

Transitioning to Organic Farming

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Organic Farming and Related NebGuides for Nebraska

This publication is part of a NebGuide series on organic farming being developed by University of Nebraska–Lincoln Extension. As the publications are completed, they will be available on the UNL Extension Publications website. Go to extension.unl.edu/publications and enter the title into the search box, or contact your local extension office.

- University of Nebraska–Lincoln Organic Farming Research
- Transitioning to Organic Farming
- Developing a Farm Organic System Plan
- Certification Process for Organic Production
- Healthy Farm Index
- Bird Conservation on Working Farms
- Selecting Winter Wheat Cultivars for Organic Production
- Flame Weeding in Agronomic Crops
- Cover Crops Suitable for Nebraska
- Nutrient Management in Organic Farming

Overview of how farmers can transition to organic production.

Certified Organic Crop Farming

According to the USDA Economic Research Service, certified organic farmland acreage and food production continue to increase in the U.S. Farmers are transitioning to certified organic production to lower input costs, conserve natural resources, and increase farm income by selling to high-value markets. The marketing of organic products is currently a \$26.7 billion industry in the U.S. (2010 data).

To transition to organic production, farmers will diversify their operations and start using more sustainable farming practices to preserve soil quality and natural resources. According to Sustainable Agriculture Research and Education (SARE), “Every day, farmers and ranchers around the world develop new, innovative strategies to produce and distribute food, fuel, and fiber sustainably. While these strategies vary greatly, they all embrace three broad goals, or what SARE calls the 3 Pillars of Sustainability:

- Profit over the long term
- Stewardship of our nation’s land, air, and water

- Quality of life for farmers, ranchers, and their communities

“There are almost as many ways to reach these goals as there are farms and ranches in America.” Organic farming follows sustainable agricultural practices, in addition to and in accordance with the Organic Foods Production Act, to respond to site-specific conditions, integrating cultural, biological, and mechanical practices that recycle resources, promote ecological balance, and conserve biodiversity.



In order to sell agricultural products labeled as organic in the U.S., farmers and processors must follow the legal standards of the USDA National Organic Program (NOP). They also must maintain the organic integrity of the production and marketing process and be verified by a third-party inspection.

Certain inputs are allowed in organic production, but they cannot replace accepted cultural practices or long-term multi-cropping system design. Organic production standards must be followed to achieve and maintain certification. Agricultural products that are certified organic assure consumers that an ecologically-based farming system was

used to produce them, and rewards the farmer for maintaining organic integrity of these products from seed to sale.

Organic farm crops grown in Nebraska include corn, soybeans, edible dry beans, wheat, millet, barley, alfalfa, and other forages. Organic livestock produced in Nebraska include beef, dairy, pork, lamb, goat, and poultry. Other organic crops for specialty markets include certified seed, amaranth, popcorn, blue corn and spelt, and a wide variety of horticultural crops and other agricultural products.

Transitioning to Organic Production

To start, farmland must go through a 36-month transition period where prohibited substances such as pesticides, sewage sludge, and genetically modified seed (GMO) are not used. During the transition period, farmers will develop a detailed organic system plan (OSP) for their operation, outlining cultural practices, crop rotations, soil fertility and pest control strategies, planned input usage, and a record keeping system. During the transition period, crops cannot be sold as organic, but may qualify as natural products or be sold in non-GMO markets.

During transition, no GMO crop seed can be used. NOP regulations (§205.204) state “a farmer must use organically grown seeds, annual seedlings, and planting stock: *Except*, That, (1) Nonorganically produced, untreated seeds and planting stock may be used to produce an organic crop when an equivalent organically produced variety is not commercially available.” Farmers must save all seed tags and input labels, and follow their intended organic system plan (OSP). Actual conditions for any given year may force a farmer to deviate from the overall plan; however, organic certification can be maintained by keeping detailed records of all management activities on the farm.

It is recommended that farmers work with an accredited certifying agent to transition to organic production. They may choose any Accredited Certifying Agent from the NOP website (www.ams.usda.gov/AMSv1.0/nop). There are two accredited certifying agencies based in Nebraska. Farmers will describe their OSP by providing a field history, maps, and crop rotations. The certifying agency will provide all required forms to submit and answer questions regarding the process of organic certification. The certifying agent relies on the complete records submitted by farmers and a third-party inspection report to determine if the operation is eligible for organic certification.

