

State EPF funding benefits farmers, municipalities, residents & tourists (p. 4)

County Soil & Water Districts Multiply Conservation Dollars in Local Economies (p. 1)

Public Health & Safety: Protecting Drinking Water (p. 4)



Agricultural Environmental Management

2009 Annual Report

"AEM has helped us maintain a thriving farm business!" (p. 5)



American Agriculturalist

Safeguarding Our Environment, Rural Economy & Local Food Supply



"AEM is a way of demonstrating our farm's commitment to the environment." (p. 3)



"We're growing more food with less fuel; a win-win for the environment & the farm business." (p. 3)

Framework for Cleaner Greener Farms

Local Partnership Process

AEM partners at the local level coordinate delivery of the technical support and financial incentives farmers need to remain environmentally sound and economically viable.

To maximize the on-the-ground impact, County Soil and Water Districts utilize a watershed approach to develop county-wide AEM Strategic Plans that prioritize environmental concerns and target available local, state and federal resources.

- District staff initiate the AEM process on the farm with a basic **Inventory** of resources and current activities.
- AEM worksheets provide a structured **Assessment** of potential concerns, assigning a risk level to each, while documenting the environmental practices already applied.
- **Conservation Plans** address concerns and align farms with technical support and sources of funding for costly projects.
- Project **Implementation** addresses the highest priority water quality concerns first. Since AEM is also an educational tool, many farmers make operational changes or choose to implement projects identified in their plans without public cost-share funding.
- AEM **Evaluation** ensures that practices are properly maintained and conservation plans are adjusted as needed.

National Model for Success

Created in 1993 and codified into law in 2000, AEM is keeping New York ahead of the pack nationally. In addition to enhancing voluntary stewardship on farms of all types and sizes, AEM is the vehicle by which environmental regulations have been effectively implemented on larger livestock farms.



- Considered a national model, New York's regulatory program for large livestock farms is one of only a few that require AEM Certified Planners, and the only state with an AEM Quality Assurance and Quality Control process in place to assure regulators and the public of quality AEM planning.
- Most of the 600 regulated livestock farms in New York are family-run businesses that have had their roots in farming for generations.
- Over 99% of these farms developed Comprehensive Nutrient Management Plans to control runoff, conserve soil and recycle nutrients. These science-based plans assess environmental risks and identify site-specific conservation practices to address concerns while meeting farm business objectives.

State funding for AEM remains a critical investment to meet public expectations for sustainable agriculture and a healthy environment.

Taking Conservation to the Next Level

New legislation in 2008 broadened the role of the AEM program beyond protecting water quality to help connect farmers with expanded opportunities to produce renewable energy and reduce greenhouse gas emissions.

Taking their conservation legacy to the next level, the 4th generation Coyne Farms installed a state-of-the-art covered manure storage system that collects and destroys methane, a significant greenhouse gas. As a result, the Coyne's have the potential to sell 2,400 tons per year of carbon dioxide equivalents through the Environmental Credit Corporation.

"In the past, carbon was \$7 a ton; now it's less than \$1.20," said Malachy Coyne, "but the reasons we're doing this are to protect the environment, provide odor control for our neighbors, and enhance farm efficiency."

The covered system keeps clean water clean and provides odor control by preventing over one million gallons of rainwater per year from mixing with the stored manure. This also cuts operating costs by substantially reducing the volume of manure that needs to be spread.

Malachy Coyne explains how his covered manure storage system collects and destroys greenhouse gas, reduces odor, improves farm efficiency and keeps clean water clean.

Manure storage allows farmers to carefully apply the nutrients at the times of the year when they can be best managed and recycled by crops. These organic nutrients enrich the soil naturally and reduce the need for synthetic fertilizers.

"We're looking long term for our next generation on the farm," said Coyne. "It would be a tremendous undertaking, but looking to the future there is a potential to utilize the methane for energy production on the farm. Every kilowatt counts."



Barb Silvestri, NYS Soil & Water Conservation Committee (SWCC)



Lake Champlain Basin Program

Farming in Harmony with the Environment: It's Good Business!

