



October 1, 2020

Ms. Michelle Arsenault  
National Organic Standards Board  
USDA-AMS-NOP

**Docket: AMS-NOP-20-0041**

**RE: Materials Subcommittee – Marine Macroalgae in Crop Fertility Inputs (Proposal)**

Dear Ms. Arsenault:

Thank you for this opportunity to provide comment on the National Organic Standards Board (NOSB) Materials Subcommittee's Proposal on Marine Macroalgae in Crop Fertility.

The Organic Trade Association (OTA) is the membership-based business association for organic agriculture and products in North America. OTA is the leading voice for the organic trade in the United States, representing over 9,500 organic businesses across 50 states. Our members include growers, shippers, processors, certifiers, farmers' associations, distributors, importers, exporters, consultants, retailers and others. OTA's mission is to promote and protect organic with a unifying voice that serves and engages its diverse members from farm to marketplace.

### Summary

- ✓ **OTA compliments the diligence in the work to prepare this proposal but recommends that it be returned to the Subcommittee for continued work.** This meeting is the first time that the proposed annotation language and new addition to the National List are being presented to the public for comment, and it will impact one of the most important and widely used inputs on organic farms – seaweed fertilizers. OTA was not able to fully analyze the proposal due to the substantive length of the proposal, technical complexity of the annotation, and the conflict of the comment period with the NOP Strengthening Organic Enforcement Rule comment period. Stakeholders need more time to analyze the proposal, understand the impacts, and provide constructive feedback to NOSB.
- ✓ **OTA support continuous improvement in sustainable sourcing of seaweed used in organic production, and recommends the following actions to support development of an actionable and effective proposal.**
  1. NOP should confirm the legal options available to NOSB for establishing harvest parameters for seaweed used as crop input materials.
  2. NOSB should commission third-party technical reports to address remaining gaps in technical information.
  3. NOSB should continue working with stakeholders to address initial concerns with the proposed annotation language.

**We offer the following more detailed comments:**

## **Background**

The Organic Foods Production Act authorizes NOSB to recommend prohibition of natural substances if technical information demonstrates that use of the substance is harmful to the environment or human health, or is inconsistent with organic farming and handling principles.

The evaluation of whether the use of marine macroalgae materials such as alkali-extracted aquatic plant extracts as crop production inputs is “not harmful to the environment” received increased scrutiny by NOSB in recent years. The Crops Subcommittee began questioning the issue during the last Sunset Review of alkali-extracted aquatic plant extracts in fall 2015. Since then, the Materials Subcommittee has carried the issue forward through its work agenda topic for Marine Materials used in Crop Production. Despite the generic “marine materials” title, this NOSB topic is focused only on seaweed materials, both synthetic and nonsynthetic forms, and does not include fish.

To more fully examine the sources, species, harvest methods, and specific usage of marine plants and algae in organic production and processing, NOSB commissioned a Technical Report. The [Technical Report](#) was completed and published in 2016. A [discussion document](#) posted for the fall 2016 NOSB meeting addressed the nine separate listings for marine materials on the National List (Crops and Handling), and posed questions about the nomenclature of marine plant/algae on the National List, the need to specify uses or harvesting guidelines of certain species, and whether further NOP guidance is needed.

In 2018, the Materials Subcommittee began its work in earnest to evaluate environmental impacts and consider whether restrictions on harvesting seaweed for use in fertilizers are warranted. The NOSB Materials Subcommittee posted a [discussion document](#) for the fall 2018 meeting that explored a potential requirement for marine plants to be certified organic when used in crop inputs, and a number of alternative approaches such as: limiting or prohibiting harvest of certain marine algae; exploring other existing third-party standards for sustainable harvesting; or adding annotations to material listings on the National List to require sustainable harvesting.

In spring 2019, the Materials Subcommittee presented another [discussion document](#) on the approach of requiring organic certification of marine algae ingredients in crop inputs, attempting to address the concerns raised at the previous meeting. The discussion document also puts forth additional discussion questions for stakeholder feedback. In fall 2019, the Materials Subcommittee presented the same [discussion document](#) from spring 2019 with one additional discussion question.

There was also an [Expert Panel](#) on Marine Materials at the fall 2019 NOSB meeting, composed of two scientists (Dr. Allison Schmidt, *Dalhousie University*, and Dr. Nichole Price, *Bigelow Laboratory for Ocean Sciences*), one harvester (Dr. Rahul Ugarte, *Acadian Seaplants Ltd.*), and one certifier (Chis Grigsby, *Maine Organic Farmers and Gardeners Association [MOFGA] Certification Services*) who each presented technical information to the Board.

