

2019 Annual Report



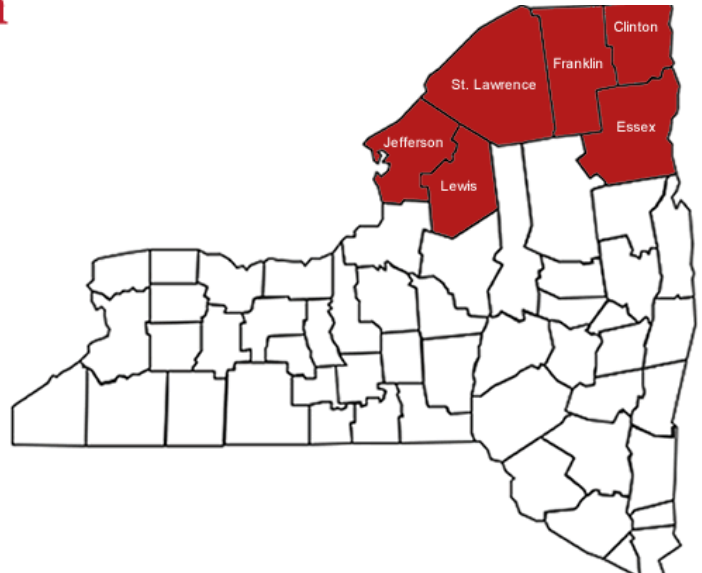
Cornell Cooperative Extension
North Country Regional Ag Team

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Our Mission

“The North Country Regional Ag Team aims to improve the productivity and viability of agricultural industries, people and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton and Essex Counties by promoting productive, safe, economically and environmentally sustainable management practices and by providing assistance to industry, government, and other agencies in evaluating the impact of public policies affecting the industry.”



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2019 in Review

2019 has revealed itself through new and continuing challenges for North Country farmers and agribusinesses. New regulations, unstable weather, and challenging prices have kept all involved in American agriculture using creativity, science, and innovation to clear these hurdles. Despite the challenges, the North Country agricultural landscape is progressive and productive. Our 6 NNY counties generate almost **\$800B in agriculture sales, 14.5% of the NYS total**, on just **12.5% of NYS farms**, or just under **4,200 farms**. The North Country Regional Ag Team has a simple mission - to improve the productivity and viability of these farms and ag businesses, as well as the people and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex Counties. We understand that to remain viable, farms must become more efficient, keeping costs down and productivity high, and to avoid risk wherever possible. We work each day to provide technical support for productive, safe, and economically and environmentally sustainable ag management practices, and we also assist industry, government, and other agencies to do the same. We build our research and outreach plans around 4 primary goals: cultivate community support for agriculture, enhance yield and efficiency of agricultural production, expand sustainable production practices and improve business practices, and risk reduction and profitability. Our team of Ag Specialists work closely with county-based extension educators and ag businesses, with Cornell faculty, and with extension educators statewide to provide accurate and relevant education, research, and consultation on the important current issues for NNY farms. We've learned we must use a range of communication methods to share our science-based information including in-person group programs, one-on-one consultations via phone or text, video presentations for on-demand consumption, etc. This year, we worked to help large and small farms of all types to make good business decisions, advised dairy farms on strategies to enhance animal health and accommodate new regulations, responded to crop management problems, and even had our research results shared with national and international audiences.

This past year, our North Country Regional Ag Team...

- ... brought **14 research projects** to the NNY region with external grant funding from NNYADP, NYFVI, USDA, Cornell CALS, NYS IPM, and private industry. Additional research proposals are being submitted for 2020.
- ... reached over **6,000 program participants** through dozens of single- and multi-session educational and community events. A full slate of educational programs is planned beginning in fall and winter 2019-20 with Dairy Day, Labor Roadshow, Crop Congress, the Hay School/Pasture Workshop series and many others.
- ...collaborated with other Extension Teams, Specialists, and Educators to bring four separate statewide programs to sites in the North Country to ensure Northern NY farmers are gaining access to cutting edge information from across the state.
- ... provided important information to growers, farmers, and consultants through on-demand one-on-one consultations. Approximately **2,000 consultations** (over 7 per day) were provided via phone, text messaging, email, or face-to-face conversations and typically involved follow-up conversations.
- ... focused on making group programs available after the fact as "online learning" resources, recognizing that as the demographic of farm owners and managers begins to change, we will need to adjust our education styles and platform. We did this for at least four programs this year and have plans to continue to expand this number next year.



