

Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

Dairy Education

Farm Business

Grazing

Field Crops

Soil Health

This past year had its share of ups and downs for dairy farmers. While milk prices reached record highs, much of the margin was consumed by rising input costs driven by inflation and supply chain issues. Employee management is a growing concern for large and small farms alike, who face climbing labor costs and a competitive labor market. Organic dairy producers experienced perhaps the most challenging year in their history due to a leap in organic input costs, flat milk prices, and a drought that cut short the grazing season. In the face of these challenges, our South Central NY Dairy and Field Crops Team continues to be a trusted source for timely, research-based education and support to help local dairy and crop farmers achieve their goals. This year the team delivered a wide range of virtual and in-person programs to meet the diverse educational needs of our dairy and field crop community.

Janice Degni, Team Leader



Cornell Cooperative Extension links the research and extension efforts at Cornell University, and Cornell AgriTech, the New York State Agricultural Experiment Station, providing the knowledge to maximize New York State's agricultural and natural resources. The South Central New York Dairy and Field Crops Program is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in 6 Counties.





Workshops and Applied Research Projects Help Farmers Improve Herd Health

Lameness is one of the costliest herd health issues on dairies. Producers continuously work to reduce lameness by improving herd management protocols and facilities. This year, we offered a virtual workshop in collaboration with PRO-DAIRY educators that explored the research on lameness, its causes, and mitigation strategies. The 150 participants learned about practical solutions they could implement right away.

Building on this successful winter program, Betsy Hicks organized a summer discussion group around the Economics of Lameness with funding from the Dairy Advancement Program, in collaboration with Lindsay Ferlito from Northern NY. Nine dairies tracked costs related to lameness and hoof trimming for three months. Each farm received a whole-herd lameness assessment at the beginning and end of that period. The group met for discussion using a report that compared each individual farm to the rest of the group. By linking economic data with lameness assessments, the Economics of Lameness Discussion Group provided actionable information that motivated farms to make management changes. The results from this applied research project will be published so any dairy farm can use the same methods to assess lameness and compare their own performance to our industry benchmark.



Betsy Hicks,
Dairy Specialist

Dairy Education

Feeder Schools, Helping Farms Increase Profitability & Skill

Feeder School, a collaborative effort between regional Dairy Educators across NY and Cornell PRO-DAIRY, was held in two locations in the SCNY region this fall. At both the Cortland and Auburn site, the workshop was offered in both English and Spanish. Over 40 participants attended the school, which aimed to provide learners with opportunities to learn about skills related directly to their job roles. Feeders on dairy farms have one of the most important roles, as the way their job is done can impact profitability greatly. Attendees were able to discuss key job responsibilities and best practices with their peers, talk about minimizing shrink and ways to impact it, and learn more about safety, equipment maintenance, and bunk management as well as herd dynamics and nutrition. Demonstrations as well as guest presenters from PRO-DAIRY and industry representatives were utilized to help aid the workshop. One farm manager after speaking with his employees shared, "They both said it was an excellent class and the one employee that has been to several feeder schools said this was the best one he has been to yet. Thanks for all you and your team do."



"...this was the best one he has been to yet. Thanks for all you and your team do" A local farm manager

Helping Small Dairy Producers Access Big Grant Dollars

When new grant and funding opportunities arise, our team is quick to identify producers in the region who could qualify and encourage them to apply. In the fall of 2022, we promoted the new On-Farm Milk Storage and Handling Grant, administered through the Northeast Dairy Business Innovation Center. Mary Kate provided technical assistance to three farms that applied and wrote letters of recommendation for them. Because of their past participation in recordkeeping and financial analysis programs, these farms were able to list Mary Kate as a financial advisor, which added value to the application. When the winners were announced, two of these three farms were among them! Each farm will receive \$50,000 toward a new bulk tank and associated milk-handling equipment. Considering the matching funds requirement, these grants will drive close to \$150,000 in total capital investment in these two local businesses. These projects will have a tremendous impact on farm viability by saving time, energy, and money. The new equipment will also improve milk quality, leading to better food safety and a higher milk price. This grant was extremely competitive, and our two winners believe that their relationship with the Dairy Team gave them a big edge over the competition. The farm that was not initially awarded a grant was invited to apply for a second round of funding exclusively for organic dairies.