A wealth of technical information about seaweed harvesting has been submitted from scientists and industry through public comments, technical reports, and an expert panel. Still, many questions remain unanswered about globally representative data, extent of existing legal oversight, and feasibility of various solutions.

In its closing remarks at the fall 2019 meeting, the Materials Subcommittee continued to express interest in a requirement for organic certification of marine materials used in crop inputs, but only if: 1) NOP can commit to establishing a task force to develop more specific guidelines for organic production and certification of marine materials; and 2) the requirement is paired with an ample implementation time period. The subcommittee will also consider the option of narrowing its focus only on the species that are more highly used. There was agreement across the board with general sentiments about the importance of protecting the environment, but conflicting opinions about how to move forward with this particular issue. Some board members identified a need for information that is more globally representative, as much of the discussion thus far is focused on Maine and Nova Scotia. There are outstanding questions about the logistics and practicality of organic certification of marine production systems.

Overall, NOSB has expressed an interest in taking a slow and careful approach to this complex issue. A clear path forward was not yet apparent. The spring 2020 NOSB Meeting agenda did not include this topic.

**The Organic Trade Association has been engaging on this topic for the duration of its existence on the NOSB's work agenda, and we formalized a member task force in 2019.** The OTA Marine Materials Task Force, comprised of OTA member companies across the seaweed value chain from harvesters, fertilizer manufacturers, certifiers, consultants, and end-users, has been meeting regularly to inform OTA's substantive comments.

- [Spring 2020 – OTA Comments on Crop Subcommittee's Sunset Review of Aquatic Plant Extracts](#)
- [Spring 2020 – OTA Supplementary Background Information on Seaweed and Fish-Based Inputs](#)
- [Fall 2019 – OTA Comments on Materials Subcommittee's Discussion Document on Marine Materials in Organic Crop Production](#)
- [Spring 2019 - OTA Comments on Materials Subcommittee's Discussion Document on Marine Materials in Organic Crop Production](#)
- [Fall 2018 – OTA Comments on Materials Subcommittee's Discussion Document on Marine Materials in Organic Crop Production](#)
- [Spring 2017 – OTA Comments on Crops and Handling Crops Subcommittee proposal addressing the marine algae listings on the National List](#)

**NOSB has been accepting public comments on marine materials for the past three meetings without any new information being presented until now.** Public comments have been building up since the last new information was presented in an NOSB Meeting packet in spring 2019. The spring 2019 Discussion Document was reissued in fall 2019, and there was not any proposal or discussion document in the meeting packet for spring 2020, although stakeholders still voluntarily submitted comments on this topic.

**As of spring 2020, there were still many questions and concerns identified by stakeholders in public comment that had not been addressed.**

- OTA raised questions about the extent of the problem that needs to be solved (*so that appropriate solutions can be identified*).
- OTA identified specific gaps in the record where technical information is needed regarding the effect seaweed harvesting has on the environment as documented by scientific evidence (*to justify listing as prohibited on §205.602*), and the existing legal framework for oversight of seaweed harvesting in countries where most seaweed is sourced (*to understand the extent to which environmental goals are already being addressed outside of organic regulations*).
- OTA raised questions about the impact of new restrictions on the availability of essential seaweed-based inputs to organic producers, and suggested that a supply chain assessment is needed to understand impacts and evaluate whether industry can build up sufficient supply of compliantly harvested seaweed to meet needs of organic producers.
- OTA raised concerns regarding the inconsistency that would be created if seaweeds for fertilizer were subjected to different requirements than other uses, such as un-annotated seaweeds on §205.606 as food ingredients, and suggested that better harmonization is needed.
- Organic farmers submitted comments emphasizing the essentiality of seaweed fertilizers as inputs on their organic farms, and raised concerns about lack of availability under new restrictions.
- Seaweed harvesters and scientists submitted technical information that runs counter to claims of environmental harm.
- Certification agencies identified concerns about enforceability of annotations, and a fundamental need for clearer standards on organic certification of aquatic plants.

### ***Summary of Fall 2020 Proposal***

For the fall 2020 NOSB Meeting, the Crops Subcommittee presents its [Proposal on Marine Macroalgae in Crop Fertility Inputs \(starts on Page 145\)](#).

