

Keeping Organic Strong

How you can influence organic standards

By John Kepner and Jay Feldman

Beyond Pesticides has launched a new organic action webpage, to engage the public in decisions by the National Organic Standards Board (NOSB) and help organic food production grow (www.beyondpesticides.org/organicfood/action). The NOSB was established by the Organic Foods Production Act (OFPA) to assist in the development of standards for substances to be used in organic production, make recommendations about whether a substance should be allowed or prohibited in organic production or handling, and advise the Secretary of Agriculture. Currently, Beyond Pesticides' executive director serves on the NOSB.

While the issues discussed here at times can seem wonky and esoteric, they are all central to the integrity of organic and questions critical to public perception of its commitment to natural, ecological, and humane practices. The public's voice—your voice—is a major factor in how important questions are resolved in the short- and long-term. As organic grows in the marketplace, its standards challenge our larger, chemical-intensive food production system to shed its polluting practices—harmful to health, the environment and the planet's sustainability—as simply unnecessary to achieving high productivity and quality.

As we raise our voices to advance the integrity of the organic label, it is important to bear in mind the differences between organic farming and conventional, chemical-intensive agriculture. While organic agriculture embodies an ecological approach, conventional, chemical-intensive agriculture creates a dependency on toxic chemicals that poison the soil, as well as the air, water, and those who produce and consume the crops.

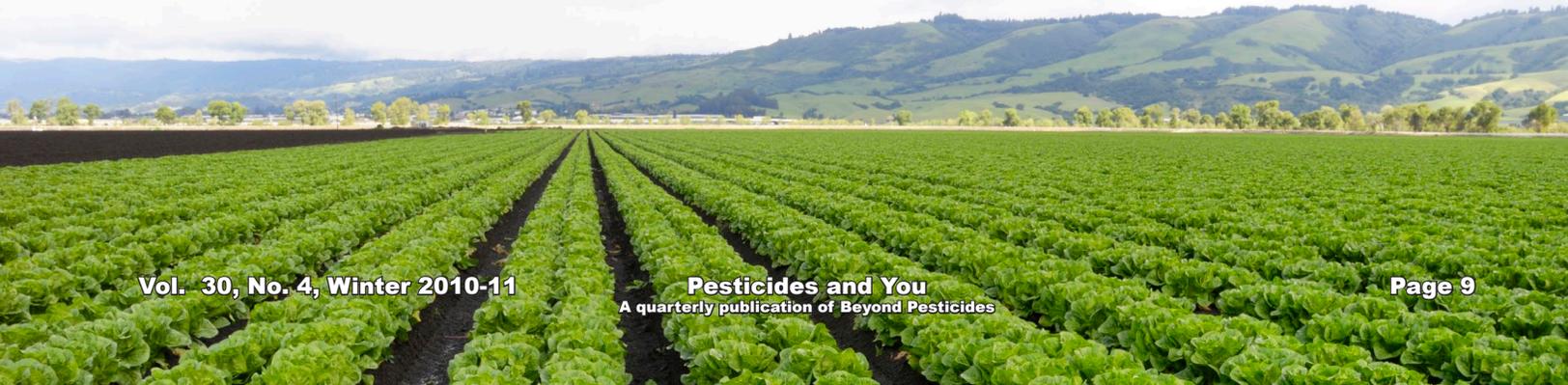
First and foremost, organic farmers adopt an organic systems plan (subject to recordkeeping requirements, inspection and certification), which incorporates strategies that include compost, crop

rotation, cultural practices, and beneficial species. As a last resort, the organic systems plan may allow for the use of natural and approved synthetic chemicals on the "National List," which is subject to organic compatibility standards and a review by the NOSB—a process that includes a detailed checklist of possible health and environmental and biodiversity impacts, from production of the substance to use and disposal, and considers the essentiality of the chemical. In contrast, EPA's pesticide registration review does not evaluate the cradle-to-grave impacts of the chemical or the need for it—in light of the availability of alternative less and non-toxic management practices and substances.

Currently, of the 50 entries included on the "National List" of allowable synthetic production and processing aids, there are approximately 27 pesticides, including soap-based insecticides, pheromones and sticky traps. There are also nine prohibited natural substances, including arsenic and strychnine. In contrast, there are tens of thousands of synthetic chemicals approved for use by EPA in chemical-intensive agriculture, including hundreds of pesticide "active ingredients," in addition to chemical fertilizers, genetically modified organisms (GMOs), antibiotics, sewage sludge, irradiation, and nano-engineered substances.