The current National List of products allowed in organic production can be found in the NOP Standards (§205.601). Every input applied to organic land must be approved prior to use. Before using any kind of product that is claimed to be safe for organic production, proof (a letter from the company or certificate certifying that

it is Organic Materials Review Institute [OMRI; www.omri.org] approved) must be provided, and the certifying agent must pre-approve the product before it is used. It is essential for farmers to contact their certifying agency in regard to materials or practices used to avoid possible delays or reasons to deny organic certification. There are requirement differences between the various national organic certification programs worldwide (NOP, Japan, Europe, Canada, etc.), and also between the record keeping requirements of various certifying agents; farmers must pay careful attention.

Beginning organic farmers must also consider new market options, product pricing, labor needs, time management, and the local knowledge base for growing crops organically. Farmers who are certified to farm organically need to be more aware of the natural world in order to optimize pest management, soil fertility and organic matter, maintain profit, and practice environmental stewardship. They often cite an enhanced quality of life for their families, communities, and improved long-term sustainability of the land as reasons to farm organically. While it takes three years of not using prohibited substances on fields to transition to organic production, it often takes several more years for the farmer to introduce an integrated natural system and develop effective strategies for their own land. Most consider organic farming a continual learning process.

The University of Nebraska–Lincoln sponsors educational workshops, field days, on-farm demonstrations, and conferences across Nebraska to help farmers gain knowledge about organic production and to provide a way for farmers to share their experiences with others. Extension educators knowledgeable in organic production are another resource for all organic farmers.

Crop Rotations and Organic Farming Cultural Practices

Effective crop rotations are an important management tool in organic production systems. Farmers must develop multiyear rotations using a diversity of grain crops, cover crops, and legumes; livestock should be considered to enhance an organic system and minimize off-farm inputs all in order to preserve and enhance ecological biodiversity. In order to improve soil organic matter content, provide nutrients, manage pests, and provide erosion control, farmers in eastern Nebraska use cultural practices such as planting a cover crop or “green manure” crop, spreading livestock manure, or applying organic amendments. In the drier western parts of Nebraska, farmers need to modify these practices to take into account the reduced rainfall.

Organic production cultural practices generally include:

Cultural practices	Why	How
<i>Soil enhancement</i>	increase fertility, biological activity, organic matter, moisture conservation; prevent erosion	plant legumes, cover crops, and/or “green manure”; spread animal manure; apply compost; include animal grazing
<i>Pest management</i>	reduce weeds, minimize harmful insects, and prevent damage from pathogens	design and plant multicrop/multiyear rotations, provide habitat for natural predators; use mechanical pest management methods
<i>Biodiversity enhancement</i>	achieve greater ecological balance, system sustainability and resilience	plant wildlife food and shelter, green space, shelter belts; buffer plantings for stream protection; choose multiple varieties to maintain genetic diversity

USDA’s National Organic Program (NOP)

Farmers must read and be familiar with the USDA’s NOP production standards (NOP §205.200) and all regulations relevant to organic farming. For these and the current National List of allowed substances for organic production (NOP §205.601), go to: www.ams.usda.gov/AMSV1.0/nop.

NOP Standards for Organic Farming:

- A. **Definitions** (NOP §205.1 and §205.2)
- B. **Applicability** (NOP §205.100-199)
 - What must be certified organic (§205.100)
 - What is exempted from organic certification (§205.101)
 - Use of the term “organic” (§205.102)
 - Recordkeeping by certified operations (§205.103)
 - Allowed and prohibited substances, methods, and ingredients in organic production and handling (§205.105)
- C. **Organic Production and Handling Requirements** (NOP §205.200-299) (the list below is for production only)
 - General information (§205.200)
 - Organic production and handling system plan (§205.201)
 - Land requirements (§205.202)
 - Soil fertility and crop nutrient management practice standard (§205.203)
 - Seeds and planting stock practice standard (§205.204)
 - Crop rotation practice standard (§205.205)
 - Crop pest, weed, and disease management practice standard (§205.206)

For additional information on beginning organic farming, transitioning to organic production, and sustainable agriculture, go to:

- Midwest Organic and Sustainable Education Service (MOSES; www.mosesorganic.org)
- National Sustainable Agriculture Information Service (ATTRA; attra.ncat.org)
- Nebraska Sustainable Agriculture Society (www.nebsusag.org)
- Sustainable Agriculture Research and Education (SARE; www.sare.org)
- University of Nebraska–Lincoln Healthy Farm Index (hfi.unl.edu/hfi.shtml)
- University of Nebraska–Lincoln Organic Working Group research (organic.unl.edu)
- University of Nebraska–Lincoln Sustainable Agriculture (sustainableag.unl.edu/pdf/OrganicFarming2010.pdf)

For more information:

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**Index: Crop Production/Field Crops
 Cropping Practices**

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