Please read about some of our accomplishments and impacts in this report. The North Country Regional Ag Team is supported with funds from our 6 counties, New York State, and the federal government. Please contact any of our Specialists for more information.

From left to right: Kitty O'Neil, Kelsey O'Shea, Michael Hunter, Tatum Langworthy, Lindsay Ferlito, and Casey Havekes.

Mike Hunter, North Country Regional Agronomist, Wins 2018 Statewide “Excellence in IPM” Award

In November 2018, the North Country Regional Ag Team and its six county CCE association partners were notified that Mike Hunter had been selected as the recipient of the 2018 ‘Excellence in IPM Award’ from the NYS Integrated Pest Management (IPM) Program. The NYS IPM Program presents these awards annually to individuals or organizations in New York State whose work in integrated pest management deserves special recognition. These awards are presented for exceptional achievements in IPM such as developing new IPM tools, allowing IPM methods to be evaluated in their operations, businesses, or organizations, encouraging demonstrations and adoption of IPM, and promoting IPM and bolstering the adoption of IPM practices. Much of Mike’s work as a Field Crops and Soil Specialist with extension definitely falls into a couple of those categories.

Mike was nominated by a handful of his colleagues in extension and within the IPM program. His nomination was supported by letters from other collaborators within these organizations, as well as by statements from Cornell researchers and some of his farmer clients. All described stellar working relationships and a nod to Mike’s impactful knowledge of relevant crop pests, diseases, IPM protocols, and pesticides. Additionally, Mike’s understanding of specific pest challenges with NYS farm business scenarios – and his eagerness to share his knowledge – have been incredibly valuable to a broad range of NNY and NYS farmers, as well as extension and agribusiness agronomists. One farmer wrote, “when I look over the years of consistent, helpful, and effective recommendations from Mike, I feel he has amply earned this award! Mike is knowledgeable, he understands agriculture, and can adapt solutions to the unique needs of the farm.” Another farmer said, “he can always find an answer to our issue. Whether it is about the herbicide program at a winter meeting or a pest issue in season, I know I can depend on Mike to get us an answer in a timely manner.”

We in extension are very proud for Mike and his award. Over his 16 years working with Cornell Cooperative Extension, he has served in a few different roles, but his fellow educators and agribusiness contacts appreciate and rely on his expertise. Mike’s generosity and willingness to teach others about pests, their impact, and control has massively multiplied his impact in NNY and NYS.



Assessing Calf Health Treatment Rates, Protocol Compliance, and Economic Impact

Prudent use of antimicrobials is of great importance for dairy farms. One of the areas that we can focus on is the use of antibiotics in non-lactating animals, specifically, youngstock. The first step is focusing on disease prevention, then controlling new infections and reducing the risk of spreading the infection to herd mates. For the latter two topics, treatment protocols (and compliance) are important to optimize cure and minimize recurrent episodes. This also reduces the risk of antibiotic overuse, residues, and resistance. In Fall 2017, we applied for a grant with the New York Agricultural Development Program with the following 3 objectives: determine protocol compliance for calfhood illnesses on NNY dairy farms, determine the treatment cost associated with calfhood illness, and bring awareness to antibiotic stewardship to increase consumer confidence in our food supply. In January 2018, the grant was awarded and we began to identify farms that were interested in participating and met the criteria. Treatment protocols were collected in early 2018, and treatment records were collected through August 2018.

