

Introduction to Organic Farming A Growing Opportunity for Pennsylvania Farmers

The philosophy and methods of organic farming have been practiced in the United States for over a century. In 2002, the National Organic Program (NOP), administered by the United States Department of Agriculture (USDA), was established to develop, implement, and administer standard production, handling, and labeling practices for organic agricultural products. The NOP also accredits the domestic and foreign certifying agents who inspect organic production and handling operations to certify that they meet USDA standards. To legally market an agricultural product as organic, a farmer or processor with gross sales of more than \$5,000 worth of organic products annually must first complete the USDA organic certification process to demonstrate that their practices meet the NOP regulations.

Organic farming systems rely on ecologically based practices, such as cultural and biological pest management, and virtually exclude the use of synthetic chemicals in crop and animal production. In addition, the use of antibiotics and hormones in livestock production is prohibited. Genetically modified crops such as those containing genes that express Bt toxins or confer herbicide resistance are not allowed. In organic farming systems, the fundamental components and natural processes of ecosystems, such as soil organism activities, nutrient cycling, and species distribution and competition, are used to work directly and indirectly as farm management tools. For example, crops are rotated, planting and harvesting dates are carefully planned, and habitat that supplies resources for beneficial organisms is provided. Weeds are managed with mechanical practices such as tillage and cultivation or with cultural practices such as mulching. Soil fertility and crop nutrient needs are managed through crop rotations and cover crops and supplemented with manure, composts, crop waste material, and other allowed substances. Sewage sludge is not allowed as a fertilizer.

Benefits and Challenges of Certified Organic Farming

Benefits

- Learn new, ecologically based practices
- Some costs of production may be lower
- Improved record-keeping practices
- Certification that your practices meet organic standards
- Access to new, expanding markets and price premiums
- Reduced exposure to synthetic agricultural chemicals

Challenges

- Certification costs money
- Some costs of production may be higher
- Increased record-keeping requirements
- Restricted use of synthetic chemicals and fertilizers
- Increased management intensity
- Organic price premiums not available during transition

CONCLUSION

Organic certification is designed to maintain the integrity of organically produced food by keeping it free of chemical and genetic contaminants throughout the process of production, harvest, storage, handling, and sale. Organic certification verifies that your production practices meet the regulations and can offer new marketing opportunities for your farm products. Consumer interest in organic food continues to increase, making organic farming a growing opportunity for many Pennsylvania farmers.

RESOURCES

Penn State Cooperative Extension Publications

Barbercheck, M. E., W. S. Curran, J. M. Dillon. *Organic Crop Production*. In *Penn State Agronomy Guide*, 123–31. University Park: The Pennsylvania State University, 2009. agguide.agronomy.psu.edu.

Brown, J. L. *Organic Labels*. University Park: The Pennsylvania State University, 2003. pubs.cas.psu.edu/FreePubs/pdfs/uk119.pdf.

Sánchez, E. S., M. D. Orzolek, J. K. Harper, L. F. Kime. *Organic Vegetable Production*. University Park: The Pennsylvania State University, 2003. agalternatives.aers.psu.edu/Publications/OrganicVegetableProduction.pdf.

Sánchez, E. S., T. L. Richard. *Using Organic Nutrient Sources*. University Park: The Pennsylvania State University, 2009. pubs.cas.psu.edu/FreePubs/pdfs/uj256.pdf.

Other Publications, Organizations, and Web Sites

How to Go Organic. Organic Trade Association. www.howtogoorganic.com.

Kuepper, G., L. Gegner. *Organic Crop Production Overview*. National Center for Appropriate Technology, 2004. attra.ncat.org/attra-pub/organiccrop.html.

Organic Agriculture Resource Area. eXtension.org. www.extension.org/organic%20production.

Organic Certifiers Database. Rodale Institute. newfarm.rodaleinstitute.org/ocdbt

Organic Materials Review Institute. 541-343-7600. omri.org.

Pennsylvania Certified Organic. 814-422-0251. www.paorganic.org.

Transitioning to Organic Online Course. Rodale Institute. www.tritrainingcenter.org/code/index.php.

USDA National Organic Program. www.ams.usda.gov/AMSV1.0/nop.

