



Support PRO-DAIRY at \$1.463M (\$250,000 restoration) \$374k Dairy Profit Teams at Cornell and \$700k in PRO-DAIRY Dairy Advancement Program (EPF) for farmer grants

PRO-DAIRY is a nationally recognized extension and applied research program that has provided business, environmental, and production management-related educational programs to New York dairy farms of all sizes for more than 30 years. New York's dairy farms provide a strong foundation to the state's economy and are the largest segment of New York agriculture, generating nearly \$4 billion annually in farm gate revenue and upwards of \$12 billion overall.

PRO-DAIRY expertise

- Environmental Systems
- Farm Business Management
- Forage Systems
- Herd Health and Management
- Nutrient Management
- Production Education
- Strategic Farmstead Planning
- Youth

The Dairy Advancement Program (DAP), in partnership with the New York State Department of Agriculture and Markets and the New York State Department of Environmental Conservation, is designed to assist New York dairy farmers to position their farm for long-term economic and environmental sustainability. DAP is coordinated through Cornell PRO-DAIRY and delivered to farms in partnership with Cornell Cooperative Extension and agriservice professionals.

Core funding request includes \$250,000 for climate leadership

Initiatives to address climate change, like NY's Climate Leadership and Community Protection Act (CLCPA) and the US Dairy's Net Zero 2050 Initiative, create opportunity and demand for more research, on-farm pilot projects, and the need for collaboration and outreach education. PRO-DAIRY is poised to meet the need for science-based education to assist New York's dairy farms in achieving NY's ambitious 15 percent reduction in GHG emissions from agriculture goal by 2030. Facilitating on-farm research in GHG emissions reduction, and improving stewardship and collaboration will be critical as the state moves towards a net zero economy, and dairy farmers can be on the forefront of advancing climate positive solutions.

David Fisher (Mapleview Dairy) President, New York Farm Bureau

"PRO-DAIRY is very important to my family's farm and dairies across New York State. Its programs use applied research to help us make better business decisions for the future as well improve environmental management and animal care. The work is integral to the growth of dairy farming in our state, and New York Farm Bureau values the strong partnership our organizations have built together to support agriculture."

John Dickinson (Ideal Dairy Farms) Chair, Northeast Dairy Producers Association

"PRO-DAIRY is important to our members and the viability of the state's dairy industry. The research and outreach education conducted by PRO-DAIRY staff in the area of environmental stewardship is critical for our member farms and serves as a model for many other states. We appreciate their quick response to emerging issues and timely research, reports, and outreach which supports the industry in identifying solutions for those issues. PRO-DAIRY's leadership in helping farms network with each other through peer groups, discussion groups and the PRO-DAIRY Dairy Profit Monitor program promotes continuous improvement for participating farms. PRO-DAIRY, its staff and its programs continue to support the dairy industry's success and progress."

PHOTO: Timothy Terry, PRO-DAIRY Strategic Farmstead Planning, was the featured speaker at a dairy facilities calf housing and ventilation workshop hosted by Cornell Cooperative Extension.

Program Impact

Oneida County family uses DAP funds to support sustainable business and environmental planning

John and Sammi Collins own and operate Collins Farm and Creamery, a 150-cow dairy in Oneida County, NY that also processes and sells bottled milk and cheese in an on-farm store and to their local communities. The farm family, who have two young sons Cody and Charlie, used Dairy Advancement Program (DAP) funds to support long-term sustainable business and environmental planning and stewardship for their family and future generations.

“We appreciate how easy it is to apply, that we worked with grant administrators who understand farming, and that the value of the grants are passed straight through to the farm,” Mrs. Collins said. “Participating in DAP allowed us to look into and plan for our future.”

