



Cornell Cooperative Extension North Country Regional Ag Team

Serving Clinton, Essex, Franklin, Jefferson, Lewis, and St. Lawrence Counties

Program Highlights

October - December
2020

CCE NCRAT Successfully Offers Virtual Series of Fireside Chats

In response to the ongoing COVID-19 pandemic and social distancing guidelines, the CCE North Country Regional Ag Team recognized that they would not be able to offer their typical in-person programs. The team also acknowledged that the need for timely and important information for producers across all sectors of the industry remains. This led the NCRAT to develop a virtual 6-week series titled "Fireside Chats". The Fireside Chat series was offered every Tuesday evening from November 17th, 2020, to December 22nd, 2020. The team brought in 6 experts relating to Farm



Photo 1. Hoof Health Fireside Chat. November 2020. Photo credit: C. Havekes.

Business Management, Dairy Management, and Crops to highlight cutting edge research, timely updates, and important information on their respective areas of interest. The program was designed to be an opportunity for participants to "chat" with the experts, thus the presentation time was limited to 20-25 minutes, followed by 40 minutes of discussion. Several participants chose to unmute and verbally ask their questions themselves, with some even turning their camera on for extra engagement.

The first week featured Dr. Rich Stup of Cornell's Workforce Development Program. Rich highlighted some important changes to NY labor laws and gave an update on how the dairy industry is responding to COVID-19 regulations. The second week featured Karl Burgi of Save Cows. Karl's presentation focused on the top 3 hoof health lesions for dairy cows, and Karl emphasized the importance of sound foot health in dairy herds. The third week featured Bryan Brown, Cornell University Integrated Pest Management, and touched on important concepts in weed management. The fourth week featured Anup Singh of Solera Advisors, and he described the ins and outs of forward contracting and explained some key factors to consider when deciding on a contract. The fifth week, featuring Dr. Julio Giordano of Cornell University, highlighted recent research on reproductive strategies to maximize production and reproductive success in dairy cows. Lastly, the sixth session featured CCE NCRAT Crop Specialist Dr. Kitty O'Neil and Pete Hagar of Clinton County Soil and Water. Kitty and Pete discussed findings from their recent project on no-till corn planter modifications and provided important considerations for those wishing to adopt this method.

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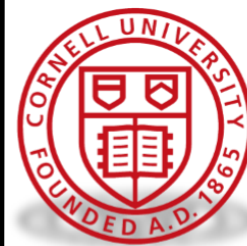
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In total, the series attracted 33 participants which included several CCE Educators from across the state, as well as agricultural producers and industry representatives from the North Country and beyond. One participant said "That was very interesting! I like the half hour presentation and then discussion". Additionally, the recordings from each session have been posted to the CCE NCRAT YouTube page and have attracted several more views since being published.

This successful program execution is an example of how the CCE NCRAT adapted to uncertain and changing circumstances to deliver high quality and important information to North Country agricultural producers. Through collaboration with Cornell University, Clinton County Soil and Water, and industry professionals, the team was able to provide North Country farmers with the information needed to make important changes to promote efficiency and maximize success of their operations.

Identifying and Managing Herbicide Resistant Horseweed (a.k.a. Marestalk) in NNY



Marestalk is a weed that can be found in many crop fields, fallow areas, ditch banks, and along roadsides in NNY. This is a weed that is becoming a problem for growers in Northern New York since there are now confirmed populations of glyphosate and acetolactate synthase (ALS) resistant marestalk in the North Country. In 2019, suspected resistant marestalk was found on several farms in NNY. In 2020, uncontrolled resistant marestalk contributed to significant soybean yield losses on several farms across the region.



Photo 1. Marestalk in winter wheat stubble in Jefferson County, August 2020. Photo credit: M. Hunter.

Marestalk is a winter or summer annual weed that reproduces by seeds. Seeds can germinate in the spring, late summer, or fall (see photo 1 and 2). Those seeds that germinate in late summer will overwinter as a small rosette of leaves and grow a flowering stem in the early spring. To successfully manage marestalk in no-till cropping systems it is important to implement control tactics in both the fall and spring. Multiple resistant marestalk can be a problem to control in corn, soybeans, and wheat; however, it will be most challenging to control in soybeans due to the limited number of effective herbicide options. It will be even a bigger problem in no-till and reduced tillage soybeans.

During the 2020 growing season, CCE NCRAT conducted an on-farm research trial evaluating the efficacy of different herbicides for the control of glyphosate resistant marestalk. In addition, seeds were collected from suspected resistant marestalk from many different fields in NNY as an effort to describe the distribution of resistant marestalk. The seeds will be screened for resistance as part of a statewide herbicide resistance screening project under the direction of Dr. Lynn Sosnoskie, Cornell University.

