Making Great Corn Silage
Janice Degni, CCE Field Crop Specialist

The whole corn plant chopped into small pieces, preserved through fermentation, and contained in a storage unit is a primary ingredient of home-grown feed for our dairy herds. Corn silage typically makes up 40-60% of the forages in the dairy cow’s diet. Corn silage is a unique forage because it is made of both the plant fodder, stems and leaves, as well as grain from the ear. The starch contained in the grain makes a significant contribution to the energy needs of the dairy cow. Home grown feeds can make up 50-80% of the cow’s diet. Purchased grains supplement the protein and energy needs in small quantities to assure a balanced ration. On average purchased feed costs for herds account for 60% of overall expenses. Optimizing the harvest and preservation of the corn silage and haylage crop can have a beneficial impact to a dairy’s bottom line.

Our educational efforts before harvest include providing seasonal updates on the crop and estimates of its maturity through our newsletter and blog. Our silage clinics offer farmers an event to bring stalks from their fields to be chopped and tested for dry matter. This provides real-time information to help them forge a plan for harvest. The farmers also share experience and tips with each other.

We use the clinic to reinforce recommended benchmarks and practices to capture high nutrient value of the crop and preserve it while minimizing nutrient and crop losses. Staging the crop for timing of harvest is the first step in meeting those goals and sets the harvest in motion. If harvest starts when the crop is within the range of targeted dry matter, the nutrients and energy captured is maximized. Losses through effluent are minimized and conditions that support a good fermentation that will keep the feed fresh until fed out is key to preserving yield and feed quality.

Our discussion features updates on the growing season’s impact on digestibility and starch levels which are a proxy for energy, disease pressure, and potential mycotoxin contamination are all timely to inform management decisions. Timely harvest of corn silage, a key forage for many dairy farms, ensures a quality feed that sets up the farm’s success for the coming year.
Lameness is one of the costliest herd health issues on dairies. Producers continuously work to reduce lameness by improving herd management protocols and facilities. This year, we offered a virtual workshop in collaboration with PRO-DAIRY educators that explored the research on lameness, its causes, and mitigation strategies. The 150 participants learned about practical solutions they could implement right away.

Building on this successful winter program, Betsy Hicks organized a summer discussion group around the Economics of Lameness with funding from the Dairy Advancement Program, in collaboration with Lindsay Ferlito from Northern NY. Nine dairies tracked costs related to lameness and hoof trimming for three months. Each farm received a whole-herd lameness assessment at the beginning and end of that period. The group met for discussion using a report that compared each individual farm to the rest of the group. By linking economic data with lameness assessments, the Economics of Lameness Discussion Group provided actionable information that motivated farms to make management changes. The results from this applied research project will be published so any dairy farm can use the same methods to assess lameness and compare their own performance to our industry benchmark.

After participating in the discussion group, farms in the group made significant facility changes, improving stalls, installing rubber flooring and improving upon footbath protocols. Farms implemented new management protocols to increase communication with the hoof trimmer, who provides feedback on hoof health to the herd manager and nutritionist. One farm also started using their herd management software to document hoof health problems more consistently, allowing the farm to track the impacts of management changes on lameness over time. Farmers appreciated the opportunity for peer-to-peer learning with other similar sized dairies. Ultimately, the changes farmers make should have a positive affect on lameness in their herd, which helps with cost savings and increased productivity as a result.

CCE Summer Interns Experiencing Extension

Meet the Dairy Sustainability Team

Molly Mueller ’25 and Will Salamone ’22 had the chance to work with Field Crops Specialist, Janice Degni and NMSP Postdoctoral Researcher, Olivia Godber. Katie Bishop ’23 joined the Dairy Sustainability Team as well, working with Olivia Godber and Cayuga Milk Ingredients. Throughout the summer, the interns explored extension practices, improved their communication skills with farmers and learned the different nutrient management tools and techniques commonly used by farmers in the field.

Reprinted from an article on the CALS website at https://cals.cornell.edu/news/2022/10/growth-beyond-field-summer-interns-explore-extension-nys-dairy
Train-the-trainer workshops help to build a strong and stable agricultural workforce in our region.

Farmers need human resource management education

Human resource management is a growing concern for farm operators across New York State. On dairy farms, the hourly cost of labor is rising, and annual employee turnover is significant. Almost two out of every five workers leaving a typical farm each year. Employee turnover adds costs and creates management challenges for farms, especially in a competitive recruiting environment. Farms that use sound HR management practices, including effective employee training, can boost performance while improving employee satisfaction and reducing turnover.

