

Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

Dairy Education

Farm Business

Grazing

Field Crops

Soil Health

What Value Does Your Regional Dairy and Field Crops Team Bring to its Stakeholders?

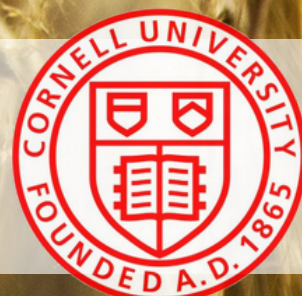
Extension Regional Agriculture Teams provide up-to-date technical and management information to agricultural producers across the broad diversity of ag commodities in NYS from grapes to berries and vegetables to dairy and field crops as well as local food campaigns and farm-to-school purchases. Regional team specialists develop and deliver relevant programs with professionalism and continuity of service.

Your team helps to leverage limited financial resources. We expand the commodity-specific technical expertise across the regions that we serve. We are an important resource to the entire extension system working with faculty and local association educators. The regional team structure reduces attrition of knowledgeable and talented staff and brings stability to the system.

The stories in this Annual Report provide examples across a range of management and production areas that are important and relevant to our dairy and field crop farmers. Program Highlights and Impacts are outlined on pages 4 and 5.



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.



Cultivating Farm Success: The Impact of Personalized Consultations

Farm-level transformations unfold gradually through the cultivation of relationships with farmers, yielding positive impacts on animal health and profitability. A cornerstone of this success lies in the often unseen yet pivotal role played by extension educators during one-on-one consultations.

While workshops and demonstrations are integral, the personalized guidance offered in on-farm consultations becomes the catalyst for impactful changes. Although this work might not be spotlighted in photographs or articles due to its confidential nature, the rewards are profound as farmers integrate our insights into their daily operations.

Throughout the year, farms benefited from tailored consultations on various topics. For instance, three farms sought assistance in calf barn ventilation. Collaborating with Tim Terry of PRO-DAIRY, personalized recommendations were provided, including investments in positive pressure tubes and small management changes to boost calf health.

Ongoing support for grazing and pasture management, profit team meetings, and focused efforts on reducing lameness or navigating farm succession highlight the diversity of our consultations. Each farm's unique journey, guided by individualized efforts and collective wisdom, significantly contributes to their resilience and success.



Dairy Education

Betsy Hicks,
Dairy Specialist



Calving Skills Workshop Offers Hands-on Training in English & Spanish

Handling challenging calvings is crucial in dairy herd management, demanding precision in time-sensitive situations. Limited hands-on practice opportunities, especially for malpresentations, pose a significant challenge, particularly for Spanish-speaking maternity pen managers.

Dr. Rob Lynch of Cornell PRODAIRY addressed this gap by securing a bilingual calving and dystocia model. Regional dairy educators collaborated to organize "Calving & Dystocia Workshops" across New York, including bilingual sessions in Ithaca and Auburn.

Led by Daniela Gonzalez, a native Spanish speaker, the workshops focused on normal calf presentation, pulling techniques, and correcting malpresentations. Attendees, including sixteen Spanish-speaking and four English-speaking participants, gained hands-on experience with the calving model, honing practical skills for real-world farm scenarios. The workshops emphasized post-calving care for cows and calves, contributing to improved overall herd health.

This initiative not only bridges language barriers but also enhances the proficiency of Spanish-speaking maternity pen managers, empowering them with essential calving skills.



Helping Small Dairy Producers Access Big Grant Dollars

In 2022, our proactive efforts enabled three regional small dairy farms to secure the On-Farm Milk Storage and Handling Grant from the Northeast Dairy Business Innovation Center. Mary Kate, a key team member, provided technical assistance and recommendation letters, leveraging the farms' past engagement in recordkeeping and financial analysis programs.

Our strategy focuses on identifying eligible producers and offering support in grant applications, especially for small dairy producers who often lack guidance. We assist in meeting matching fund requirements, crucial for investing in necessary equipment.

