



Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

FIRST QUARTER REPORT

JANUARY – MARCH 2020



Farm Management Education Supports Data Driven Decision Making

Mary Kate Wheeler, Farm Business Management Specialist

As the team's Farm Business Management Specialist, my goal is to equip producers with knowledge and skills that they can apply to strengthen their business operations and improve profitability. Any decision that a farm manager makes can be analyzed within the context of "how will this decision affect farm profit?" On a dairy farm, profit is driven by four variables: the milk price, the cost of producing milk, the total volume of milk production, and the total amount invested in the business.

$$\text{Profit} = \frac{(\text{Price} - \text{Cost}) \times \text{Volume}}{\text{Investment}}$$

Holding all else constant, profits go up if the milk price or the volume increases, and profits go down if the cost of production or the investment level rises. Despite the simplicity of this model, any change on the farm has the potential to influence multiple variables in this equation, making it complicated to discern the impact on profitability. To make good business decisions, farm managers must have good systems in place to gather and analyze financial information. Farmers participate in our business management programming to enhance their knowledge of record keeping systems and farm accounting principles, and improve their financial analysis skills.

Record Keeping

For the second year in a row, we offered a QuickBooks for Farmers class in partnership with SCORE Syracuse. The course blends instruction on farm accounting principles with step-by-step demonstrations of how to record transactions using QuickBooks software. Each student practiced entering transactions on their own individual laptop, providing a hands-on experience to reinforce student learning.

Eight people from seven farms attended this 4-week class, held at the Career Work Center in Cortland. By holding the

class in January, we introduced farmers to new record keeping skills and tools right at the time of year when many are considering updates to their recordkeeping system. As a direct result of this program, two farms who already used QuickBooks reported making improvements to their existing record keeping systems. Three farms purchased new QuickBooks software to use for farm record keeping in 2020. With additional support from our team, one farm applied for - and received - a \$2,500 Dairy Advancement Program (DAP) Record Keeping Systems grant to purchase and set up QuickBooks on a new farm computer.

We will continue offering QuickBooks for Farmers as long as there is enough demand among producers. Our next step will be to offer it in another county. Since SCORE Syracuse does not serve all six counties in our region, we are exploring collaborations with other entities to provide computer access.

Financial Analysis

The Dairy Farm Business Summary (DFBS) is an incredible tool that dairy operators can use to track the annual performance of their business. The DFBS is highly detailed, and it requires a tremendous amount of financial and production data to participate. Working with farms to complete the DFBS involves education on record keeping systems and principles of farm accounting, including cash versus accrual basis. Once a farm has completed the DFBS, we train them to read and interpret their financial statements and performance indicators. Each participating farm receives a detailed individual report, which provides a thorough snapshot of the past year's performance, and compares it to previous years. This annual "report card" serves as a jumping off point for big-picture discussions about farm goals, challenges, and opportunities.

In January and February of 2020, I worked with nine farms to complete their 2019 DFBS. Eight of these farms were not

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Cornell Cooperative Extension links the research and extension efforts at **Cornell University**, and **Cornell AgriTech**, the New York State Agricultural Experiment Station, **providing the knowledge** to maximize New York State's agricultural and natural resources. The **South Central New York Dairy and Field Crops Program** is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in 6 Counties.



A Variety of Formats to Deliver Dairy Education this Program Season

Betsy Hicks, Area Dairy Management Specialist

Through program evaluation, consistently producers let us know that using varying formats and length of program is necessary to reach a wide audience. This season, the dairy program utilized several formats such as discussion groups, shorter on-farm meetings, and webinar-based learning to offer new information to our farmers.

Discussion Groups

New this year, the formation of the Automated Milking System Discussion Group brought together producers utilizing robotic milking technology from around Central NY. Producers that utilize this technology are faced with unique challenges, which makes learning from peers so valuable and rewarding for those that participate. This group of farmers have met twice already, with topics focused on Milk Quality Management and Daily Task Efficiency being discussed at each meeting.

