



Transitioning to Organic Crop Production

Farmers choose to transition to organic agriculture for many reasons. These might include

seeking a better price for their crops, or a desire to lessen their reliance on agricultural chemicals. Some are attracted to organic production methods, which rely on self-reliance as well as using natural tools and the strengths of a farm's own ecosystem to build a sustainable farming operation. In the United States, there has been an organic law in place since 1990 and a regulation implementing that law since 2002. All agricultural products sold as organic in the United States must meet the requirements of these regulations, and if gross sales of organic products in one year from the farm are over \$5000, then the farm must be certified by an approved agency.

Organic products have been grown on land that has not had prohibited substances on it for a minimum of 3 years prior to the HARVEST of the crop. Prohibited substances are typically synthetic substances that are not allowed under the law and include chemical fertilizers, synthetic herbicides, and insecticides. It is important to document, as close as possible, the last date of prohibited substance application. This proves to the certification agency when the 36 months free of prohibited applications has passed and what exact harvest date the crop can be sold as organic.

All synthetic materials are prohibited unless they have been specially approved by the USDA National Organic Program and are written on the National List of substances for organic agriculture. All natural products are allowed, unless they are specifically listed as prohibited on this same list. This list can be found on the USDA National Organic Program website, <http://www.ams.usda.gov/nop> or from your organic certification agency. Prohibited substances also include items such as seeds treated with Captan, Maxim or with genetically modified rhizobial bacteria. Silage or hay inoculants must also be either natural or an approved synthetic. This is also true for any other input used on crops or the land that will be fed to transitioning livestock. During the years that a farmer is transitioning to organic, all organic regulations must be followed. Records must be kept that prove that no prohibited materials were used. Documentation such as seed tags or invoices showing nonGMO and untreated seed were used is required.



Organic farming is much more than what you cannot use. It is instead a proactive management system based on ecologically sound practices in concert with allowed inputs. Soil fertility is managed not only to feed the current year's crop but to continuously build organic matter and improve soil tilth. This can be done through the use of green manure plowdowns and crop rotations as well as the use of animal manures, plant materials, and compost. The balancing of soil nutrients using natural, mined rocks (lime, rock phosphate, etc.) is also permitted. A good crop rotation as well as balanced, living soils tend to produce healthy crops with minimal disease and insect problems.

Weed control can be a challenge, especially during the transition years. Crop rotation, including leguminous forages such as hay and small grains (both fall and spring planted types), can go a long way to breaking weed cycles during the row crop years. Legumes offer an additional benefit of building organic matter and offering nitrogen credits when they are incorporated into the soil. Organic weed control options include the use of equipment such as the rotary hoe, tine weeders, many types of row cultivators and flame weeders. System-based weed control methods such as notill organic seeding into knocked down semi-mature rye as a mulch, or interseeding of rye or legumes at the last cultivation are also used by successful organic farmers.

The organic regulation also mandates that each organic field have clear boundaries and borders with the acreage defined. Once the field is eligible to produce a crop sold as organic, the farmer will need to manage the borders of the fields if the neighboring field has had substances applied that are not allowed under organic regulations. There is no specific size of a "buffer

zone” between organic crops and nonorganic crops, but it must be of sufficient size to prevent drift or runoff of nonapproved substances. Typically, a buffer zone is 25-50 feet. Road crews, utilities, aerial spray companies, etc. can be notified not to spray along an organic farmer’s field. If a no-spray agreement cannot be reached, then the organic farmer can grow non-organic crops in the buffer zone or leave it fallow. If a crop is taken from the buffer zone, it will need to be harvested separately from the organic crop and documented that it was harvested, stored, and sold as nonorganic. Buffer zones are necessary between the organic crop and the nonorganic crop. Depending on the risk of contamination, they are needed for the specific crop year when a prohibited product is being used by the neighbor and may be needed for a few years thereafter. For instance, if no sprays or chemical fertilizers are used by a neighbor for his oats, then a buffer zone may not need to be in place by the adjoining organic farmer for that year. However, if non-organic herbicide sprayed corn is grown the next year, then for that second year, the organic farmer will need a buffer.

Organic seeds must be used when you are growing an organic crop. Seeds used to produce green manure crops that may not be harvested, but are still grown on organic land, are included. If the specific variety or type of seed you wish to grow is not available as organic and you document a good faith effort to find organic seed, then you may use a non-organic, untreated seed. High price is not an acceptable reason to not buy organic seed. Organic seeds do not need to be planted while your farm is transitioning to organic, but synthetically treated seeds are not allowed. Unapproved synthetically treated seeds are viewed as a prohibited substance, and you will start your 36 months of transition from the date you planted your last treated seed, or used your last synthetic herbicide, whichever is later.

Documentation is an important aspect of organic farming. During the transition years a recordkeeping system should be developed which suits your operation. Small pocket calendars or spiral notebooks can be used for the field activities, inputs, storage and sales information that will be needed once the farm is certified for organic. These records are a valuable historical reference detailing your farm’s unique growing conditions and will aid you in making yearly management decisions.

Most certification agencies recommend you contact them for a Certification Application packet at least 6 months before you expect to sell organic crops. This allows you time to completely fill out the application, and allows the agency time to review your application and return with any questions. Time is also needed for an inspector to visit your farm during the growing season to assure that you are abiding by the organic regulations. You will not be able to sell crops as organic until you receive your organic certificate from the certification agency. Some farmers choose a certification agency early in their three-year transition and receive their certification application packet early so that they can more fully understand what certification entails, but this is not necessary.

If you wish to start organic production slowly, you may certify your farm one or two fields at a time. However, running parallel organic and non-organic production involves increased complications of buffers, equipment clean-outs, storage and sales records for both your organic and non-organic production. Some farmers feel more comfortable “experimenting” with organic production practices on one or two fields. This allows them to develop an understanding of how organic works with their land and systems before they transition the whole farm.

Information developed by the Midwest Organic and Sustainable Education Service (MOSES)