



## **Agricultural Environmental Management**

### ***From the Ground Up!***

By Barbara Silvestri

New York State is the home of a rich variety of farms - large and small farms; dairy, livestock, fruit and vegetable farms; greenhouses and henhouses. All have different natural resource concerns and goals. New York's Agricultural Environmental Management (AEM) Program provides tools and resources to serve the needs of all members of this diverse agricultural community.

One worksheet that is useful for almost all farms is the *Soil Management Worksheet*. Farms depend on productive soils, and every farm is in a watershed. Keeping the soil on the land and protecting soil quality benefit both the farm and the watershed. It's a win-win!

Farmers are the original stewards of the land, and know that soil is important to their farms' bottom line. When soil erodes, it removes organic matter, nutrients, and topsoil, decreasing soil fertility, tilth, and water holding capacity. In turn, this causes reduced crop growth and inefficient use of crop inputs. Increasing soil organic matter improves soil tilth, reduces susceptibility to compaction, increases nutrient and water holding capacity, slows the movement of pesticides through the soil, and can protect against erosion. Protecting soil from compaction can enhance water availability to crops and root growth, resulting in increased yields and less runoff.

Loss of your farm's precious soil resources is not only a problem for the farm; it can also harm the environment. Soil erosion can carry sediments, nutrients and pesticides to surface water bodies, degrading water quality. Sediment from erosion fills drainage ditches, road ditches, culverts, stream channels, and shortens the life of lakes, reservoirs, and ponds.

Preventing erosion and enhancing soil quality should be a priority on every farm. The *AEM Soil Management Worksheet* is designed to help you assess how your farms' practices can protect soil resources. Working with your County Soil and Water Conservation District to develop a plan for a systems approach to soil conservation provides multiple barriers against soil erosion and water quality degradation.

- Crop rotations, strip cropping, conservation tillage, and cover crops help protect soil from erosion by wind and water and help maintain or increase soil organic matter.
- Diversions, waterways, and terraces capture and provide stable outlets for runoff.
- Vegetative filter strips and riparian forest buffers capture sediment, along with nutrients and pesticides attached to sediments, before they reach watercourses.

Conducting an AEM Risk Assessment, including the *Soil Management Worksheet*, will help you identify the ways that your farm is protecting soil resources as well as areas where improvements could be made to protect both the environment and your farm's bottom line. Soil management is one area where simple changes can often reap substantial benefits for both your farm and the watershed. Where more expensive changes are needed, there are cost-share programs that can help.

If you would like to schedule a free, confidential AEM Risk Assessment for your farm, including the *Soil Management Worksheet*, contact your County Soil and Water Conservation District. To learn more about AEM, view the Worksheets (including the *Soil Management Worksheet*), or to locate your Conservation District office, visit: [www.nys-soilandwater.org](http://www.nys-soilandwater.org)

Check the next issue for more information on how AEM is helping over 11,000 farm families statewide farm cleaner and greener, and how AEM can benefit your farm enterprise.