Once again this year the Dairy Manager Discussion Group met, with Dr. Julio Giordano from Cornell University presenting research around reproductive strategies for dairy farms. Herd managers from dairies in the SCNY region were able to compare notes with each other on this topic, as well as pick Julio's brain on best practices and associated costs of utilizing a particular strategy.

Modern On-Farm Preparedness Webinars

Together with the other regional dairy educators, a series of webinars was given to help producers prepare for the modern dairy farm's needs. Webinars on topics including F.A.R.M. 4.0 Updates, Social Media Preparedness, Disease Outbreaks & Biosecurity and Animal Activism were given at several locations throughout NYS. Presenters included Lindsay Ferlito of the North Country Regional Ag Team, Beth Meyer of American Dairy Association North East and Dr Melanie Hemenway of NYS Ag & Markets. These webinars were recorded, and will be accessible for viewing in the near future.

On-Farm Meetings

Together with Alltech, an on-farm meeting (for both English- and Spanish-speaking employees) was given at a local dairy farm. For the English



speaking managers, Alltech's on-farm specialist, Jorge Delgado presented on how to motivate Hispanic employees and gave context behind Hispanic culture. In the session for the Spanish-speaking employees, Jorge delved into the science behind transition cow issues. Over fourteen Hispanic employees attended this session



Hispanic farm workers receive certificates for their completion of Cow Care Training

from four of the counties represented in our SCNY region. Employees received a certificate at the end of the training; several said they had been to trainings before, but this one answered many questions about the science and "why's" behind the care of transition cows.

Another meeting held on-farm centered on grazing, and featured Troy Bishopp, the "Grass Whisperer", of Madison County SWCD and the Upper Susquehanna Coalition. This meeting was made possible by a grant from the Dairy Advancement Program awarded to Mary Kate, and was the kick-off meeting for a discussion group that will help conventional grazing dairies achieve their goals. Producers from many types of grazing situations attended; Mary Kate talked through ways to understand cost of production while grazing, and Troy led discussion around setting up a grazing system using his grazing charts. Next steps for this program include working with conventional dairies one-on-one to further understand their grazing system and track both inputs and milk production during the grazing season.

Dairy Profit Monitor Discussion Group

Another Dairy Advancement Program-funded group is in the beginning stages of gathering data for their discussion group meetings. This group focuses on smaller, ~70 cow herds and utilizing data from Dairy Profit Monitor, an online system for gathering key data and comparing numbers from one dairy to similar dairies. Betsy was awarded funding for this group, and has started gathering monthly

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Supporting Innovation in the Cropping Enterprise

Janice Degni, CCE Field Crop Specialist

The cropping enterprise as a stand-alone enterprise or as an underpinning of our dairy systems is constantly trying to integrate new scientific findings, technology adaptations, address regulations and practice environmental stewardship. Home grown forages and grains are relied on for herd nutrition and wellness. The nutritional value (quality) and sufficient quantities (yield) are critical production factors that can positively or negatively affect a producer's bottom line.

In the current economic environment, all agricultural enterprises from fruits and vegetables, livestock to dairy and field crops are feeling a tight economic squeeze. That pressure creates an environment where efficiency, particularly scrutinizing expenses for those that will provide a return in terms of yield or quality is required to maintain a viable business.

At every phase of a cropping system there are numerous decisions that will contribute to that efficiency or not. The plans for crop rotation, seed selection, tillage, pest management, harvest, storage, marketing or use as home grown feeds affect costs and final outcomes. Our extension educational program in field crops addresses these areas through articles, field days, workshops, conferences and consultations.

Our project, *Targeting Timing of First Cutting by Monitoring Alfalfa Heights* in the early spring addresses a critical moment in the hay crop cycle since first cutting represents the greatest quantity harvested within a season. The opportunity to harvest peak quality feed is limited to a few days so our data collection helps farmers plan and prepare to capture that window of opportunity.



Winter meetings allow for in-depth information on production topics including emerging trends and technologies. The 2020 Winter Crop Meeting, held in Ithaca each January focused on different aspects of corn silage production which are outlined below.

