

Developing an Individual Farm Organic System Plan

Elizabeth A. Sarno, Extension Educator / Organic Project Coordinator
 Charles A. Francis, Professor Agronomy & Horticulture
 Twyla M. Hansen, Organic Project Assistant

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

An overview of the legal standards required by the USDA National Organic Program for organic certification.

substances for organic production (NOP §205.601), go to www.ams.usda.gov/AMSv1.0/nop.

NOP §205.2 Organic system plan standard states:

Organic Farming



To sell agricultural products in the U.S. as organic, farmers and processors must follow the legal standards of the USDA National Organic Program (NOP) that certify the organic integrity of the production and marketing process. Exempt are those farmers whose gross agricultural income from

organic sales totals \$5,000 or less. This exemption helps small farm operations forego the expense of certification, but they must still understand and follow the regulations of the NOP. Farmers who are exempt but want to sell to a processor of certified products must go through the inspection process in order for the processor to be able to market the product as certified organic.

Farmers must read and be familiar with the USDA's National Organic Program (NOP) production standards (NOP §205.200) and all regulations relevant to organic farming. For these and the current National List of allowed

[A organic system plan is] "...a plan of management of an organic production or handling operation that has been agreed to by the producer or handler and the certifying agent and that includes written plans concerning all aspects of agricultural production or handling described in the Act and the regulations in subpart C of this part."

This standard defines organic farming as a production system that is managed in accordance with the Organic Foods Production Act. The regulations require a farmer to design production systems that are unique to conditions of each site by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Organic farming is a management-intensive system relying on biological control and natural processes rather than on inputs such as herbicides, insecticides, and commercial fertilizers.

Organic farmers must develop their own long-term, whole farm system management strategies and cultural practices appropriate to their ecoregion, depending on climatic, soil, and pest conditions. Each individual farm and field is to some degree unique in its soil type, fertility levels, organic matter,

and topography, thus requiring an individual farm organic system plan (OSP). Each OSP must include the rotation and management practices for each field. Farmers must consider their labor and equipment requirements for each crop in order to balance their workload throughout the growing season.

An accredited certifying agent should be contacted at the start of transitioning to organic farming. The certifying agency will help farmers start their required paperwork and recordkeeping, explain how to develop an audit trail system for marketing and the annual inspection process of organic certification. Involving the certifying agency from the beginning will help prevent the farmer from unknowingly using a prohibited substance, which could jeopardize certification. If a farmer is in doubt about the application of any input/material from a farm, off-farm, or other purchased substance, contact the certifying agent to confirm in writing that the substance is allowed for organic production.

Farm Organic System Plan (OSP)

NOP §205.201 Organic production and handling system plan states:

“All producers and handlers are required to have an organic system plan, approved by an accredited certification agency, which must:

1. Identify the practices and procedures performed.
2. List all materials that will be applied to the land or within the handling facility, including information on the composition, source, and location where the substance is used. If the use of a material is restricted, the plan must address those restrictions.
3. Describe the monitoring practices used to evaluate the effectiveness of the organic plan.
4. Describe the recordkeeping system used by the operation.
5. Describe how the operation prevents commingling or contamination of organic food products.
6. Certifying agents may require additional items to be included in the plan to determine if an operation meets the organic requirements.”

An individual farm organic system plan (OSP) must be made in writing according to the NOP regulations (standards) and be approved by the operation’s accredited certifying agent prior to certification. The NOP standards were developed as broad regulations for the entire U.S.; farmers must follow these standards as planned and written in their individual OSPs. Because the standards apply to the entire U.S., they do not give specific or local strategies for developing an individual farm OSP for NOP certification.

The OSP is a contract between the farmer and the certifying agent. It is also a working document to account for annual conditions and provides a broad guideline for continual crop production. Adjustments to the plan can be made after the growing season, but each year’s variances from the written plan must be documented and accounted for in writing. Some variations may require prior approval from the certifying agent. The OSP helps farmers plan their organic production strategies.

Farmers must maintain the organic integrity of the production and marketing process, submit to a third-party inspection, and document their operation in writing and with appropriate records. The term “organic” assures consumers there is integrity that farm products have been produced following the organic regulations from seed to sale (or birth to slaughter). Certain inputs are allowed in organic production, but do not replace accepted cultural practices or appropriate long-term system design integrating crop rotations, cover crops, and livestock when possible.

Developing a Farm Organic System Plan for the National Organic Program (NOP)

The farm operation’s individual organic system plan (OSP) must provide information that changes annually, such as annual crops, as well as the overall organic management plan that may not change from year to year. The OSP helps farmers develop an effective multicrop/multiyear crop rotation that also helps spread labor throughout the growing season, incorporates green manures and cover crops where applicable, and creates greater resilience to variability in market and weather conditions by growing several cash crops to sell. Farmers must submit their completed OSP to the certifying agent prior to the growing season and their annual inspection.

To ensure organic integrity, the third-party inspector must be able to trace all operations and sales through what is known as the audit trail. The audit trail starts with the accounting for seeds purchased, identification of the field in which they are grown, the date when the crop is harvested, where the crop is stored (bin, wagon, or direct sale), sales receipts, and how the crop was shipped. The audit trail system assures consumers that the products they are buying are organic from start to finish, and it preserves the integrity of the organic certification system.

