics. Further, a better understanding of the different locations where harvesting takes place, as well as wild harvest versus cultivation of seaweed, is needed for informed decision-making.

## Discussion Documents

### Assessing cleaning and sanitization materials used in organic crops, livestock, and handling

NOC looks forward to the upcoming panel discussion on sanitizers on November 12, 2020, and thanks the NOP and the NOSB for moving forward with this important work. Providing a tool that identifies the needs in organic production for cleansers, sanitizers, and disinfectants would help inform the NOSB when evaluating petitions for sanitizers to assess whether other materials currently on the NL meet the same needs, or whether there is a special characteristic to the material under review that justifies its placement or renewal to the NL. This assessment may help identify areas where there are gaps in necessary sanitizers or disinfectants which aid organic crops, livestock, and/or handling operations in the promotion of food safety.

The goal of this work would be to result in some kind of reference material for the NOSB to help them understand the various categories or classes or families of sanitation materials, where they are most needed, and what would have the least and most environmental and human health impacts. The NOSB needs reference materials that will help them decide whether petitioned materials are filling a need, as well as whether a material that is less desirable could be taken off the list and replaced with a new material.

We offer our Spring 2019 comments on assessing cleaning and sanitation materials used in organic crop, livestock, and handling as Appendix H, and request that our comments, along with the Spring 2019 NOSB discussion document, be provided to the panel members to help inform them of the viewpoint of organic stakeholders.

# Policy Development Subcommittee

## Discussion Document

## Consent Calendar Voting

NOC opposes the use of a consent agenda in NOSB meetings, especially for the use proposed in the discussion document—grouping sunset items. While it may appear that grouping sunset listings could save time, we believe that the opposite outcome is likely—that grouping listings would take more time through debate over the appropriateness of the grouping. If, as the discussion document suggests, these agenda items are non-controversial (which is rarely the case across all stakeholders, and would be another subject of debate), then the only time that would be saved would be in running through the roll call vote.

Consent agendas are frequently used in public meetings in which the entire assembly has had an opportunity to debate the issue at previous meetings. This is not the case for the NOSB, which meets twice a year. Although sunset materials are on the agenda for two consecutive meetings, the first is an information-gathering session, not a debate. A motion to delist is brought to the floor of the second meeting. There is no opportunity to assess controversy before the second meeting.

Here is what Robert's Rules of Order says about a consent calendar:

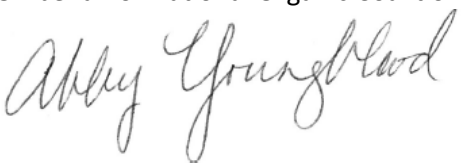
> Consent Calendar. Legislatures, city, town, or county councils, or other assemblies which have a heavy work load including a large number of routine or noncontroversial matters may find a consent calendar a useful tool for disposing of such items of business. Commonly, when such a matter has been introduced or reported by a committee for consideration in the assembly, its sponsor, or, sometimes, an administrator, may seek to have it placed on the consent calendar. This calendar is called over periodically at a point established in the agenda by special rule of order, at least preceding standing committee reports. The matters listed on it are taken up in order, unless objected to, in which case they are restored to the ordinary process by which they are placed in line for consideration on the regular agenda. The special rule of order establishing a consent calendar may provide that, when the matters on the calendar are called up, they may be considered in gross or without debate or amendment. Otherwise, they are considered under the rules just as any other business, in which case the "consent" relates only to permitting the matter to be on the calendar for consideration without conforming to the usual, more onerous, rules for reaching measures in the body.

There are several prerequisites that have been generally accepted for placing business items on a consent agenda (or consent calendar). As noted in the excerpt from Robert's Rules above, they are generally routine or noncontroversial issues. Some have offered the examples of minutes, committee reports, routine correspondence, and final approval of proposals or reports that have been fully discussed and vetted at past meetings.

Sunset items are rarely noncontroversial—with the exception of prohibited nonsynthetic materials such as arsenic and strychnine—and should be fully debated. Transparency is important to the functioning of the NOSB in its role of guiding the National Organic Program. Procedures such as the consent agenda decrease transparency and should be avoided.

Thank you for your consideration of these comments.

On behalf of National Organic Coalition Members:



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**National Organic Coalition Members:**
Beyond Pesticides
Center for Food Safety
Consumer Reports
Equal Exchange
Food & Water Watch
Maine Organic Farmers and Gardeners Association
Midwest Organic and Sustainable Education Service
National Co+op Grocers
Northeast Organic Dairy Producers Alliance
Northeast Organic Farming Association
Ohio Ecological Food and Farm Association
Organic Seed Alliance
PCC Community Markets
Rural Advancement Foundation International – USA

# Appendix A

## Highly Soluble Nutrients – NOC Spring 2020 NOSB Comments

OFPA embodies a vision of ecosystem complexity as a basis for organic certification that is contrary to using "bags of nutrients" to feed crops. OFPA §6513(b) requires that organic operations establish a plan designed to "foster soil fertility, primarily through the management of the organic content of the soil through proper tillage, crop rotation, and manuring."

The NOP followed OFPA and the original certifiers' insistence on soil management when they wrote the organic regulations. Key provisions in the organic regulations include:

- 7 CFR § 205.105 prohibits the use of synthetic substances, including synthetic fertilizers.

- 7 CFR § 205.203 requires that producers implement tillage and cultivation practices that maintain or improve soil health and that producers manage soil health using crop rotations, cover crops, and plant and animal manures. Producers are also required to "maintain or improve" soil organic matter. This section of the regulations leaves no room for exceptions. Sections 205.203 (a), (b), and (c) say that the producer must improve the soil, must manage crop nutrients and soil fertility through rotations, cover crops and application of plant and animal materials, and that the producer must manage plant and animal materials to maintain or improve soil organic matter. In other words, the organic regulations require that the organic production system be based on "feeding the soil, not the plant."

- 7 CFR § 205.205 requires farmers to implement crop rotations to improve soils, prevent erosion, and to manage nutrient levels and pests.

Compliance with these provisions is verified through annual inspections and review by a third-party certification agency.

**Substances of high solubility are allowed, but regulated.**

Substances of high solubility, i.e., those materials that provide nutrients directly to the plant because they are quickly taken up into the plant from the soil solution, have always been allowed. However, these materials are counter to foundational organic principles, so they have always been regulated. The early certification agencies allowed them but limited their use. OFPA leaves a place for them, but still requires that soil management be the heart of organic production. Additionally, the USDA National Organic Program did a good job in crafting organic regulations that allow substances of high solubility, but limit their use to essentially "rescue treatments" of a soil that otherwise is managed by methods consistent with organic principles. The NOP wisely put such materials into 7 CFR § 205.602 - Nonsynthetic substances prohibited for use in Organic Crop Production or the "prohibited naturals" section of the National List:

1) Calcium chloride is limited to treating a physiological disorder;

2) Potassium chloride must be used in a manner that minimizes chloride accumulation in the soil; and

3) Sodium nitrate is restricted to no more than 20% of the crop's total nitrogen requirement.

**The organic regulations limit substances of high solubility.**
There is a preamble to the publication of the NOP Final Rule on December 21, 2000. In the preamble, the NOP discusses how they decided to agree with the NOSB recommendation and to put specific regulation of substances of high solubility into the annotations for each of these materials where they appear on the National List of Allowed and Prohibited Substances.

The NOP goes on to say, "Based on the recommendation of the NOSB, the final rule would prohibit use of these materials [substances of high solubility], unless the NOSB developed recommendations on conditions for their use and the Secretary added them to the National List."

At the time, the discussion was about mined substances of high solubility, but that is because there were not any concentrated, highly soluble plant nutrient materials other than mined sources available at that time. New materials of high solubility that are now used similarly miss the aim of organic production systems, and should be regulated in the same way mined sources are. These highly soluble materials, most of which are non-synthetic, do not appear on the National List and are used in both soil-based production, as well as in some hydroponic and container systems.