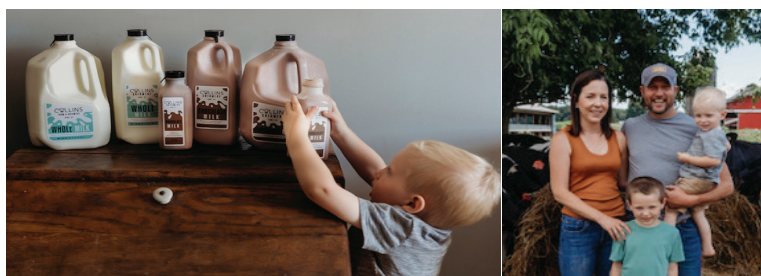
DAP funds were used to implement a financial record keeping system and to take a detailed look at profitability and efficiencies of the dairy and creamery with Farm Credit East farm business consultant, Mark Mapstone. There were two main benefits, Mapstone said. “First, in the dairy farm operation economics, I helped them set goals for income over feed costs and feed efficiency. And two, I offered insight into the economics of retail sales and cost efficiencies with the farm retail products business they are developing.”

Through DAP the Collins have recognized the value of continuing to work regularly with a financial planner to benchmark their farm’s success and set goals to help them diversify and improve herd management and environmental stewardship for long-term viability. “We would like to make

efficiency changes to increase milk production and decrease costs, and to transition to more on-farm processing,” Mrs. Collins said.

Also key to farm success are sound environmental practices and the Collins improved environmental stewardship with the support of DAP by developing a Comprehensive Nutrient Management Plan (CNMP) with their local Soil and Water Conservation District and installing waste storage which DAP partially covered engineering costs for.

“Our core values revolve around the animals that we care for, and the land that allows us to feed what we grow ourselves,” Mrs. Collins said. “The DAP program has assisted us in effective nutrient management, feed and production efficiencies, and herd health, so that we can ensure that our farm is in the best position to continue as a part of our family heritage.”



John, Sammi, Cody, and Charlie Collins

Dairy industry engagement with PRO-DAIRY programs

Program	Approximate number of cows represented and attendance
Cornell Dairy Farm Business Summary and Analysis	Farmers report annual performance and receive business analysis reports and comparisons for their dairy to monitor year-to-year performance and benchmark performance to other dairies. 123,636 cows, 102 farms (direct PRO-DAIRY contribution) participate.
Progressive Dairy Magazine	The 16 page Manager insert in Progressive Dairy offers research updates, on-farm practices, economic analysis, and action steps on managing a dairy business to 8,654 farms.
Podcasts	Newly developed podcast series for dairy farms during the COVID-19 pandemic “Dialing your best dairy” and “Troubleshooting herd issues” reached 11,609 people.
Northeast Dairy Management Conference (with Northeast Dairy Producers Association)	The biennial conference was held in person in March 2022. 358 dairy farmers, agribusiness professionals, veterinarians, students, university and extension faculty and staff attended.
CAFO Off-Road Show (Manure Applicator Training with Cornell Cooperative Extension of Cortland County and Dairy Support Services Co.)	Delivered in a hybrid format to 120 individuals, 19 certificates for CAFO training requirements were issued to employees from four farms. Also, manure applicator trainings and workshops on nutrient management, agricultural water quality issues, and conservation farming practices were offered and reached more than 500 individuals.
New York State Corn Silage Hybrid Trials (with University of Vermont)	2022 results were presented in meetings and webinars to over 500 people, and articles were widely circulated. Hybrid entries and company participation was strong, with 67 hybrids from 13 brands.
Herd Health and Nutrition Virtual Conference (with Northeast Agribusiness and Feed Alliance)	This virtual conference focused on herd health and nutrition management techniques and had 132 registrants, primarily agribusiness professionals representing the NY dairy industry.
Online Education Courses	New this year, some of PRO-DAIRY’s popular online courses are also offered on-demand, including calf and heifer management, reproductive management, transition cow management, and milk quality management. Over 1,000 students have taken the courses in English and Spanish since 2017.
CAFO Engineer Training	Continuing education workshops are offered that provide training hours to participating engineers.



Cornell Agricultural Workforce Development

The Cornell Agricultural Workforce Development Program since its inception in 2018 has helped farm employers comply with state and federal regulations, led workshops to implement improved employee onboarding practices, and developed the leadership skills of managers and supervisors to secure farm employees and foster engaging work environments.

