



BEYOND PESTICIDES

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October 3, 2014

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. MS: Research Priorities

These comments to the National Organic Standards Board (NOSB) on its Fall 2014 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 supports the research priorities recommended by the Materials Subcommittee. The Materials Subcommittee (MS) recommends reconfirming support for priority to the following organic research topics identified in 2012: whole farm systems, alternatives to antibiotics, evaluation of GE vaccines, and methionine alternatives. The MS supports the following new priorities: organic aquaculture, aquatic biodiversity, herd health, pastured poultry and salmonella, commercial availability assessments, consumer demand, fate of genetically engineered plant material in compost, and reduction of genetically modified content of breeding lines.

Beyond Pesticides also recommends the following for consideration: chlorine alternatives, biodegradable biobased bioplastic mulch degradation, chelating agents, and hydrogen chloride alternatives.

1. Chlorine Alternatives

The MS proposal last year mentioned alternatives to chlorine as a topic for further review. “Green chemistry” programs have identified problems with chlorine bleach,¹ and suggested alternatives.² We would also like to recommend that technical reviews routinely consult sources on Green Chemistry, such as EPA’s Design for the Environment³ and the University of Massachusetts Toxics Use Reduction Institute.⁴

¹ http://www2.epa.gov/sites/production/files/2013-08/documents/factsheet_whatstheproblemwithbleach.pdf

² http://www.sustainablehospitals.org/cgi-bin/DB_Report.cgi?px=W&rpt=Cat&id=28,
<http://www.nhhealthyschoolenvironments.org/documents/AppendixB.1.SelectingGreenerDisinfectants.pdf>,
<http://www.sfapproved.org/87-Cleaners/234-Disinfectants/> and others

³ <http://www.epa.gov/dfe/saferingredients.htm>

⁴ http://www.turi.org/Our_Work/Research/Green_Chemistry

2. Biodegradable Biobased Bioplastic Mulch Degradation

We are concerned about what the break-down components are and how they influence the soil life and plant –and, potentially livestock—growth, not just in how well/rapidly the mulch decomposes. Research should associate the action (efficacy) and decomposition of the mulch with different cropping systems, soil type, climates, etc. Research should also focus on the concept of testing the mulch to meet various decomposition standards and to validate non-GMO status of the source materials.

3. Chelating Agents

A chelate (from the Greek *chele*, for claw) is an organic compound which holds a metal ion in a bond with two or more other atoms as a complex. As a complex, the metal ions are protected from other reactions that might affect (prevent or facilitate) their uptake by plants. Humus contains natural chelating agents. Lignin sulfonate is on the National List as a synthetic chelating agent in crops. Lignin sulfonate has been petitioned as a chelating agent in plant aquaculture and others (e.g., ethylenediaminedisuccinic acid (EDDS) and ethylenediaminetetraacetic acid (EDTA)) have been petitioned in the past or are on the list of “inerts” to be evaluated. EPA’s Design for the Environment, for example, has assessed a number of chelating agents,⁵ some of which may be natural, and it would be helpful to the NOSB if researchers could compare such assessments with the needs of producers of inputs into organic production.

4. Hydrogen Chloride Alternatives

As we pointed out in our comments on the 2016 sunset of hydrogen chloride, this chemical is extremely hazardous, especially to workers. Its use for delinting cotton seed for planting is only justifiable because U.S. cotton growers have no alternative.

There is, however, on-going research into the development of mechanical delinting processes that would eliminate the need for hydrogen chloride. This is the kind of “minor” use which deserves special support. It appears to us that there are alternative technologies ripe for development, and that very little is needed to move them into the stage of being able to meet the demand of organic cotton growers.

Thank you for your consideration of these comments.

Sincerely,



Terry Shistar, Ph.D.
Board of Directors

⁵ <http://www.epa.gov/dfe/saferingredients.htm>