In other words, concentrated, highly soluble sources of plant nutrients should not be prohibited altogether. Instead, they should be regulated by being added to 7 CFR § 205.602 so as to not allow organic producers to stray from the foundational principle of organic production, i.e. “feed the soil, not the plant.” One way to do this would be to add these substances to the list of prohibited naturals with annotations that limit their use to no more than 20% of the crop's total nutritional need. In order to simplify the work of certifiers, we suggest that nitrogen fertilizers be used as an indicator. For example, the following could be added to 205.602, "Highly soluble sources of nitrogen – unless use is restricted to no more than 20% of the crop's total annual nitrogen requirement.”

**Conclusion**
The organic community must take further steps to ensure that organic continues to rest on the foundation of “feed the soil, not the plant.” Giving further scrutiny to the use of highly soluble nutrients in organic would help to ensure that soil-building and carbon sequestration processes on organic farms are the heart of organic production and that this foundation is not short-circuited through the use of fast-acting highly soluble nutrients.

To this end, NOC recommends the NOSB add an item to its work agenda that focuses on identifying and strengthening organic practices for climate mitigation, adaptation, and carbon sequestration. Included in this agenda item should be an evaluation of highly soluble nutrients and container production practices through this lens. Such an effort would serve to bolster clarity and consistency of enforcement across certifiers, hold producers to foundational principles of organic production, and strengthen organic producers’ position in the climate discussions and initiatives across the country.

# Appendix B

## EPA List 4 – Inerts of minimal concern – NOC Spring 2020 NOSB Comments

**205.601(m) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances. (1) EPA List 4 – Inerts of Minimal Concern.**

Regarding EPA List 4 – Inerts, NOC strongly supports the crops subcommittee's statement that "the current situation, where NOP policies are tied to long outdated US EPA guidance, is broken." It is an embarrassment to organic integrity that "the list of 'inerts' that is referenced for review of products for organic certification was last updated in August 2004."[106] The same issues are identified repeatedly every time inerts come up for sunset. The NOSB has made recommendations on how to move forward in resolving these issues, and in February 2016, the NOP issued the following response to the Fall 2015 NOSB recommendation:

> The NOP has reviewed the NOSB's recommendation and plans to collaborate further with EPA's Safer Choice Program to develop a program for inert ingredient review, and to initiate notice and comment rulemaking to revise the annotations for inert ingredients at 205.601(m) and 205.603(e).[107]

The NOP has an opportunity to act on this collaboration and put to rest the extinct EPA List references when it comes to "inerts."

We agree with the crops subcommittee that "the EPA Safer Choice Program is well established and offers a strong partner to identify acceptable inert materials, without each material needing to be reviewed individually by the NOSB."[108] We offer greater details below on how the NOP could contract with the EPA to prepare Technical Reviews (TRs) and review "inerts" to the OFPA criteria.

But first NOC recognizes the need to hire a National List (NL) manager to be able to accomplish these goals, and would suggest that perhaps there is a need for more than one NL manager at this time. While we know it is the preference of the Program that the NL manager work in the D.C. office, NOC strongly encourages the NOP to consider well-qualified individuals that live in the D.C. area, or are willing and able to relocate, as well as those that would work remotely. By limiting the search to only those who live in or are willing to relocate to the D.C. area, the NOP is severely limiting the opportunity to find the most qualified individual for the job.

Further, we recognize the need for an individual within the NOP to be able to work with the NOSB members and act as a liaison between the NOP, NOSB, and EPA. We further recognize that the NOP interacts with many other government agencies, and could envision building a job based on being a liaison with other departments within the USDA, with the EPA, and with other agencies. We support the NOP's efforts to increase their workforce in order to be able to accomplish the goals put before you. The NOP must identify a staff person who can devote him or herself to working with the EPA and NOSB to move this work on inerts forward.

The remainder of our comments will focus on answering questions posted by the subcommittee.

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[106] NOSB April 2020 proposals and discussion documents Page 33 of 115.
[107] Miles McEvoy, February 29, 2016 Memorandum to NOSB.
[108] NOSB April 2020 proposals and discussion documents Page 36 of 115.

**Are there specific inert ingredients used in organically approved pesticide formulations that raise human health or environmental concerns?**

Nonylphenol ethoxylates, and especially their precursor and degradates nonylphenols, are toxic and disruptive to the reproductive system. They were among the first environmental contaminants to be identified as "gender benders" – that is, chemicals that act as estrogens in the environment. According to the TR, "Virtually every environmental compartment can be contaminated through the use of NPEs. These substances generally enter the environment through wastewater, although large-scale applications of NPE dispersing agents in pesticide mixtures will also result in releases to soil, groundwater and neighboring surface waters. In the long term, contamination associated with NPE use occurs in the form of the more toxic and persistent metabolite, NP [nonylphenols]."[109]

NPs have higher levels of toxicity, estrogenic activity and environmental persistence than NPEs. The TR says, "However, release of NPEs to the environment from agricultural and consumer products ultimately leads to the introduction of more highly toxic and persistent NP residues. A lifecycle analysis of NPEs therefore highlights a conflict between use of these substances and the principles of organic agriculture, which seeks to avoid contamination of the environment with toxic and persistent substances."[110]

Because of concerns about the adverse health and environmental effects of NPEs, EPA's Design for the Environment (DfE) completed an alternatives assessment for synthetic surfactants, like NPEs, that are endocrine disrupting chemicals. DfE's goal is to assist in the voluntary phase-out of NPEs used in industrial detergents. The DfE assessment for NPEs reviewed several alternatives to NPE surfactants that are comparable in cost, readily available, and rapidly biodegrade to non-polluting, lower hazard compounds in aquatic environments.[111]

The European Union prohibits the use of NPE's in pesticides and teat dips.[112] Because major importers of dairy products in other countries are concerned about NPEs, teat dips containing NPEs are no longer available for either organic or nonorganic dairy production.[113] **The NOSB should have no trouble prohibiting NPEs in teat dips.** At this time, we would consider the prohibition of NPEs in teat dips a good start in the right direction.

NOC fully supports the removal of all NPEs as so-called "inert" ingredients in pesticides. So-called "inert" ingredients in pesticide products are neither chemically nor biologically inert. They are designed to enhance the pesticidal activity of pesticide products and can have toxic properties that do not meet the standards of the Organic Foods Production Act (OFPA). We point you to the

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[109] 2015 Limited Scope TR: Nonylphenol Ethoxylates (NPEs), Lines 647-651, https://www.ams.usda.gov/sites/default/files/media/NPE%20Technical%20Evaluation%20Report%20%282015%29.pdf.

[110] 2015 Limited Scope TR: Nonylphenol Ethoxylates (NPEs), Lines 553-556, https://www.ams.usda.gov/sites/default/files/media/NPE%20Technical%20Evaluation%20Report%20%282015%29.pdf.

[111] Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses and Bioaccumulation of Alkylphenols and Alkylphenol Polyethoxylates, Water Qual. Res. I. Canada,Volume 34, No. 1, 123-177. A support document for Environment Canada's environmental assessment under the Canadian Environmental Protection Act.

[112] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

[113] https://s3.amazonaws.com/static.boumatic.com/archive/16-DairySS_CAN_ENG_WEBview.pdf, https://extension.usu.edu/dairy/files/UtahStateDairyVetNewsletterNov2014.pdf.

more detailed comments on NPEs by our member organization, Beyond Pesticides, for further details.

**Are there any alternatives for updating this listing other than the review of each substance individually or adoption of the EPA Safer Choice Program?**

Although the recommendation passed by the NOSB at its fall 2015 meeting is inadequate to ensure that "inerts" meet OFPA criteria, the Safer Choice Program (SCP) and Safer Chemical Ingredients List (SCIL) can be helpful to the NOSB in reviewing these materials. While the current ratings for the SCIL "address many issues covered in the NOSB reviews according to the OFPA criteria, they do not address some important elements of OFPA reviews, including impacts on soil organisms and agroecosystems, essentiality/need, hazards associated with manufacturer, transportations, and disposal, and compatibility with organic systems."[114] This can be addressed by the SCP, in conjunction with the NOSB and NOP, creating a list of criteria that apply to the new class and subclasses suggested below that includes OFPA criteria, currently included in the checklist used by the NOSB.

Below we outline a detailed description of NOC's suggested procedure for evaluating "inerts" to be covered by a Memorandum of Understanding (MOU), that should be established between the EPA and NOP, along with a description of the responsibilities of each body (NOP, EPA, NOSB). The procedure we are recommending is based on the outstanding NOSB recommendations made from fall 2012 and fall 2015. NOC is recommending that the Inerts Working Group (IWG) be reestablished, with membership consisting of NOSB members with support from a NOP staff person.

