

The standards that shape the burgeoning \$35 billion organics industry

November 6 2014, by Julie Flaherty



“By one estimate, a half a million people work in organic agriculture in the U.S. alone,” says Melissa Bailey. “We really want to see more of those people involved in helping us build success in this growing market.” Credit: Chris Hartlove

Melissa Bailey has been director of the standards division for the National Organic Program at the U.S. Department of Agriculture since 2010. She helps the USDA develop the rules for how all sorts of agricultural products—from cotton fibers to chicken wings—become

certified as organic.

Bailey, who studied biology as an undergraduate, earned a master's in animals and public policy from Cummings School of Veterinary Medicine in 2003. Her interest in how farmers support conservation efforts led her to the Friedman School of Nutrition's Agriculture, Food and Environment Program, where she soon became intrigued by the way agriculture intersects with the environment, labor and economics. In her dissertation for her Ph.D. in agricultural policy, which she received in 2010, she investigated livestock production systems and water-quality policies.

Tufts Now talked with Bailey about what it means for a food product to be certified organic, how the rules governing organic are made and what she would change about the system if she could.

Tufts Now: What keeps you up at night?

Melissa Bailey: It can quite literally be the amount of work that we have on our plates. We have 34 staff responsible for a \$35 billion and growing industry in the United States, so each staff person is essentially overseeing a billion dollars of product. And our program globally oversees approximately 25,000 certified operations that operate in 133 countries. For example, a farmer can be based in Mexico and get certified to the USDA organic standards.

How does the National Organic Standards Board, the 15-member panel that advises the National Organic Program, influence what ingredients can be used in certified organic products?

The default rule for organic certification is that natural materials are allowed in [organic production](#) and synthetic materials are not. The National List of Allowed and Prohibited Substances outlines the

exceptions to this rule. There are certainly some natural substances that we wouldn't want to allow in organic production—for example, arsenic or strychnine—so those are on the prohibited list. Then there are some synthetic substances that are allowed, and these were all recommended by the National Organic Standards Board.

In making such recommendations, the board considers the need of the substance for organic production and handling, how it affects human health and the environment and its compatibility with sustainable agriculture. For example, pheromones have long been used as an effective, nontoxic way to confuse insects that might otherwise infest organic crops, especially fruit. Another example would be vaccines for animals, which are important disease-prevention tools, especially since antibiotic therapy is prohibited under the organic standards.

Then there are processing aids like baking soda, which is needed to leaven the dough for organic pancakes, baked goods or other products. At the end of the day, it is really a balancing act between what is essential for producing organic food and what consumers expect when purchasing these products.

What does the organic label tell consumers about their meat, eggs and dairy?

A good way to talk about this is to walk through the production of a specific food, such as organic cheddar. Before milk can be turned into cheese, organic milk has to come from a certified organic cow. The cow cannot be given growth hormones or antibiotics, and its feed must be certified organic.

The feed comes from land that has not been treated with any prohibited substances—for example, synthetic fertilizers and most synthetic

pesticides—and the land cannot have been treated with prohibited substances for at least three years before harvest or grazing. The land itself must be managed in a way that maintains soil fertility and minimizes erosion, while having distinct and defined boundaries to ensure that prohibited substances don't come into contact with organic fields.

The organic dairy cow grazes on organic pastures for the entire grazing season, which must be at least 120 days a year. And it has to receive at least 30 percent of its nutrition from pasture during the grazing season. Throughout the cow's life, it has to be raised in living conditions that accommodate its natural behaviors and support health and welfare.

The cow is milked, and the milk gets transported to a certified-organic processing facility. The milk goes through a cheddaring process, during which an enzyme, such as rennet, would be added to separate the curd and whey. That would be an example of a substance that is allowed in organic food products.

Have animal-welfare concerns influenced current standards?

If you look at the existing USDA organic regulations, animal health and welfare requirements already play a prominent role. Organic livestock producers can't use antibiotics and hormones. Continuous confinement of organic livestock is prohibited, and producers must provide access to the outdoors, shade, shelter, fresh air, clean water, dry bedding and direct sunlight. Livestock have to be able to graze daily.

How do veterinarians care for sick organic livestock if the use of antibiotics and other substances is banned or limited?

Prevention is really a tenet of organic livestock production. Since organic farmers can't routinely use drugs to prevent disease and parasites, they could certainly use guidance from their veterinarian about how to select suitable breeds and institute management practices that would minimize the need for medical care. There are some tools that are allowed in organic production that veterinarians can turn to when needed, including electrolytes, certain pain medications and dewormers.

If an animal gets sick and ends up needing antibiotics, organic standards require that it receive these treatments, but be removed from organic production. In other words, products from treated animals can no longer be sold, labeled or represented as organic. Organic livestock producers are prohibited from withholding medical treatment from a sick animal in order to preserve its organic status.

If there is one thing you could change about organic farming, what would that be?

I would like to see more farmers engage in the further development of the organic standards, whether it is at National Organic Standards Board meetings or during our rule-making process—and not just current organic farmers, but also farmers who are deciding whether they want to pursue organic certification. I recognize that it can be difficult to find time between planting and harvesting or raising livestock.

But farmers offer such an important perspective, one that we don't always hear when we are creating our rules. Their voices are critical to the future of the organic program. By one estimate, a half a million people work in organic agriculture in the U.S. alone. We really want to see more of those people involved in helping us build success in this growing market.

Provided by Tufts University

Citation: The standards that shape the burgeoning \$35 billion organics industry (2014, November 6) retrieved 4 May 2024 from

<https://phys.org/news/2014-11-standards-burgeoning-billion-industry.html>

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