



BEYOND PESTICIDES

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

April 4, 2015

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

Re. LS: Aquaculture legacy document

These comments to the National Organic Standards Board (NOSB) on its Spring 2015 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 thank the Livestock Subcommittee (LS) for its attempt at capturing the history of the NOSB's involvement with aquaculture. It is unfortunate that delays between NOSB action and implementation by the National Organic Program (NOP) often create large gaps in institutional memory. In the case of aquaculture, there was a long history leading up to the adoption of recommendations, which is outlined in the LS document, during which original participants cycled off the Board, and this increased the institutional memory lapse.

We would like to comment on some omissions in this history that may have created an inadvertent bias. The aquaculture recommendations have been a result of contributions from two distinct groups of people –those whose roots are in organic agriculture and those who come from the conventional aquaculture industry. The early contributions of the Aquatic Animal Task Force (AATF) and the persistent commentaries from public interest organizations fall in the first group. The Aquaculture Working Group (AWG), which has dominated the actual development of aquaculture recommendations approved by the NOSB, is the principal organizational representative of the second group.¹

¹ The first AWG consisted of three NOSB members, plus Dan Butterfield (Butterfield Catfish Farm), George Lockwood (Industry consultant; World Aquaculture Society), Chris Duffy (Greatbay Aquaculture), Richard Nelson (California Aquaculture Association), Gary Fornshell (Aquaculture Extension Coordinator, University of Idaho), John Hargreaves (LSU Aquaculture Research Station), Robin Downey (Pacific Coast Shellfish Growers Association), Deborah Brister (SeaGrant). The second iteration consisted of one NOSB member, plus Sebastian Belle (Maine Aquaculture Association), Robert Bullis (Advanced Bionutrition Corporation), Ralph Elston (AquaTechnics Inc), Ronald Hardy (Aquaculture Research Center, University of Idaho), John Hargreaves, George Lockwood, Robert

Due to the domination of the development of proposed aquaculture standards by the AWG, the guidance from the organic community has been undervalued. In addition to the contributions directly relating to aquaculture, this guidance includes NOSB guidance on soil-less production systems.

The report of the AATF, which is mentioned in the Legacy document, is interesting because every issue is examined in detailed comparison with organic terrestrial livestock regulations and practices. The summary of the AATF report given in the Legacy document does not capture the reasoning of the AATF. The AATF focused much discussion on livestock feed and living conditions. While the majority of the Aquaculture Working Group² pressed for allowing fish unlimited meal and fish oil in organic production, the AATF report said,

The Task Force concurs that organic livestock producers must provide a complete, balanced, and naturally palatable diet and that this requirement mandates including fish meal or fish oil in the diets of piscivorous aquatic animals. While section 205.237 of the final rule requires agricultural components of the feed ration to be organically produced, it also allows nonsynthetic substances and synthetic substances included on the National List as feed additives and supplements. The Task Force recommends that up to 5% of the total feed ration may include nonorganic fish meal and fish oil as feed supplements to provide natural sources of amino acids and Omega 3 fatty acids. The Task Force recognizes that this recommendation will restrict the species of aquatic animals that can be raised organically. There is also potential for operations that manage algae blooms to raise herbivorous aquatic animals in a manner comparable to ruminants grazing on pasture. By-products of these herbivorous species raised on organic operations could provide a source of organic fish meal and fish oil for organically raised piscivorous species.

The current discussion needs to be informed by the challenge of meeting multiple requirements of organic livestock production, as they are applied to aquaculture –the feed must be organic, and it must closely resemble the natural diet of the animal. Since the AATF had also concluded that wild caught fish cannot be certified organic, fish meal and fish oil must either be organic or specifically allowed on the National List.

Public interest commenters have repeatedly pointed out difficulties with allowing products of wild-caught fish, both in terms of contamination of feed and removal of nutrients from wild ecosystems. The AWG, on the other hand, has promoted the allowance and certification of wild caught fish for aquaculture feed.