Sustainability = Profitability for Farmers

In agriculture, sustainability means profitability. AEM is providing farmers with tools to help lower production costs, protect the environment and attract customers.

In the grape industry, nearly 100 juice and wine grape growers have utilized AEM practices to reduce nitrogen applications by 40%. That translates into nearly half a million dollars in reduced fertilizer costs and helps make the State's grape industry more sustainable. Many farmers who have embraced VineBalance, AEM for vineyards, are now exploring how their environmentally-friendly growing practices can provide an advantage in marketing their products. Some buyers are even asking suppliers to document their sustainable production practices. "Sustainability is more than a buzz word," explained Scott Osborn of Fox Run Vineyards, "and AEM is a way of demonstrating our farm's commitment to the environment." The marketing advantages are just one benefit of farmers adopting sustainable practices. AEM practices can help increase yield, keeping the land more productive for future generations.



Scott Osborn, Fox Run Vineyards, Yates County

Growing More Food with Less Fuel

Recipient of the 2001 Statewide AEM Award, Donn Branton, owner of Branton Farms in Genesee County, takes great pride in conserving the land his family has lived and worked on for over 35 years. To ensure that precious environmental resources will be preserved for generations to come, the Brantons have worked with the Genesee County Soil and Water District to implement an array of conservation practices.

The farm was one of the first in the State to use Global Positioning System equipment to plant and fertilize crops precisely in accordance with crop needs. Most recently, the farm took part in a three year study of seven farms that showed that the deep placement of nitrogen into the soil resulted in over 40% reductions in fuel consumption and labor per acre. "The first year sold me; the second year convinced me; the third year made me a true believer," says Branton. "The new conservation tillage practices resulted in a 25% increase in acres worked and a much higher crop yield. About three quarters of a ton better! We're growing more food with less fuel; a win-win for the environment and the farm business."



Donn Branton, Branton Farms, Genesee County

Recycling Agricultural Plastics

A \$50,000 grant from the State Legislature to the Champlain Watershed Improvement Coalition supported development of the Lake Champlain Ag Plastics Recycling Program. This has grown into a commercial scale enterprise helping farmers while benefiting the regional economy, and their success is helping to launch similar programs around the State.

The Agricultural Plastics Baler, owned by the Clinton County Soil and Water District, is keeping plastics out of county landfills, saving municipalities space, time and money. Since its debut on North Country farms in 2008, over 250 bales have been compressed from a quarter million pounds of plastics including bale wrap, long white silage bags, pesticide containers, nursery pots, and even maple syrup tubing. Innovative industries within New York are incorporating these plastics into their existing products and developing new uses for this readily available raw material. By sharing the Ag Plastic Baler with Districts in 10 neighboring counties, many northern New York farmers have become involved in the recycling process. "It's important to give farmers environmental and economically feasible options, especially with the recent burn ban in effect," said Steve Mahoney, Clinton County Soil and Water District Manager. "Dairy farmers tell me that recycling these plastics can eliminate up to 80% of their trash hauling fees." Six new balers are expected in the fall of 2010 that will be managed by the Jefferson, Otsego, St. Lawrence, Tompkins, Washington and Wyoming County Soil and Water Districts.



AEM partners from Clinton and Washington Counties join with Toolite Farms to demonstrate the plastic baling process to area farmers.

New Technology Reduces Chemical Applications

"The 10 farmers in our county that are utilizing new tower sprayers are seeing a 40% reduction in the spray chemicals used to manage pests and treat for disease in their orchards," said Dan Schuth, Orleans County Soil and Water District Manager.

Utilizing State EPF funds, the District sponsored a series of AEM workshops to demonstrate this innovative equipment to farmers in western New York. "Electronic sensors on the new sprayers pinpoint application to the exact tree location and size, and eliminate over spraying where no tree exists. That's good for the environment and the farm business, which also supports our local economy," said Schuth.