2023 Budget Request: Restoration of \$199,000 to Executive Budget proposal, total funding of \$401,000 in the Farm Labor Specialist line.

Efforts in 2022 expanded to include focus on the Spanish-speaking farm workforce, farm employee housing management, and employee training and workforce availability in New York agriculture.

Supervisory Leadership courses in Spanish: Cornell Supervisory Leadership courses are being adapted and translated to expand career growth opportunities for Spanish speaking farm managers and employees, and will include training Hispanic farm owners on employee management and farm labor compliance.

Employee housing outreach: The program offers objective evaluation of farm-provided employee housing, and recommendations for compliance improvements to farm operators. It also provides training to improve housing management, access to funding for housing improvements, and design ideas. A housing summit is planned to bring together stakeholders and work to ensure quality housing for New York's farm workforce.

Apprenticeships and Onboarding: The program is leading and promoting state-certified apprenticeship training programs for the farm workforce, expansion of new employee onboarding programs across all NY agriculture sectors, and on-farm training programs that use impactful learning methods and advanced technologies.

2022 Program Impacts and Activities

Agricultural Supervisory Leadership certificate program. A series of six,

six-week online courses helps managers learn and apply human resource management practices, become better leaders, create great places to work, and enjoy a more successful business. Four of the six courses have been offered seven times to 217 students since 2021. 23 students have taken more than one course. Students highly recommend the courses and say the tools offered have helped them become better managers.

Labor law compliance. Helped farmers statewide learn and comply with employment regulations through education and outreach.

Employee onboarding. Developed an onboarding template, materials, website, and webinar series to deliver training and support for project farms to improve employee performance, safety, engagement, and retention.

Applied research to problem solve and adopt management practices.

Conducted *Farm Employee Compensation Benchmark* analysis and *NY Farm Workforce in Transition* research on how farmers are adapting to changing labor markets and regulations.

NY AGRICULTURE PRIORITIES

- Compliance training in federal and state employment regulations
- Find and retain high quality farm employees
- Best practices in farm-provided employee housing management
- Research into the current state and needs of the agricultural workforce
- Leadership, supervision, and business culture development



PROGRAM LEADER

Richard Stup, Ph.D. is the director of Cornell Agricultural Workforce Development in the College of Agriculture and Life Sciences. His doctoral degree is in Workforce Education and Development, and he teaches and leads research in agricultural human resource management.

FOR MORE INFORMATION

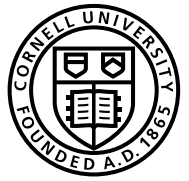
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WEB RESOURCES

Subscribe to the *Ag Workforce Journal* on the website for timely articles on agricultural human resource management.

agworkforce.cals.cornell.edu





New York State IPM Program: Agricultural IPM



Building ecological resiliency

The New York State Integrated Pest Management Program (NYSIPM) leverages world-class research, innovation and extension to help New York farmers and growers understand and adopt ecologically-friendly, sustainable solutions to minimize environmental, health, and economic risks.



How we do it? The five pillars of NYSIPM:

Identify and promote tools that rebuild ecological resilience

Maintain and Expand IPM Decision Support Systems (Digital IPM)

Lead research and outreach efforts in invasive species

Reduce public health risks of pests through outreach and prevention

Provide accessible education and outreach to all New Yorkers

Key 2022 Accomplishments:

Initiated eight projects designed to reduce dependence and develop, environmentally and economically viable alternatives to neonicotinoid use in the management of seedcorn maggot and striped cucumber beetle in field and specialty crops

Partnered with Central New York farm owners to introduce integrated pest management concepts and hands-on identification of insect and disease pests to tomato growers, reducing response times, improving crop yield and minimizing economic loss

Collaborated with Harvest New York to publish a “Pocket Guide to Beneficial Insects on NYC Farms,” and distributed more than 100 copies to help urban growers and gardeners recognize pollinators and natural enemies

Provided nearly 3,200 growers with pest prediction and forecast tools through the Network for Environment and Weather Applications (NEWA) platform. NEWA generated 14,484 unique visits, 37,927 page views and 246 digital contact hours during 2022, and launched models to predict spotted lanternfly and conifer pests

Worked in conjunction with the New York State Department of Agriculture and Markets to coordinate statewide outreach on spotted lanternfly, developing an interactive SLF distribution map, participating in interviews with more than 50 state, local and national media outlets and reaching more than 105,000 people through social media platform.