- ✦ Our NYS Extension Forage Crops Specialist, Dr. Jerry Cherney, reviewed 20 yrs or data supporting current recommended **corn silage management practices**.
- ✦ Dr. Quirine Ketterings, Cornell Spear Nutrient Management Program and Karl Czymmek, nutrient management specialist with the PRODAIRY program provided an **overview of the corn silage and grain yield database** that they are compiling in collaboration with NYS growers.
- ✦ Mary Kate Wheeler, our team Business Management Specialist gave an overview of the **Dairy Revenue Protection Program**.
- ✦ The findings from the **2019 Corn Silage Trials** and suggestions for optimizing their use on farm was presented by Joe Lawrence, Forage Specialist with the PRODAIRY program.
- ✦ Management recommendations for **emerging problem weeds with herbicide resistance** were provided by colleague Mike Hunter, Extension Field Crop Specialist with the Northern NY Regional Ag Team
- ✦ Dan Wixted, of the Cornell Pesticide Management and Education Program stole the show with an overview of the scientific data that support or disputes the **Health Effects of Glyphosate**. The data is reviewed in the context of risk of exposure and toxicity of the compound. ★



Winter Crop Meeting 2020



SOUTH CENTRAL NY DAIRY & FIELD CROPS TEAM

Meetings & Workshops Fall/Winter 2019-2020

Nov 12	Automated Milking System (AMS) Management Discussion Group Farm Credit East, Homer	Betsy & Mel 12p
Nov 13	Hemp Information Session CCE Tioga, Owego in collaboration with Farm Bureau	CCE Tioga/Janice 105p
Nov 14	NYS Soil & Water Conservation Society Annual Meeting Invited Presentation: Growing Hemp in NYS SWCD Cayuga County, Auburn	Janice 40 p
Nov 21	Info Session on the Farm Laborers Fair Labor Practices Act CCE Broome Cty, Binghamton Featuring Dept. of Labor Representatives	Mary Kate 13p
Dec 3	Cow Comfort Program – Freestall Preble Hill Farm, Preble Featuring Dr. Rick Grant, Miner Institute	Betsy 22p
Dec 5	Cornell Field Crop Dealer Meeting Invited Presentation: An Overview of Growing Hemp in NYS Double Tree, Syracuse	Janice 85 p
Dec 9	2019 Feed Dealers Seminar Chamber of Commerce, Cortland Managing forage quality and quantity challenges & Increasing diet precision through management of feed variability	Betsy 11p
Dec 12	Info Session on the Farm Laborers Fair Labor Practices Act Farm Credit East, Homer Featuring Dept. of Labor Representatives	Mary Kate 13p
Dec 13	Cow Comfort Program – Tiestall Featuring Dr. Dan McFarland, Penn State Flemingville United Methodist Church, Owego	Betsy 17p

2020

Jan 11	Hemp Symposium and Expo Invited Presentations: Soil Testing and Growing Hemp in NYS Small Business Development Agency and Binghamton University	85p
Jan 14	NY Certified Organic (NYCO) #1 Martin Auction Barn, Waterloo Plant Breeding for Corn, dairy farmer panel & Wepkings share path to farm ownership	Fay 50p
Jan 15, 22 29 & 2/5	QuickBooks for Farmers and Growers: Session I-IV Cortland Works, in collaboration with SCORE	Mary Kate 10p
Jan 16	Dairy Manager Discussion Group: Reproductive Strategies w/Dr. Julio Giordano Chamber of Commerce, Cortland	Betsy 11p
Jan 22	Organic Dairy Task Force DFA Offices, Syracuse	Fay 31p
Jan 24	Winter Crop Meeting 2020: Corn Silage Management Practices et al. Clarion Inn, Ithaca, NY CCA/DEC credits	Janice 86p
Feb 6	Hemp Producer's Conference CCE Broome County, Binghamton Invited Presentation: Growing Hemp in NYS: An Introduction to Cropping as a System	Janice 132p