Strategic collaborations, such as with the Dairy Team, provide small producers with networking opportunities, enhancing their competitiveness in grant applications. We also offer specialized assistance for organic dairy producers. The initial round of winners secured \$50,000 each for new equipment, translating to a significant \$150,000 total capital investment, improving efficiency and milk quality. Even a farm initially missing the grant secured \$37,000 in a second round for organic dairies.

In summary, our tailored support has injected significant financial resources and operational improvements, fostering sustainability and growth in the industry.

Business Management

Mary Kate MacKenzie,
Farm Business Management Specialist



Enhancing Dairy Management: Cornell's DFBS Impact

The Cornell Dairy Farm Business Summary (DFBS) project is a cornerstone of CCE's dairy business management education in New York State. This project, led by Mary Kate, is crucial in aiding farmers to improve accounting, financial analysis, managerial skills, and business planning.

In the first quarter of 2023, Mary Kate collaborated closely with 15 dairies, assisting two in rejoining DFBS after a COVID-19-induced hiatus. Completion ensured representation in the widely-used 2022 Progress Report by PRO-DAIRY.

DFBS provides participating farms with detailed benchmarking reports, allowing them to identify strengths, weaknesses, and opportunities for improvement. This process encourages farms to refine their financial and production record systems, adding greater value.

In collaboration with Cornell University's Dyson School, PRO-DAIRY, and extension staff, these projects significantly contribute to the financial benchmarking and decision-making capabilities of dairy producers in the state. The collective effort aids farmers in navigating challenges, fostering continuous improvement in their operations.



Farm-Level Impacts

- SCNYDFC Specialists participated in three different farms' profit team meetings, held quarterly, to help address ongoing farm changes and needs as well as profitability.
- 25 attendees at a tie-stall ventilation workshop learned how to calculate the needs for their facilities for different seasons properly. Four farm visits resulted from this workshop, where farmers got further assistance with their own facilities' ventilation needs. Changes based on recommendations were made, alleviating respiratory illness in calf pens.
- Six farms in SCNYDFC participated in a statewide grant project, "Healthy Herds", receiving a cow comfort assessment, parlor assessment, and herd records assessment. Farms were able to compare data to the 18-herd benchmark and make changes based on farm goals.
- Over 14 dairy farms received recordkeeping and financial analysis education through participation in the Dairy Farm Business Summary analysis. 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 performance in past years and other dairies' performance in the current year.
- Mini Feeder trainings were held at a Shop Meeting, as well as on individual dairies, following the 2022 Feeder School held in two locations in the region.
- Calving workshops were held in three locations featuring a life-size model that allowed hands-on training for difficult calvings. Presentations were in both English and Spanish.
- A calf summit with a large group of dairies was held in conjunction with the farms' nutritionists and veterinarians. This summit included a comparison of protocols, calf health, and records across farms, where calf managers could compare notes and ask questions to all in the room.
- A large dairy successfully updated its FARM policies during the summer of 2023. In conjunction with the herd veterinarian, Betsy held several meetings to provide continuing education to Spanish-speaking farm staff in the areas of calf care, transition cows, down cows, euthanasia, and stockmanship.
- A dairy received a foot health deep dive from Betsy, which included two locomotion assessments six months apart, plus a year's worth of trimming data analyzed into one report.
- Beef x dairy survey data was summarized and disseminated through a white paper, available on the team website and blog, as well as on Cornell eCommons. This white paper informs on beef x dairy practices on dairy farms, a growing sector within both the beef and dairy industries. Presentations were given via webinar and in person to answer questions about practices discovered in the survey. Results are posted here: https://nydairyadmin.cce.cornell.edu/pdf/impact_ny/pdf210_pdf.pdf

2023 Program Highlights

The team delivered 35 educational events including webinars, meetings, workshops, tours, or clinics, totaling 96 hours of instruction and reaching 910 participants.

In conjunction with Texas A&M, Betsy held two “representative dairy farm” meetings in the region. These meetings help policymakers be more informed about dairy farm operations in the CNY region.