Demonstrated the ways New York farmers can improve weed control by adjusting their management practices based on the timing of specific weed species in the study, “Improving Weed Management Based on the Timing of Emergence Peaks: A Case Study of Problematic Weeds in Northeast USA

Conducted five workshops for Spanish speaking farmworkers designed to introduce basic IPM concepts and hands-on pest identification. More than 600 native Spanish workers were reached

Developed the Hemp Production and Management Profile for New York State, which serves as a strategic plan for pest management in hemp production

Minimized the environmental, economic and health risks associated with pesticide use through our Environmental Impact Quotient

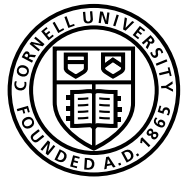


FOR MORE INFORMATION

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2023-24 Budget Request Support the executive budget recommendation for NYS Ag IPM at \$2M in the ag non-point category of the EPF.





New York State IPM Program: Community IPM



Making New York Safer

New York State Integrated Pest Management's (NYSIPM) Community IPM program is a one-of-kind resource, ensuring that all of New York's 20 million residents find safe and effective ways to manage the pests that infest our schools, damage our landscapes, contaminate our food and living spaces, and pose risks to human health.



How we do it? The five pillars of NYSIPM:

Identify and promote tools that rebuild ecological resilience

Maintain and Develop IPM Decision Support Systems (Digital IPM)

Lead research and outreach efforts in invasive species

Reduce public health risks of pests through outreach and prevention

Provide accessible education and outreach to all New Yorkers

Key 2022 Accomplishments:

Organized and held the first meeting of the Dichlorvos Working Group that seeks to address the misuse of dichlorvos (an organophosphate) "pest strips" in public areas, especially restaurants and bars



Participated in the surveillance for Asian longhorned ticks in the Capital and Hudson Valley regions, confirming the tick on livestock for the first time in New York and on pigs for the first time in the United States. As a result, NYSIPM staff members traveled to farmer's markets in Albany, Columbia and Rensselaer counties to share information about these invasive ticks with farmers and growers



Oversaw the Long Island Pesticide Pollution Prevention Project, an outreach campaign designed to encourage Long Islanders to use yard, lawn and landscape management strategies that minimize risks to water sources and the environment. To-date, the campaign has included more than 30 social media posts, reaching more than 70,000 people, a website, blog posts and in-person outreach

Organized and continue to facilitate a national Municipal Rodent IPM Working Group of more than 60 stakeholders, currently working to identify best management practices and developing a guide for urban rodent management for stakeholders



Shared information and resources on ticks and tick-borne diseases with more than 5,000 New Yorkers, including more than 600 middle school students, in conjunction with the Don't Get Ticked, NY awareness campaign

Continued online efforts to provide virtual trainings on basic IPM strategies through What's Bugging You? First Friday events. Introduced in 2021, What's Bugging You? events and YouTube recordings of the programs have reached more than 4,000 people

Offered three sessions of the highly sought after, Hands-On Structural Pest Identification Workshop sessions to pest management professionals and Master Gardener volunteers



Presented a talk on school pest exclusion and provided outreach materials and resources to school officials during the New York State School Environmental Health Conference

Provided IPM advice on bed bugs, mosquitoes, ticks, cockroaches, rodents, and ants to school officials, nurses, pest professionals, landscape managers and the public

FOR MORE INFORMATION

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2023-24 Budget Request Support the executive budget recommendation for \$1M in the non-point category for Community IPM in the EPF.





Cornell Dairy Entrepreneurship & Innovation Hub

Supporting the future environmental and economic sustainability of New York dairy producers and processors.

