Cornell Cooperative Extension
North Country Regional Ag Team

The North Country Regional Ag Team is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex counties.

Quarterly Report

April - June 2022

CCE NCRAT Dairy Specialists Facilitated Calf Barn Tours for Local Dairy Producers

As a result of various workshops, programs, and research projects dedicated to pre-weaned calf management, the CCE North Country Regional Ag Team Dairy Specialists have frequently been fielding questions relating to calf housing, feeding strategies, and overall management. Two of the common questions that come up are: "Ok, so what's the best system?", and "I'm going to build a new barn, what should I build?". Unfortunately, there isn't a 'one size fits all' approach, and in all cases the way calves are managed is going to play the biggest factor in the success of any new build. With that in mind, touring other facilities and hearing from other producers who have similar (or very opposite) setups and management, can be an effective way to brainstorm ideas and create a plan.

After being on two of CCE NCRAT's calf focused research projects, a North Country producer and his wife inquired about seeing robotic calf facilities in the area as they brainstormed ideas for their own future build. The CCE NCRAT Dairy Specialists were excited by this idea, and immediately began formulating a plan for a day of calf barn tours. The Dairy Specialists reached out to several dairies in three counties to gauge their interest in showing off their barn and discussing their management strategies, successes, and challenges. After several rounds of communication, a plan was in place and four unique facilities were put on the schedule.

The goal for the day of tours was for the producers to see a wide range of facilities and management styles. The first farm visited did not have robotic feeders but had excellent management and a ventilation system that worked very well for the calves. The second and fourth farms did have robotic feeders but had different ventilation systems and different management strategies. There was also a strategically planned visit to a farm that had taken their robotic feeders out to have a discussion on the challenges they faced with group housed calves and automated feeding.

Photo Credit: C. Havekes.

Overall, the day of farm tours was a great success. The producers were very pleased with the day and said, "*we had a great day! Thank you so much for making all the arrangements and all the planning! It is greatly appreciated!... thank you for the contacts and we won't hesitate to recommend you for planning farm tours*".
This is an example of how the CCE NCRAT Dairy Specialists respond to individual needs of dairy producers in the region, while connecting producers from around the region.

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Assessments and Recommendations for More Productive Use of North Country Land, Farms, and Parcels

In addition to the regular inquiries about crops, pests, soil test results, and requests for help with small crop management options, North Country agronomists receive a few calls and emails each year from new landowners looking for assistance with getting started with some sort of agricultural production on a newly purchased parcel. CCE NCRAT Field Crops Specialists are also frequently asked to make recommendations to existing farms and grazers for hay field and pasture improvements. This spring, CCE NCRAT has provided a high number of land assessments, soil testing advice, and forage species recommendations.

New landowners often take over management of a farm or field without the benefit of experience with local soil types or climate, without knowing where to turn for soil testing, or with hiring local custom operators or equipment. Existing farmers sometimes begin to notice that some fields or pastures do not quite produce like they did in the past but, because their management hasn't changed, they aren't sure how to respond to gain back lost productivity. In both cases, an objective and comprehensive assessment of soil resources, examination of recent soil tests, and a new set of eyes on overall management practices helps landowners make effective decisions and improve productivity of individual fields or whole farms. This spring, CCE NCRAT has helped three new farm owners get a good start understanding and managing their new land and another three farms make needed improvements with comprehensive field and pasture renovations.

The comprehensive new farm assessment begins with a visit to understand the farm goals and to see fields in question. The Field Crops Specialists usually begin with a map of all soils on the farm and evaluate limitations and opportunities for appropriate and productive land use. A walk through the fields permits notation of any problem areas or concerns. Soil sampling provides a view of existing fertility needs so that any needed supplementation or correction may be prioritized. Time is taken to describe any land use limitations due to erosion risk, drainage, drought, steepness, flooding, etc., and to provide details necessary for a good crop management plan, such as a list of soil management groups, native pH, and drainage classes for future reference. Available soil test results are reviewed and practical nutrient management advice is provided. All subsequent recommendations are related back to soil capabilities, existing crops, farm goals, and farmer preferences.

Requests for hay field and pasture improvement guidance have also involved similar whole-farm assessment of soil resources and fertility priorities this spring. A walk across the farm reveals areas that may not respond to improved management due to underlying limitations, so that more responsive areas may be prioritized. Soil resources are assessed and summarized for reference. Soil test results are reviewed or new samples are encouraged, and species recommendations for reseeding or over-seeding are generated using the Cornell Forage Species Selector Tool, based on soils, soil conditions, and intended use. Details of seeding rates, fertilizer blends, and weed management options are provided. Whether a farm is new or existing, organic or conventional, large or small, CCE NCRAT can provide this broad and basic assessment of any farm or field, and provide recommendations for productive and profitable forage and crop management of North Country farms for years into the future.

Collaboration between CCE NCRAT and PRO-DAIRY and Industry Helps Local Farms

Whether it's troubleshooting calf barn ventilation issues or brainstorming design ideas for a barn addition, North Country dairy farmers regularly need input and recommendations from CCE NCRAT Dairy Specialists on best management practices to optimize animal comfort, performance, and productivity. Sometimes the requests arise as follow-up to a research project, or a direct contact from a farmer, and other times it's a referral from the herd veterinarian or nutritionist. Regardless, CCE NCRAT will work with the farms individually to create recommendations and appropriate action plans and bring in additional resources where necessary. Recently, the Dairy Specialists worked with three farms on their various barn design and ventilation challenges in collaboration with Cornell PRO-DAIRY and a herd veterinarian.