This is the first time in three meetings that new information is included in a NOSB Meeting Packet from the Materials Subcommittee on Marine Macroalgae Materials. As described in the *Background section* above, there was nothing in the spring 2020 meeting packet from the Materials Subcommittee on this work agenda item. And the fall 2019 meeting packet included the same discussion document that was previously released in spring 2019.

The Materials Subcommittee is proposing **two amendments** to the National List that would specify harvest parameters for aquatic plants and other marine macroalgae (seaweed, kelp, etc.) that are harvested for use in crop fertility inputs. Both annotations contain the same harvest parameters. The first amendment would add an annotation to the current listing for alkali-extracted aquatic plant extracts on §205.601(j)(1). The second amendment would create a new listing for marine macroalgae on §205.602 with an annotation that would prohibit all marine macroalgae unless these harvest parameters are met.

**Amendment #1:** The proposal would add a restrictive annotation to current listing of aquatic plant extracts at §205.601(j)(1) as follows (underlined text is new):

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

**(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 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.

**Amendment #2:** The proposal would add create a new listing at §205.602 (Prohibited Nonsynthetics) to prohibit marine macroalgae unless produced in accordance with the annotation as follows (underlined text is new):

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

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

**Marine macroalgae (seaweed)** – unless harvested in accordance to the following parameters: Noncommercial 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.

***OTA recommends that the proposal be returned to Subcommittee for continued work.***

The Subcommittee explains that a select group of scientists have been directly involved in developing the annotation language over the past year. However, the entire rest of the organic community is seeing this proposed annotation language and addition to the National List for the first time at this meeting. A broader spectrum of organic stakeholders needs to be given the opportunity to weigh in on the proposed requirements, especially given that the proposal is so significant. The proposal is lengthy and substantive. The requirements in the proposed annotation are complex and highly detailed, containing multiple requirements for harvest locations, methods and timing. Attempting to capture an entire standard of production and harvest of an agricultural crop, it is the largest annotation ever proposed for the National List. An annotation of this magnitude has never been presented before. As this proposal will impact one of the most important and widely used inputs on organic farms (seaweed fertilizers), stakeholders need more time to analyze the proposal, understand the impacts, and provide constructive feedback to NOSB.

Unfortunately, this NOSB comment period is completely overlapped by the 60-day comment period on NOP's Strengthening Organic Enforcement Proposed Rule, the largest single piece of rulemaking since the organic regulations were first implemented. This prevented OTA and other stakeholders from being able to fully engage in the analysis and public comment process for the items presented for this NOSB meeting. OTA has not been able to fully evaluate the details of the proposal to understand whether the harvest parameters can be met by harvesters, or resulting impacts that the annotation would have on the availability of compliant seaweed fertilizers for organic farmers.

Upon seeing the full annotation language for the first time, it is not unreasonable to expect public stakeholders will need more time and may not be ready to immediately support the annotation as is. Returning proposals to subcommittee so that proposals can be refined following public comment is common practice for building stakeholder consensus through the NOSB process. If NOSB has any intention of integrating stakeholder feedback into its annotation, this item would need to go back to the subcommittee to make substantive changes to the proposal. Without sending this proposal back to subcommittee, NOSB will remove the opportunity to receive and integrate stakeholder feedback into the final proposal. As this proposed annotation will impact one of the most important and widely used inputs on organic farms, it is very important that the exact language is fully analyzed and impacts are understood. If NOSB members feel that they didn't get enough substantive feedback to make a judicious and informed decision, we encourage returning the proposal to Subcommittee for further work.

***OTA recommends that additional actions are needed to support development of an actionable and effective proposal.***

OTA support continuous improvement in sustainable sourcing of seaweed used in organic production. Upon returning the proposal to Subcommittee to allow more time for stakeholders to weigh in on this complex and important issue, we recommend the following additional actions that can be taken to continue advancing efforts towards a better understanding of the problems needing to be solved, and ensuring appropriate solutions are actionable and effective.

**1. NOP should confirm the legal options available to NOSB for establishing harvest parameters for seaweed used as crop input materials.**

The two proposed amendments to the National List contained in the Materials Subcommittee’s proposal are substantive and are based on many years of hard work on behalf of NOSB and stakeholders. To make sure the outcomes of this work can be actionable through rulemaking, NOP needs to be proactive in communicating the legal options for being able to actually implement and enforce NOSB’s recommendations on this subject matter. Confidence in legal standing of these large and detailed annotations – early in the policy development process – is essential to making efficient and responsible use of NOSB and stakeholder efforts.