Results from the on-farm herbicide trial suggest that the marestalk population present in this field was resistant to both Group 9 (glyphosate, i.e. Roundup) and Group 2 (ALS herbicides, i.e. Classic, FirstRate) herbicide sites of action. A single postemergence application of glyphosate or a tank mix with a Group 2 herbicide will no longer control multiple resistant marestalk; therefore, growers must use an effective soil residual herbicide with the preplant burndown program or apply separately just prior to planting. It was determined that both metribuzin (a Group 5 herbicide, i.e. Tricor DF) and/or saflufenacil (a Group 14 herbicide, i.e. Sharpen) used alone, in a tank mix, or as a premixed herbicide can provide excellent preemergence control of multiple resistant marestalk. The development and evaluation of several herbicide programs helps NNY soybean growers make informed decisions about their weed control systems, while reducing the likelihood of not controlling resistant marestalk. Crop consultants and agribusinesses will use this information to provide sound recommendations to their clientele.

The results from this on-farm research trial are being disseminated to soybean growers, crop consultants, agribusinesses, and Extension field crops staff throughout New York State. To date, it has been presented at the 2020 Virtual Aurora Farm Field Day and the Cornell Ag In-service. It will be presented at the Northwest New York Cornell Cooperative Extension Soybean and Small Grains Congress, the 25th Annual North Country Crop Congress, and a virtual agribusiness grower meeting in February 2021.

The herbicide resistance screening trials are currently underway in the greenhouses at the Cornell AgriTech campus in Geneva, New York. The confirmation of resistant marestalk populations in the counties will allow NCRAT to track the spread and movement of this weed across the region. The results from the screening trial will be shared with the growers, crop consultants, and agribusinesses throughout Northern New York via future crop meetings, Cooperative Extension newsletters, and blog postings.



Photo 2. Suspected resistant marestalk in a soybean field in St. Lawrence County, September 2020. Photo credit: M. Hunter.

CNY Farm Business Specialist Provides Short-term Support to North Country Farms and Agribusinesses

The North Country Regional Ag Team, as well as its farm and agribusiness constituency, were unlucky to lose the Regional Farm Business Specialist, Kelsey O'Shea, in the fall of 2020. Kelsey took a position with the American Dairy Association - Northeast as an industry relations specialist. While with CCE NCRAT, Kelsey provided excellent service and lots of positive energy with all farms she worked with on a wide range of business analysis and planning topics, and she was a very good teammate for her coworkers.

Farm Business Management support is highly desirable and needed by NNY farms and agribusinesses to help with ordinary business and financial topics, with business transitions, and with new state and federal regulations, not to mention NYS COVID response regulations. The Regional Team's administrative management group of 6 County Association EDs and administrative leaders from Cornell Cooperative Extension on campus quickly initiated talks with the management group for the CCE Central NY Team to organize some part-time support from their own Farm Business Management Specialist, Nicole Tommell. The leadership groups quickly came to an agreement to share Nicole's time with the North Country for a few months. Nicole has a degree from SUNY Cobleskill in Ag Business Management and a Master's of Agricultural Education from NC State. She also taught ag business and animal science courses at SUNY Cobleskill for several years. In addition, Nicole is a farmer and co-owner of a diversified beef cattle farm in Montgomery County, NY, between Albany and Utica, and is a past president of the NY Angus Association.

Nicole brings a familiar energy and expertise to North Country farms by offering many of her programs from CNY to NNY farms. Nicole has also linked the North Country region to statewide efforts on dairy industry analyses, federal program announcements, Cornell Workforce Development offerings, and NYS risk management opportunities. Within the first weeks of the temporary arrangement, Nicole had consulted directly with a few farms that requested individualized assistance, written articles, and helped share important information with local farmers. The North Country team, understandably, does not expect this part-time arrangement to provide as much one-on-one assistance as it is used to; but the team will do their best to satisfy requests. Watch for Nicole's articles, announcements, and programs in NCRAT regular communications for the next several months.



Dairy Specialists Engage with High School Students



Through conversations with local farmers and the CCE North Country Regional Ag Team Advisory Committee, it is clear that farmers see a need in getting the next generation interested in and exposed to opportunities in the dairy industry. Along with many in-person events and programs, COVID-19 put a damper on the traditional CCE Dairy Prospects program that is offered to local high schools every second year. Historically, Dairy Prospects has been offered to students in 9th to 12th grade in Lewis and Jefferson Counties who are interested in discovering the variety of exciting opportunities that lie within the dairy industry. Students are exposed to leaders in the industry, have the opportunity to learn about careers in the industry and tour local farms, and are able to develop friendships and relationships with peers that have similar interests. This program is highly rated amongst those who participate and something that students look forward to, so the Dairy Specialists wanted to make sure the opportunity was still presented to the students in a way that provided a similar experience, but more importantly in a way that ensured the safety of all those involved. With a little bit of adaptation and a lot of creativity, the Dairy Specialists were able to pull off a virtual, revamped version of the program called “Digital Dairy Prospects”. Due to the virtual world being much more accessible, the program was opened up to students in St. Lawrence and Franklin County, as well as Jefferson and Lewis. The program featured guest speakers, touched on the importance of a good social media presence, provided the tools to have difficult conversations with the public, and encouraged the students to be strong agricultural advocates.

