

## State Agriculture Commissioner Congratulates Wyoming County Farm as Recipient of the 2017 Agricultural Environmental Management Award

# Third Generation Farm Honored for Environmental Stewardship Efforts

State Agriculture Commissioner Richard A. Ball congratulated Dueppengiesser Dairy Farm, located in Perry, Wyoming County, as the recipient of the 2017 Agricultural Environmental Management Award. Each year, the award honors the outstanding efforts of a New York State farm to protect and preserve soil and water quality.



### Agriculture Commissioner Richard A. Ball

**said**, "Congratulations to the Dueppengiesser Farm on receiving the Agricultural Environmental Management Award. This family-run farm has long worked with the Wyoming County Soil and Water Conservation District to ensure they are taking the steps to take care of the environment while increasing the profitability of their operation."

Dueppengiesser Dairy Farm was recognized along with the Wyoming County Soil and Water Conser-

vation District, during a ceremony at Empire Farm Days in Seneca Falls. The New York State Department of Agriculture and Markets, the Empire State Potato Growers, and the American Agriculturist Magazine presented the award to the family for their implementation of conservation best management practices that benefit the environment and protect the community.

**Mike Dueppengiesser, of Dueppengiesser Dairy Farm, said**, "At Dueppengisser Dairy, we have always been aware of the need for environmental conservation, and we strive to implement practices that will protect our lands for the future. Best management practices are a priority for our farm business, and we do our best to keep up with latest technology in conservation efforts such as implementing the use of cover crops, GPS technology, zone tillage and dragline systems. Working closely with our employees, plus collaboration with the Wyoming County Soil and Water Conservation District, strengthens our environmental stewardship efforts."

Dueppengiesser Dairy Farm is a third-generation family farm that manages nearly 2,000 milking cows and youngstock and operates more than 2,000 acres of cropland, producing corn, alfalfa and wheat. As early adopters of the principles of AEM, the family has implemented several practices, such as reduced tillage, use of cover crops, and nutrient management, to protect soil and water quality. The family is also very active in the community, hosting several agricultural education programs on their farm, including the Farm Bureau School Education Program, Agri-Palooza and the Western New York Soil Health Field Day.

# 2017 Agricultural Environmental Management Award

The farm has worked closely with the Wyoming County Soil and Water Conservation District, which provides technical assistance to advance agricultural environmental management practices within the county.

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Western New York Soil Health Field Day

The Wyoming County Soil and Water Conservation District has a very active agricultural environmental management program that has assisted over 361 farms since its inception.

Their AEM Strategic Plan focuses on nutrient management and reducing cropland erosion, and Dueppengiesser Dairy Company has implemented various practices to address these issues that will improve soil health and protect water quality.

#### Wyoming County Soil and Water Conservation District Manager Greg McKurth said,

"The Dueppengeiser family has been a pleasure to work with over the years as they have proactively undergone numerous implementation projects related to improving conservation on their farm, along with hosting many educational outreach programs on their dairy, such as soil health workshops, and Wyoming County's Agri-Palooza event. I am proud of the Wyoming County farms for working collectively and progressively with our District staff to be good stewards of the land."

The annual Agricultural Environmental Management Award is jointly sponsored by the New York State Department of Agriculture and Markets, American Agriculturalist Magazine and the Empire State Potato Growers. Award winners are chosen from nominees submitted by County Soil and Water Conservation Districts from around the state. The first Agricultural Environmental Management Award was presented in 2002; prior to that, the award was known as the Agricultural Stewardship Award.

New York State's agricultural environmental management framework is a model for the nation as a voluntary, incentive-based approach to protect natural resources and meet the economic needs of the agricultural community.



Agri-Palooza

### Round 23 of the New York State Agricultural Nonpoint Source Pollution Abatement & Control Program

The Wyoming County Soil & Water Conservation District has received notification from the New York State Department of Agriculture and Markets (NYSDAM) that funding for the Cattaraugus Creek Aquifer Protection Project has been awarded through Round 23 of the New York State Agricultural Nonpoint Source Pollution Abatement & Control Program. The total amount of this grant is \$130, 051.00 to be spent on a single farm in Wyoming County.

## Round 23 of the New York State Agricultural Nonpoint Source Pollution Abatement & Control Program

The Wyoming County Soil & Water Conservation District has also received notification from Erie County Soil & Water Conservation, who was notified by the New York State Department of Agriculture and Markets (NYSDAM) that funding for the Buffalo River and Lake Erie Nutrient and Sediment Reduction Project has been awarded through Round 23 of the New York State Agricultural Nonpoint Source Pollution Abatement & Control Program. The total amount of this grant is \$519,560.00 to be spent on 2 farms in Erie County and 1 in Wyoming County.