Western New York farmers attend an AEM workshop to learn how new sprayers reduce chemical use on orchards by 40%.

State Funds Benefit Farmers, Municipalities, Residents & Tourists

Designated as a state priority for protecting public health and safety, AEM helps farmers implement conservation practices that protect drinking water quality and natural resources for all New Yorkers.

- In the New York City Watershed, AEM farmers are protecting water quality for 9 million downstate residents.
- AEM farmers in the Skaneateles Lake Watershed lead the effort to protect the drinking water supply for over 200,000 people in the City of Syracuse.
- The success of AEM farmers in the Steele Creek Watershed of Herkimer County led to measurable water quality improvement for Ilion's 10,000 residents, and the Village is saving thousands of dollars a year on water treatment costs.

Ecosystem Health

The State's first Ecosystem Based Management (EBM) project demonstrated how the direct relationship that Districts have with partner agencies, farmers and communities positions them to help achieve the State's goal for a holistic approach to the environmental health of watersheds.

The pilot project with the Jefferson County Soil and Water District focused on Sandy Creek, the main source of drinking water for the Village of Adams. By combining state, local and federal resources, a cost-effective means was provided for farmers to help protect water quality. Tree, shrub and grass buffers were planted along streams on five farms, and the cattle fenced out of streams were provided with alternative water supplies. This project illustrates the importance of state funding to offset farmer costs of participating in the USDA conservation buffer program and is being replicated in the Upper Susquehanna River Watershed to help farmers meet Chesapeake Bay pollution reduction goals.



John McCarthy, Finger Lakes Photography ©

Careful farm management through AEM protects Skaneateles Lake as an unfiltered drinking water supply for the City of Syracuse.

Tourism & Recreation

Agriculture and tourism are the largest industries in upstate New York, and for many recreational areas statewide, the economic health of the communities surrounding lakes and streams depends on the ecological health of the water itself.



Madison County Soil & Water Conservation District

Farmers near Oneida Lake preserve fisheries that generate millions for the local economy. Above, Madison County Soil and Water District Technician Carl Bartlett (left) works with Karl and Andrew Haslauer, of Haslauer Farms. EPF cost-share funds helped them to install the conservation systems needed to protect the stream that runs adjacent to the barnyard of this 60 cow dairy.

Anglers and boaters on Oneida Lake spend millions of dollars every year at area businesses, ranking the economic value of this freshwater fishery first among the State's inland waters. For years, nutrients from urban, suburban and agricultural runoff contributed to algae blooms and excess vegetation, which impaired the lake's recreational uses. Agriculture comprises 29% of the land area in the watershed, which encompasses portions of 6 counties with over 2,300 miles of streams; 840 miles of them trout streams. State AEM funds helped to cost share a series of conservation practices on farms including vegetative buffer strips, barnyard runoff management systems, stormwater basins, and a constructed wetland to reduce nutrients, sediments and pathogens from entering the watershed. These improvements achieved the pollution reductions necessary to restore the water quality of Oneida Lake and its recreational uses. As a result, New York's AEM program was celebrated nationally as a "Success Story" by the US EPA.



Dutchess County Soil & Water Conservation District



Working with the Dutchess County Soil and Water District, AEM farmers help protect Wappingers Creek, a priceless resource generating over \$1 million annually in fishing revenue alone.

Award Winners



COVER PHOTO: AEM Award winners Tom and Elaine Trinder, and Nancy Wood (right) are dedicated to AEM on their farm, which has also benefited their dairy business.

Over the years, the Trinders have installed grassed waterways, vegetative buffer zones, and water and sediment control basins. They were one of the first farms in the region to practice strip cropping and zone tillage to reduce erosion. "Now, every acre is protected from erosion," said Tom, "and our hay yields improved under our farm's nutrient management plan." They now find earthworms, a sign of good soil health, everywhere on the farm. Their well-planned barnyard management and pasture grazing practices, teamed with recycled newspaper bedding, have resulted in cleaner, healthier cows and 14 straight years of awards for superior milk quality.