Mayo (Carolina Classics Catfish), Christopher Nelson (Bon Secour Fisheries), Bart Reid (Permian Sea Shrimp Co.), Albert Tacon (Aquatic Farms Ltd), and Kwamena Quagraine (Aquaculture Marketing, University of Arkansas).

² Confusingly, this “Aquaculture Working Group” was a subgroup of the AATF, with the addition of several members of the Aquatic Animal Task Force. See footnote 1. In reading the report of the AATF, it is easy to confuse recommendations of the AATF and those of the AWG.

The AATF also devoted much energy to discussing the living conditions of animals in aquaculture. Its report says,

The Task Force identified three essential components in the requirements for livestock living conditions in organic aquaculture systems: the provision of a species appropriate production environment; the preservation of environmental quality in the surrounding ecosystem; and the continuous separation of organically and nonorganically managed populations of aquatic animals.

The Task Force concludes that a producer must satisfy these requirements by maintaining a production system that restricts the movement of aquatic animals within fixed, recognized boundaries. These systems can include ponds, netpens, raceways, recirculating systems, and other enclosed operations in which the producer is responsible for introducing the organisms and retains an active role in managing their development.

Although the AATF believed that net pens could provide the required degree of separation, data submitted by Food and Water Watch and the Center for Food Safety at recent meetings must modify that conclusion. At any rate, the AATF was clear that an enclosed operation is necessary because that is what is consistent with organic practices.

Aside from the extensive Board history on aquaculture, other Board discussions should be applied to aquaculture recommendations. In spring 2010, the NOSB approved a recommendation on Production Standards for Terrestrial Plants in Containers and Enclosures that concluded that:

[S]ystems of crop production that eliminate soil from the system, such as hydroponics or aeroponics, cannot be considered as examples of acceptable organic farming practices. Hydroponics, the production of plants in nutrient rich solutions or moist inert material, or aeroponics, a variation in which plant roots are suspended in air and continually misted with nutrient solution, have their place in production agriculture, but certainly cannot be classified as certified organic growing methods due to their exclusion of the soil-plant ecology intrinsic to organic farming systems and USDA/NOP regulations governing them.

That recommendation pertained directly to normally terrestrial plants, and hence is not directly applicable to aquaculture. However, the reasoning given by the Crops Committee is pertinent:

The organic farming method derives its name from the practice of maintaining or improving the organic matter (carbon containing) content of farm soil through various methods and practices. The reason this is the central theme and foundation of organic farming is not inherent to the organic matter itself, but is based on the importance of the organic matter to the living organisms that inhabit soils, particularly for its positive influence on proliferation of diverse populations of organisms that interact in a beneficial way with plant roots. These microscopic organisms, found in abundance in well maintained soils, interact in a symbiotic manner with plant roots, producing the effect of strengthening the plant to be able to better resist or avoid insect, disease and nematode attack, as well as assisting the plant in water and mineral uptake. The

abundance of such organisms in healthy, organically maintained soils form a biological network, an amazing and diverse ecology that is 'the secret', the foundation of the success of organic farming accomplished without the need for synthetic insecticides, nematicides, fumigants, etc. In practice, the organic farmer is not just a tiller of the soil, but a steward of the soil ecology on the farm, hence some of the alternate names for this realm of production, such as ecological or biodynamic farming.

This is another example of bringing the fundamentals of organic to bear on decisions relating to new organic systems. Organic aquaculture, because it involves the culture of aquatic organisms, need not be soil-based, but it must be based on organic principles including the recycling of nutrients, support for livestock with organic feed from the system, and protection of the organic integrity of the products. The contributors who have come to this long conversation from a background firmly rooted in organic principles and practice have come to different conclusions regarding possibilities for organic aquaculture than those who came from a background in industrial aquaculture, and we urge the NOSB to give their recommendations more weight.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is fluid and cursive, with a prominent flourish at the end.

Terry Shistar, Ph.D.
Board of Directors