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National Organic Standards Board
Livestock Committee
United States Department of Agriculture
Room 4008 - South Building
1400 Independence Avenue, SW
Washington, DC 20250-0001
Via E-mail: NOSB.Livestock@usda.gov

RE: National Organic Standards Board (NOSB) Aquaculture Standards

The Northwest Atlantic Marine Alliance (NAMA) is writing to urge the NOSB to reject the Proposed Organic Aquaculture Standards: Fish Feed and Related Management Issues, and Net Pens and Related Management Issues. NAMA's mission is to restore and enhance an enduring marine system supporting a healthy diversity and an abundance of marine life and human uses through a self-organizing and self-governing organization.

The development of National Organic Standards for aquaculture could potentially help alleviate and reverse the environmental and human health impacts associated with current industrial aquaculture production methods. In order to realize these benefits, however, the resulting organic aquaculture standards must be stringent and reflect a primary commitment to developing low impact and sustainable production methods that support the local communities.

Unfortunately, the latest round of the development of Organic Aquaculture standards -- NOSB Livestock Committee Proposed Organic Aquaculture Standards for Net Pens and Fish Feed -- does not comply with organic principles. Adoption of both proposals would fatally undercut any proposed USDA organic aquaculture standard and we urge the full Board to reject them.

NAMA is specifically concerned about the following issues:

1. Net pen and cage culture must not be considered for organic certification

The proposed "organic" fish farming of large carnivorous and migratory fish such as salmon in open-water net pens runs contrary to the letter and spirit of organic food production, which is to produce safe, high-quality foods in an environmentally sustainable fashion.

Open net pen aquaculture releases effluent directly into the ocean, lake or river. The waste includes uneaten feed and feces that contain nitrate, nitrite, ammonia, phosphate and, sometimes, heavy metals such as mercury, copper and zinc.[i] These excess nutrients can increase the growth of primary organisms, such as phytoplankton and reduce dissolved oxygen, both of which harm wild flora and fauna. The increased water turbidity blocks sunlight, which reduces photosynthesis by desirable aquatic plants.[ii] Suspended solids can damage the gills of wild fish, making them vulnerable to disease.
Fish farming in open water net pens cause a number of environmental harms. Containing escapes is known to be impossible and the large numbers of farmed fish already invading our oceans is having a significant and profound impact on the

biodiversity among wild fish species.

There are also significant negative health impacts from pollutants and toxins in open water net pen raised fish. Organic foods, whether from plants or animals, are produced under conditions that can be controlled. This cannot be said for fish grown in the open ocean, where they are exposed to and ingest or absorb many types of industrial and agricultural toxins. Producing fish this way may be a driving force in the fish farming market, but that is not enough reason to mislead consumers by applying to it an organic label.

2. Wild fish and their products must not be used in feed for organic fish

Wild caught fish should not be certified as organic and should not be used as food for organic fish. Wild fish are not and cannot be certified "organic," nor can they be certified as "organic" feed.

Using forage fish to grow larger fish is not an environmentally friendly farming method and should not be mislabeled or endorsed as "organic." The practice increases pressure on our ocean's already depleted fisheries. Scientists estimate that producing one pound of farmed fish like salmon requires harvesting more than twice that amount of wild-caught forage fish.

This practice is not safe, either. Many scientists have concluded that fishmeal and fish oil produced from wild-caught fish is likely the primary route of entry for cancer-causing contaminants into the farmed fish. The latest studies confirm that feeding fishmeal from wild sources to farmed salmon increases the concentrations of persistent organic pollutants, such as dioxins, dioxin-like polychlorinated biphenyls (PCBs), polybrominated diphenylethers (PBDEs), toxaphene and organochlorine pesticides (OPs) such as DDT in their bodies. The levels of contamination are higher in the farmed salmon than in wild caught salmon.[iii] Therefore, it is critical that wild fishmeal and fish oil not be used as feed for organic farm-raised aquatic animals.

If there is to be a meaningful organic standard for aquaculture, NOSB needs to face the reality that some types of fish farming are simply not possible to be made organic because they necessarily require environmentally damaging activities.

The Northwest Atlantic Marine Alliance strongly urges you to reject these proposals.

Sincerely,

Niaz Dorry
Coordinating Director
Northwest Atlantic Marine Alliance

[i] Choi, Monica Heekyoung and Cech, Joseph J. "Unexpectedly High Mercury Level in Pelleted Commercial Fish Feed." *Environmental Toxicology and Chemistry,* 17(10): 1979-1981, 1998.
[ii] Xu, Zhongneng et al. "Nitrogen, phosphorus and energy waste outputs of four marine cage-cultured fish fed with trash fish." *Aquaculture*, 263: 130-141, 2007.
[iii] Shaw, 2006; Rawn, Dorothea F.K., et al. "PCB, PCDD and PCDF residues in fin and non-fin fish products from the Canadian retail market 2002." *Science of the Total Environment*, 359: 101-110, 2006.