Integrated crop management and environmental stewardship were addressed in a 6-week webinar series entitled Maximizing Fertilizer Efficiency with Peak Fertilizer Prices. This series resulted from the collaboration of Janice Degni, Area Field Crop Specialist, Dr. Kitty O'Neil, NCRAT; Jeff Miller, CCE Oneida; and the Cornell spear nutrient management program. In 2021 fertilizer prices reached a 30-year high, resulting in a need for farmers to make the best use of their fertilizer dollars. The series reached 122 participants over 6 weeks.

Growing season field assessments and troubleshooting helped farmers avert crop damage, evaluate options, and identify solutions for crops impacted by very dry conditions, and other agronomic issues including identification of new, troublesome weeds.

Articles by team members were featured in Hoard's Dairyman, Progressive Dairy, Country Folks, Cornell Small Farms Quarterly, the Cortland Standard, and GRAZE Magazine.

SCNY staff supported 4-H fairs across the region through assistance during market sales, helping at dairy shows, exhibiting displays, providing activities for youth, and judging master showman classes.

An Equipment Maintenance & Safety Meeting was held to share best practices for skid steer and tractor maintenance, in both English & Spanish. The 16 attendees heard from NYCAMH on safety and a local equipment dealer on maintenance needs.

Janice & Betsy presented at the virtual Farm Sustainability Conference organized by the SCNY Ag Educators on topics including Transitioning from Dairy to Beef and Soils: The Foundation of Production.

A new podcast, in collaboration with PRO-DAIRY and other regional dairy educators, “Cornell Cow Convo”, was released in November. These monthly podcasts include new and current topics relevant to the dairy industry and feature dairy farmers as well as Cornell faculty as guests on the podcast. It can be found on the CCE Dairy Educator Soundcloud Channel. (<https://soundcloud.com/user-301921459-118136586>)

Technology Tuesday webinars were held to provide information on new tools available to dairy farmers. This series of seven webinars is viewable on the Team's YouTube Channel. (<https://www.youtube.com/channel/UC2xMuF9VVtHqfTprPS1X3GA>)

Annual monitoring of alfalfa for timely harvest occurred this year on 53 fields across our six-county region for four weeks in May. This effort helps farmers target peak quality for the largest portion of their hay crop harvest.

Farm visits to assess corn readiness for harvest helped farmers plan the timing of harvest to optimize crop nutrition and fermentation.

Feeder Schools: Elevating Dairy Farm Proficiency

Feeder workshops are pivotal in enhancing the skills and knowledge of dairy farm employees responsible for feed mixing, a role crucial for overall profitability. Recognizing the significant impact of feed-related tasks on dairy expenses, Feeder Schools have emerged as collaborative efforts between regional Dairy Educators across NY and Cornell PRO-DAIRY.

Conducted at two SCNY locations, Cortland and Auburn, these workshops catered to English and Spanish-speaking participants. With over 40 attendees, the schools provided invaluable opportunities for skill development and knowledge exchange. Demonstrations and insights from PRO-DAIRY and industry experts enriched the sessions.

Participants delved into key responsibilities, discussing aspects such as minimizing shrink, ensuring safety, maintaining equipment, effective bunk management, understanding herd dynamics, and optimizing nutrition. The collaborative learning environment allowed for the exchange of best practices among peers. Positive feedback from a farm manager highlighted the impact, with employees praising the class and one participant deeming it the best feeder school attended. These initiatives play a vital role in boosting the proficiency and impact of those involved in feed mixing and delivery on dairy farms.

Dairy

South Central Dairy & Field Crops Team

Tackling Seed Corn Maggot Threat: Applied Research for Crop Protection

Seed corn maggot, a persistent menace to corn and soybean and other crops, is under scrutiny. Applied research seeks to better understand and develop recommendations to manage its economic impact. Recognized for causing significant yield reductions, especially as the current neonic seed treatments face potential discontinuation in 2025, alternative controls are urgently being explored.

Statewide research plots result from coordinated efforts led by NYS IPM, Cornell's Poveda Lab, and CCE field crop educators. The 2023 research protocol, uses sticky traps and seed traps to assess maggot prevalence and feeding damage, offering vital insights into the risk of crop damage.