SOUTH CENTRAL NY DAIRY & FIELD CROPS TEAM

Meetings & Workshops Fall/Winter 2019-2020 continued

Feb 11	NY Certified Organic (NYCO) #2: Grain cleaning, storage & handling Martin Auction Barn, Waterloo	Fay 50p
Feb 12	Dairy Manager Discussion Group Dr. Rich Stup, Farm's responses to Ag Labor Laws	Betsy <i>cancelled due to low signup</i>
Feb 19	Automated Milking System (AMS) Management Discussion Group Farm Credit East, Homer	Betsy & Margaret Q 14p
Feb 19	2020 UAS Ag Drone Summit w/ Mike Harris DEC credits CCE Broome County Invited Presentation: Herb Resistant Weeds & Mgt Strategies	Janice 30p
Feb 25	Connecting the Dots: Linking Dollars to Dairy Grazing Decisions Venture Farms, Tully	Mary Kate & Betsy 33p
Feb 26	On-Farm Transition Cow Support w/ Alltech (Spanish & English) New Hope View Farm, Little York	Betsy 20p
Mar 4	FSA/CCE Producer Appreciation Luncheon & Ag Fair Dryden Fire Hall	Melanie 36p
Mar 6	Spring Manure Handling and Trucking Safety Workshop with DSSC In collaboration with Dairy Support Services / CNY Farm Supply, Cortland	Janice/Betsy/Mel 140p
Mar 10	NY Certified Organic (NYCO) #3: Mycotoxins, Transition to Organic research Martin Auction Barn, Waterloo	Fay 40p
Mar 17	Chemung County Ag & Farmland Protection Meeting Big Flats Community Room Invited Presentations: Hemp as an Agricultural Crop & Herbicide Resistant Weeds & their Management	Janice DEC credits <i>Cancelled due to COVID-19</i>
Mar 20	Tompkins County Ag Summit Clarion Inn, Ithaca Invited Presentation: Hemp Challenges	Janice <i>Zoom Presentation & Rescheduled due to COVID-19</i>
Mar 24	Pioneer Dairy Forage & Crop Meeting DEC credits Dryden VFW In collaboration with VanPelt Farms	Janice <i>Cancelled due to COVID-19</i>
Mar 25	Calf Care Meeting with Purina Venture Farms, Tully	Betsy <i>Postponed due to COVID-19</i>
Mar 26	Tully High School Career Day Tully, NY	Betsy/Melanie <i>Cancelled due to COVID-19</i>
Mar 26	Homer High School Ag Career Day Homer, NY	Betsy/Melanie <i>Cancelled due to COVID-19</i>
Mar 25	Pesticide Applicator Training Dryden Fire Hall	Janice <i>Postponed due to COVID-19</i>
April 3	Tompkins County Virtual Ag Summit Invited Presentation: Managing COVID-19 Risks on Your Dairy	CCE Tompkins/Mary Kate 22p
April 10	Tompkins County Virtual Ag Summit Invited Presentation: NY Labor Law Updates	CCE Tompkins/Mary Kate 22p
April 17	Tompkins County Virtual Ag Summit Invited Presentation: Hemp Update – Challenges and Opportunities	CCE Tompkins/Janice 22p



Demonstrating the Impact of Compaction in Pasture Soils

Fay Benson, Small Dairy Support

Soil compaction is an important issue in pastures because it affects the soil's ability to perform all of its functions, reducing pasture productivity and water infiltration. With grazing happening daily, even when soils are wet, compaction accumulates slowly over years so many farmers don't recognize that it has occurred. Identifying compaction is the first step to help with this. I wrote a Sustainable Ag. Research and Extension (SARE) three year grant to fund the training of ag educators and provide workshops for graziers across the Northeast.



110 people participated with the pasture compaction station at the Grasstravaganza event at Cobleskill State

It started with a "Train the Trainer" event at two locations during the spring of 2019. Seventeen grazing educators attended the instructional meetings. Larry Hepner (Soil Structure Consultant) and Bob Schindelbeck (Director of Cornell's Soil Health Lab) assisted me with the training. During the summer, the trainers participated in organized

on-farm events where farmers could see demonstrations of how compaction was impacting soil structure. There were 15 events held in the summer of 2019 with 436 farmers in attendance. The events took place in New York, Pennsylvania, New Hampshire and Maine.