**Suggested Procedure**

1. NOP should immediately (as stated in the NOP response to the Fall 2012 proposals) conduct a public notice and comment process including:
    a. Notification to the public of "inert" ingredients known to be in use in organic production;

    b. Notification to the public of NOSB's review plan;

    c. A request for public comments regarding any other "inert" ingredients currently used in organic production that are not identified in the list provided by NOP; and

    d. A description of this MOU as a description of the means of implementing the Fall 2015 NOSB recommendation. It will state that "on the Safer Chemical Ingredients List (SCIL)" means "on the section of the SCIL identified as 'Ingredients Other than Active Ingredients in Pesticides Used in Organic Production.'"

2. EPA will create a new section of the Safer Chemical Ingredients List (SCIL) for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production." This list will contain sublists by the function – such as surfactants, chelating agents, and antioxidants – that they perform in the pesticide product.

3. EPA will identify products in use in organic production in which the "inerts" identified by NOP are used, the function of each "inert" ingredient within the products, and alternative materials that serve the same function. In concert with NOP and the NOSB, EPA will divide the list of "inerts" into

[114] Shistar, T. "Inert" Ingredients Used in Organic Production. Beyond Pesticides, Washington, D.C., 2017, p. 24.

five groups. The EPA will review one group per year and provide their review in the form of a TR to the NOSB. One year's review group may include one or more functional classes. For example, Surfactants and Anti-Oxidants may be reviewed in one year, with Chelating Agents and Solvents reviewed the next.

4. EPA will evaluate the "inerts" identified by NOP and the EPA alternatives according to the criteria appropriate for the substance's function and will assign ratings according to the current practice within the Safer Choice Program (SCP) – i.e. green circle, green half-circle, yellow triangle, and gray square. This system of review would result in prohibition of some currently approved inert ingredients, such as NPEs, a class of substances that has raised concerns at past NOSB meetings. Additionally, EPA's review will cover all topics covered in a technical review (TR) commissioned for the NOSB, as well as the topics required to rate the substances according to the SCP. To minimize duplication of work and ease NOSB review, a single review will cover chemicals in the same functional class.

5. EPA will provide a public version of the information it reviews to the NOSB, which will be used as a TR. It will be posted on the NOP website for public viewing. It will contain the following:
    a. A chart of all inerts in the class identified by the Chemical Abstracts Service (CAS) number with their chemical properties, uses, types of product categories in which they occur, and EPA regulatory-status, including data gaps.

    b. A description of how inerts within the class are related and how different, especially outliers that are significantly different from others.

    c. A chart that evaluates each inert in the class under the screening steps suggested by EPA and any additional screening recommended by the NOSB, with input from the IWG.

    d. OFPA criteria will be addressed that are not usually covered in the EPA review (environment, interactions, and alternatives or essentiality).

6. Based on results of the group TR, the NOSB Crops Subcommittee, working with the Livestock Subcommittee as appropriate, will accept the class to move forward to the NOSB agenda, or single out one or more substances for individual review – in which case, the group will then move forward without that substance and that one substance will be re-reviewed in more detail, if necessary, and noted in the NOSB published materials for stakeholder review separately. This substance can be commented on and voted on separately at the NOSB meeting.

7. The NOSB will review the information provided by EPA according to its usual materials review procedures, subjecting them to OFPA criteria based on the TR information provided for the class – or on individual materials that have been "singled out," as described in #6 above.

8. In accordance with its meeting and notice procedures, after NOP publishes the NOSB proposal for listing a class of "inerts" on the National List (as part of the SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production"), the NOSB will vote on the proposals and recommend listing or not listing each class.

9. NOP will publish recommendations from the NOSB for public comment according to its usual National List procedures, gather public comment, and finalize the listing.

10. EPA will add the approved chemicals, with approved annotations, to the appropriate subsection of the SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production."

11. Stakeholders may submit applications for individual inert ingredients to EPA for inclusion on the Safer Chemical Ingredients List and/or petition the NOP for inclusion on the National List.

**Suggested Responsibilities:**

**NOP:**

- NOP should immediately (as stated in the NOP response to Fall 2012 proposals) conduct a public notice and comment process including:
    - Notification to the public of "inert" ingredients known to be in use in organic production;
    - Notification to the public of NOSB's review plan; and
    - A request for public comments regarding any other "inert" ingredients currently used in organic production that are not identified in the list provided by NOP.

- NOP will publish for public comment a description of this MOU as a description of the means of implementing the Fall 2015 NOSB recommendation. It will state that "on the SCIL" means "on the section of the SCIL identified as 'Ingredients Other than Active Ingredients in Pesticides Used in Organic Production.'" This may be the same Federal Register notice as the above notice.

- NOP will publish in the Federal Register recommendations from the NOSB for public comment according to its usual National List procedures, gather comments, and send the finalized listing to EPA.

- NOP will provide expertise as needed to EPA to address issues not generally covered by EPA's Safer Choice reviews.

**EPA:**

- EPA will create a new section of the Safer Chemical Ingredient List (SCIL) for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production." This list will contain sublists by the function –such as surfactants, chelating agents, and antioxidants—they perform in the pesticide product.

- EPA will identify products in use in organic production in which the "inerts" identified by NOP are used, the function of each "inert" ingredient within the products, and alternative materials that serve the same function.

- In concert with NOP and the NOSB, EPA will divide the list of "inerts" into five groups and review one group per year. Each group may contain one or more functional class.

- EPA will evaluate the "inerts" identified by NOP and the EPA alternatives according to the criteria appropriate for the substance's function and will assign ratings according to the current practice within the Safer Choice Program –i.e., green circle, green half-circle, yellow triangle, and gray square.

- EPA will provide a public version of the information it reviews in the form of TRs to the NOSB.

- EPA will list in the appropriate section of "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production" those "inerts" approved by the NOSB and NOP.

**NOSB:**

- The NOSB will review the information provided by EPA according to its usual materials review procedures, subjecting them to OFPA criteria.

- In accordance with its meeting and notice procedures, after NOP publishes NOSB proposals for listing of "inerts" on the National List and the SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production," the NOSB will vote on the proposals and recommend listing or not listing for each.

- The NOSB will review petitions for "inerts" to be added to or removed from the appropriate SCIL sublist for "Ingredients Other than Active Ingredients in Pesticides Used in Organic Production." These will be treated as any other petitioned substance, with TRs contracted through the EPA.

We offer the "'Inert' Ingredients Used in Organic Production" authored by Terry Shistar, PhD, for Beyond Pesticides as an attachment to our comments. This report offers many more details into "inerts" in general, NPEs, the timeline of NOSB actions on "inerts," a comparison of Safer Chemical and NOSB approach, and the Safer Chemical Ingredients List (SCIL), as well as other valuable information.

### What would be the consequences of a NOSB recommendation to delist List 4 Inerts?

As pointed out by the subcommittee, delisting List 4 inerts and having the NOP act on the 2015 recommendation "would encourage innovation of new products, lessen concerns of stakeholders over environmental and health concerns, and make future reviews of inert materials much easier."[115] Continuing to address the same issues over inerts repeatedly at each sunset review is a waste of everyone's time and efforts.

[115] NOSB April 2020 proposals and discussion documents Page 34 of 115.

# Appendix C

## Excluded Methods – NOC Spring 2020 NOSB Comments

New genetic manipulation techniques are being introduced at an increasingly rapid pace. Organic stakeholders and accredited certifiers must have clarity on which genetic techniques and methods are allowed and which are prohibited under the organic regulations. The NOSB and NOP must provide that clarity.

In 2011 and 2012, a number of confusing issues came before the NOSB and the NOP. This sparked a reexamination of the excluded methods definition, years of sustained work on the part of the NOSB, and open dialogue within the organic community. An NOSB discussion document on excluded methods was put forward in 2013, which generated significant public comment. A second NOSB discussion document posted in September 2014 and in April 2015 analyzed the comments received and proposed options for the NOSB review and evaluation of new GE technologies and methods. The NOSB also acknowledged that this issue would require continuous work on their part to evaluate and provide recommendations to the NOP about new technologies as they emerge.