On-Farm Examples Educate Producers about Lean Management

Farmers often learn best from their peers, and labor management topics are no exception. After presenting several examples of on-farm labor saving projects at the 2022 Northeast Dairy Management Conference, Mary Kate developed print and digital resources to illustrate how NY dairy farms have adopted Lean Management. In June of 2022, her article titled "Lean Management: Practical Applications and Challenges on Dairy Farms" was published in Progressive Dairy and the Cornell Small Farms Quarterly, with a combined print circulation of over 50,000. Prior to publication, Mary Kate led the development of a new Lean Management section on the Cornell PRO-DAIRY website. This site uses text, videos, images, PDF downloads, and interactive widgets to educate producers about Lean Management. An On-Farm Examples page offers nine success stories that clarify some of the more abstract concepts associated with Lean Management. It also gives managers a list of possible Lean improvements, and associated impacts, that they might be able to replicate on their home farm.

Business Management

Mary Kate MacKenzie,
Farm Business Management Specialist



Agricultural Businesses Improve Tax Management Skills at the CCE Farmer Tax School

The CCE Farmer Tax School Series was an incredible success. With 4 courses, 6 webinars, 8 instructors, and 430 participants, this statewide collaborative model will continue to lead Farm Business Management efforts forward in the spirit of virtual programming. CCE Farm Business Management Specialists offered a series of educational courses to empower farm managers with skills and knowledge to better understand and manage their tax obligations. Topics presented during the 2021-22 winter program season included:

- Income Tax Planning for Farms that File a Schedule F
- Farm Financial Records for Decision-Making and Tax Management
- Tax Management for Beginning and Small Farm Businesses
- Farm-Specific Tax Code Benefits
- Each course included a robust curriculum with analysis, discussion of real-life examples, supporting resources, and ample time for interactive Q&A sessions. More than 400 farm owners and managers from across New York State gained knowledge and skills to improve tax management for their farm businesses. Almost 10% of participants were from our SCNY region.

Growing Great People Workshops Equip Dairy Workers to be Better Trainers

Human resource management is a growing concern for farm operators across New York State. Employee training is a critical HR management practice, yet many people who train others on farms have never received any training themselves on how to do so effectively. We partnered with Cornell Ag Workforce Development to host a "Growing Great People: Training Skills for Dairy Farmers" workshop at two locations in our region. We had a strong turnout across the two sessions, with 31 participants from 16 dairy farms. These farms employ a total of 440 workers managing over 26,000 dairy cows! By giving their employees better training skills, the workshop has the potential to improve the effectiveness of training practices reaching a large number of dairy workers. By offering the program simultaneously in English and Spanish, we made it accessible to Spanish speakers, who made up about one-third of the total audience.



Farm-Level Impacts

- Three farms developed crop and fertility plans with direct support from our field crop specialist. The plans targeted manure applications to meet as many nutrient needs as is environmentally sound. This planning aims to meet fertility needs while controlling fertilizer costs.
- Fourteen dairy farms received recordkeeping and financial analysis education through participation in the Dairy Farm Business Summary, including three new farms in 2022. These farms strengthened their business planning skills while contributing financial data to a statewide applied research effort. Operators identify strengths and opportunities for improvement by comparing their DFBS reports to their own performance in past years and to the performance of other dairies in the current year.
- Train-the-trainer workshops help to build a strong and stable agricultural workforce in our region. Sixteen dairy farms representing a total workforce of 440 people sent employees to our two Growing Great People workshops. Thirty-one workshop participants improved their capacity to plan and deliver effective trainings for other workers.
- We promoted a new On-Farm Milk Storage and Handling Grant opportunity to farms across the region, and we provided direct support to three farms that applied. Two of the three farms were each awarded a \$50,000 grant to upgrade their bulk tanks and invest in additional improvements to their milk-handling equipment.
- We worked with 9 farms to evaluate lameness and make changes to improve hoof health. These preventative measures help to improve animal welfare, increase productivity, and reduce the costs of treating lameness in the herd.
- Fourteen cooperating farms were involved in applied research on farms to better understand the incidence of seed corn maggot and the number of generations in a season. This research will inform future management options, if current control methods are restricted.

