Dairy programming this winter focused on workshops to help dairy farmers implement practical solutions for their herds. Three workshops held virtually over this quarter concentrated on genetics for the commercial dairy, understanding and mitigating lameness, and updates on the FARM 4.0 program.

**Implementing Practical Genetics for the Commercial Dairy**
This series of meetings brought together over 40 participants over 5 weekly meetings in February and March. Based on Dr Heather Huson’s Applied Genetics course at Cornell University, it gave participants an understanding of how to use genetic information to reach herd goals. Topics included an overview of genetics evaluations and how to read results, inbreeding and crossbreeding, how to use genetic evaluation results to make management decisions, and how to use genetic evaluations in marketing, as well as selecting and marketing cows. A final in-person workshop led participants through examining evaluation data of their own herds and creating personalized indexes that can be put into use on their own dairy. This was a collaboration between Dr Huson, professor at Cornell, PRO-DAIRY and the regional Dairy Educators with CCE.

**Understanding and Mitigating Lameness**
Lameness is a frustrating and costly issue for many dairy farmers. This workshop aimed to cover how to identify lameness, uncovering risk factors for lameness and practical strategies to avoid and mitigate lameness in a herd. Presenters included Lindsay Ferlito (CCE NCRAT), Margaret Quaassdorff (CCE NWNY DLFC) and Betsy Hicks (CCE SCNY DFC), as well as invited speaker Dr Jan Shearer of Iowa State University College of Veterinary Medicine. Participants, after attending the workshop, should know the economic impact of lameness, be able to identify areas in their facility to focus on to mitigate problems, implement best practices for foot baths, and be better able to identify lameness earlier along with implementing a routine foot trimming program. Over 150 people registered for this workshop, which will be available on the team’s YouTube channel. This workshop, a collaborative effort between PRO-DAIRY and regional CCE educators, utilizes the strengths of our regional educators to provide a solid program that is relevant to our dairy farmers across the state.

**F.A.R.M. 4.0 Updates & Insights**
“Launched in 2009, the FARM Program was created by the National Milk Producers Federation in partnership with Dairy Management, Inc. The program helps ensure the success of the entire dairy industry by demonstrating U.S. dairy farmers are committed to producing high quality, safe milk with integrity.”
Over 95% of dairy farmers in the US participate in the FARM Program, a program in which standards are revised every three years to reflect the most current science and best management practices within the dairy industry. FARM 4.0 was put into place January 1, 2020, right before the pandemic started affecting our world. As things start to ease and more farms are being audited, farm managers want to be prepared for their eventual audit. Together with Lindsay Ferlito (CCE NCRAT, a trained FARM evaluator), Betsy held a workshop for dairy farmers to go over the main changes from FARM 3.0 and offer insight into industry practices. This meeting was recorded and will live on the team’s YouTube channel so that others can reference the information at will.
CCE’s collaborative Farmer Tax School provides tax management education to agricultural businesses across New York State  
Mary Kate MacKenzie, Farm Business Specialist

Summary: The CCE Farmer Tax School Series was an incredible success. With 4 courses, 6 webinars, 8 instructors, and 430 participants, this statewide, cooperative 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; and 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 business. Almost 10% of participants were from our SCNY region.

Issues/Needs and Audiences: Farm businesses are subject to complex income tax rules and incentives. Farm operators who understand the tax code are empowered to make better tax planning decisions throughout the year to take advantage of tax benefits, avoid unnecessary penalties, and manage their income tax liability. Beginning farmers need education on recordkeeping and general tax management, while experienced farm operators seek information about tax code updates and more sophisticated tax planning strategies. Ultimately, successful income tax management can strengthen farm businesses and drive business growth through the reinvestment of farm profits.

Extension Responses: A group of eight Cornell Cooperative Extension farm business management specialists and educators came together to launch a statewide “CCE Farmer Tax School” during the 2021-22 winter program season. Educators delivered four online courses, consisting of six total webinar sessions, which covered a range of topics related to farm taxes. By offering a menu of standalone classes with clear learning objectives, farmers could enroll in one or more classes a la carte to address their individual needs and interests. The program provided a mix of introductory and intermediate content appropriate for new and experienced farm operators. We recorded each session to share with registered participants who were unable to attend live.