Through this project, we discovered that calfhood illnesses appeared at two primary times, 8 to 31 days, and then again at 61 to 120 days. The early timeframe was primarily scours, and the later was pneumonia. The majority of calves experienced at least 2 different illness events, with some calves having as many as 9 different illness events. Average treatment cost per calf per event was \$8.08, but overall treatment cost per calf over the 8-month period was \$18.17.

The two greatest challenges with this project were identifying, and subsequently enrolling farms, that had written calf treatment protocols, and accurate calf treatment records that included: ID, date of treatment, reason treated, drug administered, and dosage. Many farms did not have written calf treatment protocols, and for those that did, many either did not keep calf treatment records, or kept very minimal records that didn't include necessary information. While this was the greatest challenge, it also provided an outreach opportunity and an additional impact. We were able to help numerous producers develop treatment protocols and facilitate the conversations between the producer and veterinarian to fully develop, write and implement treatment protocols as well as use treatment records.

In addition to having a direct impact on the participating dairies, this project reached several more producers and industry representatives across the North County through project outreach efforts. The results were shared at Dairy Day Programs in 4 counties across NNY, and an article was included in the team newsletter (North Country Advisor). This project is a good example of how our research efforts aim to address important and emerging topics, while providing valuable data and information to individual farmers and the North Country dairy industry as a whole.



Photo credit: Lindsay Ferlito.



Soil Health for Dairy Farms Field Day – Big Turnout and Positive Feedback

The concept of “soil health” gets a lot of air time and magazine page inches, and rightly so as it’s a critical topic for long-term farm viability. Soil health is a difficult goal for Northeastern dairy farms to work towards however, as many of the strategies used by other farming systems or geographical regions don’t work well for NYS dairies. The shortened growing season, cropping rotations, and late harvest mean NNY dairy farms have a tougher time implementing cover crops and reduced tillage cropping methods compared with a typical Midwestern corn-soybean farm with no livestock where many of these strategies were developed. Unlike those Midwestern farms, we have short growing seasons, late-harvested crops, compaction issues, and manure applications to deal with. A small group of early-adopter, innovative dairymen have figured out how to begin introducing some of these soil conservation methods on their dairies and we invited them to lead a discussion on these practices at a Soil Health for Dairy Farms Field Day in St. Lawrence County this past August. Jevonnah Foster, technician with the St. Lawrence County Soil and Water Conservation District office, was instrumental in planning and delivering this event with financial support from her office.



Joe Lawrence, Cornell PRO-DAIRY, describes some of the goals, strategies, and pitfalls of reduced tillage methods on NNY dairy farms. Photo credit: Kelsey O'Shea.

Travis McKnight of River Breeze Dairy Farm in Chase Mills, NY, hosted the event on one of his newly combined rye fields near his main farm, and he brought some soil preservation-oriented field equipment to show the group the finer points of some of his methods. Speakers during the morning portion of the meeting included Kitty O'Neil and Mike Hunter of the North Country Regional Ag Team and Joe Lawrence from Cornell PRO-DAIRY. These three kicked off the subject with some background on soil health and relevant updates from the 2019 season. The attendees looked over Mr. McKnight's vertical tillage equipment, a manure injection implement, and a large no-till corn planter. Alexis Lyndaker from the Lewis County Soil and Water Conservation District gave a brief presentation on the interseeder drill owned and loaned by her office to farmers in Lewis



County. The group discussion of methods, philosophies, and strategies proved to be the main attraction, as intended. Dave Magos of Morningstar Farms in Adams, NY, often speaks on these topics as he has managed his 700-cow, 2200-acre dairy without full-width tillage for several years. Local dairies who are beginning to implement some no-till methods were represented by McKnight and Jacob Fisher of Mapleview Dairy in nearby Madrid, NY. These 3 innovative farmers fielded questions and offered insights to the group during a vigorous discussion. A couple of the main recommendations shared by the experienced farmers were that special no-till planters are often not needed, but rather row-opening and closing parts can be modified on existing planters, and that even perennial forage seedings can be no-till planted if the conditions are managed in advance.