Throughout this entire process of dialogue and debate, the organic community and NOSB has been clear in their opposition to genetic engineering in organic agriculture and the need to provide a transparent process and certainty to the organic community - including certifiers, operations, and consumers - about what is excluded, what is allowed, and why.

Further, during the National Organic Program Update at the fall 2019 NOSB meeting in Pittsburgh, PA, Dr. Tucker clearly stated in her presentation (emphasis added):

- The **Excluded Methods** definition in the USDA organic regulations does not allow for gene editing: it is prohibited.
- USDA encourages continued **robust dialogue** about the role of new technologies and innovations in organic agriculture.
- Changing the definition of Excluded Methods is **not** on the USDA regulatory agenda.[116]

This is a complicated area, and the NOSB and NOP must be a place where the organic community can go to find answers and direction. We cannot have inconsistency between certifiers in what they allow when considering genetic modification techniques. The framework put in place by the NOSB in the fall of 2016 should be formally adopted by the NOP and codified as a guidance document. The NOSB process of defining and clarifying what should be excluded as a method uses and builds on the current excluded methods definition in the organic regulations to encompass new technologies that have emerged since this definition was adopted in 1995 due to rapid advances in recombinant DNA biotechnology.

Since 2016, the NOSB has clarified in unanimous recommendations that the following eleven methods are excluded in organic: Targeted genetic modification, gene silencing, accelerated plant breeding techniques, synthetic biology, cloned animals and offspring, plastid transformation, cisgenesis, intragenesis, agro-infiltration, transposons developed via use of in vitro nucleic acid techniques, and induced mutagenesis through in vitro techniques. **The NOP should codify the prohibition in organic for these eleven**

[116] National Organic Program Update, October 2020, Slide 30 of 32.

**methods by publishing a guidance document for the NOP handbook to ensure clarity for all stakeholder groups.**

All of the NOSB recommendations on excluded methods since fall 2016 have been unanimous, which reflects the organic community's united stance that genetic engineering should be prohibited in organic. Genetic engineering is a threat to the integrity of the organic label. Both organic producers and consumers reject the inclusion of genetic engineering in organic production.

The NOSB has also passed unanimous recommendations that marker assisted selection, transduction, embryo rescue in plants, and embryo transfer in animals should be allowed in organic. **The NOP should codify that these four methods are allowed in organic by publishing a guidance document for the NOP handbook to ensure clarity for all stakeholder groups.**

The NOSB is still receiving public comment and evaluating the status of 6 'to be determined' techniques: protoplast fusion, cell fusion within plant family, tilling, double haploid technology, some forms of induced mutagenesis, and transposons produced from chemicals, ultraviolet radiation, or other synthetic activities. In addition, continued work to evaluate which techniques should be prohibited in organic will be necessary as new technologies emerge.

The NOSB must move forward with urgency, but with great care, to determine the status for these 'to be determined' technologies and other GE technologies that emerge to provide clarity to all stakeholder groups. The NOSB must solicit input from scientists, plant breeders, and other organic stakeholder groups in making these determinations. **In particular, failure to continue work in this area will negatively impact organic plant breeders and the organic seed industry, who need certainty to advance plant breeding efforts that meet the needs of organic operations.**

NOC urges the NOSB to move forward in its evaluation of remaining technologies that have not yet been determined with a transparent process that solicits input from key stakeholder groups and to act with great care to ensure that excluded methods are kept out of organic production.

# Appendix D

## Strengthening Organic Enforcement (SOE) DRAFT Introductory Comment – October 5, 2020

NOC strongly supports the Strengthening Organic Enforcement (SOE) proposed rule. NOC thanks the USDA Agricultural Marketing Service (AMS) and National Organic Program (NOP) for their commitment to making regulatory changes to advance organic integrity. We urge the USDA to finalize the rule as soon as possible to make long-awaited improvements in the organic standards to address fraud in the organic supply chain and enforcement challenges.

NOC, NOC Members, and Network Affiliates have recognized and asked for action to address problems with fraud in the organic supply chain, especially with organic grain imports, since 2015. Issues of fraud were a focus in NOC's Pre-NOSB meeting in St. Louis in the fall of 2016, and in many subsequent meetings NOC has organized with the USDA, organic stakeholder groups, and Members of Congress. NOC strongly advocated for 2018 Farm Bill provisions to address uncertified entities, import certificates, and NOP's authority to oversee certification activities and certification agencies' foreign satellite offices. We applaud the NOP and the National Organic Standards Board (NOSB) for their sustained commitment to addressing both domestic, as well as international fraud in organic supply chains. NOC believes the SOE proposed rule is an important first step for a broader set of much-needed changes. NOC is committed to addressing these complex issues through our support of the SOE proposed rule and beyond to ensure that current gaps that allow for fraud, loopholes, and lack of enforcement are addressed to ensure integrity, consistency across certifiers, and trust in the USDA organic seal.

The SOE proposed rule makes significant and impactful changes to the organic regulations that are critical to preserving consumer and industry confidence in the organic seal. In our comments below, NOC identifies the areas of the proposed rule that we support, areas that require clarification, and gaps we see in the proposed rule that we would like the USDA Agricultural Marketing Service (AMS) to address in the final rule.

In summary, NOC strongly supports the following provisions:

1. Regulatory changes to require more handling operations to become certified.

2. Additional labeling requirements to ensure that nonretail containers identify the product as organic and display the name of the certifying agent.

3. Codification of the requirement that certifiers conduct unannounced inspections for a minimum of 5% of the operations they certify annually.

4. The clarification that mass balance and trace back audits should be conducted annually for every organic operation as part of the annual inspection process.

5. A requirement that inspectors and certification review staff have the knowledge, skills, and experience needed to conduct inspections and perform reviews based on the scope and scale of the operations they are inspecting.

6. A requirement that inspectors and certification review staff complete a minimum of 20 hours of training on relevant topics.

7. Codification of requirements for grower groups.

8. The inclusion of a definition for “organic fraud” in the regulations.

9. Additional record keeping requirements for operations and certification agencies to ensure traceability.

10. A requirement that certifiers conduct supply chain audits for high risk operations.

11. A requirement that certifiers share information with one another for enforcement purposes.

12. Requirements for certified operations to develop fraud prevention plans.

We elaborate on our support for these and other provisions in our detailed comments below. In some cases, we ask that AMS go further in their requirements to ensure full supply chain traceability or to address additional concerns.

NOC has also identified significant gaps in the proposed rule and concerns that we would like AMS to address in the final rule and, in some instances, through other mechanisms as well.

The gaps we have identified include:

1. **Electronic Import certificates:** It is not clear that the requirements for import certificates will have the intended impact. NOP import certificates are intended to provide an accurate accounting of the organic status and quantity for a specific shipment of imported organic products, thus ensuring that conventional products do not fraudulently enter the organic marketplace, and to link the physical product with the associated organic certification agency and organic operations. In the explanatory text that accompanies the proposed regulatory language on import certificates, AMS states that the organic product can come into the port of entry without the accompanying documentation – the NOP Import Certificate must be uploaded into the ACE system within 10 calendar days of the shipment entering the United States. Allowing importers 10 days to file the electronic certificate after the shipment has reached a U.S. port could mean the difference between preventing fraudulent products from entering the U.S. and having to try to retrieve them once they have entered commerce. Furthermore, if the information in the import certificate is insufficiently verified or up to date, the certificate provides a false sense of confidence in the organic status of the product. These proposed regulations do not sufficiently prevent conventionally produced imports from being fraudulently represented and sold as organic. Fraudulent import certificates could exacerbate challenges if it leads to a false sense of confidence. NOC urges the USDA to shorten the time frame allowed for an importer to submit an electronic import certificate into the ACES system.