2022 Program Highlights

- Education was developed to bring attention to and build understanding about the challenge of greenhouse gas emissions and steps the dairy and field crops industry are taking to reduce those emissions. Newsletters articles provided background and informational resources. The Winter Crop Meeting series addressed, Methane Role in Global Warming and Current and Future Opportunities to Decrease Enteric Methane, A Realistic Outlook for Carbon Markets, and Net 0 and Dairy Sustainability. Issues and actions for reducing emissions that impact our warming global climate were explored.
- A six session Weed ID and Control Series provided current information and weed management strategies and options for control including herbicide mixes for pre and post timings, difficult to control resistant weeds, and emerging non-chemical techniques for controlling weeds. In addition to sound recommendations, participants earned NYS DEC recertification credits to maintain their application licenses.
- Under the statewide CCE Farmer Tax School umbrella, CCE farm business management specialists delivered 4 classes consisting of 6 webinars that provided tax management education to 430 participants, including 41 from our SCNY region.
- We collaborated with ag educators across our region to host a series of 5 pasture walks featuring beef, dairy, sheep, and multi-species grazing operations. We provided education about rotational grazing, custom grazing, soil health, stockpiling forages for winter grazing, and direct marketing. Ninety-five attendees benefitted from our grazing education in 2022.
- Farmer-to-Farmer Discussion Groups analyzing financial performance using the Dairy Profit Monitor and the Dairy Farm Business Summary brought together over 12 farms to discuss a variety of topics and management strategies.
- Dairy Manager Discussion Group meetings met three times and addressed: the dairy price risk management tools, Dairy Margin Coverage (DMC) and Dairy Revenue Protection (DRP) including their rules and triggers for payment. The costs of dairy labor and management strategies for controlling them and the application of LEAN management techniques in dairy were discussed.
- Feeder school focused on skill building of 40 farm feeders in attendance. The feeder's performance can greatly impact profitability. Attendees were able to discuss key job responsibilities and best practices with their peers, while learning about safety, equipment maintenance, and bunk management as well as herd dynamics and nutrition.
- Activities that focus on targeting the timing of crop harvest for optimum feed quality (alfalfa measurements & corn silage harvest clinics) help dairy farms improve their bottom line by controlling purchased feed expenses, one of the larger production expenses. Weekly updates are delivered to farmers and agri-service providers who help to multiple the impact.
- Field assessments and trouble-shooting during the growing season helped farmers avert crop damage, evaluate options, and identify solutions for crops impacted by very dry conditions, pest management and other agronomic issues.
- Articles by team members or interviews were featured in Country Folks, Cornell Small Farms Quarterly, and the Cortland Standard.
- Two CCE Summer Interns were mentored by our team leader in partnership with the CALS summer intern program and the Cornell Nutrient Management Spear Program. The interns were exposed to CCE as a career path. The interns reported learning about extension, sustainability issues and their implementation in the dairy industry.
- The team delivered 54 educational events including webinars, meetings, workshops, tours or clinics, totaling 110 hours of instruction and reaching 1052 participants.

Pasture walks support farmer-to-farmer grazing education for a diverse audience

This summer our team collaborated with county association staff to offer five pasture walks across four counties, featuring dairy, beef, sheep, hog, and poultry producers. Our involvement in planning, promotion, and day-of facilitation enhanced the turnout and educational value of these programs. Our specialists delivered presentations and supported peer-to-peer learning about rotational grazing, soil health, pasture compaction, custom grazing, and stockpiling forages for winter grazing. Paul Gier from Tompkins County SWCD shared his appreciation: "I wanted to give thanks and a big positive shout-out on the outstanding grazing tour yesterday in Candor! I got a lot of takeaways from this tour, not just on grazing but on the support infrastructure as well. Thank you again for organizing this event. Yes, please, to more of these on-farm, in-field events! Can't beat the outdoor classroom."



South Central Dairy & Field Crops Team

Grazing

Organic Dairy Task Force influences USDA to even the playing field for NY Dairies

Under Fay Benson's leadership, the NY Organic Dairy Task Force has educated and empowered producers to address industry issues for more than 16 years. The task force includes farmers, milk cooperatives, and other supporters of the state's organic dairy industry. This year the group achieved a major victory. After studying how the USDA Organic Standards were being upheld more strictly in the Northeast region versus the West, and documenting higher production costs for NY dairies as a result, the task force pressured the USDA to clarify the standards to ensure fair and equal treatment across the country. Five months later, in March of 2022, the USDA adopted changes to the Origin of Livestock rule that eliminated loopholes and improved the competitiveness of organic dairies in New York.