For many decades NYS was proud to be the 3rd largest U.S. dairy production state – but has recently dropped to 5th place. Sparking dairy innovation, entrepreneurship and meeting consumer demand with new products is key to ensuring that NY remains a national leader in dairy. Without the Greek Yogurt boom fostered by Chobani’s leadership in NY, demand for dairy would have fallen farther. Boosting dairy innovation is critical to ensuring a thriving and sustainable NY agricultural community, particularly as dairy farms still constitute the largest part of New York’s agricultural economy.

State funding for an entrepreneurship & innovation hub will create a platform to help develop new dairy products, processors, and foster the next generation of dairy innovators to drive success for NY’s farmers, and create healthy, tasty, protein packed local foods.

Other dairy states (WI, ID, and CA) have been investing massively to create dairy innovation hubs at their land grant institutions to drive future growth of their dairy sectors. Cornell CALS, through the Cornell Dairy Foods Research Center, has a long history of supporting the NY dairy industry through research, teaching, and extension. This support can be greatly enhanced by adding capabilities and resources to support the innovation pipeline for dairy companies (current and startup) and farmers seeking value-added opportunities for growth.

2023 REQUEST: Budget support of \$500,000 to enhance the capabilities and resources for a Cornell Dairy Entrepreneurship & Innovation hub.

Plans and Anticipated Key Accomplishments

- Invest in processing capabilities that enable the prototyping and scale-up of sustainable technologies and solutions for novel dairy beverages and products (through water reduction, byproduct reutilization, etc.), which will be made available to NY dairy entrepreneurs and value added farmer producers
- Utilize these resources to train, coach, and advise dairy farmers, processors, and aspiring entrepreneurs on new technologies and show how to successfully leverage them in their businesses.
- Collaborate with entrepreneurship programs at the Cornell Center for Regional Economic Advancement to grow the dairy innovation pipeline from farm to table.
- Ensure new dairy products are produced safely, through the best training and education in safe handling practices and sanitation.

FOR MORE INFORMATION: Cornell Center for Dairy Foods Research
<https://cals.cornell.edu/northeast-dairy-foods-research-center/>

Dr. Sam Alcaine; alcaine@cornell.edu; Julie Suarez, jcs433@cornell.edu.



DAIRY CENTER ACCOMPLISHMENTS

Technical support for dairy

Provides dairy research, product development, troubleshooting and scaleup support to the NY Industry



Dairy Extension

Provides coaching and educational support to entrepreneurs and established producers



EXAMPLES OF PRODUCT INNOVATIONS

Big Red Refuel

2015: Chocolate milk formulated for improved athlete recovery



Stocking Hall Cheese

2019 Gold Medal Winner developed with NYS artisan cheesemakers

Norwehy

2022 GrowNY Finalist
 Converting yogurt whey into a novel alcoholic seltzer produced by NY craft breweries.





NYFVI. Because More Knowledge is Needed.

2023-24 Funding Request: \$2.5 million.

The research and education projects that the New York Farm Viability Institute (NYFVI) supports create the knowledge that allows farmers to continue to adopt new practices and profitably grow their operations. Currently, NYFVI limits proposals to \$125,000 per project and typically funds between 12 and 16 projects a year. Rising costs are making it necessary to increase the size of projects to ensure that the work leads to clear outcomes.

The pressure for farms to adapt their practices is only growing. Climate change, consumer preferences, loss of pesticides, pesticide resistance, labor costs, and shortages drive the need and urgency for improved methods, new solutions, and increased efficiency. That's why NYFVI's funding is more important now than ever.

There are three critical parts of the NYFVI value proposition:

- 1) **Farmers evaluate the proposals and determine which projects are funded.** Since 2005, more than 300 farmers have participated in the review process for the competitive grant program. To date, more than 1,000 proposals have been evaluated. These open-minded farmers have supported research in biological controls, data-driven predictive models to allow for more precise use of Nitrogen in the field, as well as more specific use of antimicrobials in dairy herds, Integrated Pest Management (IPM), and more.
- 2) **Any organization** is eligible to submit proposals, and work can benefit **any type of agriculture.**
- 3) **Projects create and share knowledge.** Statewide outreach is a required part of every project

The NYFVI approach to research funding ensures that projects create value. Collectively, 302 completed projects have helped NY farmers realize \$149 million, measured by increased revenue, reduced operating costs, and capital investment. That's nearly 7 dollars in return for every dollar invested in a project.

