

USDA
NATURAL RESOURCES
CONSERVATION SERVICE
MARYLAND CONSERVATION
PRACTICE STANDARD
TRANSITION TO ORGANIC
PRODUCTION
CODE 789
(Reported by Acre)

DEFINITION

Utilizing agricultural management strategies while transitioning from conventional to organic farming techniques.

PURPOSE

This practice is applied as part of a resource management system to minimize negative impacts of agricultural production on soil, water, air, plant, and animal resources, and/or humans, while transitioning to organic production.

**CONDITIONS WHERE PRACTICE
APPLIES**

This practice applies where:

1. A conventional farming operation transitions to organic production;
2. All practice components necessary to implement a complete system are specified;
3. Natural resources are adequate to properly utilize an organic production system.

This standard does not apply to organic animal production. It does apply to lands on which these animals are raised.

CONSIDERATIONS

Organic production responds to site-specific conditions by integrating cultural, biological, and mechanical practices to foster cycling of resources, promote ecological balance, and conserve biodiversity.

Consider the following principles and methods when planning to transition to organic production:

1. Biological controls, such as insect predators and pathogens, can be used suppress pest populations;
2. Cultural controls, such as crop rotation, tillage, and mowing, can make the environment less suitable for pest survival;
3. Allowed synthetic substance controls should be used judiciously in order to minimize environmental risk and pest resistance;
4. Livestock management systems, such as rotational grazing and grass-based dairying, can reduce the need for synthetic substance controls and confinement-based animal waste management systems;
5. Use plant varieties that have resistance or tolerance to insects and disease to reduce the need for pesticides;
6. Create habitats for beneficial insects by increasing plant diversity, planting flowering plants in the families Compositae (daisy), Labiatae (mint), and Umbelliferae (dill, Queen Anne's Lace), improving the spatial layout (increasing interspersion) of beneficial plants, and the planting of trap crops around the field perimeter;
7. Use carbon building and nitrogen building cover crops that can be rolled or crimped in place to create a long-lasting mulch. Cover crops may also be tilled into the soil if conditions become necessary.

CRITERIA

General Criteria Applicable to All Purposes

A transition to organic production plan shall be developed. This plan may be a component of an overall conservation plan or a stand-alone transition to organic agriculture plan that will cover a period of 3 years. Farms must adhere to National Organic Standards. This requirement includes operating under an organic system plan approved by an accredited certifying agent and using materials in accordance with the National List of Allowed Synthetic and Prohibited Non-organic Substances (National List). All methods

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

of organic production must comply with Federal, State, and local regulations, including the Organic Food Production Act of 1990, as amended (7 U.S.C. 6501 et seq.), and regulations in the National Organic Program final rule (7 CFR Part 205).

Organically produced food cannot be produced using excluded methods, sewage sludge, or ionizing radiation.

Soil fertility and crop nutrients shall be managed through tillage and cultivation practices, crop rotations and cover crops, supplemented with animal and crop waste materials and allowed synthetic materials.

Crop pests, weeds, and diseases shall be controlled primarily through management practices including physical, mechanical, and biological controls. Substances approved for use on the National List may also be used.

An appropriate set of mitigation techniques must be designed and implemented to reduce environmental risks associated with organic production management activities, in accordance with quality criteria in the local Field Office Technical Guide. Mitigation techniques include practices such as vegetative buffers, filter strips, crop rotation, and management techniques such as nutrient application method and timing.

All methods of transition to organic production must be integrated with other components of the conservation system.

Additional Criteria to Protect Soil Resources

In conjunction with a conservation plan, the number, sequence and timing of tillage operations shall be managed to maintain soil quality and maintain soil loss at or below the soil loss tolerance (T) or any other planned soil loss objective. Systems shall be designed to aggressively build soil organic matter during the transition to organic production phase, and throughout the organic rotation for long-term sustainability of the system and to maintain an acceptable level of soil loss.

Producers shall be encouraged to pay special attention to techniques that may affect soil quality, and to implement practices that will improve soil quality by increasing organic matter and maintaining protective cover.

Soil-building cover crops that can be rolled or crimped without tillage shall be used frequently in rotations.

