Cornell University
Cooperative Extension
South Central New York Dairy & Field Crops Team

South Central New York Area Dairy & Field Crops Team

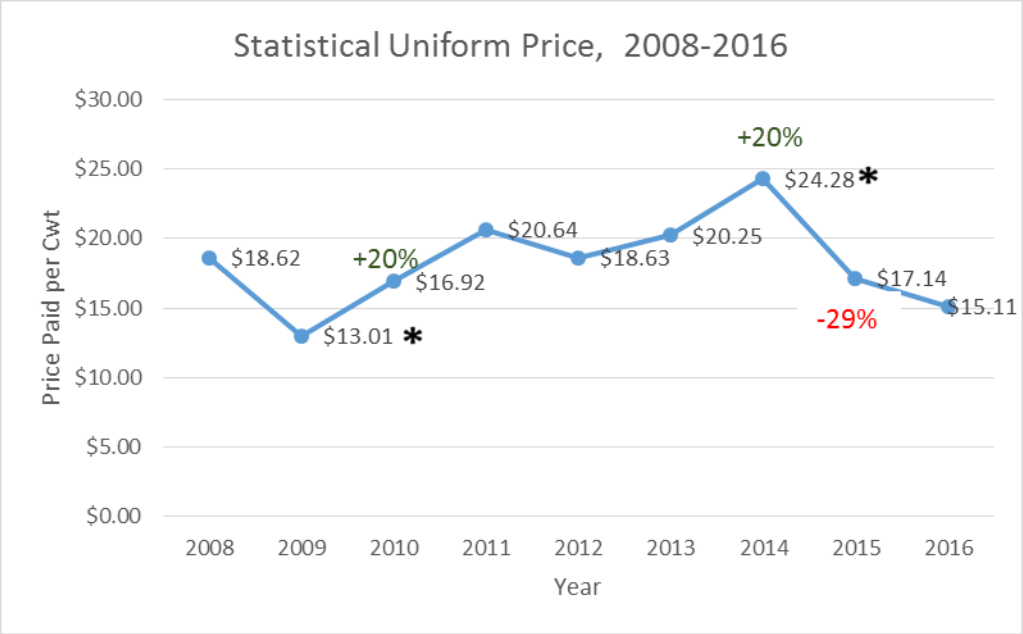
SOUTH CENTRAL NY DAIRY & FIELD CROPS PROGRAM

1st Quarter Report **Jan.-March 2016**

CURRENT CHALLENGES IN THE DAIRY INDUSTRY - Janice Degni, Team Leader

The perennial woes of the dairy industry; finances, labor, regulation, taxes and an aging farm population are ever present challenges.

Price volatilization is not new news in agriculture and especially dairy. Prices have been more strongly cyclical since the 1990's when the government's dairy pricing policy changed from parity to market driven. In 2014, the safety net provided to farmers during low milk prices was radically adjusted. The prior program known as MILC, provided payments to dairy producers when milk prices relative to feed prices were below a specified threshold. There was a cap on the amount of milk that would be considered for payment. Beginning in the fall 0f 2015 the farm bill replaced MILC with the Dairy Margin Protection Program (MPP) which requires more active decision making and is more like an insurance policy.



2008	2nd highest blend price on record
2009	2nd lowest annual ave. blend price
2010	3rd highest blend price
2011	1st time over $20
2012	In top 1/3 over past 13 years
2013	2nd highest since order's inception
2014	**Highest** price since order Inception
2015	Lowest price since 2010
2016	Price expected to hover in this area for another year at least

Let's review the recent past. Following the financial crisis of 2008, farmers experienced the most painful low price in recent memory in 2009. Milk price dropped 30.1% from the 2nd highest blend price on record to $13.01 per hundred weight (cwt). Very few farms stayed even financially and many dairies ate equity to survive. The ethanol boom of 2007 reset the playing field for cost of forages and grains, both purchased and homegrown. For example, for better than 15 years corn silage was priced at $25/ton year in and year out. When corn grain prices rose from $3.50 per bushel to upwards of $7.00/bushel corn silage was priced from $50-$75/ton. During this period farmers managed the best they could through the oscillating price cycles of both grain and milk prices. The cycles were not always synchronized. In 2009, the first half of 2010 and 2012 farmers received low milk prices while paying high grain prices. In 2014 milk price reached a record high. Crop prices were somewhat lower and cull cow prices were exceptional. A large increase in exported milk products helped to boost milk price. In 2015 and 2016 with a stronger dollar and fewer exports, milk price or more precisely margin of income over expenses is narrow to non-existent, creating a challenge to make ends meet.