2. **Gaps in regulatory language:** In some parts of the proposed rule, there is no specific regulatory language that clearly accomplishes the intent expressed by the explanatory text that accompanies the proposed rule. Without adding specific regulatory language, certain provisions cannot be consistently enforced by certifiers.

a. **Reporting organic acreage:** NOC has strongly advocated that AMS implement a new requirement that certifiers report product and acreage data into organic integrity database (OID). NOC recommends that AMS include specific regulatory language in the proposed rule to codify this requirement. NOC recommends that AMS use a sound and sensible approach to ensure that for certifiers working with small, diversified producers, data can be captured in a reasonable way. AMS must establish meaningful crop categories, ideally ones that are harmonized with the NASS codes used in the 2014 and 2015 Organic Certifiers Surveys that NASS conducted. Accredited Certifying Agents (ACAs) should be required to report aggregated production area certified by crop and location at least on an annual basis to the Organic Integrity Database (OID).

b. **Risk-based:** NOC is requesting that AMS formalize and clarify what the terms "risk-based" and "high-risk" mean in various contexts. AMS outlines criteria for assessing risk in several parts of the proposed regulation:

    i. In the section of the proposed rule that deals with **Grower Groups,** on pages 123-124 of the proposed rule, AMS describes risk factors certifying agents should consider when determining which grower group members to inspect;

    ii. In section 18 of the proposed rule on **Supply Chain Traceability and Organic Fraud Prevention,** AMS introduces a new requirement that certifying agents develop procedures for "identifying high-risk operations and agricultural products to conduct risk-based supply chain audits;"

    iii. On pages 137 to 138, AMS outlines the "risk-assessment criteria" certifying agents could consider when determine which operations, products and supply chains are vulnerable to fraud and intentional mishandling;

    iv. In section of the proposed rule related to **On-Site Inspections,** AMS explains that unannounced inspections could be conducted randomly, based on risk , or in response to complaints or investigations;

    v. Finally, AMS has also adopted a risk-based approach to conducting accreditation audits for certifying agents.

NOC recommends that AMS develop guidance to delineate some of the criteria and risk-factors AMS would like to see certifiers consider in these various contexts, and that AMS will use in conducting accreditation audits. The guidance document should be broken into subsections that pertain to different contexts. A section of the guidance document should detail the criteria used by AMS in its risk-based approach to accreditation audits; these criteria should reflect the NOSB recommendation on "Risk-based Accreditation Oversight" from October 2018.[117] NOC recognizes that the criteria used may fluctuate based on "market trends, enforcement actions, and changing practices within the organic industry." Guidance will be helpful in communicating best practices and ensuring consistency while still allowing certifying agents and AMS the necessary flexibility in developing risk-based approaches of oversight.

[117] https://www.ams.usda.gov/sites/default/files/media/CACSRiskBasedAccreditationOct2018Rec.pdf


c. **Other areas:** Throughout our more detailed comments below, we make note of areas where we believe the regulatory text falls short of fully conveying the intent of the SOE proposed rule.

3. **Role and responsibility for USDA NOP:** The proposed regulations impose numerous new requirements for operations and certifiers. NOC supports these requirements with some clarifications, additions, and changes. We are also calling on AMS, the NOP, and CBP to update and change practices to catch up to the new challenges we face in organic supply chains. The proposed rule is silent in this area.

    a. **Training and Qualification for NOP staff:** The rule requires that inspectors and certification review staff have the necessary qualifications, but does not say how the NOP will ensure that accreditation auditors and enforcement staff are trained, qualified, and have the relevant knowledge.

    b. **Information sharing between accreditation agencies:** The proposed rule requires certifiers to share information with other certifiers in efforts to enforce the organic regulations and crack down on fraud. In a similar vein, NOC believes it is imperative that the NOP shares information with other accreditors to flag risky certifiers and operations in the organic supply chain. NOC would like to see this commitment articulated in the organic regulations.

    c. **Other areas:** Throughout our more detailed comments below, we make note of areas where we believe the regulatory text falls short of clearly delineating the role and responsibility of the USDA NOP.

4. **Unintended consequences for small and lower-resourced operations:** NOC strongly supports provisions that increase supply chain traceability, but we have important questions about how these provisions could inadvertently negatively impact some operations in the organic supply chain.

    a. **On farm processing and seed production:** We are concerned that new requirements for more operations to get certified could have the unintended consequence of creating disincentives for on-farm organic seed production or negatively impact operations in the organic supply chain by requiring these operations to obtain handling certificates. NOC has proposed language that would clarify which types of operations can be certified under the crops scope to clarify when a handling certificate would not be necessary, and we describe that proposed language beginning on page 15 of these written comments. Our goal is to avoid imposing unreasonable burdens on operations engaged in on-farm seed production and other post-harvest handling activities with products produced on their own farms.

    b. **Grower groups:** NOC has put forward recommendations to ensure that new grower group requirements do not unduly harm or cause loss of organic market access for legitimate grower groups and their members. These farmers represent the largest percentage of organic farmers worldwide.

We discuss these gaps and our recommended changes to the SOE to address them in the detailed comments below.

NOC recognizes that the SOE proposed rule is a first step in addressing issues of supply chain traceability, fraud, equal enforcement, and consistency across certification agencies. Additional actions are needed from AMS and NOP to ensure integrity, as well as consumer and industry trust in the organic seal.

1. **More frequent audits:** To address domestic and international fraud, the NOP must also conduct more frequent audits of certification agencies, including certifiers' foreign satellite offices, using a risk-based approach. Desk audits are necessary during the pandemic. Unannounced as well as scheduled audits should be conducted in geographic areas where risk has been identified as soon as it is safe to resume travel, such as Eastern European countries, or Texas/California as recommended in the executive summary from the 2018 American National Standards Institute (ANSI) Peer Review Panel Report.[118]

2. **Risk-based approach:** The NOP should adopt criteria for risk-based accreditation oversight based on the NOSB recommendation on this topic from October 2018.[119] For example, the NOP should give additional scrutiny to a certifier whose accreditation has been revoked by a nation with which the U.S. has an organic equivalency arrangement and should work closely with other accreditation bodies operating in the region where fraud has been found. The NOP should explain to the NOSB and public stakeholders through regular updates how the NOP's accreditation and enforcement activities reflect this risk-based approach.

3. **Using import data to detect fraud:** The NOP should implement a policy to conduct an automatic investigation whenever there is a significant surge in imports for a specific product category to determine if fraudulent activity is contributing to that increase.

4. **Increase education and oversight:** NOP should increase its education and oversight of all entities and agencies that have control over non-retail containers, including trailers, tanks, railcars, shipping containers, grain elevators/silos, vessels, cargo holds, freighters, barges, or other method of bulk transport or storage. While a visual indicator on a container—potentially the USDA organic seal—is a great first step, NOP should design simple, clear training modules on the specifics of what that oversight means for the organic products in these containers, including:

    a. What is organic?

    b. What fumigants can and cannot be used.

    c. Prohibited materials.

    d. Prohibition on opening containers.

5. **Annual reporting:** Acknowledging the breadth of the entities and agencies that have control over these non-retail containers, NOP should include information in reports provided at the NOSB meetings twice a year regarding progress in communicating these controls throughout the entire non-retail supply chain.

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[118] 2018 Peer Review Executive Summary for USDA AMS NOP, May 2018: https://www.ams.usda.gov/sites/default/files/media/2018USDANOPPeerReviewExecutiveSummaryReport.pdf

[119] Formal Recommendation from NOSB to NOP on Risk-Based Accreditation Oversight, October 25, 2018: https://www.ams.usda.gov/sites/default/files/media/CACSRiskBasedAccreditationOct2018Rec.pdf

6. **Learning from other sectors:** The NOP should identify other industries/products that have a longer history of dealing with fraud and learn from the measures they took and their outcomes and should share these findings with the NOSB and the public.

7. **Leverage OIG, FAS, CBP resources:** NOP should continue to work to leverage the resources of other USDA sub-agencies and other federal agencies to include them in the effort to deter fraud in organic supply chains.

8. **Organic Imports Interagency Working Group:** This interagency working group with representatives from the NOP, APHIS, and CBP, should continue to convene regularly.

    a. The working group should examine the limitations of the NOP's authority over uncertified entities engaging in fraudulent activity, as well as for operations that have surrendered their certificates, including plans to use trademark protection to crack down on bad actors. The working group should assess and share with the NOSB and organic stakeholders which additional measures will be pursued beyond the provisions in the 2018 Farm Bill and Strengthening Organic Enforcement (SOE) proposed rule to address challenges related to uncertified operations that are committing fraud.

    b. The working group should consider ways to use insurance information to flag potentially fraudulent activity. Imported grain that is insured as a conventional product and then sold as organic is suspect.

    c. The working group should also examine strategies to prevent imports fumigated with prohibited substances from being sold, labeled, or represented as organic. NOC is concerned that the provisions in the SOE do not adequately address this issue, which we will address in our more detailed comments.

    d. The working group should assess whether new legislation is needed to improve the ability to track organic imports. For example, can CBP currently require bills of lading for incoming shipments to include more detailed information about the contents of the shipment to give the ports of entry information that would be useful in the inspection process, or would additional legislative authority be needed to implement such a requirement?