Growing Great People workshops enhance training skills for a bilingual audience

Farm Business Specialist Mary Kate MacKenzie collaborated with Dr. Richard Stup, Cornell Ag Workforce Development, and Dr. Kaitlyn Lutz, NWNY Regional Dairy Team, to host the Growing Great People: Training Skills for Dairy Farmers workshop in English and Spanish at two locations in our region. The workshop included several hands-on activities, including practice developing a training plan that participants could take with them and use back at work. Participants also received a bilingual, illustrated training handbook to use for developing future trainings.

31 participants from 16 farms attended the Growing Great People workshop, including farms from Cayuga (5), Onondaga (4), Cortland (3), and Tompkins (1) counties. Three farms from outside our region sent employees to the training.

The participating farms have more than 440 employees managing over 26,000 dairy cows.

76% of workshop participants currently train other people at work, but only 50% reported having ever received prior training on how to train others.

Spanish translation made the workshop and handouts accessible to one third of the participants.

After completing this training, 71% of participants stated that the workshop improved their ability to plan for a training at work.

Feedback from participants suggested that the workshop had been very well advertised. As part of the promotional effort, Mary Kate did a live radio interview with Paul Szmal of Finger Lakes News Radio (WGVA and WAUB) on August 10. A recording of her interview is available here:

https://drive.google.com/file/d/1RUN5XH14VHhHIEQ7P9qtIyOIZ6cYr_x/view?ts=62fbf6c7&fbclid=IwAR11elPhKJR0A-96gyXe-PjkrdxRbXSinxRRt5dRToTXXaWtrw-r7KUs
The organic dairy market began in the mid 1990’s as a result of consumer’s dissatisfaction with the introduction of the growth hormone for cows. In the beginning it was a rapidly increasing market that benefitted small and mid-sized dairies in the Great Lakes and Northeast due to their ability to graze their dairy animals. Organic processors paid well with increases in pay price each year because of the increase in demand each year. New York benefitted from the growing market, in 2018, eight hundred of the roughly four thousand dairies in New York converted to organic production. More than any other state in the country. Times began to change when six dairies in Texas were certified using a loophole in the organic standards. These dairies produced nearly as much as all of the organic dairies in New York. The oversupply of milk caused prices to drop and quotas to be implemented. This pressure was compounded recently when Horizon Organic decided to not renew the contracts for ninety New York and New England organic dairies, and further compounded by the recent rapid rise in all production costs due to inflation. Conventional dairies have seen a 30% rise in their pay price but organic dairies received a fraction, if any, of a pay increase.

New York Organic Dairy Task Force was started in 2006 as part of my work at Cornell to support the market. It has met every year and sometimes twice in a year for sixteen years. It is a semi closed group of all the links of the organic dairy value chain in the state including: Dairy farmers, organic grain farmers and mills, organic dairy processors, certifiers, state regulators and extension educators. The years of growth of the market were much more fun than the recent years of compression of the market. At last year’s Task Force meeting we invited groups and individuals from other states to discuss the market loss caused by Horizon. As a result of that meeting numerous groups formed to address that issue as well as the current shrinking of margins caused by inflation. The Task Force meeting on October 11th had three reports form those groups and a review of the emerging market for organic beef. Below are descriptions and links to those efforts to help the organic dairy market in New York and New England:

⇒ Ed Maltby is the Executive Director for the NE Organic Dairy Producer Alliance (NODPA) (member of the NY Organic Dairy Task Force). He shares some of the pain that farmers are experiencing and how NODPA was part of the efforts of the New England Organic Dairy Task Force. A review of organic pay/retail prices as well as organic feed prices can be seen here: https://cornell.box.com/s/ofkcvewhzyyv5v8383smpgli9in7crdw
⇒ NOFA- NY reported on their collaboration with NY Farm Viability (Both members of the Task Force). Their goal was to identify and help organic dairy farmers who lost their market due to the exodus of Horizon from the area. At this link farmers can access a grant that provides $5,000 to help find a new market or transition to another enterprise: https://nofany.org/resources/dairy-resources/
⇒ Britt Lundgren with Stoneyfield Yogurt (member of the NY Organic Dairy Task Force), co-chaired the New England regional task force. She reported on their recommendations to strengthen the organic dairy market. The link below is the summary that work. Their task force has disbanded having finished their objective. https://agriculture.vermont.gov/administration/danonehorizon-task-force
⇒ Marc Broccoli CEO for “Open Range Beef” Updated the Task force on their recent purchase of the Gold Medal Packing Plant in Rome NY. Currently upgrading facilities to be certified organic. Will handle apx. 50 cows a day when complete. They’ve been reaching out to organic dairy farms across the NE to describe the need for their organic cull cows. For more information go to: https://cornell.box.com/s/0j5q6ylj0jlvflucepr82cfsejju7vk