Accomplishments and Impacts: The CCE Farmer Tax School had 430 registrations/attendees overall, including farm owners and managers, tax preparers, CCE educators, FarmNet consultants, and industry representatives. There were 282 farms represented, many with multiple participants, from 48 counties across many different agricultural commodities and business cycle stages. Participants either attended live or watched webinar recordings. These videos are unlisted on YouTube and have over 200 views so far.

In Farm Financial Records for Decision Making & Tax Management, 71 participants learned how to record and classify farm business transactions, including operating revenues and expenses, capital expenditures, and loan payments. These skills provide a necessary foundation for tax planning and farm financial analysis.

110 participants learned about federal and state income tax regulations in Tax Management for Beginning and Small Farm Businesses. This course emphasized considerations to help beginning and part-time farmers improve tax decision-making.

During the three-part series titled Income Tax Planning for Farms that File a Schedule F, 145 participants learned how to set tax planning goals, identify appropriate tax planning strategies, and work with an accountant to implement them. Participants heard from a professional farm tax preparer who provided tax planning information and answered questions during the third live webinar.

In Farm Specific Tax Code Benefits, 104 participants learned how to take advantage of tax benefits for farm businesses. Enrollees in session also learned about important updates to the tax code for the current tax season. Ninety-eight percent of post-course survey respondents stated that they would recommend this series to a fellow farmer. In the words of the participants, impacts and management changes resulting from participation in this program include:

- “Getting records in order earlier in the cycle”
- “Will meet with accountant sooner…need to start earlier on tax planning and [have] more contact with [my] accountant”
- “A better understanding of record keeping”
- “[Make] sure our 1099’s are all filed”
- “Take time out to organize and keep records weekly”
- “Refocus on tracking business expense and income”

Collaborators: The program planning team included Bonnie Collins, CCE Oneida County; Steve Hadcock, Capital Area Agriculture and Horticulture; Elizabeth Higgins, Eastern New York Commercial Horticulture; Mary Kate MacKenzie, South Central New York Dairy and Field Crops; Dayton Maxwell, Capital Area Agriculture and Horticulture; Joan Petzen, Northwest New York Dairy, Livestock, and Field Crops; Nicole Tommell, Central New York Dairy, Livestock and Field Crops; and Katelyn Walley-Stoll, Southwest New York Dairy, Livestock, and Field Crops. Special Funding Sources: The CCE Farmer Tax School engaged 4 financial service providers as sponsors. This program generated $550 in sponsorships and $3,330 in registration fees.

<table>
<thead>
<tr>
<th>Class Title</th>
<th>Instructional Hours</th>
<th>SCNY Participants</th>
<th>Total Participants</th>
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<td>Farm Specific Tax Code Benefits</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td><strong>10.5</strong></td>
<td><strong>41</strong></td>
<td><strong>430</strong></td>
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Consumer interest in how their food is produced and government climate policy are two major forces pushing agriculture to explore its environmental footprint, particularly in regard to greenhouse gas emissions.

As we face the urgency of mitigating our contributions to greenhouse gas emissions and their negative impact on climate change there will be new expectations at all levels of society from industry to communities to individuals to take stock of each one's impact on the planet. Agriculture’s contribution to greenhouse gas emissions is estimated at about 10 percent. The energy and transportation sectors have much higher emissions. Nevertheless, all segments of society have to evaluate their emissions and adopt ways to reduce them to the greatest extent possible. We all need to make contributions toward the goal of holding the global temperature increase to 2°C Celsius to avoid even more threatening weather extremes.

New York State’s Plan for moving towards carbon neutrality is defined by the 2019 legislation called the CLCPA or Climate Leadership Community Protection Act, which outlines the goals to reduce the production of greenhouse gases in NYS.

Climate Leadership and Community Protection Act (CLCPA) – Overview

- Carbon neutral economy, mandating at least an 85% reduction in emissions below 1990 levels
- 40% reduction in emissions by 2030
- 100% zero-emissions electricity by 2040
- 70% renewable electricity by 2030
- 9,000 MW of offshore wind by 2035
- 6,000 MW of distributed solar by 2025
- 3,000 MW of energy storage by 2030
- 185 TWh of on-site energy savings by 2025
- Commitments to climate justice and just transition

My annual winter crop meeting was designed to introduce and define the situation and scope of greenhouse gas emissions in agricultural production, particularly for dairy and field crops. Expert Cornell faculty and Extension Associates were invited to present topics in consumable segments of one hour with topics that ranged from introduction to emissions to practical tools for monitoring, emission reductions and markets for carbon offsets.