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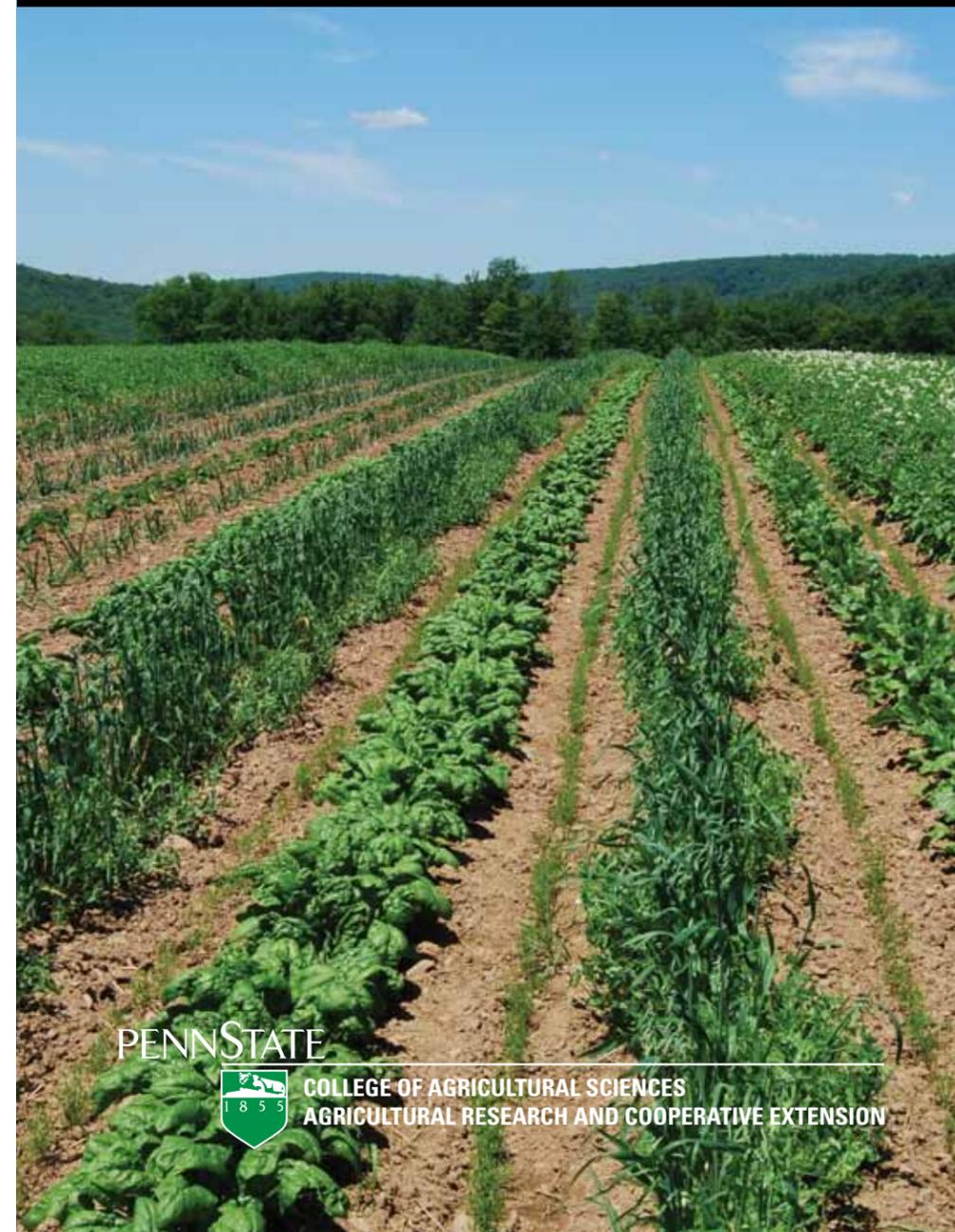
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Organic farmers use cultural and biological methods such as using row covers, planting diverse crops in rotation, and providing habitat for beneficial organisms to help control insect pests.

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GETTING STARTED

Understanding the NOP regulations

Before becoming certified organic, it is helpful to review the NOP regulations so that you are aware of the standards to which you are committing. Organic crops must be raised using only the fertilizers and pesticides allowed by the NOP, almost all of which are natural products. Animals must be raised on organic feed, be given access to the outdoors, and cannot receive nontherapeutic antibiotics or growth hormones. Lists of allowed substances and clarifications of allowed practices are available from accredited certifiers.

Considering Your Product/Market

Although almost all agricultural products can be produced organically in one part of the world or another, in your particular region some crops may be more challenging than others to produce organically. Before trying to adopt organic production



Organic farmers can take advantage of many marketing outlets, including on-farm sales, farmers markets, community-supported-agriculture arrangements, marketing cooperatives, processors, and wholesale buyers.

practices for your crops or livestock, inquire with the state cooperative extension program, local agricultural organizations, or certified organic producers in your region about the feasibility of organic production.

You should also consider where and how you will market your products. Whether it is directly to consumers or to a processor, handler, wholesaler, or retailer, you should assess the demand for the organic products you will be producing and the level of competition from other farmers who may also be producing that product. Find out what price your organic products would receive at the market and what your costs of production would be in an organic system to be sure that your enterprise will be sustainable financially.

Deciding Whether to Be Certified

Deciding whether to be USDA certified organic is a personal decision that should be based on your own situation. Some people farm in an organic manner but forgo certification because their market does not require it or because they do not want the extra burden of paperwork, record-keeping, and certification costs. Others might become certified primarily to obtain price premiums, or because the market they sell to requires the certification. One thing to be aware of is that if you sell less than \$5,000 of products annually, you are exempt from the



To label products with the USDA Organic seal, a farm or facility must complete the organic certification process and renew its certification annually.

certification requirement. You may label your products as organic if you follow the NOP regulations, but you cannot use the “USDA Organic” seal of certification. You must meet all certified organic grower and handler requirements to maintain the integrity of the organic products. Knowingly selling or mislabeling products that were not produced and handled in accordance with the regulations can