### **Climate Resilient Farming - Table Rock Farm Methane Reduction Project**

Given the recent concern over climate change, Table Rock Farm has begun to reduce its greenhouse gas emissions. The farm has implemented soil health practices to build soil carbon storage, including minimum and zone tilling, cover cropping, and manure injection. The farm has also improved its energy efficiency by growing all of its own forage to reduce transportation emissions and by replacing all its lights with high efficiency florescent lights. Finally, the farm has participated in the Cornell SPEAR Whole Farm Nutrient Mass Balance Study, and the farm became nutrient balanced in 2014.

The associated nutrient use efficiency can reduce the amount of nitrous oxides emitted by the farm. Despite all of these practices, the farm still had its unmanaged source of greenhouse gases, which was its uncovered agricultural waste storage.

Table Rock Farm utilized a 6.9 million gallon earthen agricultural waste storage system that collects 12,453,474 gallons of manure, waste water and fresh water annually.



Therefore, this storage is estimated to emit 152,796 kg of methane each year (1,163 cows equates to 138,397 kg of methane and 242 heifers equates to 14,399 kg of methane).

To reduce methane emissions, Table Rock Farm proposed to completely cover their existing earthen waste storage with a 60mil HDPE impervious cover supplied by Environmental Fabrics, Inc. A network of biogas collection pipes will be located under the cover, aggregating the biogas and directing it to the



flare system. A closed flare system will then burn the methane, converting it to carbon dioxide.

For the system to function properly, manure solids must be separated from the liquid.

Therefore, a new solid separation unit was installed as the farm's matching contribution, including the new agitator pump system,



screw press separator(s), and liquid waste transfer. The project will reduce methane emissions in numerous ways and will help mitigate climate change.

Trapping and flaring methane reduces the farms climate impact, as methane is 34 times more potent than carbon dioxide as a greenhouse gas.

### Methane Reduction Project continued...



Second, manure stored as solids produces less methane than manure stored as liquid/slurry (solids have a methane conversion factor of 2% in winter and 4% in summer, while liquid/slurry has a methane conversion factor of 17% in the winter and 35% in the summer). Finally, the impermeable cover and solid separation unit will significantly reduce the farm's transportation-related emissions. The farm's waste storage collected approximately 3.5 million gallons of rainwater each year, even though the farm installed a tile around the perimeter to exclude runoff from the storage.



All of this rainwater mixes with the manure in the storage and must be hauled and spread on fields. As part of this system, the manure solids have been dried and recycled as bedding. These solids will no longer need to be transported to the fields to be spread, and sawdust will no longer need to be transported to the farm to be used as bedding. In the long term, the methane savings can be even larger, as this progressive farm will expand its milk production through the lifetime of this agricultural waste cover system.



This project will also increase the Table Rock Farm Methane Reduction Project farm's resiliency against climate change. The exclusion of rain water will greatly expand the farm's storage capacity. This reduces the need to spread during wetter conditions, allows the storage to handle high intensity storm



events, and reduces the risk of overtopping. Also, the separation unit is contained in a building, protecting the manure solids from high intensity storm events.

### Crosstown Alliance Church Streambank Stablization, Town of Arcade



Fast moving water has scoured the stream bank undermining trees and taking away land.



Debris was removed and used as revetments.



Large rock was installed along the bend, the rock was toed in so that it is more resistant to being undermined by the flow.



Large woody debris filled the streambed and caused further backups and erosion.



The stream flow was diverted to allow the excavator to reshape the bank of the channel.



Rock veins were installed to deflect water away from the streambank.

### Crosstown Alliance Church continued...



Log revetments are placed and cabled in to armor the streambank.



Live willow stakes were planted among the rocks. The roots will grow into the bank which will hold the soil in place.



The live willow stakes sprouted quickly an will continue to root into the bank of the stream.



All exposed soil was hydro seeded in hopes that the roots would further stabilize the bank.



The vegetation was established well and will continue to be a benefit for years to come.



With log revetments, rock vanes, and bank armoring installed, the flow is deflected off of the soil and reduces erosion.



This publication is the quarterly newsletter of the Wyoming County Soil and Water Conservation District and is available at no cost to all District cooperators, all interested landowner and land users, and to the general public. To receive this newsletter, simply email us at wcswcd@frontiernet.net or send your complete mailing address to our office.

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