Documented information allows the inspector to verify and certify the farm as organic, and helps the farmer establish an organic farm plan. It is a requirement that a long-term working farm plan be developed for the land to produce crops that are ecologically sustainable. (For organic system plan examples, go to <http://organic.unl.edu>, or contact an accredited organic certifying agent for appropriate forms.)

NOP regulations require that the following information and organic practices be described in detail:

- **Land** — location, acreage, fields, land use histories, and crop information (Farm Service Agency can provide a farm map on which to draw/label all fields and document land use)
- **Livestock** — purchase/birth records, description of access to outdoors, feed and water, measures to reduce stress, nutritional needs, preventative measures to maintain health, sanitation practices, documented health treatments, allowed vaccines and biologic substances, feed sources, and simple on-farm processing (if applicable), receipts, labels and documentation records
- **Crops** — seed variety and source, purchase records and receipts
- **Seeds** — if not organic, must be untreated and non-GMO; keep labels and receipts

- **Soil and crop fertility** — activity logs and dates of completion for tillage and cultivation practices that maintain or improve soil fertility and minimize erosion, crop rotations listed by year, wildlife habitat and biodiversity improvement, water use records, products/materials applied, source of these materials and receipts; composition and frequency of use
- **Crop management** — pest management methods, inputs used (with prior approval); keep labels and log all field activities
- **Maintaining organic integrity** — document adjoining land use, crop buffers maintained, parallel production activities, equipment cleaning, post-harvest handling/processing, crop storage location(s)/pest control, crop transportation; keep logs; storage of organic crops must be completely separate from storage of conventional crops
- **Storage and marketing** — records of organic and non-organic sales; keep receipts showing amounts and date
- **Recordkeeping** — logs and records maintained for all farm operations, from seed to sale (or birth to sale/slaughter); description of monitoring practices, including frequency to verify the plan is implemented
- **Additional information** as required by the certifying agent

The Importance of Crop Rotations

NOP §205.203: Soil fertility and crop nutrient management practice standard (b) states:

“The producer must manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials.”

Crop rotation prevents a soil buildup of pest populations — weeds, insects, pathogens — in production fields, helps improve soil fertility, builds organic matter, increases soil microbial biodiversity, prevents soil erosion, and reduces leaching of nitrate and other soluble nutrients.

To develop a long-term working farm system, organic farmers must plan at least a four-year multicrop/multiyear rotation using accepted practices within their ecoregion, and incorporating cover crops (where applicable) and animal/green manures to provide habitat for natural predators and to enhance biodiversity. Rotations should be as diversified as possible to balance the seasonal workload (for timeliness of planting, harvesting, and/or weed management operations in row crops, for example), reduce the risk of individual crop failure, and produce a sufficient variety and amount of products for the market to stabilize farm income. Markets, weather conditions, and multicrop plantings all play a role in organic farmers’ success in any given year.

Timeliness of field operations is a major factor in rotation planning in order to manage weeds in row crops. For example,

in eastern Nebraska a crop rotation may include alfalfa, corn, soybean, and small grain followed by a cover crop. In western Nebraska, crop rotations may be more influenced by limited moisture. Intergrating a cover crop depends on rainfall, but a typical three-year rotation could include winter wheat–proso millet–summer fallow with a green manure crop followed by winter wheat–sunflower–summer fallow. Typically, sunflowers are not grown more than once every four years in this rotation, and more often are grown just once every six years. To learn more about developing a crop rotation for your ecoregion, contact other organic farmers in your area or contact a UNL Extension educator familiar with organic production.

Cover Crops for Eastern Nebraska

Cover crops may be planted during the regular growing season to suppress weeds, increase soil fertility and organic matter, and increase water-holding capacity in the eastern areas of Nebraska where there is adequate average annual rainfall. However, this practice is not generally recommended for the drier western regions unless there is sufficient rainfall.

UNL research results on the benefits of cover crops in both organic and conventional farming crop systems include details on increased soil nitrogen and crop yields, increased or sustained soil organic matter and carbon levels, reduced soil erosion, increased soil microbial diversity and resilience, habitat for beneficial insects and pollinators, weed suppression, recommendations for cover crop species and mixtures, and field preparation, cropping system design, and cover crop termination.

For example, in eastern Nebraska cover crop mixtures containing legumes and brassicas can be established as soon as the ground can be worked — as early as February if the ground is not frozen — then the cover crops can be undercut, disked, and planted to a cash crop such as corn. For soybeans, rye can be planted in the fall, roller-cripped at boot stage in the spring, then no-till planted to soybeans. For more information and examples of cover crop management, go to the UNL Organic Working Group website (<http://organic.unl.edu/>).

For more information:

Elizabeth A. Sarno, Extension Educator
UNL Organic Project Coordinator
Email: esarno2@unl.edu
Phone: 402-584-2261

This publication has been peer reviewed.

UNL Extension publications are available online
at <http://extension.unl.edu/publications>.

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

Issued June 2012

Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the Counties and the United States Department of Agriculture.

University of Nebraska–Lincoln Extension educational programs abide with the nondiscrimination policies of the University of Nebraska–Lincoln and the United States Department of Agriculture.

© 2012, The Board of Regents of the University of Nebraska on behalf of the University of Nebraska–Lincoln Extension. All rights reserved.