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Although many farms did very well in 2014, some were still catching up from 2009. Today all conventional dairy producers are feeling the squeeze, some more painfully than others.

Niche Markets

Organic milk pay price is significantly higher, today organic is around $43/cwt while conventional is around $15/cwt. Organic has higher feed input costs which in part explains the higher pay price. One of the huge advantages of the organic milk market is stable, predictable prices. Contracts with a fixed price usually cover 6 months to a year and allow a farmer to predict their annual income and plan accordingly. In contrast, conventional farmers learn the price of their milk after the month it is sold and can only surmise price movements from forecasters and future's markets. Emerging niche markets such as 'grass fed' milk pay as high as $50/cwt.

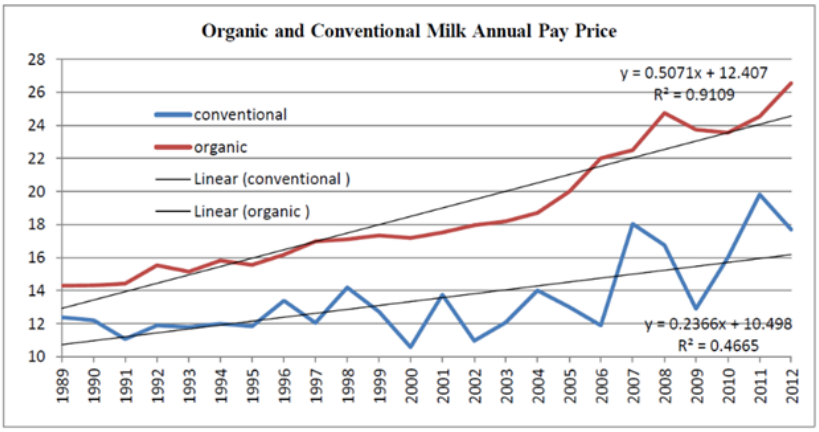


Figure 2. Organic and Conventional Milk Annual Farm Price (Data from ERS and CROPP)

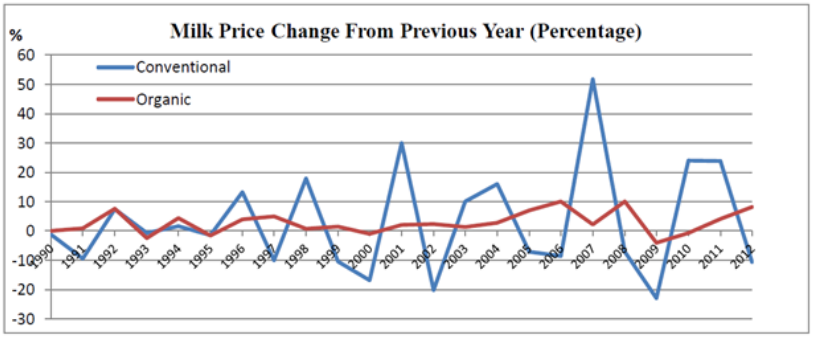


Figure 3. Milk Price Percentage Change from Previous Year

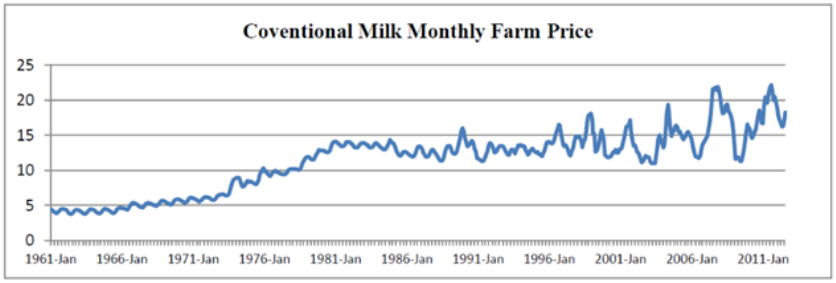


Figure 4. Conventional milk farm monthly price from 1961-2012 (data from ERS)

