



VEGETABLE

MOSES ORGANIC FACT SHEET

Transitioning to Organic Vegetable Production

Organic vegetable production can be a very satisfying occupation. To succeed as an organic grower, you must follow particular rules and production methods.

Organic vegetables are grown on land that has not had prohibited substances used on it for a minimum of three years prior to the *harvest* of the crop. Prohibited substances typically are synthetic substances that are not allowed under the National Organic Program. They include chemical fertilizers and synthetic herbicides and insecticides. The last date of a prohibited substance application must be documented to show the organic certification agency that 36 months have passed and the subsequent harvests can be sold as organic. This is especially important for vegetable growers who want to have early season crops such as lettuce or spinach. Planning crops for the first year of organic sales must be done carefully.

All synthetic materials are prohibited for use in organic production unless they have been specifically 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, which is available on the USDA National Organic Program website (www.ams.usda.gov/nop) or from any organic certification agency. Prohibited substances also include items such as seeds treated with captan, thiram or with genetically modified rhizobial bacteria. During the years that a farmer is transitioning to organic, all organic regulations must be followed. Keep organic seed packages and labels from approved products to document that no prohibited materials were used and approved practices were followed.

Organic farming is about much more than what you *cannot* use. It is a proactive management system based on ecologically-sound practices along with the use of allowed inputs. Soil fertility is managed not only to feed the current year's crop, but also 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. Balancing soil nutrients using natural, mined rocks (lime, rock phosphate, etc.) also is permitted. Learn more about soil from the MOSES Fact Sheet *Managing Soil Fertility and Organic Matter*.

Organic vegetable growers must document on maps where crops are planted from year to year, to ensure their crop rotation avoids the planting of the same pest and disease hosts in subsequent years. Good soil stewardship, such as the incorporation of green manures, will pay off in healthy crops and lessened insect pressures. Resources on organic production requirements and practices are available from the National Organic Program website (www.ams.usda.gov/nop), from MOSES (www.mosesorganic.org or 715-778-5775) and from ATTRA (www.attra.ncat.org or 800-346-9140).

Organic seeds must be used for growing an organic crop (although they are not mandated during the transition years). This includes any



green manure seeds such as rye that won't be harvested, but are still grown on organic land. The only exception is when you cannot find the specific variety or type of seed you wish to grow, and can prove with documentation (i.e. phone logs or seed catalogs) that you did a good faith effort to find organic seed. High price is not an acceptable reason to not buy organic seed. Genetically modified seeds and seeds treated with non-approved substances are forbidden during both the transition and certified organic years.

Organic annual transplants *must* be used when selling an organic crop. Non-organic tubers or rhizomes can be

used for an organic crop, if you can prove they are not available as organic. Perennial crops such as strawberries must either be organic plants or have been under organic management on your land for one year before an organic harvest can be taken. Understanding your pest and disease challenges can aid in choosing appropriate seed or transplant varieties.

Use of manures and compost is very strictly regulated under the U.S. organic law. If the edible portion of a crop is in contact with soil particles (this would include splashing that might occur from rain or irrigation for tall or trellised crops), then manure cannot be applied any sooner to the soil than 120 days before the harvest of the crop. This includes all root crops, such as potatoes and carrots, and most vegetables where you eat the skin, such as peppers, tomatoes or squash. If the edible portion of the crop is not in contact with soil particles (such as sweet corn, which is inside a husk), then the organic crop cannot be harvested sooner than 90 days after the application of raw manure.

All animal waste inputs except vermicompost (worm castings) and some types of heat-processed manures are considered raw manure unless they have clear documentation that they meet the compost or processed manure regulation. The production of compost is very highly regulated and specifically defined in the National Organic Program. Even odorless manures sitting in a pile for years do not meet the compost definition. This aged product must be applied according to raw manure standards. If you buy NOP-compliant compost, keep clear documentation that the compost meets the NOP requirement before using it on your organic vegetables. NOP-compliant compost or processed manure can be applied to the crop up until the day of harvest.

Make sure all components in your potting mix are on the allowed list for organic production. Document that each ingredient has no prohibited synthetic fertilizers, wetting agents or fungicidal treatments. There are suppliers of ingredients for potting mixes, as well as complete potting mixes that are approved for organic production. Check the OMRI website, www.omri.org, or your certification agent for suppliers.

Controlling weeds can be a challenge, especially in fine-seeded and slow-germinating vegetable crops. Plan weed-control methods keeping in mind your acreage, your physical capabilities, and the size of mechanical tools or tractor-driven equipment in relation to your rows. Mulching is another weed control option, with non-organic mulch allowed as long as it does not pose a risk of having recent applications of herbicides (such as lawn clippings). Plastic mulch of all types are allowed,

but must be removed at the end of the harvest season. Use of cover crops and inter-seeding can also help the vegetable grower build organic matter and smother unwanted weeds. A flame weeder also can be used on slow-germinating crops before the seed breaks through the soil.

The organic regulation mandates that a specific pest control hierarchy be used. You must start with cultural controls (i.e. seed varieties or the timing of planting), mechanical controls (i.e. the use of row covers, or by flaming or hand picking) or biological methods (i.e. the use of beneficial insects). If these methods are documented as ineffective, then natural inputs can be used. If natural inputs are not effective, then approved synthetics can be used. For pest control products both the active ingredients and the inert ingredients must be products allowed for organic production. The acceptability of brand name products should be verified with your certification agent. You may also check product acceptability by checking with the Organic Materials Review Institute, OMRI, www.omri.org.

Documentation is an important aspect of organic farming. During the transition years a record keeping system should be developed to suit your operation. Small pocket calendars or spiral notebooks can be used to note field activities, inputs, storage and sales information, which 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.

If you plan to sell more than \$5,000 per year of organically labeled products, your farm must be certified organic. You need not be certified organic until the year you plan to sell an organic crop. If you sell less than \$5,000 in gross annual sales, you still must meet all of the USDA regulations for organic production and must document your compliance, but you are not mandated to be certified and inspected.

MIDWEST ORGANIC
& Sustainable Education Service
MOSES

The Midwest Organic and Sustainable Education Service (MOSES) provides education and resources to farmers to encourage organic and sustainable farming practices. To learn more, please see:

www.mosesorganic.org