STEPS TO CERTIFICATION

Choose a Certifier

Many organizations are accredited by the USDA to serve as certifying agents. Obtaining recommendations on a certifier from other organic farms near you can be particularly valuable. You should also determine whether the market where you plan to sell your products requires the use of a particular certifier. In addition to NOP standards, some certifying agents can certify to standards of other programs, such as the International Foundation for Organic Agriculture (IFOAM) or the European Union. When choosing a certifier you may also wish to consider the fee structure, the quality of customer service, the level of involvement in the community, and whether the certifier offers benefits such as publications and educational or marketing events. Pennsylvania Certified Organic (PCO) is currently the only accredited certifier based in Pennsylvania, but out-of-state certifiers can be used as well. A full list of accredited certifiers is available on the NOP Web site, www.ams.usda.gov/AMSv1.0/nop.

Once you have decided on a certifier, obtain the certifier's organic certifica-

tion packet. Familiarize yourself with the regulations and required paperwork. Establishing a relationship with your certifier early in the transition will help you stay informed about changes in requirements that may occur. Attending organic educational events such as field days and conferences in your region will also keep you informed about organic practices and help facilitate a successful transition and certification.



Growing a legume cover crop such as red clover is one way that organic farmers can provide nitrogen to the following crops.



National Organic Program regulations require a clear and permanent delineation between organic and nonorganic fields and a buffer zone large enough to prevent spray drift from adjacent fields and roads. A “Do Not Spray” sign helps remind farm workers and road maintenance crews where organically managed land begins.

Transition to Organic

The NOP requires that land or animals that are to be certified organic must be managed according to NOP regulations for a certain period of time prior to certification being granted. For a piece of land, three years must pass in which no prohibited substances have been applied. Livestock must be raised using organic management from the last third of gestation, and from the second day of life for poultry. Dairy animals require 12 months of organic management before milk products can be certified. You can transition some fields on a farm first with other fields to follow later on. If you do this, be aware of the regulations requiring you to clean machines and implements that are used on nonorganic fields before they are used on organic fields.

It is important that you contact a certifier before transitioning to

organic so that you understand your certifier's interpretation of allowable and prohibited production practices and materials. The Organic Materials Review Institute (OMRI) is a private organization that reviews materials intended for use in organic farming and publishes a well-known list of materials that they find to meet the NOP regulations. However, each accredited certifier also maintains a list of allowed and prohibited materials that takes precedent over the OMRI Product List. The lists maintained by accredited certifiers often include locally sourced substances that may not have been submitted to OMRI for review. During the certification process, the certifier's list, not the OMRI Product List, is used to determine whether a substance is allowed. You should always check with your certifier before you start using any new product or material to be sure that it is allowed for use in organic production.

More on NOP Regulations

The NOP Regulations and Guidelines provide a detailed description of practices and materials that are allowed and not allowed in organic production and processing. Information on specific requirements can be found in the following sections of the rule:

- Record Keeping: §205.103
- Allowed and Prohibited Substances, Methods, and Ingredients: §205.104
- Land Requirements: §205.202
- Soil Fertility Management: §205.203
- Seeds and Planting Stock: §205.204
- Pest, Weed, and Disease Management: §205.206

For clarification and interpretation of the rule, contact your certifying agency.

Keep records that clearly describe your farming practices and inputs used. Save receipts for materials and non-GMO (genetically modified organism) certificates for seeds purchased. You will need these records and receipts as proof that the land has been free of prohibited substances for 36 months prior to the harvest of the first organic product. It is also important to record dates and application rates of fertilizers and other inputs, as well as dates of practices such as planting, tillage, and harvest. Sample record-keeping forms can be obtained from most accredited certifiers or from the National Sustainable Agriculture Information Service (800-346-9140 [English], 800-411-3222 [Español]; online at attra.ncat.org/organic.html).

Submit an Application

Once you have transitioned to organic practices, the next step is to submit an application for certification to your certifying agency. The application process differs slightly from certifier to certifier, but it will always include the development of an Organic System Plan (OSP) and a site inspection. The OSP is a document that describes in detail how your production practices comply with the regulations of the NOP. Organic System Plan templates can be obtained from most accredited certifiers or found at the National Sustainable Agriculture Information Service (800-346-9140 [English], 800-411-3222 [Español]; online at attra.ncat.org/organic.html).

The purpose of the site inspection is to allow the certifying agent to verify that the farm is managed according to the OSP. You should have in order all



The inspection process includes a review of the Organic System Plan and supporting documentation such as production and input records.

documentation and maps required by the certifier. The inspector will examine production and input records, facilities, equipment, and fields and ask questions about your management practices. The inspector will also look at buffer zones that protect your farm from chemical drift that may originate from nonorganically managed land. After the inspection, the inspector will submit a report to the certification agency, which will determine if certification should be awarded. Your certifying agent will grant you certified USDA Organic status if your farm management complies with the regulations of the NOP and you complete all the steps of the application process.

Maintain Certification

Organic certification is an on-going process, and certification must be renewed annually. The renewal process includes an inspection of your farm or processing facility, a review of farm records by the certifying agent, and payment of a recertification fee.