

Cornell University  
Cooperative Extension  
NWNY Dairy, Livestock & Field Crops Team

# Year In Review 2017

[nwnyteam.cce.cornell.edu](http://nwnyteam.cce.cornell.edu)



*Building Strong and Vibrant New York Communities*

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## Academy for Dairy Executives



The Academy for Dairy Executives returned to Western New York during the winter of 2016/2017 to provide young farmers with the opportunity to improve their management skills. The NWNY Team paired up with PRO-DAIRY and educators in Erie and Chautauqua counties to offer the program. Twenty-six farmers from across the region met for three two-day sessions. The program targets the next generation of dairy farmers, especially those who are transitioning into a management role.

Participants heard from excellent speakers and participated in group exercises to learn about communication and conflict resolution, managing vs. doing, budgeting and making financial decisions, and other topics. Participant evaluations were extremely positive, including responses such as “Great! Very action based and people based, I want to go and try the stuff I learned right now,” and “The whole farm budgeting was very eye opening and helped me to realize I need to become more involved in the budgeting process. Also, family business conflict resolution and communication was an amazing conversation.”

The participants represent 20 farms and 2 agribusinesses that milk 21,125 cows, positively impacting the local community through collectively selling \$86.5 million dollars of milk annually. Together these farms employ 400 people and utilize the services of many local agribusinesses. They protect the environment and maintain green spaces in their communities through managing 49,000 crop acres. Skills that the participants learned will enable them to lead their businesses to continued success for future generations.

## Resources for Dairy Replacement Management

Raising dairy heifers is an important enterprise on any dairy farm and an area of ever-changing technology. It also represents a challenge to keep basic best management practices first and foremost with employees. Highlighted by the annual Calf & Heifer Congress in December, the team provided an excellent lineup of training opportunities on calf and heifer management from the last quarter of 2016 through the summer of 2017.

In addition to the annual two-day, industry supported Congress that attracts producers, academics, students and agribusiness, team dairy specialists organized and delivered an on-farm, Dairy Skills Training “Calf Care” module. Eighteen workers and managers participated in this on-farm opportunity over two days. Descriptive walk-arounds with host dairy staff and in the trenches calf-side discussions earned high mark evaluations. Through a statewide webinar series organized by PRO-DAIRY, a team member co-presented winter seasonal calf care concerns and engaged 45 individuals via the internet.



The team also organized, developed and presented a “Heifer Housing and Feeding Systems Tour” of two progressive dairies. Each exemplified different successful methods of maintaining young calves in large structures. The 90 plus participants were shown barn features, feeding systems, novel ventilation designs, comprehensive biosecurity and feeding article sanitation by calf managers. A keynote speaker gave an overview of the modern concepts of calf rearing being featured during lunch. A few dairy producers considering new calf facilities commented on the value of being able to not only see these operations, but hear from the individuals who either designed or work in them every day all at one time.

## **Labor Roadshow**

The NWNY Team has been representing Cornell University as a member of the Agricultural Workforce Development Council. The AWDC is a group of NY farmer organizations working together to prepare and retain a skilled farm workforce. In an effort to update farmers on recent changes in farm labor regulations and share best management practices, the AWDC prepared a "Labor Roadshow", which was presented in Oakfield, Auburn, Saratoga Springs and Watertown, NY in November 2016.

As a member of the education committee of the AWDC, the team helped develop and present materials to aid farmers in better managing their farm worker housing, health and safety. Other speakers included several lawyers specializing in agricultural labor law.

A total of 198 farmers attended four meetings held across the state, 49% of which were dairy or livestock farmers. The remainder were fruit and vegetable farmers or members of supporting industry. The majority of attendees responded to a survey in which they rated the presentations highly at 8.7/10.

When asked what they would do differently as a result of what they had learned at the conference, attendees noted that they would work towards improving their compliance with DOL and OSHA regulations. They cited the knowledgeable speakers, useful information, and opportunity to ask questions as highlights of the conference. The majority of attendees also indicated that they would be interested in a follow-up webinar.

To have this many farmers attend the conference was significant, as the topics discussed were areas that are seeing increased government oversight, more frequent fining, and heightened public scrutiny. Helping farmers stay on the forefront of labor trends and regulations will help them to save money by avoiding fines, and also improve the public's perception of agricultural labor practices.