One farm participated in a couple recent CCE NCRAT projects and reached out asking for help with calf barn ventilation challenges. CCE NCRAT Dairy Specialists fogged the calf barn and confirmed that the airflow was not consistent through the whole barn. Through a collaboration with PRO-DAIRY Barn Design Specialist Tim Terry, recommendations were made to the farm on how to improve airflow across the barn. CCE NCRAT Dairy Specialists are continuing to work with the farm to track calf growth and performance. On another farm, the herd veterinarian reached out to the team for help troubleshooting calf barn ventilation issues. CCE NCRAT Dairy Specialists fogged the barn and identified some challenges and potential solutions. A further visit included PRO-DAIRY's Tim Terry to discuss heifer barn design. A few months later the farm reached out directly to CCE NCRAT requesting to have the calf barn re-fogged after some changes were made. The air was moving more evenly in the barn, and the farm owner said the calves are doing well, and a couple more suggestions were discussed to potentially see more improvement. In a third case, the farm reached out directly to CCE NCRAT to discuss a large barn renovation and addition. PRO-DAIRY's Tim Terry worked with CCE NCRAT Dairy Specialists and the farm to come up with some ideas for expansion. Additionally, CCE Dairy Specialists provided recommendations on how to improve stall design to increase cow comfort and production. The farm has since made the recommended updates to the stalls, and they have applied for Cornell DAP funding to work on farm transition planning and to create plans for a new parlor installation, as well as expanding the barn.

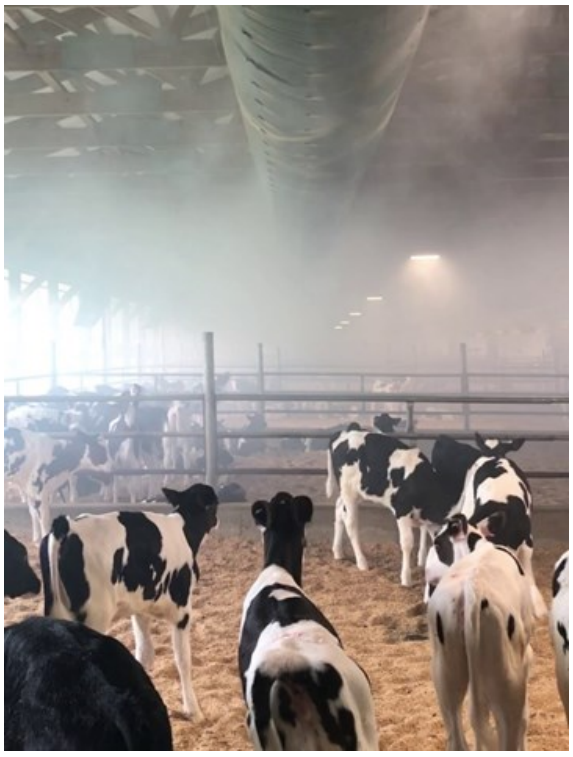

Photo Credit: L. Ferlito.

Follow-up visits will be conducted with all three farms by CCE NCRAT Dairy Specialists to track further improvements and continue to provide these farms with resources and recommendations. These three scenarios are good examples of how CCE NCRAT Dairy Specialists work with farmers, herd veterinarians and industry members, and Cornell PRO-DAIRY to collaboratively help North Country farmers improve barn ventilation and design, which ultimately improves overall performance and productivity.

Pesticide Applicator Field Day Teaches Safety and Stewardship

Applicators of pesticides need to know the proper application methods, sprayer calibration, maintenance, cleaning, and safe handling of pesticides. The high cost of pesticides and the need to protect the environment are incentives for North Country applicators to do their very best in handling and applying pesticides.

A recent pesticide applicator and sprayer field day held on a farm in St. Lawrence County provided attendees an opportunity to learn about the new sprayer nozzle technologies, proper sprayer setup, maintenance, calibration, cleaning, and use of a pesticide sprayer. Other field day topics included selecting the proper personal protective equipment needed for the safe handling of pesticides. The last session discussed ways to maximize pesticide performance, reviewing the importance of using the proper rates of pesticides, selecting the appropriate spray adjuvant, and other additives that can improve the efficacy of the pesticides.

Visual presentations throughout the field day included doing a pre-application maintenance check of the host farm's field sprayer, equipment calibration, and discussing how nozzle selection and pressure effect the amount of driftable droplets that are produced in the spray pattern. A demonstration of proper loading and mixing of pesticides, while wearing the appropriate personal protective equipment, was also shown to field day participants.

Overall, the pesticide applicator field day was successful with very positive feedback received from many of those applicators in attendance. It was also an opportunity for participants to receive continuing education credits needed to maintain their pesticide applicator license. This field day is a good example of how CCE NCRAT provides valuable programing to North Country farmers and helps them maintain important certifications and licenses.

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/

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