Water Quality Enhancement Activity – WQL20 – Transition to organic cropping systems

Enhancement Description
Transition to Organic Cropping Systems supports the conversion of a conventional to an organic cropping system. Key to the enhancement is the inclusion of management activities that improve soil and water quality in a "Organic System Plan" that adheres to the National Organic Program (NOP) 205.201 criteria. Included in the plan are specifics on how producers will manage pests, weeds, diseases, and plant nutrients by following a crop rotation that incorporates cover crops. Additional considerations for using manure, compost, and source of seed are also addressed.

Landuse Applicability
Cropland

Benefits
Environmental benefits will be operation specific. Benefits may include, but are not limited to improving soil quality through reduced erosion, increased organic matter, and balancing plant nutrients; and reducing impact of the farming operation on water quality achieved by managing pests, weeds, and diseases using biological, mechanical, and/or physical practices that eliminate the need for synthetic pesticides.

Criteria
1. Implement a crop rotation that improves soil quality using a sod-based rotation, inclusion of high residue crops, addition of cover crops during non crop periods, reduced tillage, and/or other soil improving practices.
2. Manage plant nutrients using agronomic practices such as cover crops to provide or trap nutrients and/or a crop rotation that mixes high and low nutrient feeding crops.
3. Incorporate manure when applied within the time limit specified in the NOP 205.203c1.
4. Compost manure and plant material for plant nutrient use according to NOP 205.203c2 before land application.
5. Apply additional plant nutrient supplements to ensure they do not contribute to contamination of crops, soil, or water by following criteria in NOP 205.203d & e.
6. Manage pests through a strategy that incorporates:
    a. prevention management practices e.g. crop rotation, sanitation measures and selection of resistant crop varieties
    b. scouting and monitoring

   c. suppression by using biological, mechanical, or physical practices (e.g. introduction of predators or parasites of the pest species, cultivation or weed flaming, mulching).
7. Apply all materials, including plant nutrients and pesticides for crop production in accordance with the National List of Allowed Synthetic and Prohibited Natural Substances.
8. Apply no prohibited substances, as listed in NOP §205.105 to the land for a period of 3 years immediately preceding harvest of the crop
9. Establish distinct, defined boundaries and buffer zones between fields and adjacent lands to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.
10. Complete organic transition within three (3) years as verified by obtaining an approved Organic System Plan from a valid certifying agency.

Documentation Requirements

1. Written narrative of practices used to:
   a. Improve soil quality including crop rotation, cover crops and other associated practices
   b. Provide plant nutrients
   c. Control pests in the cropping system
2. Map showing field boundaries and buffer zones
3. A record of the application of inputs according to the NOP rules, e.g., type, date, rate, and amount of allowed nutrients and pesticides
4. Documentation of practices applied and steps taken to receive organic certification based on consultation with an accredited organic certifier
5. Copy of the Organic System Plan when approved by certifying agent

Michigan Supplement

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The term "organic" has a legal definition based on the USDA National Organic Program (NOP) Rule of the Organic Foods Production Act of 1990. The NOP Rule, in effect since 2002, applies to the production, handling and labeling of agricultural and processed food products that are sold as organic. The NOP Rule established uniform production standards for crops and livestock as well as after harvest product handling and processing standards.

A copy of the NOP Rule is posted at www.ams.usda.gov/nop. Some of the key provisions of the rule are as follows:

- Most farmers and handlers must be certified by a USDA accredited certifying agent.
- Most synthetic fertilizers, pesticides, animal drugs, feed additives and ingredients are prohibited. Those that are allowed may be used only with restrictions.
- Organic farmers and handlers must prepare an Organic System Plan that a certifier must review, evaluate and approve.
- Land cannot be certified as "organic" until three years after the date of application of the last prohibited material.
- Farmers and handlers need to use and document proactive and preventative management practices before they can use pesticides.

For more information about transitioning to organic, consult MSU Extension Bulletin E3067, Transition to Certified Organic in Michigan – Where to Start?, which is found at:

web2.msue.msu.edu/bulletins/Bulletin/PDF/E3067.pdf

For more sources of information on transitioning to organic farming, refer to Michigan Agronomy Technical Note #8, Transitioning to Organic Resources, found in Section I of the Field Office Technical Guide (FOTG).