

## Soil Erosion

- Wind and water erosion can be a challenge on any type of farm and can be addressed and minimized by adjusting tillage practices, adding buffer or filter strips, wind breaks and adopting cover crops.
- Sediment loading into surface water, often a result of erosion, is a significant water quality concern in the Great Lakes Basin. Algal Blooms are often a direct result of phosphorus loading associated with sediment entering surface water.
- Loss of topsoil and organic matter can result in loss of productivity and increased need for soil amendments. MAEAP techs evaluate the soil loss on every field and suggest alternative management practices to minimize loss and the need for soil amendments.



Sediment loading into drainage ditch



Sediment loading in Lake Erie visible from Space March 2012



Severe soil erosion

## Best Practices for Natural Resources on Organic Farms



**For more information about MAEAP or to schedule a free, non-regulatory on farm environmental risk assessment contact the MAEAP technician at your Local Conservation District:**

**Jennifer Silveri**  
**Eaton Conservation District**  
**(517) 543-5848 ext 112**  
**jennifer.silveri@mi.nacdnet.net**

**For more information about organic farming and related practices contact:**

**Vicki Morrone**  
**MSU Specialist for Organic Farming**  
**517-353-3542**   **sorrone@msu.edu**

*MAEAP is a non-regulatory program. All services provided by technicians are free and any information obtained on the farm is confidential. The USDA is an equal opportunity provider and employer.*

**Michigan  
Agriculture  
Environmental  
Assurance  
Program**



## Potential Environmental Concerns for Organic Farms

Increased concern about how our food is produced, conserving natural resources and protecting the environment has stimulated consumer demand for foods that are produced sustainably. It has also enhanced the need for education to understand and dispel misconceptions associated with farming of all types. The Michigan Agriculture Environmental Assurance Program (MAEAP) encourages consumers to support local agriculture and develop relationships with producers to gain a better understanding about how their food is produced. MAEAP is an excellent tool to educate farmers and consumers about environmental stewardship, responsibility and sustainable agriculture.

MAEAP strives to proactively prevent pollution associated with farms and greenhouses. It examines all aspects of farm management and assesses the potential for specific practices to negatively impact natural resources. Organic farms are often assumed to be environmentally friendly farms that have lower impacts on natural resources. In reality they can pose many of the same risks as traditional farms. Following are areas of management where Organic farms can focus:



## Nutrient Management

Account for nutrient credits from previous crops, including cover crops, manure and compost. Failing to include these nitrogen and phosphorus credits can cause nutrient loading, a source of water pollution that can create algal blooms in fresh and saltwater systems. Note also that excess nitrates in drinking water can be toxic to livestock and cause methemoglobinemia (also known as blue baby syndrome) and impact blood oxygen levels in people. Those most susceptible to methemoglobinemia are infants, pregnant women and individuals with compromised immune systems. Routinely test private wells for nitrates.

## Pest Management

Organic farming often does include pesticides-but requires that they are derived from natural sources and not synthetically manufactured. Organic farms are allowed to use a variety of sprays and powders that are USDA National Organic Program approved. They may have an OMRI label indicating they have been tested for organic use. All pesticides pose a risk to human and environmental health with improper handling. A pesticide is anything that you use to kill or manage unwanted animals, insects, plants, fungi or bacteria. It is extremely important to read the labels of all pesticides! Following the directions for storage, handling and use is the first step to responsible use of pesticides. It is also important to observe the Environmental Hazard Statements and adhere to re-entry times after applications to limit adverse health effects. Your MAEAP tech will give you full pesticide labels for all pesticides used on the farm. You can also request them from retailers or find them online.



Codling Moth

Brown Marmorated Stink Bug

Plum Curculio

Army Worm

## Manure and Compost Management

- Actively manage manure and compost piles to prevent runoff and leaching. Contaminated runoff that reaches surface water, tiles or drainage ditches is considered a direct discharge into water sources. Remember everything is connected, what ends up in the ditch or stream can eventually end up in the Great Lakes and make its way to the ocean.
- When stacking manure or compost, be sure to relocate piles annually to reduce risk of nutrient leaching into groundwater.
- When spreading manure or compost, it is best for nutrient availability and reduction of risk of runoff and pollution of surface and groundwater to turn manure into the soil (incorporate) within 48 hours after application.
- Handle manure on the farm with the goal to minimize excessive odor. Develop an Odor Management Plan with a MAEAP technician to assure good management of manure, keep you neighbors happy and protect your Right to Farm.



High Risk

High Risk

Low Risk

Medium Risk

Low Risk