Recent studies at the Cornell Musgrave Farm in 2021 revealed economic damage in 54% of non-insecticide seed-treated plots after a cover crop and 38% in continuous corn production. These findings underscore the need for effective control measures.

Cornell researchers are investigating environmental factors influencing maggot behavior, aiming to provide evidence-based recommendations for growers. This research will contribute to a comprehensive strategy for managing this pest and preserving crop yields.

Janice Degni,
Field Crop Specialist

Field Crops

Strategic Nutrient Management in the Face of Rising Fertilizer Costs

Facing record-high fertilizer prices and supply chain challenges, a 6-week virtual nutrient management series was organized in spring 2022 by Janice Degni, Dr. Kitty O'Neil, and Jeff Miller. The series, "Maximizing Fertilizer Efficiency with Peak Fertilizer Prices," anticipated and addressed the 2nd year of elevated costs.

In winter 2023, a comprehensive seminar series tackled nutrient management, attracting 151 participants. Rooted in the 4-R fertilizer stewardship principles, topics covered planning for efficiency, the value of manure, and crop-specific fertility strategies. The sessions emphasized achieving efficiency through the right source, rate, time, and placement.

Discussions included the impact of manure tools, tillage depth, and precision technologies on nutrient efficiency. Crop-specific strategies for corn, wheat, oats, soybean, and hay crops were explored, addressing the challenges of high fertilizer costs. An informal shop meeting further discussed nitrogen needs for corn, emphasizing soil testing and strategic manure use. This holistic approach equips farmers with practical strategies to navigate challenging fertilizer costs while optimizing nutrient management for sustainable and cost-effective crop production.



Field Crop Education

Janice Degni,
Field Crop Specialist



Nurturing Sustainable Agriculture: Soil Health Initiatives

Elevating soil health practices is vital for agricultural sustainability and resilience. Janice led targeted educational sessions at events like the Winter Crop Meeting, Tioga County Soil Health Meeting, and CNY Farming Series. Recognizing challenges in the widespread adoption of no-till, experiences shared by Mr. George Foster underscored the need to overcome barriers. Keynote speakers, including Mr. Foster, highlighted successful soil health practices, emphasizing benefits such as increased water infiltration and reduced compaction during the Winter Crop Meeting.

Jodi DeJong-Hughes from the U of Minnesota Extension provided practical strategies for reducing field compaction, reinforcing the importance of research-based remediation. Janice, in collaboration with the Tioga County Soil and Water Conservation District, organized a Soil Health meeting, addressing cover crops and reduced tillage.

In the CNY Farming Series, Janice delivered the presentation, "Soils: The Foundation of Production". Participants gained information crucial for promoting soil health and fostering sustainable agriculture. These initiatives contribute to building a resilient and environmentally conscious farming community.



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

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For more information on the South Central Dairy & Field Crops Team,
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Farewell and Best Wishes



It's truly a bittersweet moment to offer our warmest congratulations to Mary Kate MacKenzie, our farm business management specialist, who in August of 2023 accepted a well-deserved position with the NYS PRODAIRY program. This promotion is a testament to her contributions in the field with dairy producers and others, hard work, and leadership. Mary Kate not only helped many stakeholders with her technical expertise but also contributed much to the success and camaraderie of our team. We believe Mary Kate will continue to excel and inspire in her new role.

In bidding farewell to Fay Benson, our esteemed colleague who retired in September of 2023, we acknowledge his unwavering dedication to serving organic and small dairies but also his independence in addressing their unique issues and developing education programming to serve them. Throughout Fay's tenure, he demonstrated a rare blend of commitment and self-direction, leaving an indelible mark on our team. We appreciate his invaluable contributions to our farm community. As he moves into his well-deserved retirement, we extend our warmest wishes for a future filled with joy and fulfillment.

Wishing both of our retiring and promoted colleagues all the best in their respective endeavors.



Donette Griffith,
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Team Administrative Assistant

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