What makes a farm organic?

Every farmer and processor who sells over $5,000 of organic products must be certified. If selling organic, the standards must be met. If regulations are violated, there is a $10,000 penalty for each incident.

by Jim Riddle

FOR the last 20 years, I worked as an organic inspector and also trained other inspectors around the world because I want to make sure that organic means what it says. When the consumer is making the choice to buy organic, they need to know they are getting what they are paying for at the grocery store.

There are many misconceptions about organic production. Today, there are federal regulations. In 1990, Congress passed the Organic Foods Production Act. Over a decade later, it was implemented in October 2002 in what's called the "Final" Rule. "Final" is in quotation marks because it's continually amended. There have been three amendments since 2002, typically approving additional substances that farmers or processors can use in organic production.

If selling over $5,000 . . .

Every farmer and processor who sells over $5,000 of organic products annually has to be certified to sell their products in the U.S. Retailers do not have to be certified, although many are choosing to do so. Processors who only put the word organic on the back panel or ingredients statement don't have to be certified either. But, to put organic on the front panel, processors have to be certified. There's full traceability from the grocery store shelf, through the processors, and back to the farms where the products were grown. Anyone who is certified under this regulation has equal rights to use the USDA organic logo. However, its use is optional.

Organic products fall into three categories:

- **100 percent organic** means just what it says — everything in it is certified organic, including any processing aids used in the manufacturing.
- **Organic** — products with this label have to be at least 95 percent organic content. The remaining 5 percent have to be on a national list of allowed ingredients. "Organic" product such as organic cheese is a good example. Dairy cultures can be used in production of organic cheese. They have to be on the national list even though they themselves are not organic.
- **Made with organic ingredients** — products must have at least 70 percent certified organic content to make the front panel claim.

There are more restrictions, but those are the three primary labeling categories.

Only one standard . . .

Some people say, "There are all these different definitions of organic; nobody knows what it means." That's not true. There is only one definition under the regulation: *"Organic production is defined as a production system that's managed to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve product biodiversity."*

But what makes organic "organic" at ground level?

Every operation has to develop an organic system plan. The organic producer has to keep records of everything they use on their farm and where they apply inputs. They only can use approved materials such as fertilizers, processing inputs, and so forth. And there is a mandatory inspection by an accredited agency. These agencies are certified by the USDA.

It begins with the land . . .

The land itself has to be free of prohibited materials for at least 36 months prior to the first organic crop. That transition period is a huge barrier to converting land. In states like Wisconsin and Minnesota, the National Resources Conservation Service (NRCS) makes EQIP (Environmental Quality Incentives Program) funds available to producers as a small transition incentive. To prevent contamination from adjoining land uses, there needs to be physical barriers or buffer zones. Farmers don't have to convert the entire farm. One field can be converted as long as barriers and product commingling can be prevented. For example, organic soybeans must be stored separate from conventional soybeans.

Organic farmers have to maintain or improve the soil quality and minimize erosion. The standard really mandates improving soil quality.

PROCESSORS WHO PUT THE WORD ORGANIC on the front product panel have to be certified. There is full product traceability from the grocery store, through the processors, and back to the farms where the product is grown.

Healthy soil produces healthy crops, healthy animals, and healthy people. Organic farmers cannot use GMOs (genetically modified organisms) at any level whether it's the seeds, planting stock, insecticides, inoculants, or growth hormones.

Organic farmers have to implement soil-building crop rotations, use cover crops, and use animal materials to maintain and improve the soil. They must not contaminate crops, soil, or water with excess plant nutrients, pathogens, heavy metals, or prohibited substances.

A farmer can use compost. In fact, it's quite common on organic farms. They also can use raw animal manure. But if they do so, there are some unique restrictions that apply to organic producers. If they are growing crops for human consumption, that manure has to be incorporated into the soil at least 120 days prior to harvest. When the *E-coli* outbreak in the spinach occurred in California, none of that spinach came from organic fields despite erroneous reports. These manure application restrictions are part of the safeguard that organic farmers have to meet.

Organic farmers can use naturally mined minerals such as limestone. The seeds must be organic if they're commercially available in the equivalent variety that the organic farmer needs. The regulation requires various proactive pest and disease control strategies.

They must be proactive on weed control which is done mainly through mechanical means. They cannot use arsenic-treated lumber where it contacts the soil, crops, or livestock. Records are mandatory and must be made available to the inspector. Those records also must be maintained for at least five years.

Organic does not mean residue-free. There is a tolerance of up to 5 percent of the EPA (Environmental Protection Agency) tolerance for a given pesticide. If organic food is tested and it's above the threshold, it cannot be sold as organic. But it can still be sold as food. We do recognize that we live in a polluted environment.

Livestock rules vary . . .

There are many different species being grown organically. The slaughtered animals themselves must be managed organically from the last third of gestation. So for pigs to be sold as organic pork, the sow had to be managed and fed organically during the last third prior to their birth. Poultry has to be organic from the second day after it hatches.

Dairy animals can be converted to organic production as long as they are managed organically one year before producing organic milk; that includes their feed. But once they are organic, they cannot be rotated in and out of organic production. The feed itself must be 100 percent organic. There are approved vitamin and mineral supplements. Milk replacers are allowed only for emergency use as long as they don't contain antibiotics and are not from BST-treated milk. No such product exists to the best of my knowledge. So most organic dairy producers feed whole organic milk from their own cows.

Other feeding practices that are prohibited include: feeding of plastic pellets, any feed formulas that contain urea or manure, and feeding any slaughter by-products. When mad cow disease broke out in Great Britain, none of the animals that had been raised and fed organic their entire life were diagnosed with BSE. However, some animals that had been brought into organic farms were, but none that had been raised their entire lives under this standard.

All animals must have access to outdoors, shade, shelter, and fresh air suitable to the species and the climate and environment. Grazing animals that are ruminants must have access to pasture. The shelter must be designed for comfort, natural behavior, opportunity to exercise, and reduce injury. It's about minimizing stress; that's just sound animal husbandry.

The organic livestock producer must select species that are suitable and resistant to diseases and parasites. Biosecurity measures are very important on organic farms.

Parasiticides and antibiotics are prohibited for all organic slaughter animals. However, under the regulation, if a veterinarian recommends the use of antibiotics to save the life of an animal or prevent the spread of the disease, the organic farmer needs to use whatever the veterinarian recommends to reduce suffering and save the life of the animal. But then, that animal and its products cannot be sold as organic.

USDA takes these organic standards very seriously. There is a stipulation for fraud or mislabeling that carries a $10,000 penalty per violation under federal statute.

The author is with the University of Minnesota organic outreach coordinator and just finished a 5-year term on USDA's National Organics Standards Board. He worked for 20 years as an organic inspector and trained other inspectors around the world.