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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-21-0038

Re. HS: Fish oil annotation

These comments to the National Organic Standards Board (NOSB) on its Fall 2021 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.

We offer a number of comments on the suggested annotation for fish oils used in organic products, which we find to be inadequate to protect marine ecosystems.

Fish oil is nonagricultural.

The definition of “nonagricultural” in the regulations is:

Nonagricultural substance. A substance that is not a product of agriculture, such as a mineral or a bacterial culture, that is used as an ingredient in an agricultural product. For the purposes of this part, a nonagricultural ingredient also includes any substance, such as gums, citric acid, or pectin, that is extracted from, isolated from, or a fraction of an agricultural product so that the identity of the agricultural product is unrecognizable in the extract, isolate, or fraction.¹

It is debatable whether fish, lacking regulations governing aquaculture and other fish used in organic foods, can be classified as “agricultural.” However, the identity of the fish is unrecognizable in fish oil, so it is nonagricultural. If it is to be used in organic food products, fish oil must be listed on §205.605—after a determination of whether it is synthetic or nonsynthetic.

¹ 7 CFR 205.2.

The use of fish oil in organic production and products must protect the marine ecosystem.

In order for a material to be on the National List, the NOSB must determine that it “would not be harmful to human health or the environment.”²

A satisfactory annotation must address not only the sustainability of harvest from the fisheries, but also the health of the marine ecosystems. The oceans are not farms that exist for human use. Oceans contain complex ecosystems, which organic production systems are required to protect. Luybaert et al. conclude from their study of the state of oceans, “Marine population declines are ubiquitous, yet the consequences for the functioning of marine ecosystems are understudied.” They cite a reduction in marine fish abundance of 38% compared to levels in 1970. With the decline of marine biodiversity and degradation of marine ecosystems, ecosystem services provided by these ecosystems are being lost. The article says, “There is increasing evidence that the destruction and modification of structurally complex habitats is leading to the rapid disappearance of the diverse communities they harbor at local, regional, and global scales.” Examples are kelp forests and oyster reefs.³

Restricting the species and location of the harvest is not sufficient. The method is also important. For example, trawling activity has been reported on 75% of the global continental shelf area⁴ and is one of the “most significant forms of physical disturbance on the seabed.”⁵ “[T]he proportion of seabed area exposed to bottom trawling ranges from <1% to >80% in different regions of the world. Trawling may modify sediment texture (grain size), the presence and nature of bedforms and chemical exchange processes. Trawling can also have direct and indirect impacts on populations and communities of benthic invertebrates.”⁶

It is estimated that more than 50% of the material from the total fish capture is not used as food⁷ and might be used for fish oil. “Production of fishmeal and fish oil requires significant amounts of energy for cooking, drying and evaporation.”⁸ The 50% of the capture not used as food includes “bycatch”—not only fish, but also dolphins, marine turtles, and sea birds. There

² OFPA §6517(c)(1)(A)(i).

³ Luybaert T., Hagan J.G., McCarthy M.L., Poti M. (2020) Status of Marine Biodiversity in the Anthropocene. In: Jungblut S., Liebich V., Bode-Dalby M. (eds) YOUMARES 9 - The Oceans: Our Research, Our Future. Springer, Cham.

⁴ Luybaert T., Hagan J.G., McCarthy M.L., Poti M. (2020) Status of Marine Biodiversity in the Anthropocene. In: Jungblut S., Liebich V., Bode-Dalby M. (eds) YOUMARES 9 - The Oceans: Our Research, Our Future. Springer, Cham.

⁵ Colloca, F., Scarcella, G. and Libralato, S., 2017. Recent trends and impacts of fisheries exploitation on Mediterranean stocks and ecosystems. *Frontiers in Marine Science*, 4, p.244.

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⁷ Arvanitoyannis, I.S. and Kassaveti, A., 2008. Fish industry waste: treatments, environmental impacts, current and potential uses. *International journal of food science & technology*, 43(4), pp.726-745.

⁸ Arvanitoyannis, I.S. and Kassaveti, A., 2008. Fish industry waste: treatments, environmental impacts, current and potential uses. *International journal of food science & technology*, 43(4), pp.726-745.

are fishing methods that minimize bycatch that are not always used.⁹ **Bycatch must not be used for fish oil in organic food.**

In the *International Journal of Epidemiology*, Brunner et al. conclude, “Marine ecologists predict on current trends that fish stocks are set to collapse in 40 years, and propose increased restrictions on fishing, including no-take zones, in order to restore marine ecosystem health. Production of fishmeal for aquaculture and other non-food uses (22 MT in 2003) appears to be unsustainable.”¹⁰

The annotation proposed by the HS says: *Sourced from fishing industry by-product only and certified as sustainable against a third-party certification that is International Social and Environmental Accreditation and Labeling (ISEAL) Code Compliant or (GSSI) recognized.*

We have not been able to discern how protective the certifications allowed under the annotation are. The actual criteria and enforcement/compliance system should be provided in the NOSB materials. We are not clear about how a certifier would apply the annotation, which leads us to respond in the negative to question #2 posed by the HS in the Spring, “Are these requirements clear and enforceable?”

Fish oil is not necessary.

Another requirement for inclusion on the National List is that the substance “is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products.”¹¹ According to the HS, in its Fall 2019 review of fish oil,

Fish oil is used in organic processing and handling as an ingredient to increase the content of omega-3 fatty acids—primarily, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA)—in foods to benefit human health by contributing to healthy brain development and reducing risks of cardiovascular disease, diabetes, inflammation, atherosclerosis (Chang et al., 2009; Lee et al., 2014). Fish oil is used in a variety of food products, including breads, pies, cereals, yogurt, cheese products, frozen dairy products, meat products, cookies, crackers, snack foods, condiments, sauces, and soup mixes (Rizliya and Mendis, 25 2014).

None of these are necessary to the production or handling of organic products and are obtainable from other foods in our diet.

⁹ <https://www.worldwildlife.org/threats/bycatch>.

¹⁰ Eric J Brunner, Peter J S Jones, Sharon Friel, Mel Bartley, Fish, human health and marine ecosystem health: policies in collision, *International Journal of Epidemiology*, Volume 38, Issue 1, February 2009, Pages 93–100, <https://doi.org/10.1093/ije/dyn157>.

¹¹ OFPA §6517(c)(1)(A)(ii).

Conclusion

Fish oil is nonagricultural, so it does not belong on §606. The proposed annotations are inadequate either because they fail to protect the marine ecosystem and/or because they are not clear and enforceable. Fish oil is not necessary to organic production or handling. Therefore, it should be removed from the National List.

In the Spring, the HS said, "Several comments raised objections to the listing of fish oil on the National List. Those comments, however, are relevant to the sunset reviews and are not relevant to this proposed annotation." We believe our comments **are** relevant to this proposed annotation (as well as to sunset reviews) because they address issues of compliance with the underlying standards of the Organic Foods Production Act (OFPA) and the enforcement of those standards. Our comments deal with issues relating to the questions posed by the HS, as well as the appropriateness of the listing.

We appreciate the work the HS has done on this important issue, but it is important for the organic community to understand how this annotation works, so that we can determine whether it meets our own criteria (such as avoiding bycatch). So far, the annotation lacks the necessary transparency.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar".

Terry Shistar, Ph.D.
Board of Directors
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