BEYOND PESTICIDES
701 E Street, SE ▪ Washington DC 20003
202-543-5450 phone ▪ 202-543-4791 fax
info@beyondpesticides.org ▪ www.beyondpesticides.org

September 24, 2020

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Ave. SW.,
Room 2648-S, Mail Stop 0268
Washington, DC 20250-0268

Docket ID # AMS-NOP-20-0041

Re. MS: Marine Materials

These comments to the National Organic Standards Board (NOSB) on its Fall 2020 agenda are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and the world.

Organic Must Lead the Way in Protecting Global Ecosystems

Everywhere we turn, we see signs of ecological collapse—wildfires, the insect apocalypse, crashing populations of marine organisms, more and more species at risk, rising global temperatures, unusual weather patterns, horrific storms, and pandemics. As an organization focused on one of the most blatant examples of environmental abuse—the dispersal of toxic chemicals across the landscape—we have, since our formation, looked to organic production as a solution.

From its very beginnings, the organic sector has been driven by an alliance of farmers and consumers who defined the organic standards as a holistic approach to protecting health and the environment, with a deep conviction that food production could operate in sync with nature and be mindful of its interrelationship with the natural world—protecting and enhancing the quality of air, water, land, and food. Organic is not just an alternative for people seeking better food—though it is that—or a more profitable way of farming—though we hope it is that,

too. It is a path to prevent total ecological collapse. We constantly return to the foundations of organic for inspiration and guidance. When we comment on NOSB proposals, we are not interested in what is less harmful. We feel an urgency to prevent ecological disaster.

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 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.[1] 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 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).

The definition of "organic production" in the organic regulations requires the conservation of biodiversity. As stated in the NOP Guidance on Natural Resources and Biodiversity Conservation (NOP 5020),

---

[1] See Sir Albert Howard. The Soil and Health: The Study of Organic Agriculture (1940), and An Agricultural Testament (1947).

> The preamble to the final rule establishing the NOP explained, "[t]he use of 'conserve' [in the definition of organic production] establishes that the producer must *initiate practices to support biodiversity* ***and*** *avoid, to the extent practicable, any activities that would diminish it.* Compliance with the requirement to conserve biodiversity requires that a producer incorporate practices in his or her organic system plan that are beneficial to biodiversity on his or her operation." (76 FR 80563) [Emphasis added.]

Thus, it is not enough to say one is not diminishing biodiversity–organic practitioners must take active steps to support biodiversity. On an organic farm, many practices support biodiversity–from crop rotations to interplanting to devoting space to hedgerows and other non-productive uses. However, we also need to be mindful of the impacts of inputs on biodiversity and ensure that we are supporting biodiversity in allowing off-farm inputs.

We are glad to see that there has been near unanimous support for addressing the environmental impacts of the use of marine algae in organic production. The protection of marine ecosystems is urgently needed and required as a part of the determination on allowed materials under the organic statute. Since marine plants are crucial to ecosystems, it is important for all of us, as organic producers, consumers, certifiers, and regulators, to find a way to move this process forward as quickly as possible. We thank the Materials Subcommittee for a rigorous process leading to cogent support for the current proposal.

Necessary Elements of Marine Ecosystem Protection

The crucial elements that we seek—and that the Materials Subcommittee (MS) seeks—are enforceable, protective rules for the use of marine algae in organic production. Enforceability implies rules that are verified by on-site inspection and that will stand up to legal challenge. Protective rules must address not only the sustainability of the target marine algae as a resource, but also protection of the marine ecosystem and biological communities in which they live.

Regulatory backing is required for enforceability.

Enforceability can be gained through adoption of regulations. The addition of protective language in the National List—in both §601 and §602—can provide enforceability. The language suggested by the MS is specific, comprehensive, and scientifically justified. Although the language is specific as far as what parameters must be considered, the NOSB and NOP should consider guidance that may be, in some cases, species-specific. In addition, on-site annual verification is necessary.

Protective rules must spell out requirements for maintaining habitats and ecosystems.

The regulations for wildcrafting provide basic principles. 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 no 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.

The requirement that marine macroalgae "must be harvested in a manner that ensures that such harvesting or gathering will not be destructive to the environment" is important because "sustainable harvest" is not sufficient to protect the ecosystem. Due to the many roles that marine algae play in the ecosystem, standards should not be based on the level of disturbance that can sustain a harvest (recovery of biomass), but on recovery of ecosystem function and structure. The rockweed industry, as described above, serves as an example. As stated by Seeley and Schlesinger,

> The measure of sustainability used by the rockweed (*Ascophyllum nodosum* L.) industry, maximum sustainable yield, accounts for neither rockweed's role as habitat for 150+ species, including species of commercial or conservation significance, nor its role in coastal and estuarine ecosystems. To determine whether rockweed cutting is "sustainable" will require data on the long-term and ecosystem-wide impacts of cutting rockweed. …Until sustainable levels of cutting and appropriate regulations are identified, commercial-scale rockweed cutting presents a risk to coastal ecosystems and the human communities that depend on those ecosystems.[2]

Since marine macroalgae are nonsynthetic, it is appropriate to place restrictions on their use through §205.602, prohibited nonsynthetic crop inputs. It is important that the annotation cover the following points:

1. Prohibit harvest in protected areas. These areas may be under federal, state, and local public and private management and include conservation areas, parks, sanctuaries and other protected habitats.
2. Prohibit harvest by bottom trawling, which is especially harmful.
3. Prohibit harvest methods that interfere with reproduction and natural regeneration.
4. Prohibit repeated in the same place until biomass or percent cover, and architecture (density and height) of species in the marine community, as well as targeted species, have returned to levels of undisturbed communities.
5. Bycatch must be prevented and monitored or eliminated. Bycatch of species of special status protected by U.S. Fish and Wildlife Service or National Marine Fisheries Service must result in prohibiting products from being used in organic production.

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

[2] Seeley, R.H. and Schlesinger, W.H., 2012. Sustainable seaweed cutting? The rockweed (Ascophyllum nodosum) industry of Maine and the Maritime Provinces. *Annals of the New York Academy of Sciences*, *1249*(1), pp.84-103.

List are reviewed on a five-year cycle, the listings can be modernized when needed. The annotation proposed by the MS addresses the points we have identified above as critical.

We and others have suggested that *Ascophyllum nodosum* (rockweed) should be specifically prohibited. *Ascophyllum nodosum* was singled out not because it is uniquely at risk, but because the risk to rockweed, as well as its ecological importance, has been so well documented. As we have seen, rockweed grows and is harvested in the intertidal zone, where impacts are readily visible to many people. Coralline algae are sensitive to bottom trawling, and should be used as an indicator of the use of that prohibited method. If necessary, coralline algae should be protected explicitly when this listing comes up for sunset review. The absence of similar comments about other marine algae should not be taken as an indication that their populations and ecosystems are thriving. 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.

Guidance is needed as supplementary.

Guidance is needed to clarify the requirements because most certifiers 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.

Marine animals must also be protected.

It is important to protect marine algae –species at the foundation of marine ecosystems. However, fish (and soon squid) may also be used in crop production. Like marine algae, they should be allowed only when obtained by sustainable methods that are not destructive to the environment. We encourage the NOSB to also consider restrictions on the use of fish and squid products that meet those criteria.

Thank you for your consideration of these comments.

Sincerely,

Terry Shistar, Ph.D.
Board of Directors