Take Action: Making Your Voice Heard

The organic regulatory process provides numerous opportunities for the public to comment and petition on what is allowable in organic production. USDA maintains a National List, set by the NOSB, of the synthetic substances that may be used and the non-synthetic substances that are prohibited in organic production and handling. OFPA and National Organic Program (NOP - USDA's office on organic standards) regulations provide for the sunseting of listed substances every five years and rely on public comment in evaluating continuing uses. The public may file a petition to amend the National List at any time. In both cases, sunset and petition, the NOSB is authorized by OFPA to determine a substance's status.



What Does “Organic” mean to you?

People bring a range of perspectives to organic agriculture. It can be defined by the things that are lacking—organic production should involve no pesticides, synthetic chemicals, or processing technologies you wouldn't have in your kitchen. You can think about it in terms of food value—organic food should be nutritious and safe to eat. And, it is understood to be ecologically-based agriculture, safe for the environment and workers. Still others think of the economic opportunity provided by a market for a premium product.

From its beginnings, the organic method has been all about the soil. The organic farming system regards the soil as a living organism. Organic gardening and farming literally grew out of the study of composting. As J.I. Rodale, the founder of Rodale Press, and the Rodale staff wrote in *The Complete Book of Composting*, “At the very foundation of good nutrition is the soil—soil that is fertile and alive, that is kept in shape to grow plants as nature meant them to be grown. The life and balance in this soil is maintained by returning to it those materials which hold and extend life in a natural cycle, and aid in replenishing the nutrients needed to produce healthy, life-supporting crops. Soils that lack vital plant nutrients cannot give these food values to what is grown in them.” Rodale began referring to organic systems as regenerative agriculture to embrace the notion of constantly building the soil.

Hence the saying, “Feed the soil to feed the plant.”

The *Organic Foods Production Act of 1990 (OFPA)* was written to ensure that organic food meets all of these expectations. And it offers opportunities to engage in protecting our vision for an organic food production system. Under OFPA, organic agriculture embodies an ecological approach to farming that does not rely on or permit toxic pesticides, chemical fertilizers, genetically modified organisms, antibiotics and hormones, sewage sludge, or irradiation. Protecting the integrity of the organic label brings together the range of expectations that define “organic” to protect and build on the underlying standards of the law.

Recent NOSB Recommendations (October 2010 meeting)

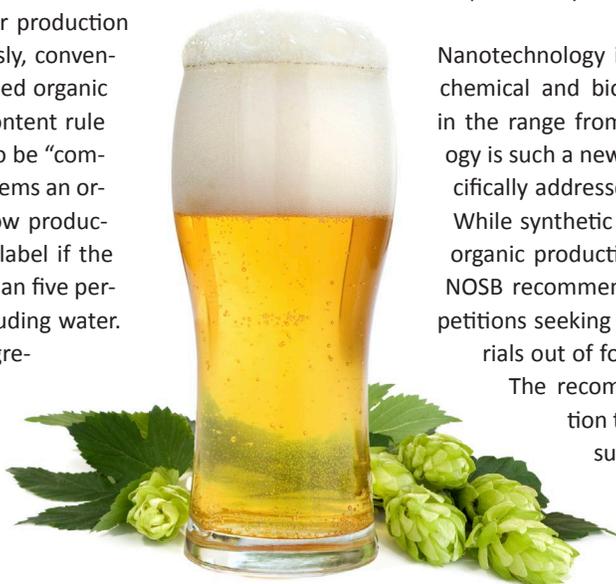
The following recommendations were passed by the NOSB at its most recent meeting. It is important for the public to follow up with USDA's NOP to officially adopt (or reject) the recommendations of the NOSB in accordance with statutory standards. See NOP's response to these issues at <http://bit.ly/NOP-response-Fall2010>. To weigh in on future issues, email NOP Deputy Administrator Miles McEvoy, Miles.McEvoy@ams.usda.gov. *More details on the following issues are available at www.beyondpesticides.org/organicfood/action.*

Organic hops in beer. The NOSB voted to require that all hops used in organic beer production must be organically cultivated. Previously, conventional hops have been allowed in certified organic beer under the five percent product content rule because organic hops were not found to be “commercially available.” When the NOSB deems an organic ingredient unavailable, it can allow producers to display USDA's certified organic label if the non-organic ingredients make up less than five percent of the product's total weight, excluding water. In the case of organic beer, the main ingredient, barley, has always been organic because it constitutes the bulk of the product's weight.