In addition to these focus areas, the tradition was kept of offering one of the most favored parts of the program: farm tours. This year, the Dairy Specialists worked hard to recruit three unique dairy farms to participate in virtual farm tours. The Dairy Specialists filmed as many aspects of the dairy as possible to mimic an in-person farm tour and interviewed the farmer and put the voiceover in the video so that the students could get the full experience. For three consecutive weeks during the 9-week program, the virtual farm tours were played live via Zoom and the owners of each respective farm got on the Zoom call to answer questions from the students.

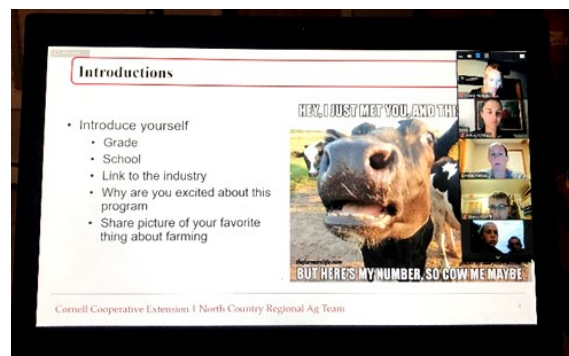


Figure 1. Digital Dairy Prospects, Week 1. Photo credit: L. Ferlito.

There was a total of 5 students that completed the program. When asked what the most enjoyable part of the program was, some students said, “learning new things and meeting new people”, and “talking about hot topics in the dairy industry”. When asked what the least enjoyable part of the program was, students said “that it had to be offered online”, but they also applauded the energy and enthusiasm the instructors maintained throughout the course.



Figure 2. Dairy Specialist, Lindsay Ferlito, leading a hands-on activity during Lowville Academy Career Day. Photo credit: C. Havekes.

Additionally, right before COVID-19 restrictions came into effect in March of 2020, the Dairy Specialists had another opportunity to engage with high school students at the Lowville Academy Career Day. The Dairy Specialists presented to students in grades 10-12 on career opportunities, and provided hands-on activities to illustrate some of the day-to-day tasks they could experience if they chose a career in the industry. These two examples of interacting with high school students across the North Country are great examples of how the CCE NCRAT team is working with the broader community to educate and promote agriculture. These are also strong examples of how the CCE North Country Regional Ag Team is targeting the next generation to get excited about the opportunities in the dairy industry.

Expanding No-Till Crop Production in NNY with Farmer-to-Farmer Insights



No-till crop production can provide growers with a more resilient production system in an increasingly variable weather environment, and it also leads to lowered cost of production. While no-tillage planting methods are most popular in the Midwest US and Upper Great Plains, very few Northeast dairy farms have adapted these techniques to their farming systems. Here in the Northeast there are a few additional challenges to navigate. Dairies must implement no-till methods while still addressing challenges of manure applications, soil compaction, and occasional ruts from heavy field traffic and perennial forage sods and seedings. Despite these concerns, some Northeast and NNY farms have successfully made this transition and remain fully committed to no-till methods, while other farms are eagerly seeking guidance to use these strategies on their farms. This scenario compels the CCE North Country Regional Ag Team specialists to strive to equip growers with needed information to promote the adoption of these practices that can improve farm profitability and reduce environmental impact to natural resources. The team has identified farmer-to-farmer knowledge sharing as a powerful tool and set out to facilitate this knowledge transfer whenever opportunities appear.

During a 2019 Soil Health for Dairy Farms Field Day in St. Lawrence County, CCE NCRAT facilitated nuts-and-bolts conversations among a couple of highly experienced no-till farmers and a dozen farms motivated to adopt these practices on their own farms, but they desired some specific guidance. The effort was expanded this Fall and Winter 2020, by conducting interviews with a few of these highly experienced farmers - specifically about their own corn planter modifications and strategies for planting row crops without any tillage whatsoever. These farmers included commercial dairy and cash crop farms who have not used tillage in more than 10-15 years. Interviews were conducted, transcribed, and captured in an article shared in the North Country Ag Advisor newsletter in January 2021.

Simultaneously with this effort, the Clinton County Soil and Water Conservation District Director, Pete Hagar, was awarded a small grant from NEIWPC's Lake Champlain Basin Program to subsidize conventional corn planter conversions across several counties in the Lake Champlain watershed in an effort to reduce soil erosion and improve water quality. CCE NCRAT was invited to work with Pete and Aaron Gabriel, CCE Field Crops Specialist in the Capitol Region, on 7 farms across 3 counties to assess their existing corn planters and recommend appropriate modifications and additions to permit no-till planting. Specialists met with these motivated farmers, talked, and shared our written materials with them, and with Pete and Aaron, and did some additional research on no-till planter equipment and parts and made recommendations for these 7 farms. Pete delivered recommendations and is working to order parts. The plan is to continue to build on this important work toward more productive and environmentally sound practices by facilitating future meetings, and by writing and speaking on the topic with all interested farms.



Dave Magos, of Morning Star Farm in Jefferson County, NY, describes the way he has outfitted his 16-row no-till corn planter. Photo credit: K. O'Neil.

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."

Contact us directly through our website: <http://ncrat.cce.cornell.edu/>

Building Strong and Vibrant New York Communities

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