## **Manure Forum – Proper Handling, Value and Dangers**



Good management of manure handling is a must for road safety, conservation of nutrient value, environmental safeguards and employee well-being. Manure transport on public highways can lead to vehicular incidents and spills. Handling a serious spill on or off the road may involve law enforcement, DEC, fire companies and local contractors. Manure pits and containment vessels present air quality and toxicity risks that can easily result in death. Hydrogen sulfide gas as an ever present fact of stored manure represents a particular problem when people and animals are near the location of agitation and pumping. Manure is both a liability and an asset. The value of spreading and incorporating manure in a timely manner can vary significantly with the variables of land base slope, soil type and proximity to waterways adding to the planning. The team partnered with PRO-DAIRY in planning a webinar connected forum that was held at five separate locations for five hours. Our region hosted two of the sites, three of the five speakers and over three-quarters

of the attendees with 34 individuals. The collaboration featured presenters from law enforcement, NYCAMH, SWCD and PRO-DAIRY. A variety of farms, small and large, as well as a few industry people positively commented on the meeting.

## **Positive Reviews for Inaugural Forage Congress**



After months of team planning, the inaugural Forage Congress was held in Livingston County on February 28th. The agenda was developed with input from the NWNY Team's dairy and field crops advisory committees; both felt this type of congress was lacking from the team's arsenal since forages are the base for all livestock nutrition.

Approximately 75 participants and 20 exhibitors attended the day-long event. One agri-business provided the lunch sponsorship. Topics included whole farm planning from the ground up, economics of high forage diets, reduced lignin alfalfa with quality grasses, double cropping presentation and panel, and storing quality silage options. Planning for year two is underway.

## **Industrial Hemp: New Alternative Crop for New York Producers**

Growers in the NWNY region frequently express interest in alternative, new crops that may have the potential to increase their bottom line. Due to legislation at the state level and funding by New York State's executive branch, the state's agricultural sector can add industrial hemp to the list.

As with any new crop, local research and extension work is necessary and currently being conducted by Cornell faculty and the NWNY Team. These Include:

- ◇ Understanding best management practices for industrial hemp in NY
- ◇ Identifying best varieties for NY environmental conditions
- ◇ Producing fact sheets, grower manuals and internet resources
- ◇ Analyzing and providing information on economics, markets and end product value
- ◇ Identifying existing and potential hemp processors



This year, 28 producers planted 1,750 acres of industrial hemp in NY. Of those acres, 1,100 of them were planted right here in WNY. NWNY Team members are working closely with producers, Cornell research and extension staff and industry to prepare for more hemp acres in 2018.

## **Monitoring 1<sup>st</sup> Cutting to Improve Quality and Yield**



First cutting was extremely hard to harvest in a timely manner for dairy and hay producers this year due to the significant amount of rainfall we experienced throughout this spring and summer. First cutting represents a significant portion of dairy farms total hay crop for the year and has the potential to be a very high quality feed when harvested at the correct time. To help dairy producers monitor that timing, the NWNY Team participated in a statewide weekly monitoring program through the months of May-June and provided field updates from growers fields across the NWNY region.

Alfalfa height has proven to be a reliable indicator of Neutral Detergent Fiber (NDF) values in the field. Producers utilized these given height indicators of alfalfa and grass to help determine NDF content and harvest timing. Producers harvested 100% grass stands when nearby alfalfa was 14 inches tall to achieve the desired 50% NDF. Producers began cutting 50/50 mixed alfalfa and grass stands when nearby alfalfa was 22 inches tall for the desired 44% NDF. Producers began cutting 100% alfalfa stands when alfalfa was 28 inches tall for desired 40% NDF.

## *Twilight Tour Showcases Small Grain Variety Options*



Variety selection is one of the cornerstones of good crop and pest management. Each season the Cornell Plant Breeding Program plants their small grain variety trials on cooperating farms in NWNy.

Twenty producers and industry representatives were guided on a “Small Grain Twilight Variety Tour” of malting barley, red and white winter wheat and hybrid rye. The team discussed current small grain research and agronomic and pest management topics that have been learned through our work with local small grain producers.

Participants were able to view how the different varieties performed in their region under very wet growing conditions. This is a big advantage when choosing a variety to plant next season. Results of all the Cornell winter and spring small grains regional trials and the cumulative summaries over several years can be found at <https://plbrgen.cals.cornell.edu/research-extension/small-grains/cultivar-testing>.