Forage crops such as alfalfa shall be used to build the soil's organic and nitrogen levels, while reducing phosphorus accumulation from the otherwise desirable use of manure in organic systems.

Additional Criteria to Protect Water Resources

The number, sequence and timing of tillage operations shall be managed in conjunction with other erosion control practices, in order to minimize sediment losses to nearby surface water bodies. Permanent vegetative cover, especially buffer practices, shall be used as appropriate to reduce the threat of offsite movement of sediment.

Livestock shall be managed to minimize impact to nearby surface waters.

Additional Criteria to Protect Air Resources

Producers shall be encouraged to pay special attention when using allowed synthetic substances to minimize volatilization and drift that may impact non-target plants, animals, and humans.

Producers shall be encouraged to pay special attention with transitional techniques to reduce the amount of dust and livestock odor that may impact natural resources and the surrounding community.

Additional Criteria to Protect Plant Resources

Producers shall be encouraged to pay special attention to substance label instructions including those directed at:

1. Preventing misdirected pest management control measures that negatively impact plants;
2. Appropriate climatic conditions, crop stage, soil moisture, pH, and organic matter in order to protect plant health;
3. Limiting substance residues in soil that can carry over and harm subsequent crops;
4. Creating buffers, hedgerows and farmscapes using suitable plant species to improve habitat conditions, including food sources and micro-habitat conditions for beneficial insects and other natural predators of invertebrate pests.

Additional Criteria to Protect Animal Resources

Producers shall be encouraged to pay special attention to substance label instructions that minimize negative impacts to livestock and wildlife.

Additional Criteria to Protect Humans

Producers shall be encouraged to pay special attention to substance label instructions that minimize negative impacts on humans.

Note: Specific cost-sharing programs or other funding sources may dictate criteria in addition to, or more restrictive than, those specified in this standard.

SPECIFICATIONS

Plans and specifications for the transition to organic production shall be prepared for each field or treatment unit according to the Considerations, Criteria, and Operation and Maintenance described in this standard, and in keeping with other standards that are needed in order to implement a transition to organic production system. Specifications shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation, and shall describe the requirements for applying this practice and associated supporting practices to achieve the intended purpose.

As a minimum, transition to organic production shall be planned for at least a 3-year period, and shall specify:

1. The conservation practices and components that will be needed in the process of transitioning to organic production;
2. Requirements for the organic materials that will be used;
3. Allowable synthetic materials, if needed;
4. Monitoring procedures;
5. Requirements for a comprehensive record keeping system.

OPERATION AND MAINTENANCE

An operation and maintenance (O&M) plan shall be prepared for this practice. Appropriate job sheets may be used to serve as the management plan as well as supporting documentation, and shall be provided to the producer.

Operation and maintenance items may include:

1. Review and update the plan periodically in order to incorporate new technology and follow the Organic Food Production Act of 1990, as amended (7 U.S.C. 6501 et seq.), and regulations in the National Organic Program final rule (7 CFR Part 205);
2. Maintain mitigation techniques identified in the plan in order to ensure continued effectiveness.

SUPPORTING DATA AND DOCUMENTATION

The following is a list of the minimum data and documentation to be recorded in the case file:

1. Identify the field location and extent of the practice in acres, and complete the assistance notes. Assistance notes shall include dates of site inspections, name or initials of the person who made the inspections, specifics as to what was inspected, alternatives discussed, decisions made, and by whom;
2. Conservation plan listing all supporting practices for transitioning to organic production;
3. Plan map and soil map for managed fields;
4. Completed copy of the appropriate job sheet(s) or other specifications and management plans.

REFERENCES

1. Magdoff, Fred and Harold van Es. *Building Soils for Better Crops*. Sustainable Agriculture Network.
2. NOFA-NY Certified Organic LLC, current edition. *NOFA-NY Organic Farm Handling/Processing Certification Standards and Administrative Procedures*.
3. Soil and Water Conservation Society. *Soil Biology Primer*. Available at www.swcs.org.

4. Websites with additional information:

ATTRA website at www.attra.org has information on crops, pest control, etc.

NOFA-NY website at www.nofany.org has information concerning soil fertility management, etc. in the "newsletter archives."

Organic Materials Review Institute at www.omri.org has lists of allowed products.