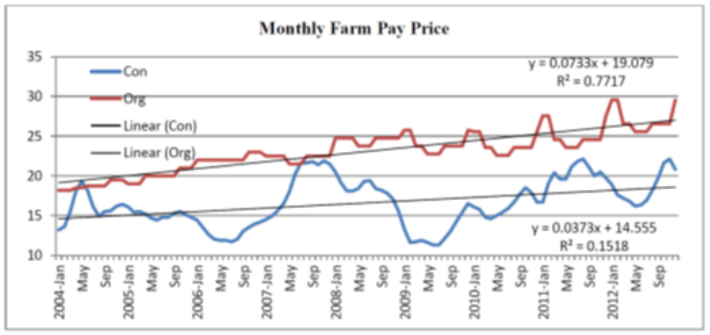


Figure 1. Organic and Conventional Milk Monthly Farm Price (data from ERS and CROPP Midwest base price)

The charts to the left and above show the relationships between Organic and Convention Milk Pay Prices over time.

Factor's that are within the farmer's control to positively impact their milk price are producing high quality milk (low somatic cell count and bacteria) to earn a premium and by impacting the fat and protein components through their feeding program. Successful breeding programs and young stock raising all contribute to the farm's production and bottom line. Milk price responds to a global market, more so in the last few years because exports now have an important role in product disappearance. The value of the dollar, global supply and demand, state of the worldwide and national economies are all external factors that affect milk price overwhich the farmer has no direct control.

Milk price sets the tone for farmer's optimism or pessimism from year to year by directly impacting annual cash flow on the farms and all the decisions of how to best spend each dollar but is not the only challenge or issue that farmers have to face on a daily basis. Farmer-neighbor relations are becoming more critical especially but not exclusively as farms grow. Pressure to be environmentally responsible is constant. Farmers in the Cayuga Lake Watershed face the possibility or a TMDL (Total Maximum Daily Load) which farmers in the Upper Susquehanna Watershed have been operating under for several years. The industry is setting Animal Welfare standards that must be met and verified to maintain a milk market as well as many other issues that impact the industry including the ever-changing technology for production that one needs to keep current on and constantly evaluate in order to not fall behind. This is the context in which we define our priorities and assess needs to drive our program development.

Sources: Su, Ye; Brown and Cook. 2013. Stability in Organic Milk Farm Prices: A Comparative Study. University of Missiouri

NE Milk Market Administrator. Annual Statistical Bulletins. www.fmmone.com

Educating Farmers on Soil Management Amid Climate Change

Cornell University Cooperative Extension

NEW YORK SOIL CHALLENGES

NY pasture soils present livestock grazers with their own production specific challenges. Our mission with the NY soil health trailer is to tailor its services to NY soils and grazing livestock producers. Though outreach and education we train farmers to address these issues with grazing management techniques that improve soil health and the economic stability of their operations. All the while conserving grassland and developing resilient soils that insulate the effects of climate change on plants and their roots.

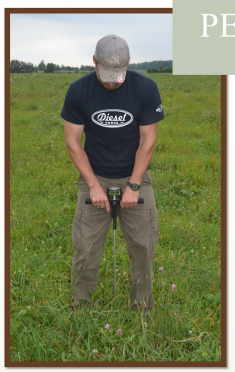
The NY soil health trailer is part of a 3 year National Conservation and Innovation Grant. In its first year it has already proven to be a great outreach tool, bringing technical soil services and education to where the farmers are.

THE NY GRAZING COALITION

NY Grazing Coalition is led by a dedicated group of farmers and agency personnel from Cornell Cooperative Extension (CCE) and Soil and Water Conservation Districts (SWCD). The farmers represent all types of grass-based livestock production (dairy, beef, sheep, etc.) and from across the state.

Agronomist Mark Kopecky demonstrating the value of aggregates in healthy soil

PENETROMETERS



Measures the pressure to penetrate the soil, indicating the level of compaction in pastures that could be caused by livestock or machinery. Penetrometers can be a useful tool for grazers to obtain a general idea of where their soil is compressing

RAINFALL SIMULATOR

Project Leader and Educator, Fay Benson demonstrates the effects of different grazing systems on water infiltration and runoff after a rainfall.

ACTIVE CARBON TEST

The active carbon test is our addition to the NY trailer's versatile tabletop presentations. Part of the Cornell Soil Health Test, active carbon testing indicates the presence of oxidizible components of organic matter in the soil, which relates to the amount of food is available for microorganisms.

www.facebook.com/nysoilhealthtrailer

Cornell Cooperative Extension South Central NY Dairy and Field Crops Program
POW Overview FY 2012 - 2017

Major Program Title: Maintaining a Positive Environment for Farming in the Region

Community relations are growing in importance for farm producers. A host of factors fall in this arena including farmer, non-farmer community relations, agricultural policy, government regulations and the industry's infrastructure. All of theses areas impact the viability of farming in a region. In addition production practices are evolving with consumer demand. A change in practices to 'established standards' may be required to participate in certain markets.