The opening presentation of the series, Methane’s Role in Global Warming & Current and Future Opportunities to Decrease Enteric Methane, provided an update and assessment of the current state of greenhouse gases in our atmosphere and their impact on changing global climate and an understanding the role of agriculture and opportunities to address emissions. Professors Robert Horwath and Tom Overton presented.

The Value of Manure told with Five Stories, featured Dr. Quirine Ketterings and Kirsten Workmen (PRODAIRY). They presented research tested practices and data findings to answer questions such as; What is the fertilizer replacement value of manure? How does injection of manure in alfalfa impact the crop? What is the carry over benefit of manure application?

Jennifer Wightman, Sr. Extension Associate with the Woodbury Lab in CALS, presented A Realistic Outlook for Carbon Markets which provided an overview of carbon-credits for farm and forest owners, as well as different opportunities and considerations before signing a carbon-credit contract.

The U.S. Dairy Net Zero Initiative (NZI) launched in 2020 as an industry-wide effort working towards achieving the U.S. dairy’s 2050 environmental stewardship goals including carbon neutrality. The final session addressed the Net O initiative in dairy and what it means for dairy sustainability. In their presentation, Ketterings and Godber provided overviews and initial results from the Dairy Soil and Water Regeneration Project and the Dairy Sustainability Key Performance Indicators Project.

I continued to work on various grants and projects that support small dairies in the region, in the state, and in the Northeast. These include:

The New York Organic Dairy Task Force, which I facilitate, has been in consultation with partners in New England to form the “NY-NE Dairy Consortium LLC”. This project’s goal is to address the lack of organic dairy processing in the northeast. It has begun the first phase of this by securing funding to purchase and build a state of the art dairy processing facility in Kingston NY at the site of the former IBM computer manufacturing facility. It hopes to be on line at the end of 2023.

I have two NE Dairy Business Innovation Grants in progress. One is to help current dairy farmers who want to expand their grazing capabilities, and the other is to work with organic dairy farmers to establish the cost and management requirements to raise organic dairy heifers.

In February I completed the NE SARE project on pasture compaction that I have been working on for the past 3 years. I reported my findings at the National Grazinglands Coalition in Myrtle Beach in December. The report described study of using the ratio of penetrometer readings from the same pasture to monitor increase or decrease of pasture compaction. Outcomes of my report have included:

- Contact with a pasture consulting firm in Costa Rica. They plan on duplicating my work to share with their farmers.
- An invitation to do a four state tour with the soil health trailer in June to address pasture soil health and compaction. The invitation came from the “Three State SARE Project” which includes: AFT, Farm Bureau, University of Mass, and the University of Connecticut.
South Central NY Dairy and Field Crops Program

Meetings & Workshops Fall/Winter 2021-2022

Oct 1, 8, 15, 22 | Healthy, Hardy Heifers! Virtual Series Fall 2021 | Sessions 30-45 minutes | Betsy | 91p
29, Nov. 5, 12, 19 | An 8-week virtual series on heifer management topics from post-weaning to calving!

Oct 13, 20, 27 | Income Tax Planning for Farms that File a Schedule F | Mary Kate | 145 (12)p
A three-part series for farms that are already filing a Schedule F covering tax planning and goals, handling farm profits/losses, and strategies to improve your tax position while also working positively with your accountant/tax preparer.

Oct 26 | The Landowner and Utility-scale Solar Decision | Mary Kate | 13 p
CCE offices and zoom. Utility-scale solar development, leasing, and regulations.

Dec 2 | Farm Financial Records for Decision Making and Tax Management | Mary Kate | 71 (7)p
Covering recording income & annual expenses, capital expenditures & depreciation with additional information covering loans & credit card or revolving loan payments, sales of business assets, and deducting losses.

Dec 16 | Managing Organic Milk Quality on the Farm - Virtual / Hybrid Workshop | CALS
Raw milk parameters that influence organic dairy product quality & shelf-life, how to control parameters at the farm.