In the proposal, we see that NOP determined that language requiring verification within the annotation itself is not feasible. NOP should communicate the feasibility of remaining portions of the annotation language. NOP should also communicate the feasibility of adding a new listing to §205.602 without a new petition (noting that p. 27 of the [NOSB Policy and Procedures Manual](#) describes NOSB’s authority to propose changes to annotations, classification of materials, or remove existing listings without a new petition but does not address authority to *add* new listings without a new petition), and how this action is or is not consistent with how §205.602 is established (noting that other natural substances listed as prohibited on §205.602 have been demonstrated to pose direct toxicity to the environment or human health and/or are in direct conflict with organic soil fertility building practices.) We also ask NOP to communicate the role of Guidance documents in this process, and whether substantial undertakings that involve harvest parameters could be incorporated into the NOP Handbook if National List annotations and new listings are not a viable option.

**2. NOSB should commission third-party technical reports to address remaining gaps in technical information.**

We appreciate the Subcommittee’s diligence in compiling the review of literature within this meeting’s proposal to work towards a better understanding of the environmental impacts of seaweed harvesting. Due to the length of the proposal, complexity of the annotation, and the conflict of the comment period with the NOP Strengthening Organic Enforcement Rule comment period, OTA has not been able to fully study the body of the proposal and the extent to which it addresses our outstanding questions and concerns as of spring 2020. However in our initial review of the proposal, we identify several areas of technical information identified in stakeholder comments throughout the past two years that remain unaddressed,

such as comprehensive review of existing legal frameworks, and a supply chain analysis to understand impacts of harvest restrictions on availability of seaweed fertilizers to organic farmers. Additionally, the Crops Subcommittee in its Sunset Review of Aquatic Plant Extracts expressed a desire to gather more information on environmental impacts of harvesting seaweeds for use in crop fertility inputs.

We encourage NOSB to take a critical look at the areas of technical information that are most needed to ensure an informed and judicious decision on seaweed harvest parameters and pursue Technical Reports as needed to fill those information gaps. This exercise is important to support a robust technical evaluation of the environmental impacts of seaweed harvesting and an informed policy-making process for both the Materials and Crops Subcommittees. Technical Reports are the formal mechanism for NOSB to request comprehensive technical information prepared by qualified subject matter experts in compliance with best practice for reviewing and citing current peer-reviewed literature. Comprehensive technical information is a foundation to effective policy development especially when setting policy that will impact numerous macroalgae species across different environments around the globe, and will ultimately impact farmers' access to important seaweed fertilizers for use in organic crop production.

Conclusions about the environmental harm from seaweed harvesting should be informed by comprehensive technical information and data representative of the areas where those materials are harvested around the globe, as well as being relevant to materials harvested specifically for use in organic production and processing. Significant amounts of technical information have been submitted to NOSB through public comments over the course of many meetings, some references are included in the proposal presented at this meeting, and some references were presented at the Expert Panel. A Technical Report on the environmental impacts of harvesting seaweed for use in fertilizer is needed to compile and validate the current and peer-reviewed technical information relevant to the environmental impact of seaweed harvesting, to ensure a full spectrum of information is presented along with the cited references from the proposal. A Technical Report can also identify items to add to NOSB Research Priorities as needed to address areas where information is not currently available.

Furthermore, a comprehensive overview of existing legal frameworks for harvesting seaweed in countries where most seaweed is harvested is still needed. An accurate understanding of the status quo should be informed by the oversight and enforcement mechanisms outside of the NOP regulatory framework throughout the countries where seaweeds are harvested that may influence environmental impact. A Technical Report can compile information about legal oversight of seaweed harvesting around the globe and the extent to which environmental impacts are evaluated by the legal systems. This information is essential to understanding the current situation and potential net positive outcome of an NOSB recommendation specific only to crop inputs on organic farms.

Lastly, a Technical Report can be used to gain a better understanding of the impact of certain harvest restrictions on the availability of essential seaweed-based inputs to organic producers, and whether industry can build up sufficient supply of compliantly harvested seaweed to meet needs of organic producers. A supply chain assessment is needed to understand whether harvest parameters could support NOSB's dual goals of environmental protection and protecting organic farmers' access to seaweed fertilizers.