Piloting New Models of Working:

- **Change Management** NYFVI is leading a project, funded as a cooperative agreement with the USDA APHIS, to examine the use of benchmarking on dairy farms as a change management strategy to motivate farms to adopt new practices. Collaborators include four regional CCE specialists, a private-sector Veterinarian, and a behavioral science consultancy.
- **Building Aquaculture Knowledge for Community Gardens.** NYFVI is supporting a project with Morrisville State University to document infrastructure needs, labor, maintenance, yield estimates, and costs for various aquaculture systems. This work will allow urban and community gardens to assess if aquaculture is a good fit for their operation.

Support for the FY 2023/24 NYFVI Funding Request

The following New York agricultural organizations have expressed formal support for our funding request.

- Empire State Council of Agricultural Organizations, by unanimous vote at its annual meeting:

American Farmland Trust
Cannabis Association of New York
Dairy Farmers of America Northeast Area
Empire Sheep Producers Association
Farm Credit East
NY Apple Association, Inc.
NY Association of Agricultural Educators
NY Farm Bureau, Inc.
NY Wine & Grape Foundation
NY Wine Policy Institute
NYS Agribusiness Association
NYS Agricultural Society
NYS Association of Agricultural Fairs
NYS Berry Growers Association, Inc.
NYS Brewers Association
NYS Distillers Guild
NYS Flower Industries, Inc.
NYS Grange
NYS Horse Council
NYS Horticultural Society
NYS Maple Producers Association, Inc.
NYS Nursery and Landscape Association, Inc.
NYS Turfgrass Association, Inc.
NYS Vegetable Growers Association, Inc.
NYS Veterinary Medical Society
Northeast Agribusiness and Feed Alliance, Inc.
Northeast Dairy Foods Association, Inc.
Northeast Dairy Producers Association, Inc.
Upstate Niagara Cooperative, Inc.

- Christmas Tree Farmers Association of New State
- Cornell University, College of Agriculture and Life Sciences
- Empire Alpaca Association
- Empire State Honey Producers Association
- Farmer Assistance Program, GrowNYC
- NY Beef Producers Association
- NY Corn & Soybean Growers Association
- NY Center for Agricultural Medicine and Health (NYCAMH)
- NY Tree Crops Alliance
- Northeast Organic Farming Association of NY (NOFA-NY)
- SUNY Morrisville

NYCAMH

AT A GLANCE



Bassett Healthcare Network
New York Center for Agricultural
Medicine and Health

Enhancing agricultural and rural health by preventing and treating occupational injury and illness.

Through our center's research, programming, and clinical activities, we have built relationships with a wide range of farms and agricultural organizations throughout the state. As a result, our services stay relevant and responsive to the enduring and emerging needs of the industry and its workers.

WANT TO LEARN MORE?

Scan the QR code to visit our homepage!



Safety improvements on

184 farms

across **48 NY** counties since 2016

Occupational Health Services

- 🏥 Farmers' specialty medical clinic
- 🗣️ Confidential counseling at no cost to farmers, farm families, and farmworkers

Farm Safety Trainings

2,608

Workers trained in 2022

2/3 in Spanish
60+ Topics available

Respirator Fit Testing Clinics

Statewide clinics to ensure **farmers** and **farmworkers** are best **protected** against pesticides

Chainsaw Safety

Nationally accredited **Game of Logging** classes combining demonstrations with hands-on training

818 people trained through NYCAMH

PPE and Safety Gear Program

Personal protective equipment at cost to farms, with

Over 2,100 transactions and counting...

World-Class Resources

- 📖 Technical assistance
- 📖 Health and safety library
- 📖 Innovative research by internationally recognized specialists
- 📖 Free multimedia safety educational materials



The **National ROPS Rebate Program** originated in NY, and has retrofitted lifesaving rollbars on more than

1,900 tractors statewide, saving NYS over

\$4 Million since inception

nycamh.org

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