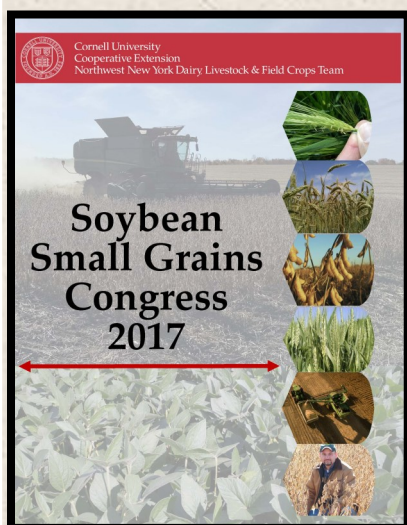
## *On-Farm Corn Educational Program for the Finger Lakes Plain Community*

This year’s Corn Education Program worked with a group of eight young Mennonite growers that had between two and five years of experience running their own farm. All of these farms also were small dairies and grew corn for silage and grain.

Participants completed twelve hours of in-field and classroom training covering crop production and IPM practices with a focus on weed, disease, and insect pest sampling and management. Participating producers benefited from the educational materials and timely sampling techniques to make the most economical crop and pest management decisions to maximize their corn production. Participants learned how to correctly identify, sample, assess and apply different management tools on potential corn pests and make management decisions based on economic thresholds. Pre and post-tests were given at the first and last meetings of the season. Collectively, participants increased their general knowledge of corn management from 39% to 86%; an increase of 47%. All participants highly recommended this program to other local farmers.



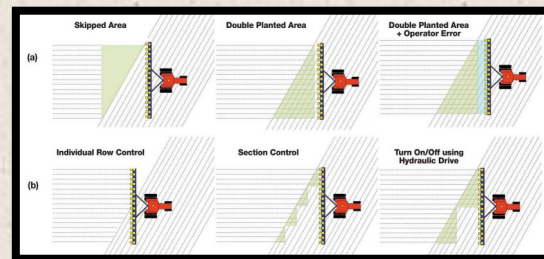
## *Crop Congresses Continue to Draw Big Numbers from Across the Region*



Almost 1,000 producer and agri-business representatives attended the NWNy Team’s Corn and Soybean/Small Grain Congresses held in Batavia and Waterloo. These four winter meetings are the largest grain meetings in the state and consistently draw in large crowds every year. Each program is a full day of educational topics from NWNy Team specialists, Cornell researchers, IPM specialists, and invited expert speakers. The industry trade show is always a hit and is packed with all the local seed, chemical, fertilizer and machinery dealers to show off the latest and greatest and answer questions. These shows give everyone lots to think about and research over the winter months and even gets them some much needed certified pesticide applicator and certified crop advisor credits.

## **Auto Section Control on Corn Planters: Benefits and Costs for Decision Making**

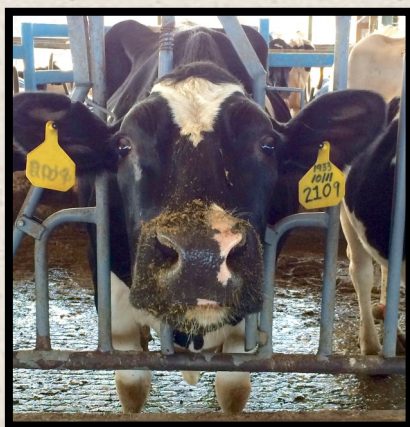
Auto Section Control (ASC) technology on a corn planter uses information from a global positioning system to plant seeds; reducing skipped and, or double planted areas and avoiding, for example, environmentally sensitive areas. ASC technology helps reduce operator stress. To realize benefits a farmer would invest about \$15,000 additional on average for ASC on a corn planter when compared to base technology.



At a session on precision farming during PRO-DAIRY's 2017 Operations Managers Conference, approximately forty attendees learned the following from the team's economic analysis of the technology.