9. **Harmonized tariff codes:** AMS, CBP, and organic stakeholders must determine how to obtain additional harmonized tariff codes through the US International Trade Commission. These codes determine which organic products are tracked by USDA's Foreign Agriculture Service via the Global Agricultural Trade System (GATS). Currently, the U.S. government only tracks the value and quantity of a limited number of organic imports product categories based on the limited number of codes in the harmonized tariff schedule. More complete data on organic imports is essential to flag areas of risk.

10. **Stop sale authority:** NOC seeks clarification of the current status of whether or not the NOP has stop sale authority. If stop sale authority is within the NOP's control, we further seek clarification on what practices are in place to reimburse for losses when this authority is executed and the product does not end up being fraudulent, such as an indemnification fund.

11. **Peer review audits:** The NOP should continue to conduct peer review audits annually and should make the full results publicly available, as required by OFPA and the organic regulations.

12. **Animal welfare:** AMS should immediately reinstitute the Organic Livestock and Poultry Practices rule to require meaningful outdoor access for poultry and egg operations in compliance with the organic law. The Organic Livestock and Poultry Practices rule has been withdrawn by the USDA, which sends the wrong message to consumers and a market that is reliant on public trust in the certified organic label. Most certified operations already meet the standards in the withdrawn rule. Operations that are not compliant with industry best practices must be brought into compliance to ensure consistency and to meet consumer expectations.

13. **Origin of Livestock:** AMS should immediately close loopholes and clarify requirements for the transition of conventional dairy cows into organic herds. With broad support from the organic community, Congress required in FY 2020 agriculture funding legislation that AMS finalize the long-delayed Origin of Livestock proposed rule by June 17, 2020. AMS has missed that deadline. Organic dairy farmers are suffering and continued delays in implementing this rule will prolong the dire economics facing organic dairy farmers, as well as jeopardize consumers' trust in the organic label.

14. **Livestock Compliance Initiative & Pasture Rule Enforcement:** The NOP should continue the Livestock Compliance Initiative to identify bad actors in dairy and other livestock sector so NOP can bring them into compliance or exclude them from the organic program. NOC believes dairy and livestock enforcement is still falling short and the NOP needs to do more to make sure all operations meet the requirements for pasture access, livestock living conditions, and livestock health care standards not only on paper but also in actual practice.

15. **Hydroponics:** NOP must halt the continued certification of hydroponic systems until the NOSB has fully reviewed these systems and made recommendations to the NOP about the compatibility of hydroponic systems with the requirements of OFPA and its implementing regulations. If it is deemed that certain hydroponic systems are appropriate for organic, certification of such systems should not be permitted unless and until NOP rules are promulgated to set standards.

**Economic Impact Analysis**

NOC strongly supports the implementation of the SOE proposed rule to strengthen trust in the USDA organic program. We concur with the NOP that when the organic regulations were published twenty years ago, they were written to effectively provide oversight to organic products that were marketed mostly locally and regionally, with shorter supply chains. The current global organic marketplace demands new tools due to the longer, more complex supply chains and many new handlers who have entered the marketplace without the necessary oversight to prevent intentional fraud.

As AMS's Regulatory Impact Analysis for the SOE proposed rule indicates, the benefits of implementing the proposed changes ($83.99 to $86.87 million when annualized) far exceed the anticipated costs ($7.2 to $7.35 million when annualized) to certifying agents, excluded handlers, and certified operations in the organic marketplace. AMS estimates that approximately 2 percent of organic products are fraudulent, and that the implementation of these changes will reduce the prevalence of organic fraud to 1 percent, a 50 percent reduction. When products are fraudulently represented as organic, consumers are unwittingly paying a premium for products that they would not otherwise purchase at a premium.

As a result, reducing the prevalence of fraudulent organic product will result in economic benefits that far exceed the costs of implementation. NOC believes additional benefits, beyond those quantified by AMS, will accrue in the organic marketplace. When consumers and industry members believe fraud is prevalent in the organic marketplace or hear about high profile cases of fraud, such as has been reported in the Washington Post in 2017[120,121,122,123,124] and 2018,[125] and in more recent news stories about domestic fraud,[126] it may impact consumers' willingness to purchase organic products. When consumer trust is high, domestic organic operations will benefit from increased sales because consumers will be more likely to pay organic premiums knowing they can trust the USDA organic seal. These benefits have not been quantified in USDA's regulatory impact analysis. Organic has grown exponentially, increasing from $3.4 billion in 1997 to $55.1 billion in 2019. The value of organic will continue to grow with the implementation of new regulations to address fraud.

**Implementation Period**

AMS is proposing that all requirements in this proposed rule be implemented within ten months of the effective date of the final rule (this is also one year after publication of the final rule). NOC supports the Accredited Certifiers Association request for a phased approach, with a 1-year implementation for some items and a 2-year timeframe for others, which would spread the cost over a 2-year time period.

ACA suggests and NOC supports implementation of the following portions of the proposed rule within 1 year:

- NOP Import Certificates
- Unannounced inspections
- Continuation of certification (OSP update, annual inspection)
- Annual performance evaluations

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[120] Whoriskey, P. "The labels said 'organic.' But these massive imports of corn and soybeans weren't." May 12, 2017. The Washington Post. https://www.washingtonpost.com/news/wonk/wp/2017/06/12/millions-of-pounds-of-apparently-fake-organic-grains-convince-the-food-industry-there-may-be-a-problem/

[121] Whoriskey, P. "Millions of pounds of apparently fake 'organic' grains convince the food industry there may be a problem." June 12, 2017. The Washington Post. https://www.washingtonpost.com/news/wonk/wp/2017/06/12/millions-of-pounds-of-apparently-fake-organic-grains-convince-the-food-industry-there-may-be-a-problem/

[122] Whoriskey, P. "'Uncertainty and dysfunction' have overtaken USDA program for organic foods, key lawmakers say." July 13, 2017. The Washington Post. https://www.washingtonpost.com/news/wonk/wp/2017/07/13/uncertainty-and-dysfunction-have-overtaken-usda-program-for-organic-foods-key-lawmaker-says/

[123] Whoriskey, P. "Bogus 'organic' foods reach the U.S. because of lax enforcement at ports, inspectors say." September 18, 2017. The Washington Post. https://www.washingtonpost.com/news/wonk/wp/2017/09/18/lax-enforcement-at-ports-allows-bogus-organic-foods-to-reach-u-s-government-report-says/

[124] Whoriskey, P. "Organic food fraud leads Congress to weigh bill doubling USDA oversight." December 21, 2017. The Washington Post. https://www.washingtonpost.com/news/wonk/wp/2017/12/21/organic-food-fraud-leads-congress-to-weigh-bill-doubling-usda-oversight/

[125] Whoriskey, P. "USDA officials said they were guarding against organic food fraud. Congress decided they need help." December 20, 2018. https://www.washingtonpost.com/business/2018/12/20/usda-officials-said-they-were-guarding-against-organic-food-fraud-congress-decided-they-need-help/

[126] "Field of schemes fraud results in over a decade in federal prison for leader of largest organic fraud case in U.S. history." August 19, 2019. Department of Justice, U.S. Attorney's Office, Norther District of Iowa. https://www.justice.gov/usao-ndia/pr/field-schemes-fraud-results-over-decade-federal-prison-leader-largest-organic-fraud#:~:text=Randy%20Constant%20and%20Three%20Others,Grain%20Falsely%20Marketed%20as%20Organic&text=Randy%20Constant%2C%20age%2061%2C%20from,one%20count%20of%20wire%20fraud

- Notification of new certification office
- Mediation procedures
- Adverse action appeals

NOC supports the ACA request for a 2-year implementation period for these parts of the proposed rule:

- 20 hours of training + inspector qualifications
- Generating certificates in OID
- Certification for all operations that are no longer exempt/excluded
- Supply chain traceability/fraud prevention
- Maintaining current list of operations in OID
- Labeling of non-retail containers (label use-up for some clients)

# Appendix E

## NOC Statement on Racial Equity – working draft

*This version of NOC's Racial Equity Statement is a working draft. NOC is actively seeking and welcomes feedback and suggestions from partner and ally organizations and individuals. This statement is a "living" statement, and will be amended as we grow in our understanding.*

04.01.2020

As NOC, we acknowledge our own privilege, as currently mostly white, middle class, educated people who were born in the United States. We acknowledge the institutional racism that has formed our current agricultural landscape and food system, robbed indigenous peoples and other people of color of their land, enslaved and systematically disenfranchised people of color, and continues to impact people's relationships with their food, their communities, their access to land, their relationship to agriculture, and with one another as individuals.