The NOSB is recommending that hops remain listed until 2013 to

give brewers two seasons to secure contracts for organically produced hops. According to NOSB's document, “This time interval formally recognizes the growth of organic hops' availability and yet allows brewers two growing seasons to secure their organic hops through forward contracting, making adjustments to future product formulations and specifications, and preparing their customers and consumers for the product changes anticipated, if any.”

Ban on engineered nanomaterials. The NOSB passed a recommendation directing the USDA National Organic Program to prohibit engineered nanomaterials from certified organic products as expeditiously as possible.



Nanotechnology is the science and manipulation of chemical and biological materials with dimensions in the range from 1-300 nm. Because nanotechnology is such a new field, nanomaterials were not specifically addressed when OFPA was passed in 1990. While synthetic materials are already prohibited in organic production, unless specifically exempt, the NOSB recommendation will pressure NOP to block petitions seeking an exemption and keep nanomaterials out of food packaging and contact surfaces.

The recommendation also provides clarification that nanosized particles of synthetic substances already included on the National List may not be used in organic production. The NOSB recommendation deals spe-

cifically with engineered nanomaterials and purposefully omits those that are naturally occurring (corrosion particles, sea spray) or incidentally created (through traditional production methods, such as grain milling and milk homogenization).

While there is overwhelming agreement to prohibit nanotechnology in organics generally, there is still confusion over the definition of what exactly should be prohibited and how to prohibit nanotech products in the organic industry. To deal with outstanding issues, NOSB has recommended that NOP host a symposium on this topic.

Apiculture/organic honey rules. Since honeybees are animals, the Livestock Committee of the NOSB takes responsibility for developing a recommendation for USDA standards to govern the production of organic honey and honey-related products. Because the biology and behavior of honeybees is so markedly different from other types of organic livestock, and because they fly and forage a wide area, specific standards are required to ensure consistency between organic certifiers and to ensure that organic honey meets consumers' expectations for organic products.

Among other practices, the NOSB recommendation requires that organic bee keepers establish a 1.8 mile (3km) radius organically managed "forage zone." For property within the zone that is not managed by the bee keeper, an affidavit stating that prohibited pesticides have not been used for three years would be required.



Sunset review process

updated. Sunset Review, the process of reviewing substances on the NOP's National List every five years, is mandated by OFPA. Under the policy, if a substance is not reviewed it would automatically be removed from the list. To remain on the list, it must be shown that the use of such substances – (i) would not be harmful to human health or the environment; (ii) is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products; and, (iii) is consistent with organic farming and handling. The recommendation strengthens the review process and gives the NOSB the ability to add or change annotations on listed materials to further restrict or clarify allowed uses.

The policy recommendation addresses three areas of attention that are central to a comprehensive sunset review.

1. *Thorough and comprehensive review.* Sunset review must be a rigorous and comprehensive review process that is supported by a technical review document and public input that reevaluates and updates previous findings to ensure that a decision to renew or restrict a currently listed material is fully informed and in compliance with the statutory standards.

2. *Listed materials subject to sunset review.* Allowed materials under §205.601 and §205.603, §205.605, and §205.606 are sunsetted or removed from the National List unless the Board takes affirmative action to retain their uses. Similarly, prohibited uses under sections §205.602 and §205.604 will sunset unless the Board takes action to relist.

3. *Annotations.* The ability to add or change annotations (restrictions) on applicable National List materials may be important to the Board's sunset decision, given changes in the use patterns of allowed materials and scientific understanding. Sunset decisions by the Board are arrived at through a two-step consecutive process that separates the decision on annotations from the final sunset decision. Under this process, first the assigned committee and then the Board reviews the technical review document(s) and public input to determine whether the material continues to comply with the statutory standards. If the committee identifies the need for a use restriction or clarification, it may propose the annotation in the form of an amendment to a motion to renew. The committee and subsequently the Board will first

take up the annotation amendment and then vote on the material's renewal. The public will have an opportunity to comment on the proposed final sunset decision. An annotation to expand the use of a substance cannot be done through the sunset review process.