Award finalists also recognized were:

- Birch Creek Farm owned by the Bast family, with the Jefferson County Soil and Water District
- Marlindale Farm owned by the Houston family, with the Tompkins County Soil and Water District
- Sunny Knoll Farms, owned by the Butler family, with the Wyoming County Soil and Water District

AEM Earns Statewide Excellence Award

AEM's sustained success earned the program New York's 2008 Environmental Excellence Award from the State Department of Environmental Conservation (DEC). This significant award marked another milestone for the AEM partnership, and reconfirmed DEC's support of AEM in helping achieve the State's goals to protect and restore natural resources.

Spreading the News

AEM News Awards were presented to 10 Soil and Water Districts that generated 240 articles, television news stories and radio interviews to help educate the public about the important role of AEM and New York agriculture. AEM Communications Workshops trained over 700 partners in outreach techniques that resulted in a substantial statewide annual increase in pro-active press.

Sign of Commitment

AEM "Farmers Protecting Our Environment" signs were awarded to 75 exemplary AEM farms by 20 County Soil and Water Districts across the State. Farms displaying these roadside signs best demonstrate what all farms can do to protect and enhance natural resources. Award events often result in significant media coverage, helping to foster public awareness of good farm stewardship and local AEM programs.



Albany County Soil and Water District Vice Chair Charles Houghtaling presents an AEM sign to Mark Stanton of Stanton Farm to honor his conservation commitment.

Eco-Friendly Farming

Trinder Farm and the Onondaga County Soil and Water District shared New York agriculture's highest environmental honor in 2009, the 16th Annual AEM Award.

The headwaters of the Upper Tioughnioga River begin on this 400 acre organic dairy. "We dedicated our focus on AEM to prevent erosion and protect water quality, and our dairy business is thriving because of it," said Tom Trinder. "Our grazing system allows our cows to feed themselves off the pasture. They spread their own manure as they graze, providing nutrients to the soil and saving us time and money."



Partners

Adirondack Council
American Dairy Association & Dairy Council
American Farmland Trust
Certified Crop Advisors Program
Champlain Watershed Improvement Coalition of NY
Citizens Campaign for the Environment
Cornell Cooperative Extension (CCE)
Cornell Pro-Dairy Program
Cornell Small Farms Program
Cornell University
County Soil & Water Conservation Districts
Environmental Defense
Environmental Facilities Corporation
Finger Lakes-Lake Ontario Watershed Protection Alliance
Keuka Lake Watershed Protection Program
Long Island AEM Stewardship Committee
Lower Hudson Coalition of Conservation Districts
Mohawk River Basin Coalition of Conservation Districts
Northeast Certified Crop Advisor Program
NY Association of Conservation Districts
NY Center for Dairy Excellence
NYC Watershed Agricultural Program
NY Farm Bureau
NY Farm Viability Institute
NY Rural Water Association
NYS Agri-business Association
NYS Agricultural Agents Association of CCE
NYS Agricultural Mediation Program
NYS Cattle Health Assurance Program
NYS Conservation District Employees' Association
NYS Department of Agriculture & Markets
NYS Department of Environmental Conservation
NYS Department of Health
NYS Department of State
NYS Energy Research & Development Authority
NYS Grange
NYS Horse Health Assurance Program
NYS Integrated Pest Management Program
NYS Soil & Water Conservation Committee
NYS Sustainable Viticulture Program - VineBalance
NYS Water Resources Institute
NY Wine & Grape Foundation
Skaneateles Lake Watershed Agricultural Program
SUNY College of Environmental Science & Forestry
Upper Susquehanna Coalition
US Environmental Protection Agency
US Fish & Wildlife Service
USDA Farm Service Agency
USDA Natural Resources Conservation Service

New York State
Soil & Water
Conservation Committee
www.nys-soilandwater.org

10B Airline Drive, Albany, NY 12235
Phone: 518-457-3738

E-mail: Barb.Silvestri@agmkt.state.ny.us

This report covers:
September 2008 - December 2009