We recognize other systems of oppression at work in our communities - sexism, heterosexism, ageism, linguicism, ableism, discrimination based on immigration status, and of persistent poverty. We know that these many systems of oppression play out and interact in the lives of those with multiple marginalized identities.

We believe sustainable agriculture work must be addressed in partnership with sustainable agriculture work. We know that environmental degradation and agricultural infrastructure cannot be addressed when people feel undernourished, unseen, unheard, and unsafe. We know true sustainability is not just an environmental goal, but also a social one.

The contributions made by people of color to organic and sustainable food systems are vast and often go unacknowledged. We recognize that access to the organic and "good food" movements, and to organic certification has not been equal across racial groups. Systematic racism has kept our movement from reaching its full potential. The organic movement can only be stronger and better positioned to meet future challenges if it supports equity, intentional inclusion, and prioritization. .

Because we know better, we must do better, and so NOC puts forth this statement to share our intention. We will revisit this statement and our specific ways of putting it into action as we move forward.

We will continue to strive toward our shared mission of safeguarding and advancing organic food and agriculture and ensuring a voice for organic integrity, which means strong, enforceable, and continuously improving standards to maximize the multiple health, environmental, and economic benefits that organic agriculture provides. In so doing, we pledge to hold ourselves accountable to the knowledge we possess and to partner with others who are at the forefront of equity and justice work - leaders in the arenas of racial equity in food systems, of black farmers, of indigenous farmers, of LGBTQIA+ farmers, of farmworkers and others, to ensure we do our work in a way that lifts the voices of those historically marginalized. We will respect and seek to learn from the wisdom inherent in communities of color, immigrant farmers, and others, who have developed resilient social and agricultural systems for their communities and environment.

We will:

- **Listen** to how the organic movement is perceived among diverse groups, be present in, and support spaces led by people of color;
- **Understand** the history of institutionalized racism and white supremacy, and how this has led to the inequities in organic food and agriculture that continue to the present day;
- **Seek** information regarding the ways in which current policies are impacting the demographics of the organic industry;
- **Work** to diversify NOC membership and NOC affiliates to include organizations and businesses focused on racial equity and social justice;
- **Train** ourselves and our community so that we can be effective advocates and allies;
- **Become** vigilant regarding race and social justice issues that we, as organic advocates, support and promote through our work;
- **Build** processes to help us view the work through a lens that evaluates impacts and opportunities from racial, class, and gender perspectives; and
- **Create** paths for leadership and influence in organic food and farming for people of color, in partnership with other organizations.

We know this will not be easy, and that we will make mistakes. We will strive to work with humility and to hold ourselves and one another accountable. We also know we are not alone in this work, and that our colleagues and sister organizations will support and challenge us as we proceed. We look forward to learning in community, and to working together toward an inclusive, diverse, thriving organic agriculture movement. Until we engage as active participants in dismantling systemic racism, we will not be able to achieve the future we work towards: maximizing the health, environmental, and economic benefits that organic agriculture provides to all.

# Appendix F

## Petition Process for §205.606 – NOC Spring 2020 NOSB Comment

Now that any agricultural material can be produced organically, additions to §205.606 should be rare, and materials should be removed from the list whenever possible in order to encourage processors to source organic forms. We encourage the Handling Subcommittee to further consider that a greater burden to clearly define the barriers preventing the organic production of the petitioned substance must be imposed on the petitioner before the NOSB and organic stakeholders can make an informed decision regarding listing or relisting.

It is time to stop adding listings to §606 and phase out current listings.

Organic production is grown up now, and any agricultural commodity can be produced organically. Listing on §606 only stifles organic production of new organic crops and promotes chemical-intensive production. Finally, in the time that it takes to add new regulations, petitioners could develop the demand for the organic product.

**Questions that need to be addressed before renewing any listing on §606.**

Materials on §205.606 are allowed in products labeled as organic if they are agriculturally produced, but have been found to not be commercially available as organic. The NOSB needs to know what the barriers are to producing the product organically. The Handling Subcommittee should get documented answers to the following questions in determining the barriers to organic production, for both petitions and sunsets.

1. What are the proximity constraints for either a manufactured or raw agricultural commodity in organic form? Examples include perishability, political climate (war zone) of the area where the agricultural production occurs, and the location of the manufacturing facility.

2. Is there insufficient raw organic agricultural production within the necessary proximity of the main manufacturing facility? Shipping costs are not to be part of the consideration.

3. Are there other manufacturing facilities that may have organic agricultural raw ingredient production nearby, or could be enticed to produce this ingredient in an organic form?

4. If raw agricultural production is required in a specific climate or soil type where there currently is no organic production and prospects for organic production are difficult (climate, transportation, war etc.), has production in other areas of the world been researched and work begun to develop new sources of organic crop production of the source ingredients for this product?

5. If there is only non-organic production near a manufacturing facility, what are the barriers to having these producers transition some or all of their production to organic?

6. Have the petitioner and users of this §205.606 ingredient worked with both the manufacturing facilities and pools of growers in the area to develop a supply of raw organic crops to produce this ingredient?

7. Is the demand for this ingredient across the organic industry sufficient to meet the minimum manufacturing production run?

8. Have all possible manufacturers (domestic and international) of this ingredient been researched to determine their minimum production runs and regions where the raw agricultural ingredient or ingredients are grown?

9. Can the ingredient be manufactured from not only raw agricultural ingredients, but possibly a secondary manufactured ingredient, such as beet color made not only from raw organic beets, but also from a preprocessed beet juice or beet powder that could be obtained in an organic form? Another example would be instant nonfat dry milk powder made not just from liquid organic skim milk, but from non-instant organic nonfat dry milk powder.

10. Is the process by which this product is manufactured patented, and if so, is the manufacturer willing to produce an organic equivalent?

11. Is there documentation of the petitioner's efforts to develop organic production?

12. Can the petitioner prove that a specific flavor profile can only be achieved from the petitioned material grown in a specific region?

# Appendix G

## Marine Materials – NOC Fall 2017 NOSB Comments

**Discussion Document—Marine Algae Listings on the National List**

A central tenet of organic food production is the conservation of biodiversity and natural resources. Materials allowed for use in organic food and farming must be sourced in a manner that does not contribute to ecological damage via resource depletion, species endangerment or extinction, pollution, or significant habitat alteration. Marine ecosystems are sensitive to perturbations and have historically been overexploited or negatively impacted by several industries. Extraction of marine resources for use in organic production, therefore, must ensure that biodiversity, marine habitat, and communities are conserved.

Marine algae play multiple ecological roles, and overharvesting can have detrimental impacts on marine health and biodiversity. Kelp forests are some of the most diverse and productive habitats on Earth , and provide physical structure, habitat, shading, and food for other marine species. Seagrasses and marine algae also provide a critical ecosystem service of removing atmospheric CO2 and sequestering carbon in the ocean sediment. As such, when considering a species' suitability in organic, the Board must not look narrowly at the biomass regeneration of the harvested plant or algae, but the recovery and resilience of the broader surrounding ecosystem, including benthic and trophic communities.

To improve the Subcommittee's prior proposal, NOC urges the Subcommittee to 1) further clarify the marine algae listings on the National List by adding Latin binomials; 2) indicate through annotations whether specific species, identified by Latin binomials, are allowed or prohibited in organic, due to conservation, contamination, or other sustainable harvest issues; and, 3) ensure that the wild harvest standard is applied to all marine algae listings.