Larry Hepner demonstrates "Platey" structure caused by compaction at the event in Hoosick Falls NY.

A portion of the grant is also used to research a tool that compares compaction management called the Pasture Compaction Ratio (PCR); a penetrometer is used to measure compaction in a pasture and then compare it under the fence line where no animal or machinery can affect the ground's compaction. The ratio between the two readings is the PCR. The closer the ratio is to 1.0, it shows less compaction. Our research is to see whether the PCR remains constant when soil is damp or dry. If so, this tool will be something farmers can use to measure their management's effectiveness in controlling compaction. There will be continued data collected during the summer of 2020 and numerous on-farm pasture events to share the information gathered.



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milk check data, herd parameters and feed inputs from participating farms. Farms can start to compare their own monthly numbers as they are inputted in the DPM system. A summer discussion group meeting is planned so that our producers can compare several months of data at that time. This group will gather data throughout 2020, and meet early in 2021 to compare a full year's data.

NYFVI Project

This last quarter also saw the start-up of a new NYFVI-funded research project, awarded to Betsy and two other regional dairy specialists, Margaret Quaassdorff of the NWNY Team and Lindsay Ferlito of the NNY Team. This

project focuses on areas of opportunity and excellence in calves, transition cows and cow comfort. Each region will work with five farms to achieve five contact points, including 1) initial visit and questionnaire, 2) initial farm assessment, 3) report delivery to farm and formation of an action plan 4) farm reassessment and 5) final report delivery and documentation of changes. This project will last until the summer of 2021, and will result in the formation of a podcast series in which each producer will discuss their area of excellence or opportunity and what they've done to improve/maintain results. This project serves to achieve two areas: increasing the profitability of the participating farms, as well as share best practices in a form that many producers are looking for.





SCNYDFC and FSA Producer Appreciation Luncheon

Melanie Palmer, Area Dairy Support

The daily lives of the agricultural producers in our region consist of hard work; physically, mentally and emotionally. It is a good practice to relax and 'take a break' occasionally. With that in mind, the NY South Central Dairy & Field Crops team collaborated with the USDA Farm Service Agency of Cortland and Tompkins Counties to host the 5th Annual Producer Appreciation Luncheon and Agricultural Agency Fair March 4, 2020 at the Dryden Fire Department.

This luncheon was an opportunity for producers from all walks of agriculture to come together, relax and enjoy a meal. Several local agricultural agencies, such as NY FarmNet, CCE, County Soil & Water Conservation Districts, FSA Commodities/Credit and USDA NRCS to

name a few, attended the luncheon and were available to interact directly with the producers. These agencies were also given a few minutes to speak to the entire group to share what they do, program opportunities and provide updates.

Our goal for this luncheon was to create a relaxed atmosphere, if only for a few hours, for our hard working agricultural producers that we serve. It was also an opportunity for the agricultural agencies to show their appreciation to those that produce food for our tables every day. Based on the content faces, and the fact that leftovers were few, I would say that we were successful at meeting our goal. ✨

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participating in the DFBS when I joined the team in 2017, and two of them were completely new to the DFBS this year. All those that participated in the DFBS increased their knowledge of their own farm's financial performance, and most have implemented management changes as a result. Five farms made significant changes to improve their record keeping systems as we worked through the DFBS together.

It is important to note that the benefits of participation in the DFBS accrue to the industry as a whole, not just participating farms. There is a strong applied research component to the DFBS, as PRO-DAIRY staff analyze the statewide DFBS data and generate public reports summarizing the state of the dairy industry. These extension bulletins are available to all farms, whether or not they participate. CCE educators frequently cite these reports in public presentations and in meetings with individual farms. The data from our nine participating farms strengthen the statewide summary and ensure that farms in our region are represented in the published DFBS reports.