Overall, about 35 farmers, consultants, and technical specialists attended the meeting. The group included several large dairies, representing about 10,000 cows and 30,000 acres of cropland. Also present were livestock and cash crop farms, state soil scientists, CCE staff, crop consultants, and seed and fertilizer sales reps from across the North Country who typically serve as multipliers of information shared, speaking with more farmers who were not present.

Everyone learned something and was encouraged to try some soil conservation techniques. Many aspects of this event were captured on video, so that we will be able to share the thoughts described and discussed with a wider audience over time. Many positive comments were relayed by those in attendance after the discussion with one heavily engaged farmer remarking that our field day was “better than the soil health day at the Empire Farm Days this year.” We are working on summaries, one-on-one farmer follow-ups, and video editing to make maximum use of the incredibly valuable information shared at this successful event.



After lunch group discussion of no-till strategies and methods led by Dave Magos, Morningstar Farms, Travis McKnight, River Breeze Farm, and Jacob Fisher, Mapleview Dairy. Photo credit: Kelsey O'Shea.

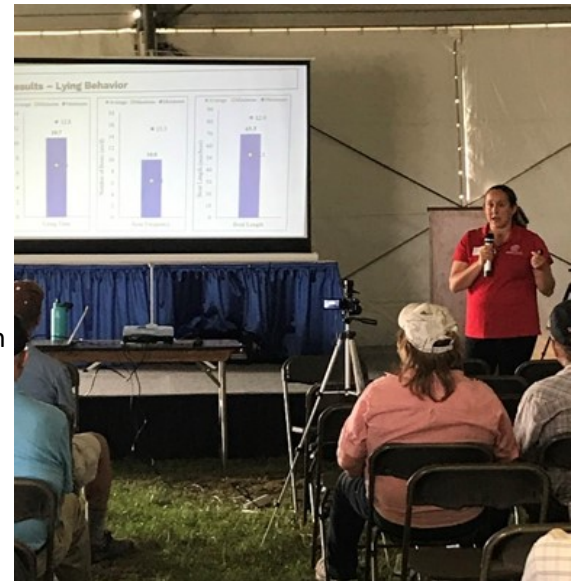


North Country Dairy Success Stories Shared with Industry

Conducting on-farm research in Northern NY is important as it provides dairy farmers in the North Country with data that is applicable to their operation. Producers value the research data and use it to make changes on their farm, but they regularly ask “what has been successful on other dairies?” or “how do others manage this issue?” Farmers like to hear from other farmers. To help address this need, Regional Dairy Specialist, Lindsay Ferlito, has summarized the findings from her recent research projects and included some case studies highlighting success on North Country dairies to be shared with other dairies in Northern NY and across the industry.

In August 2019, Lindsay and her project collaborator Betsy Hicks (South Central NY Dairy and Field Crops Team), presented data and success stories from their NYFVI-funded tiestall cow comfort project at Empire Farm Days. Producers in attendance asked follow-up questions about the case studies and were interested in how they could improve cow comfort on their dairies. Additionally, Lindsay presented a webinar as part of the Hoard’s Dairyman monthly webinar series. She presented a summary of data from two NYFVI research projects focusing on best management practices and cow comfort in tiestalls and freestalls, as well as several case studies of real dairies that have made changes and seen improvements. Over 120 attendees from over 30 countries participated directly in the webinar, and even more producers have accessed the webinar through the Hoard’s website webinar archive and through links from the NCRAT Facebook page.

Sharing results from North Country research projects at local meetings, and in national and international settings greatly increases the reach of these projects. It provides more local farmers with data relevant to their operation, in addition to practical ways they can implement change through the sharing of success stories from their peers.