Upcoming NOSB Issues (April 2011 meeting)

The following issues are expected to be voted on by the NOSB at its upcoming meeting, April 26-29, 2011. The NOP will open a 30-day written comment period prior to the meeting. Individuals may also request to make an oral presentation before the Board. Prior



An ADM wet corn mill in Iowa

to the comment period, email NOP Deputy Administrator Miles McEvoy, Miles.McEvoy@ams.usda.gov, but be sure to submit your comments during the 30-day window to be a part of the public record. *More details on each of the following issues is available at www.beyondpesticides.org/organicfood/action.*

What is synthetic: Corn steep liquor and chemical change. The NOSB's upcoming decision on whether corn steep liquor (CSL), a byproduct of the corn wet milling process, is a synthetic substance because of its processing raises a central issue in the implementation of OFPA. CSL is used as an additive in compost and could be used as a fertilizer. While it has been in limited use, a reevaluation of its production process has raised a central question about its status as a natural or synthetic substance. At the Spring 2011 board meeting, the NOSB will vote to determine whether CSL is considered synthetic (and therefore prohibited) or nonsynthetic (allowed, unless prohibited on the National List). (See NOSB's definition of synthetic substances.)

In the past, CSL has been considered nonsynthetic by stakeholders, but was more recently classified as synthetic by the Organic Materials Review Institute (OMRI), using the NOSB's 2005 clarifications regarding the classification of synthetic and nonsynthetic substances. In April 2010, NOP requested that the NOSB review CSL's classification as a synthetic or nonsynthetic input in crop production. That process began at the October 2010 meeting. The NOSB Crops Committee (CC) is asking for additional analysis of relevant issues by the USDA Agricultural Marketing Service (AMS) Science and Technology Program (S&T).

In a nutshell, the question comes down to the addition of the synthetic sulfur dioxide (SO₂) in the milling process, most commonly the counter current wet milling process. If SO₂ cleaves disulfide bonds making amino acids available for plant uptake, then most scientists believe that chemical change has occurred and CSL is synthetic. If the SO₂ merely acts to prevent putrefaction, and the disulfide bonds are broken naturally by microbial activity during lactic acid fermentation, then CSL would be considered nonsyn-

thetic. Scientists attribute the breaking of the protein matrix of the corn and the changing of its functionality to the steeping of corn in SO₂ throughout the wet milling process. Others believe that because it is a food waste product it is perceived to be natural. Based on information provided by S&T, the Crops Committee voted that CSL is synthetic, with a strong minority opinion that it is nonsynthetic. The issue was sent back to the committee at the October 2010 meeting and it voted 4-3 that CSL is nonsynthetic. The NOSB will vote on this at the April 2011 meeting.

Classification of Materials: Significant/In-significant. In referring to agricultural and processing inputs in its *Classification of Materials* policy (not yet codified by NOP), the NOSB Materials Committee states that, "A material would be classified as synthetic when...the material contains, at a significant level, a synthetic substance..." It is Beyond Pesticides' position that all materials manufactured or processed with synthetic agents, regardless of the function they perform, must be evaluated for significance. The NOSB is now considering a definition of "significant," which may be voted on at the April meeting.

OFPA states that synthetic substances may only be exempted for use if it "would not be harmful to human health or the environment." Like an evaluation for inclusion on the National List, a review under the Classification of Materials must be able to determine harm to health or the environment. Because some chemicals (endocrine disruptors) cause adverse effects at extremely low levels, often following an inverse dose response curve or more closely associated with timing of exposure than dose, significance is not a function of amount. Therefore, any amount would be significant under OFPA. By evaluating all detectable synthetics, NOSB would be able to fulfill its duty to evaluate for harm.

Animal welfare - stocking rates. According to the NOSB, animal welfare is a basic principle of organic production. Its Live-stock Committee considers animal welfare an appropriate and effective regulatory issue under the organic standard. Good animal welfare requires that animals are able to perform species specific behaviors and enjoy as natural and normal a life as possible. The NOSB believes that imprecise language in organic regulations has created unintended production practices that could allow the welfare of some animals to be compromised.

The recommendation provides detailed information on indoor and outdoor stocking density by livestock type. Animals raised without enough space are more susceptible to disease and prone to other health issues. Advocates say that factory-style farm practices create an unfair advantage and should be banned in organic agriculture. In September 2010, the Cornucopia Institute released its report *Scrambled Eggs: Separating factory farm egg production from authentic organic agriculture*, highlighting this issue.