Benchmarking

Benchmarking is the process of comparing one farm's performance to a set of internal or external indicators. Internal benchmarking shows change over time within an individual business, while external benchmarking compares one farm to a group of peers. External benchmarking in a peer-to-peer discussion group setting is an incredibly powerful tool for educating producers about the relationship

between different management choices and financial outcomes.

Following a request for benchmarking from an organic dairy farmer, we established an Organic Dairy Discussion Group with 6 farms in July 2019. This discussion group was the first in New York State to receive a Dairy Advancement Program (DAP) Peer-to-Peer Strategic Focus Group grant, which provided \$7,500 to support the program. In preparation for our second meeting, we recruited 2 additional farms from our 6-county region, collaborated with another Farm Business Management Specialists to identify 2 more farms from outside our region. Ten farms participated in our second Organic Dairy Discussion Group meeting in March 2020.

It has been almost a decade since PRO-DAIRY last published statistics on the financial performance of organic dairies in NY because there have not been at least ten participating farms, the minimum number required to publish summary statistics. By bringing seven new organic dairies into the DFBS over the past two years, our efforts will allow PRO-DAIRY to generate comparison reports and publish benchmark data for the NY organic dairy sector. As a result, our efforts to develop a discussion group program to meet the demands of producers in our 6-county region will end up benefiting organic dairies across the state by increasing enrollment in the DFBS, delivering greater benchmarking value to the farms that do participate, and offering a stronger incentive for new farms to participate going forward. ✨



The Hemp Scene in New York State

Janice Degni, CCE Field Crop Specialist

"The hemp scene in NYS is a big, awkward, 4-year old. To date, the hemp industry has been a rapidly changing system of growers, processors, buyers, customers, researchers and regulatory agents – each with growing pains. As a whole, the NYS hemp industry is administered and regulated by the Plant and Natural Resources Division of Ag & Markets and they've done an excellent job of quickly translating dynamic political progress into order, regulations and guidance. Hemp first became a legal research crop in the US as a result of the 2014 Farm Bill. NYS changed its rules to permit hemp more widely in 2016. The 2018 Farm Bill made further improvements by removing hemp from the list of federally controlled substances and providing a framework for states to begin handling hemp as an agricultural commodity."

-Dr. Kitty O'Neil, Field Crop Specialist,
North Country Regional Ag Team



Janice Degni speaking at Hemp Conference.

Hemp Symposium and Expo organized by the Small Business Development Center. Topics addressed production of hemp for CBD and soil testing. In addition to seminars the event included policy, roundtables, networking, and exhibitors al to support learning opportunities.



Assemblywoman Donna Lupardo speaking at Hemp Conference in Broome County at Farmer's Market.

Our educational efforts continue in the region. Meetings in the fall of 2019 included the NYS Soil & Water Conservation Society Annual Meeting (11/14), Cornell Field Crop Dealer's Meeting (12/9) and a November workshop held at CCE Tioga which attracted over 100 would be growers, most of whom were exploring an interest in growing and a few current growers. The legal and agronomic requirements of growing industrial hemp were addressed at all the sessions. In January, Janice gave two presentations to 80 attendees at the Binghamton University

A daylong conference was held in February in collaboration with CCE Broome County. The venue was at capacity with over 135 attendees. Janice presented a framework for growing hemp in a cropping system including the role of soils, as the foundation of a cropping system, and the critical role of organic matter and cover crops to support a crop rotation and ensure sustainability. Other topics included: Dr. Larry Smart with an evaluation of hemp cultivars for grain, fiber and CBD; Jen Starr with an overview of hemp diseases and their potential control; Chris Logue, Director of Plant Industry, NYS Ag and Markets with an update on NYS rules and regulations; Assemblywomen Donna Lopardo addressed the state of hemp particularly the oversupply and depressed prices in the market; Scott Kurkoski, attorney at law, addressed considerations of contracts; Kaelan Castetter of CSG Hemp discussed regulatory changes in the proposed USDA regulations and marketing; and grower Erik Carbone of Tricolla farms shared his experience harvesting and drying the crop to preserve quality and value. ★

