



# BEYOND PESTICIDES

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April 2, 2015

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

## **Re. HS: Microorganisms; MS/GMO: Workplan**

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 groups around the world.

Beyond Pesticides cannot support the relisting of microorganisms without documentation to show that the listing meets the criteria of the Organic Foods Production Act (OFPA). The principal document of support is a technical review (TR) that does not give a thorough treatment of the manufacture of all microorganisms by fermentation. While the technical review gives a good overview of fermentation processes used to produce several different types of microorganisms, some questions remain unanswered.

### **1. Identification of “microorganisms” as listed on the National List**

The listing on §205.605(a) is “Microorganisms—any food grade bacteria, fungi, and other microorganism.” This listing is not clear. The Handling Subcommittee has clarified its intent to include in this listing living organisms added to food (except dairy cultures and yeast, which are listed elsewhere); but not either dead microorganisms or substances derived or extracted from microorganisms. This clarification should be included in an annotation.

### **2. Ancillary substances**

Like the HS, we have addressed ancillary substances separately.

### **3. Environmental and Health Impacts**

In order to evaluate impacts on human health and the environment, the HS must evaluate the production practices for microorganisms. (See “Fermentation” below.) Some examples of questions that have not been addressed are:

- What are conditions for workers within buildings holding fermentation vats?
- Are there discharges from fermentation vats?
- How/where are remains from fermentation, bad batches, etc. disposed of? Do they compete with natural organisms?

In addition, the TR indicates a potential for some microorganisms to concentrate heavy metals.

#### **4. Essentiality**

We support the use of microbially fermented agricultural products as health-supporting and eliminating the use of some chemical preservatives and other antimicrobial agents.

#### **5. Compatibility**

The HS documentation does not address compatibility. We believe that in principle, the use of microorganisms to produce microbially fermented agricultural products is compatible with organic practices. HS documentation should address this issue. Our main concern is with the specifics of production practices.

#### **6. Fermentation**

The consideration of microorganisms raises additional issues that should be addressed by the NOSB:

- What criteria must be applied to determine whether fermentation products are acceptable as inputs in organic production and processing?
- What criteria must be applied in classifying the products of fermentation as agricultural/nonagricultural or synthetic/nonsynthetic?

The production of “microorganisms” as circumscribed by the HS (living organisms added to food, except dairy cultures and yeast, but neither dead microorganisms nor substances derived or extracted from microorganisms) ,must still be examined in greater detail. For example, the TR states (lines 632-633), “Both synthetic and nonsynthetic growth media components are used to provide carbohydrate and nitrogen sources.” If carbon and nitrogen sources –and not just micronutrients –may be synthetic, then the NOSB should consider whether the use of synthetic nutrients changes the classification or the acceptability of those microorganisms. The HS does not appear to have identified any synthetic nutrients as ancillary substances that might appear in microorganisms, though other food sources are on the list. Is it possible that some might carry over?

#### **7. Conclusion**

The Handling Subcommittee must present more documentation to show that the listing meets the criteria of the Organic Foods Production Act (OFPA) –particularly concerning hazards presented by manufacturing processes and the compatibility of different fermentation processes with organic production.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is written in a cursive style with a horizontal line at the end.

Terry Shistar, Ph.D.  
Board of Directors