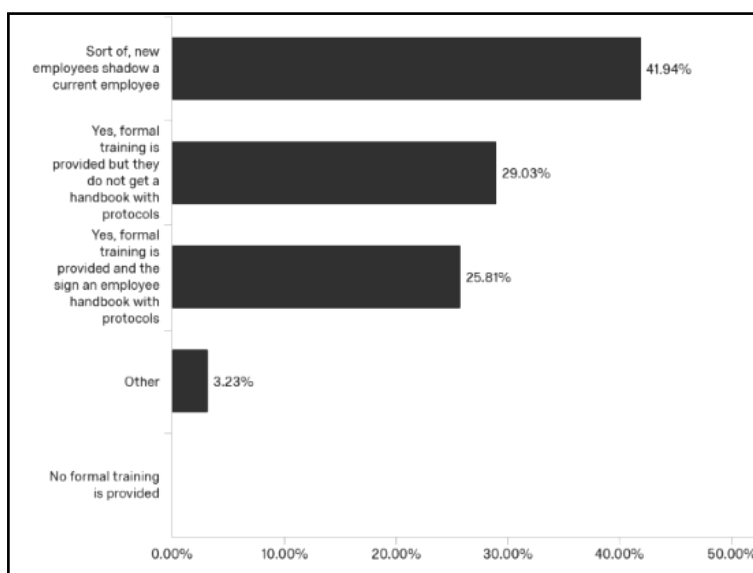
*Lindsay Ferlito presenting at Empire Farm Days.
Photo credit: Kathy Barrett.*



Labor Trends on Dairy Operations in Northern New York: The Impact of Research

Our Farm Business Management Specialist, Kelsey O'Shea, in collaboration with Sara Bull, Ag Educator in Clinton County, completed the study of Labor Trends on NNY Dairy farms through funding from NNYADP this spring (full report: <https://www.nnyagdev.org/wp-content/uploads/2019/05/NNYADP19DairyLaborTrendsReportFINAL.pdf>). This research is important to assist dairy farmers in understanding how businesses in the six county region are managing and retaining labor. This project was implemented in response to a large number of farms asking "how are other farms finding and keeping labor?" While Kelsey could answer this question with anecdotal or specific tactic recommendations, there was no collective research or averages available to understand not only how farms are managing and maintaining labor, but also if certain management techniques led to increased retention or business performance.

Most farmer inquiries were regarding what hourly rate they should be paying employees to be competitive with other farms in the region. The data showed that, across all positions, the average hourly rate was \$13.28 and the average starting hourly rate was \$11.54 - both above current minimum wage. Farmers found this data



Percentage of Farms Providing Training by Type, NNY Dairy Farm Labor Trends Project, NNYADP, 2018-2019.

to be in line with what they were experiencing, with some indicating that it is most likely even higher when housing benefits, that cannot be charged to an employee, are considered. The next area of focus was average hours per week worked to gain insight into how employees were managed. In addition, given the Farm Laborers Fair Labor Practices Act passage to now make farm labor subject to overtime, this hourly data is especially important. It showed that of all employees accounted for in the study (598), 43% worked between 60-70 hours per week. This means that as of January 1, 2020, farmers will have to restructure current schedules or pay overtime for those hours over 60 per week. When training was evaluated, it showed that 42% of farms only completed "informal" training with no handbooks or formal training programs provided.

Additionally, Kelsey has already met with over 15 farms individually to address their labor practices, ensure legal compliance, and to strategize methods for improvement based on this new data. In addition, this research has reached considerably more farm producers since it was featured in Dairy Herd Management. Moving forward, this research provides an excellent benchmark or starting point from which dairy farms can assess and evaluate their labor management practices. One of the final questions evaluated on the survey was "what would make managing and retaining labor easier for you as a dairy farm owner?" The two most selected answers were "more reliable employees" and "more applicants to choose from". Based on this, Kelsey plans to offer a training on these topics in the near future. This will further give dairy farms resources needed to meet or exceed the averages or benchmarks indicated, while also adhering to current law changes, ensuring compliance, and improving performance.



Statewide Training on NYS Labor Regulations: Bringing Information to Farms Where They Need it, When They Need it.