A. Fay Benson,
Small Dairy Technology Specialist

Organic Dairy



Producers learn ways to reduce greenhouse gas emissions at Winter Crop Meeting

Farmers have an important role to play in developing and adopting climate solutions. To do this, they need information about the complex relationships between climate change and agriculture. Under Janice Degni's leadership, our annual Winter Crop Meeting tackled this need head-on with expert Cornell faculty presenting the latest science on greenhouse gas emissions in dairy and field crop production systems. Offered as an accessible series of one-hour virtual meetings, topics included an introduction to emissions, practical tools for monitoring, strategies for reducing emissions, and markets for carbon offsets. In total, 97 attendees benefitted from this 5-part series.

Corn Silage Clinics Influence Harvest Decisions for 4,000 Crop Acres

Corn silage is a major component of the diet of most NY dairies. Timing the fall corn harvest correctly to optimize quality is critical for the health and productivity of dairy herds. Harvesting high-quality corn silage can significantly reduce a farm's dependence on purchased grain, the single largest expense for most dairies, and improve their bottom line.

In the fall of 2022, our team hosted two corn silage clinics to help farmers evaluate the condition of their corn and plan for optimal harvest timing. The clinics reinforce recommended best practices to capture and preserve the high nutrient value of the crop while minimizing losses. The corn silage crop was highly variable this year, with dry conditions impacting crop development and maturity. Twenty producers brought corn silage samples to be tested from multiple fields across their operations. We partnered with John Winchell from Alltech to utilize an NIR machine for rapid testing. The producers valued the real-time information about their crop readiness for harvest at the field level, and the assistance in planning harvest decisions. Our two clinics influenced harvest decisions affecting a total of approximately 4,000 corn silage acres.

Field Crop Education

Janice Degni,
Field Crop Specialist



Alfalfa Monitoring for Optimum Forage Quality Reaches New Audiences in 2022

Research has shown that alfalfa height is a reliable indicator of forage quality for both alfalfa and grass hay. By tracking alfalfa heights each week, we can calculate growth rates and predict first cutting harvest dates. Harvesting the first hay cutting at the right moment provides the greatest opportunity to produce a high volume of quality feed. Farms that do first cutting on time can feed more hay and less grain, which leads to healthier cows, more milk, and lower feed costs.

In May of 2022, our team recorded weekly alfalfa height measurements from 68 fields across 7 counties. We rapidly disseminated this data by email to 485 subscribers, including 230 new subscribers from Cayuga County, and by mail to 14 Amish dairy and livestock farms in Tioga County. To help farmers interpret this data, our team provided education and resources on forage quality and harvest timing through the blog, social media, Dairy Digest, and personal communications. Farmers, nutritionists, crop consultants, and other agricultural service providers use our information to guide harvest planning decisions. This impact has grown over time as more producers and agribusinesses learn about the research supporting this method and view our team as a trusted source for production information.



<https://scnydfc.cce.cornell.edu/>

60 Central Ave. Room 140, Cortland, New York 13045

For more information on the South Central Dairy & Field Crops Team,
contact Admin at 607.391.2662 or dg576@cornell.edu.

National Recognition

Mary Kate MacKenzie recognized by the
National Association of County Agricultural Agents



Mary Kate MacKenzie received the Achievement Award from the National Association of County Agriculture Agents during the 2022 Annual Meeting and Professional Improvement Conference in West Palm Beach, Florida on July 19. Mary Kate was one of several honorees who represent the top one percent of the membership selected by their peers. The Achievement Award is awarded to Agents with less than 10 years of service in the Cooperative Extension Service who have exhibited excellence in the field of professional Extension.



Donette Griffith,
dg576@cornell.edu / 607.391.2662
Team Administrative Assistant



Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

The South Central NY Dairy & Field Crops Program provides educational opportunities and technical assistance to help the industry with emerging issues, production bottlenecks, and new technologies. Our primary audiences are dairy and field crop producers as well as agri-service providers with secondary audiences of the media, non-farm residents and consumers. We focus on areas that will help improve farm profitability within the region since farm financial success is a key to maintaining a viable dairy and field crops industry. Our program's education helps our industry respond to both internal and external forces that help it keep pace in a rapidly changing world.

Our Mission:

- Enhance the profitability of farmers to maintain a strong regional dairy industry
- Create greater awareness of trends and options to help producers achieve family and business goals
- Maintain environmentally responsible agricultural practices
- Encourage a better understanding of agriculture by the general community