1) **Clarify the marine algae listings on the National List by adding Latin binomials**

OFPA requires that the National List "shall contain an itemization, by specific use or application, of each synthetic substance" added to the list. Currently, several of the marine algae listings provide only broad categories or general names that may refer to a wide range of marine species.

For example:

205.601(j) As plant or soil amendments

(1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.

205.605(a) Nonsynthetics allowed
Agar-agar.

205.605(b) Synthetics allowed

Alginates.

205.606 Nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as “organic.”

(i) Kelp—for use only as a thickener and dietary supplement

The National List must be as clear as possible regarding which specific materials are allowed and for which uses, purposes, and/or functions. These listings should be annotated with Latin binomials to clearly indicate the species the Board determines are either suitable or unsuitable for use in organic products. The spring 2017 proposal took steps to add Latin binomials, but failed to provide sufficient specificity or justification for why the Subcommittee included those species in the proposed annotations.

2) **Indicate through annotations whether specific species, identified by Latin binomials, are allowed or prohibited in organic, due to conservation, contamination, or other sustainable harvest issues.**

A critical purpose of this initiative is to provide certified organic producers with information for sourcing marine materials that are compatible with organic principles and avoiding those for which conservation, contamination, or other harvest issues make them unsuitable for organic production. Certain species of marine algae or seaweeds may be unsuitable for organic due to the impacts of their removal on the surrounding ecosystem, such as the benthic and trophic communities that rely on them for food and habitat. These ecological concerns may be specific to a geographic region, in which case steps must be taken to prevent extraction from these locations for use in organic.

Clarifying the use of marine materials is an enormous undertaking and will likely require incremental changes as the Board gathers information and additional research becomes available. NOC urges the Board to begin listing the specific species or regions that are either prohibited or allowed for each use. There are several avenues by which the Board can accomplish this and which may need to be used in combination.

- Annotate the individual listings with language, using Latin binomials, to indicate the specific species that may be used for producing the substance, based on research indicating that the species is harvested sustainably and in a manner that maintains or enhances the surrounding ecosystem.

  For example:

  205.605(b) Synthetics allowed
  Alginates. Must be derived from Name secondname, Name secondname….

- Annotate the individual listings with language, using Latin binomials, to indicate the specific species that are prohibited from use for producing the substance, based on research indicated that the species cannot be harvested sustainably in a manner that maintains or enhances the surrounding ecosystem.

  For example:

  205.601(j) As plant or soil amendments

(1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction. Must not be derived from Name secondname….

- Add specific species that, based on research, cannot be harvested sustainably in a manner that maintains or enhances the surrounding ecosystem to the National List at 205.602.

  For example:

  205.602 Nonsynthetic substances prohibited for use in organic crop production
  (j) Common name, Latin binomial(s)
  (h) Common name, Latin binomial(s)

- Add "marine algae" to 205.602 as a prohibited natural substance for crop inputs, and provide for exceptions for marine species that can be harvested in manner that is not destructive to the environment.

The avenues that NOSB chooses to pursue will likely depend on whether the research shows most commonly used marine species are appropriate or inappropriate for use in organic. As information is gathered and reviewed on specific species, the Board can present proposals to the public for including those species on the National List in one or more of the avenues above. To assist with this effort NOSB should continue to engage literature on the harvest of specific species. Included below in this comment is a summary of available research by species (or class when necessary).

A preliminary review of the available literature indicates that several species, including Rockweed (Ascophyllum nodosum) and Maërl species (e.g., Lithothamnion coralloides, Lithothamnion glaciale, Lithothamnion tophiforme, and Phymatolithon calcareum), likely cannot be harvested in an ecologically sound manner. A more thorough review of the literature is needed, and NOSB should seek out consultation from marine biologists that have studies the ecology of economically important marine algae.

**3) Ensure that the wild harvest standard is applied to all marine algae listings.**

The wildcrafting standards at 205.207 require:

(a) A wild crop that is intended to be sold, labeled, or represented as organic must be harvested from a designated area that has had not prohibited substance, as set forth in 205.105, applied to it for a period of 3 years immediately preceding the harvest of the wild crop.
(b) A wild crop must be harvested in a manner that ensures that such harvesting or gathering will not be destructive to the environment and will sustain the growth and production of the wild crop.

NOC urges NOSB to add this language as an annotation to all listings for marine algae and their products on the National List. It is particularly important that harvesting be done in a way that protects the environment as well as the sustained harvest.

**Conclusion**

NOC appreciates the Subcommittees' efforts to address the existing inadequacies of the marine algae listings and ensure that marine plants harvested for use in organic crops, handling, and livestock are not contributing to the degradation of marine ecosystems. NOSB should, based on available research, identify those species that are incompatible with organic due to harvest issues as well as the species that may be used because their harvest does not degrade or harm the surrounding ecosystem. As information on each species is gathered, NOSB should draft proposals that clarify marine algae listings on the National List by adding annotations specifying which species, using Latin binomials, are allowed or prohibited for each use. If necessary, NOSB should also amend 205.602 to further clarify which marine species are allowed or prohibited in organic.

Additionally, more research is needed to identify the harvest impacts of economically important marine plant species on the surrounding marine ecosystem, including benthic and pelagic communities. The available literature tends to focus more on exploitation of seaweeds than on their ecology. NOC supports NOSB's continued solicitation for input on seaweeds with a potential for ecologically sound harvest to identify for use in organic.

# Appendix H

## Assessing cleaning and sanitation materials used in organic crop, livestock and handling – NOC Spring 2019 NOSB Comments

NOC is pleased to see the discussion document outlining plans for a comprehensive review of sanitizers, disinfectants, and cleaners. We agree this will be an important tool to evaluate essentiality, consider the availability of either approved synthetic or natural alternatives to the current or proposed National List (NL) materials, and evaluate materials under the OFPA and NOP regulatory criteria for inclusion on the NL.

The discussion document notes, "there is universal support among NOSB members to provide materials to organic producers in order to meet food safety requirements," and that "this review could help identify materials needed to fill potential gaps in organic crop production, livestock health, and food safety."[127] NOC supports the intentions stated, but notes there are key steps missed in order to accomplish these goals.

While the discussion document goes on to talk about how "the NOSB has requested a technical review to provide information on the essentiality and appropriateness for these types of materials ***in a variety of situations,***"[128] (emphasis added) the specifics outlined under what has been requested from the technical review never mention identifying the "variety of situations" for which sanitizers, disinfectants, and cleaners are used or required by law in organic production. It would seem impossible to evaluate for essentiality when need is not defined.

Further, after identifying the "variety of situations" for which sanitizers, disinfectants, and cleaners are needed or required in organic production, it would seem prudent that we then identify which NL materials are currently available to meet those needs and regulatory requirements. Without these two steps, how do we begin to identify "potential gaps in organic crop production, livestock health, and food safety" for which new sanitizers, disinfectants, or cleaners may be needed?

We agree with the Accredited Certifiers Association's (ACA) comments that "it is crucial that any criteria and questions developed be based on statutory requirements," and echo their "request that the information and evaluation criteria developed be linked to specific criteria listed in the Organic Foods Production Act (OFPA) (7 USC 6517 and 6518)." And further note that the ACA comments raise good points, including the request for greater guidance for certifiers to ensure consistent application of standards that creates a level playing field for all organic operations.

For additional considerations when conducting a comprehensive review of sanitizers, disinfectants, and cleaners, we point to Beyond Pesticide's more detailed comments. We would like to emphasize their recommendation on evaluation criteria that "resistance is an issue not only with target organisms, but also with other organisms that may be exposed to the material through use or in effluent, so one additional criterion should be **'Is this material used to treat for human disease prevention?'"**

[127] https://www.ams.usda.gov/sites/default/files/media/NOSBProposalsAllApril2019.pdf, p 37.
[128] *Ibid,* p.37.


The Materials Subcommittee has outlined many of the issues we believe should be addressed in a comprehensive review of sanitizers, disinfectants, and cleaners, but we believe this issue must be addressed within a framework that first identifies the needs and regulatory requirements for cleaning and sanitizing materials in organic production and handling. We encourage the Materials Subcommittee to closely review these comments, as well as those submitted by Beyond Pesticides and the Accredited Certifiers Association, when preparing the fall proposal.