Jan 14 | Winter Crop Meeting—Session 1 | Virtual meeting; CCA Credits offered | Janice | 40p
Methane's Role in Global Warming & Current and Future Opportunities to Decrease Enteric Methane

Jan 18 | Tax Management for Beginning and Small Farm Businesses | Virtual | Mary Kate | 110 (13)p
Useful tax information enabling participants to be make better tax decisions for their business, federal and state income taxes included as well as NYS specific tax regulations.

Jan 21, Feb 4, 18 | Onboarding Webinar Series for Farm Employers | Mary Kate | 3p
Navigating employment requirements, improving human resource management practices, and enhancing training skills.

Jan 21 | Winter Crop Meeting— Session 2 | Virtual meeting; CCA Credits offered | Janice | 21p
Corn Silage Hybrid Trials 2021 Update & Management Tips

Jan 25 | Farm Specific Tax Code Benefits | Tax advantages available for farms | Mary Kate | 104 (9)p
Jan 27 | Winter 2022 - Dairy Manager Discussion Group Meetings -Part 1 of 3 | Virtual | Betsy | 21p
DMC & DRP: Navigating the options, with Chris Wolf, Cornell University & KC Slade, Crop Growers

Jan 28 | Winter Crop Meeting-Session 3. | Virtual meeting; CCA Credits offered | Janice | 26p
The Value of Manure told with Five Stories

Feb 2—Mar 16 | Field Crop Weed Identification and Control Series 2022 | DEC/CCA Credits offered | Janice | 128 (21)p
Session 1. Broadleaf Weed identification for crop production-Bryan Brown, NYSPIM F
Feb 4 | Winter Crop Meeting-Session 4. | Virtual meeting; CCA Credits offered | Janice | 26p
Carbon Markets - A Realistic Outlook
Feb 8 | NY Certified Organic (NYCO) | Fay | 21 (37)p
Organic Grain Research, Improving Organic no-till, organic hemp grain demand
Feb 16-30 | Implementing Practical Genetecis for the Commercial Dairy | Betsy | 46p
(6 sessions)
How to use genetic information to reach their herd goals. F
Feb 23 | Field Crop Weed Identification and Control Series 2022 | DEC/CCA Credits offered | Janice | 93 (11)p
Session 3. Weed management in corn. Jeff Miller, Field Crop Educator, CCE Oneida
Feb 24 | Winter 2022 - Dairy Manager Discussion Group Meetings -Part 2 of 3 | Betsy | 10p
The Costs of Dairy Labor, with Jason Karzses, Cornell PRO-DAIRY

Mar 2 | Field Crop Weed Identification and Control Series 2022 | DEC/CCA Credits offered | Janice | 79 (13)p
Session 4. Weed management in soybean. Mike Hunter, Field Crop Specialist, NCRAT
Mar 9 | Field Crop Weed Identification and Control Series 2022 | DEC/CCA Credits offered | Janice | 98 (12)p
Session 5. Weed management in hay and pasture. Janice Degni, Field Crop Specialist, SCNYDFC
Mar 15 | Dairy Support Services - Spring Safety Meeting | Hybrid meeting | Donette/DSSC | 110 (10)p
Targets all farm workers who are operating trucks and ag equipment while applying manure and harvesting crops, CAFO credit
Mar 16 | Field Crop Weed Identification and Control Series 2022 | DEC/CCA Credits offered | Janice | 94 (12)p
Session 6. Alternative weed control and weed seed management. Lynn Sosnoskie

Mar 17 | F.A.R.M. 4.0 Updates & Insights | Betsy | 8p
Updates in FARM Animal Care Version 4.0, review target guidelines and identify possible corrective actions, highlights cow comfort and lameness benchmarks from dairies across NYS
Mar 22 | Understanding and Mitigating Lameness, Virtual | Betsy | 150p
Program covers how to identify lameness, what factors cause lameness, practical strategies to avoid and mitigate lameness.
Mar 23 | Winter Crop Meeting-Session, Virtual meeting; | Janice | 15p
Net 0 & Sustainability; Dr. Quirine Ketterings, Olivia Godber
Mar 31 | Winter 2022 - Dairy Manager Discussion Group Meetings - Part 3 of 3 | Betsy | 10p
LEAN & its Application to Dairy, with Mary Kate MacKenzie & Rich Stup