### 3. NOSB should continue working with stakeholders to address initial concerns with the proposed annotation language.

OTA was not able to fully analyze the language used in the two proposed National List amendments due to the length of the proposal, complexity of the annotations, and the conflict of the comment period with the NOP Strengthening Organic Enforcement Rule comment period. However in the short time available, we were able to conduct an initial assessment of the proposed annotation language and identified some concerns about the ability for seaweed harvesters to implement the annotation as it is currently worded (listed below).

- The requirements for harvest areas, as stated, would prohibit harvesting in conservation areas, which are considered some the *most* sustainable and under the *most* scrutiny from third parties. Conservation areas have oversight from a third party whereas other areas do not have the same level of increased oversight. In some examples such as in Iceland, managed seaweed harvesting is considered a conservation benefit. Commercial harvesting of kelp forests in the Monterey Bay National Marine Sanctuary is permitted under regulated management<sup>1</sup>.
- The requirements for monitoring bycatch, as stated, could prohibit harvesting entirely depending on how one defines if bycatch is “prevented” or “eliminated.” In some practical harvesting scenarios, it is not possible to completely prevent or eliminate bycatch such as mollusks naturally attached to seaweed. Compare this example to harvesting hay and expecting that no other insects or species are captured in the harvest.
- The requirements for harvest timing, as stated, could prohibit harvesting entirely depending on how one measures if biomass and architecture “approaches” that of undisturbed stands. For some common species, it is not possible for biomass or architecture of harvested stands to return, or approach return to the original state because biomass and architecture will change. For example in the case of *Ascophyllum*, repeat harvesting will usually *increase* biomass and the architecture will get *bushier*. Such changes may or may not be harmful to the environment, but may be impossible for harvesters to accurately quantify.
- Implementation and enforcement of the annotation will be difficult because of the subjective wording, which makes it difficult to understand which current practices will be allowed or prohibited.
- The motion for adopting the proposal does not include the provisions that the Subcommittee previously reported would be mandatory. At the fall 2019 meeting, the Subcommittee assured the public that any proposal for a new annotation would be contingent on an NOP Task Force, Guidance, and lengthy implementation timeframes.

These initial concerns, along with the lack of time to fully analyze the proposal, prevent us from being able to support the proposed annotation as written. We encourage the Materials Subcommittee to continue working with stakeholders to address these initial concerns to ensure that and proposed regulatory requirements can be readily understood, possible to implement, and would retain availability of seaweed fertilizers for use by organic farmers.

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<sup>1</sup> <https://montereybay.noaa.gov/resourcepro/resmanissues/kelp.html>

As the Materials Subcommittee explores how to address these initial concerns, we also encourage more collaboration across NOSB Subcommittees to standardize decisions on environmental impacts of sourcing seaweed across inputs and scopes where seaweed is used. The Materials Subcommittee explains in the proposal that it disagrees with this sort of collaboration, stating that each marine material on the National List represents a discreet use and warrants individual attention. However, in this proposal the Subcommittee is not evaluating the end-use, it is evaluating the question of environmental impact from sourcing. The Subcommittee itself states that the same seaweed can be harvested for multiple end-uses.

The question addressed in this proposal is essentially, *Under what conditions does harvesting seaweed cause harm to the environment?* This same question could be asked (and in some cases is already being asked) of the Crops Subcommittee regarding synthetic-extracted aquatic plant extracts, of the Livestock Subcommittee about kelp used in livestock feed and medical supplements, and of the Handling Subcommittee about seaweeds listed on §205.606 for use as food ingredients. Collaboration will help each NOSB Subcommittees define parameters of harmful seaweed harvesting in a common manner, instead of each subcommittee coming up with its own definition. Collaboration will support consistent and balanced decision-making on common questions around the environmental impact of harvesting seaweeds for use in organic production and processing. Subcommittees can agree to work from a common base-line understanding of how certain harvested seaweeds comply with OFPA criteria for being harmful to the environment. The base-line will provide a common starting point when making end-use -specific decisions about how the environmental criteria are balanced against other OFPA criteria such as necessity for production or processing due to absence of natural or organic alternatives. Additionally, these discussions can support a consistent approach for developing annotations, restrictions, and verification requirements in cases when sourcing of a marine materials is determined to cause harm such that a regulatory amendment is warranted.

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

Respectfully submitted,

A handwritten signature in black ink that reads "Johanna Mirenda".

Johanna Mirenda  
Farm Policy Director  
Organic Trade Association

cc: Laura Batcha  
Executive Director/CEO  
Organic Trade Association