Labor in NYS has experienced many changes over the course of 2019. This varies from other previous changes that farmers have been exempt from. The North Country Regional Ag Team Farm Businesses Management Specialist, Kelsey O'Shea, realized it was important to make sure farmers were not only made aware that these changes applied to them, but also to ensure they had assistance in understanding and implementing the new regulations on their farming operations.

To ensure delivery of the most comprehensive materials to farmers in the North Country, Kelsey coordinated with the Ag Workforce Development Specialist along with other Business Management Specialists to create a statewide program that would provide farmers with exactly what is required for training and reporting of Sexual Harassment as per the New York State "Preventing Sexual Harassment in the Workplace" mandates. A program was developed that addressed what the rules are and how farms can be compliant. From this program the group also developed farm-specific case studies or examples. These are crucial for farms to use with employees during their trainings to ensure that employees understand the rules and reporting. Although the state had provided a video for training that businesses could use, this video only addressed traditional office situations. Finally, the group coordinated to record these examples in both English and Spanish.

The program was held over two days at 24 locations with six of those in the North Country. Attendance across the sites included over 120 participants who were able to engage and ask questions of all presenters that were connected via a Zoom webinar across the state. In addition, it was the North Country Regional Ag Team Specialist's focus to make sure this program was recorded and transformed into an online course within 24 hours of the delivery of this information to ensure that farmers who could not attend live would have access to the information. This was completed and since that time has been viewed over 240 times by farmers for both education and reference. Following this program, county educators were also better equipped to answer questions about these trainings and were able to refer them to the video or the respective specialist in each region. In the North Country, Kelsey has connected with over 15 farmers directly after this training to further discuss or help them coordinate access to these training materials. This program was an excellent model for future programs to deliver information about the ever changing labor regulations. Kelsey will continue to focus on making education materials available online to reach more farmers who are unable to attend in person meetings.



Dairy Prospects Program Targets High School Students Interested in Dairy

Started in the early 2000s, the Dairy Prospects Program is now run as a collaboration between CCE Jefferson, CCE Lewis, and the North Country Regional Ag Team. This year-long program is offered every other year to students in 9th to 12th grade in Lewis and Jefferson Counties who are interested in discovering exciting opportunities in the dairy industry. The Dairy Prospects Program exposes the 6 to 10 participants to leaders in the dairy industry who serve as examples of the exciting future the dairy industry can provide. It allows students to learn more about careers and opportunities in the industry, while making lasting friendships and connections.



*Dairy Prospects students touring a local freestall dairy.
Photo credit: Lindsay Ferlito.*



*Dairy Prospects students touring Poulin Grain,
Canton, NY. Photo credit: Lindsay Ferlito.*

The program consists of hands-on workshops and educational trips taking place 7 or 8 times throughout the school year. Activities completed this past year include a team-building exercise at Camp Wabasso, a trip to the William H. Miner Institute, a trip to the New York State Farm Show, tours of colleges, and tours of local dairies and agri-businesses that highlighted the use of technology on farms and value-added products. The year ends with a graduation dinner where the students present what they have seen and learned over the year.

The students have been very excited to have the opportunity to be exposed to different things in the industry, like seeing a robotic milking system and a large rotary parlor. When asked what they liked most about the program, some students responded with “getting opinions from different parts of the industry”, “the variety of places we went and all the people we talked to”, and “going to different farms”.

This program is a great example of how the local county CCE associations and the NCRAT team are working together. Specifically, this program helps strengthen the relationship between Cooperative Extension with local agri-businesses and farms, as well it targets the next generation to get them excited and involved in the dairy industry.



*Dairy Prospects students touring a local goat dairy farm.
Photo credit: Lindsay Ferlito.*



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Building Strong and Vibrant New York Communities

Cornell Cooperative Extension provides equal program and employment opportunities. NYS College of Agriculture and Life Sciences, NYS College of Human Ecology, and NYS College of Veterinary Medicine at Cornell University, Cooperative Extension associates, county governing bodies, and U.S.D.A. cooperating.