- Expected changes in profit attributed to ASC on a corn planter are positive for some, but not all corn acres scenarios; capital investment analysis yields similar results
- Some benefits to the operator are difficult to quantify, but valuable -- reduced stress, reduced fatigue
- Producers are encouraged to take advantage of analysis provided by equipment professionals & advisors

## **Dairy Farm Business Summary Cooperators, a Significant Source of Economic Activity**



Applying financial management skills, owners of 40 dairy farm businesses from the region cooperated with regional specialists, PRO-DAIRY staff, and agribusiness consultants to complete DFBS's for 2016. Cooperators learned about the strengths and weaknesses of their businesses. Research studies conclude that producers using DFBS with analysis achieve greater levels of profit compared to producers that do not. Greater profitability contributes to enhanced economic viability, increasing the likelihood that businesses have the capacity to invest in replacement and, or expansion assets, and maintain and, or increase employment levels. Estimates using DFBS results suggest that the 40 cooperating businesses invested a total of \$20.3 million in land, buildings and improvements in 2016, and a total of \$9.2 million in machinery and equipment. Estimates suggest that the 40 farms employed a total of 828 worker equivalents, excluding operators, where an

equivalent represents 230 hours worked per month for 12 months, and generated a total of \$227.9 million in cash farm receipts from milk, cattle, crops and other receipt items.

## **Economics of Growing Malting Barley in New York State**

Changes in supply and demand conditions for malting barley, including the effects of policies designed to boost economic activity attributed to the production, marketing, and consumption of malting barley and its products, underlie farmer interest in the economic potential associated with growing malting barley.

Approximately 90 growers, maltsters, brewers, researchers, extension educators and others attending two December 2016 meetings, approximately 85 attendees at the 2017 Small Grains Field Day, readers of several AgFocus articles, and numerous website visitors learned the following from the team's economic analysis.

- Profit estimates vary --negative to positive -- depending upon yield and price received by the farmer
- Producers can apply estimates to make decisions regarding malting barley production's place in their cropping systems; understanding variability plays an important role
- Understanding yield, quality, price, costs, profit interactions associated with suggested changes in production practices are key moving forward



### **Meat & Greet Event Connects Farmers and Consumers**

When it comes to shopping for meat, more consumers are looking for products raised locally. Many of those consumers, however, have trouble connecting with nearby farms to satisfy their buying preferences. Looking to break down that barrier in the Finger Lakes was the inaugural Meat & Greet Farmer and Chef Fair.

Producers do a great job of taking care of their animals and the day-to-day things, but marketing often does not always come naturally to those folks. It is so important that farmers get out and let consumers get to know them. There is no one better positioned to tell an animal's and farm's story than the farmers themselves.



Held at Hobart and William Smith Colleges in Geneva, New York, the event was a collaboration between Cornell Cooperative Extension and Hobart and William Smith Colleges' Finger Lakes Institute. Also sponsored by the Meat Suite Project and Finger Lakes Culinary Bounty, the event brought together more than 20 farms and well over 100 consumers, including home cooks, professional chefs, restaurateurs and food distributors.

During the event, four local chefs prepared meat that was donated from some of the attending farms. The demonstrations were entertaining, educational as well as delicious! It was not only a networking event for consumers to connect with farmers, but farmers to connect with other farmers. New and beginning farmers attended to pick up some marketing and promotional ideas as well.

### **Reproduction School Targets Beef Producers**



Many beef farms in the NWNy region are small, part-time operations with an average of 13 cows and have a short breeding season. A bull with quality genetics is needed to raise a quality calf. This makes it costly to afford to purchase and keep a bull throughout the year. Some farms would rather not keep a bull on the farm for safety reasons. Beef producers have started utilizing artificial insemination as an option, though technicians are not always available to service a few cows.

While proper artificial insemination technique is important in any farm's reproductive program, understanding the cow's anatomy and physiology are also essential. Participants

learned the biology of bovine reproduction, giving them a better understanding of the whole reproductive system. The training was held on a dairy farm in Ontario County where there were a number of cows available for hands-on practice to gain experience with proper insemination technique. The training consisted of both classroom sessions and hands-on practice on both days. Genex Cooperative, Inc. along with NWNy Team offered instruction for this training.

Over the course of two days, students learned the basics of bovine reproduction. The course offered as much hands-on practice as possible, though it was a beginner's course meant to teach the basics of artificial insemination. Participants were expected to practice inseminating cows on a regular basis on their own farms in order to become proficient. The course also reviewed options for heat synchronization, so with proper application of a synch program cows could be bred on the same day.

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