

# Genesee River Demonstration Farms Network

KEVIN KEENAN



## A Year in Review

In 2018, American Farmland Trust and USDA's Natural Resources Conservation Service launched the Genesee River Demonstration Farms Network. The project showcases the impacts of practical and innovative conservation practices on farm viability, water quality, and other natural resources.

The early commitment of the first two demonstration farms—Gary Swede Farm LLC and HaR-Go Farms—helped American Farmland Trust leverage USDA NRCS support to secure additional funding from the Great Lakes Restoration Initiative and the New York Farm Viability Institute to grow the network to 11 farms in 2021.

## Goals of the Network

- Demonstrate conservation systems that support farm viability, build soil health, and benefit the environment.
- Quantify economic and environmental impacts of soil health management systems.
- Share technology, information, and lessons learned with farmers, agribusiness, conservation agencies, landowners, and the public.
- Create on-farm research opportunities to evaluate and demonstrate conservation practices.
- Facilitate farmer-to-farmer discussions and learning opportunities.

## Network at a Glance

### 11 DEMONSTRATION FARMS

span four counties in the Genesee River watershed. The network includes:

- 45,806 acres
- 13,990 dairy/beef cattle
- 6 dairy farms (one organic)
- 3 cash crop farms (two raise beef cattle)
- 2 grain/vegetable farms that also provide feed for dairies

### SOIL HEALTH PRACTICES

- No-till, strip-till, cover crops, adaptive nutrient management, diversified crop rotation

### DEMONSTRATION PLOTS

- Planting green vs. conventional termination method and timing of cover crops
- Adaptive nutrient management in corn using dynamic nitrogen model
- Soil health measurement including CASH test, bulk density, and in-field assessment
- Economic and environmental evaluation using partial budget analysis and USDA modeling



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## Year Two Partnership Highlights

Since 2018, the Genesee River Demonstration Farms Network has accomplished several notable outcomes that provide a foundation for ongoing success. From the initial NRCS-NY investment, American Farmland Trust obtained an additional \$1.35 million in funding, greatly increasing the impact of the program in the watershed.

### GROWING THE DEMONSTRATION FARMS NETWORK

With additional funding from the Great Lakes Restoration Initiative and the New York Farm Viability Institute, we expanded our programs in the following ways:

- Grew from 2 to 11 farms while increasing research, outreach, and education opportunities through more demonstration trials, case studies, and farmer-to-farmer networking.
- AFT's Women for the Land Initiative connected women in agriculture to their service provider network and increased conservation on rented land. Women's Learning Circles were held throughout the duration of this project and, to date, nearly 200 women have joined this community.
- The Landowner Incentives Program targets conservation on rented land while offering incentives that include up to \$4,500 in reimbursement for the implementation of activities agreed to by the owner/operator pair. To date, the program has implemented projects on 13 farms on 769 acres of rented land, including 604 acres of cover crops.

### CASE STUDIES HIGHLIGHT BENEFITS OF SOIL HEALTH PRACTICES



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Steve Gould

American Farmland Trust worked with Genesee River Demonstration Farms Network farmer Steve Gould to quantify economic, water quality, and climate benefits associated with his shift to adopting soil health practices.

The HaR-Go Farm case study highlights practices such as no-till, cover crops, and nutrient management on an organic dairy, and ultimately demonstrates how Steve and his family saw an \$11 per acre increase in net income per year due to soil health management, equating to \$4,780 over the 450-acre dairy rotation, an 18% return on investment. AFT estimated that Steve has reduced nitrogen, phosphorus, and sediment losses by 41, 39, and 29% respectively, while reducing total greenhouse gas emissions by 158%.

This case study, along with eight others that include different cropping systems across four states, have been promoted through press outreach and have been made available on USDA NRCS' Soil Health website and American Farmland Trust's Farmland Information Center.



**\$11**

per-acre increase in net income



**18%**

return on investment



**REDUCED**

nitrogen, phosphorous, and sediment losses



## OUTREACH EVENTS EDUCATE FARMERS, SERVICE PROVIDERS

Through the network, American Farmland Trust held two virtual field days, four Women for the Land Learning Circles, and presented at 18 local and regional outreach events, many of them virtually. The outreach efforts directly reached 1,257 farmers, agricultural service providers, policy makers, and researchers. Furthermore, we released two farmer case studies—Macauley Farms and HaR-Go Farms—four videos featuring demonstration plots and farmers, and published two newsletters. Coverage of the case study and soil health resources reached 49k through [Morning AgClips](#).

In addition, farmers can visit the [Genesee River Demonstration Farms Network webpage](#) to find upcoming field days and events hosted by demonstration farms, farmer case studies, resources, and more.

## ON FARM DEMONSTRATION PLOTS EVALUATE BENEFITS OF PLANTING GREEN

Cover crops provide multiple services, and it is believed that planting green can enhance those effects. Currently, planting green has not been extensively studied or quantified in western New York. On nine of the demonstration farms, we will evaluate and demonstrate if soils planted green will regenerate soil health faster than soils that are cover cropped and terminated several weeks before planting. By planting a primary crop into living cover, it is expected that the extra weeks of growth compared to termination prior to planting will substantially increase the above ground and below ground biomass—building soil health more quickly in addition to providing other known benefits of cover cropping.

## PROJECT OUTREACH



18

local and regional  
outreach events



1,257

farmers,  
agricultural service  
providers, policy makers,  
and researchers  
participated  
in outreach events



**John and his father Jim plant “green,” which means planting a cash crop into a living cover crop. Jim rolls their 12-way mix of brassicas, legumes, and grasses, while John follows with their no-till planter.**

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REBECCA DROBIS

**Betsy DeGroff of DeGroff Sweet Corn Family Farm in Castile, New York.**



**FOR MORE INFORMATION PLEASE CONTACT**

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### Looking Ahead

Through our continued partnership with USDA NRCS and our new partners from the Great Lakes Restoration Initiative and the New York Farm Viability Institute, American Farmland Trust will broaden our efforts in the coming year with the addition of nine farms to the network. In cooperation with the farms and the project team, which includes experts from the Cornell Cooperative Extension Northwest New York Dairy, Livestock and Field Crops staff, and Soil and Water Conservation Districts, American Farmland Trust will continue to make the case for the economic and environmental benefits of soil health management through several more farmer case studies. The studies can be found on the Genesee River Demonstration Farm Network webpage.

American Farmland Trust will also work with farmers and our partners to collect in-field data on the demonstration farms to evaluate the soil health benefits of planting a living cash crop into a living cover crop, otherwise known as “planting green.” American Farmland Trust will expand its support of women landowners and operators with increased access to resources, information, and peer networks in the effort to achieve farm viability and improved conservation on their land. American Farmland Trust will promote stewardship on rented lands in the watershed by providing incentives for landowners and land operators to agree to actions and implement conservation practices on rented lands. Finally, American Farmland Trust will work with farmers and agricultural service providers to hold both in-person and virtual outreach events related to soil health. Our goal is to reach new farmers and landowners with the message that adopting soil health practices pays off while providing off-farm benefits such as water quality, mitigation of extreme weather, and farm viability.