Broad Program Goals:

- Producers will better understand the impact of agricultural policy, government regulations, consumer demands, and the benefit of positive neighbor relations.
- Farmers will understand the importance of public relations for their farm and will be introduced to some creative ideas for PR.

Major Program Title: Dairy Enterprise Performance and Management

On most NYS dairy farms the dairy enterprise (the milking herd) is the principle source of revenue to the farm business. The productivity, sustainability and economy of any successful commercial dairy enterprise must continually be evaluated and fine-tuned, opportunities identified and pursued as the industry's knowledge base evolves and technology advances.

Broad Program Goals:

- Expose dairymen and agriservice personnel to pertinent Cornell research and ProDairy teaching resources, whereby dairymen will identify opportunities for the adoption of existing and new technology. Support and improve managerial and technical efficiency on dairy farms via adult education and applied research.
- Explore, understand, measure and manipulate the performance of dairy enterprises. Performance of any dynamic system is comprised of productivity, sustainability and economy; or in the context of the dairy enterprise: stockmanship, stewardship and business acumen. Develop and demonstrate scientific and technical competence in leading and assisting milk producers and their advisors with:
  - *Animal science*; physiology, biology and ecology, milk yield and quality
  - *Herdsmanship*; breeding, feeding, housing, milk harvest, health/culling, biosecurity, record keeping, etc.
  - *Enterprise management*; use of resources, efficiency of conversion, fulfilling business plans, markets and marketing to product specifications
- Explore, understand and facilitate the "success" of family dairy farms and of dairy farm families, including employee's families.

Major Program Title: Dairy Feeds and Feeding Management

Broad Program Goals:

- Explore and understand the complex role of feeds and feeding in the performance (productivity, sustainability and economy) of dairy and dairy replacement enterprises. Adopt an integrative approach to evaluating and diagnosing apparent nutritional issues.
- Explore, understand and manipulate the relationship of the cropping enterprise to the feeding program. Define the essential parameters of homegrown feedstuffs in order to support a successful dairy enterprise.
- Develop reasonable expectations by producers of consulting nutritionists and feed reps. Facilitate productive relationships between these parties.

Major Program Title: Dairy Livestock Environments

Broad Program Goals:

- Identify and benchmark livestock requirements for shelter and space.
- Acquaint producers with the latest technology in structures and equipment for dairy livestock
- Understand the relevance (re: capital investment and labor management) of structures and equipment to the enterprise and overall farm business.
- Explore, understand, interpret and further develop the concepts of "carrying capacity" and "cow comfort" in various livestock housing situations, including pasture. Apply these principles effectively in practical settings.

Major Program Title: Financial Decision Making

Farm Managers are faced with difficult financial decisions. With profit margins today much lower than any time in the past, one mistake can mean a long period of poor financial performance.

Broad Program Goals:

- Farm Managers will make better use of their financial information and apply to sound financial decisions

Major Program Title: Business Planning

Depending on where in the business cycle the producer exists, there are distinct business planning opportunities that must be addressed. Educational formats that address the needs of producers in different stages of the business lifecycle will be developed and delivered. Provide producers with the necessary tools needed to address their business objectives.

Broad Program Goals:

- New producers will learn how to write a business plan.
- Current farm managers will better understand the economic trends of the dairy industry.
- Managers will clarify their family and business values, and set long range objectives.
- Managers will improve their ability to identify and diagnose current problems and to develop plans to address future obstacles.
- Managers will better prepare themselves for their retirement from farming by preparing estate plans, transition plans, and succession plans.

Major Program Title: Marketing

Pricing for milk has been irregular with the phase out of government support. Price spikes and bottoms have grown steeper and seemingly more erratic. Prices in dairy will continue to fluctuate and it looks like peaks and valleys may be steeper and intervals shorter; an intensification of the price roller coaster. Few farmers are positioned to capture profits under these conditions. For many it causes undue stress making it a challenge to keep up. Many farmers need milk marketing tools to manage through the highs and lows.

Broad Program Goals:

- Conventional dairy farmers will develop milk-marketing strategies to better navigate the volatile milk price environment.
- New dairy marketers will make better decisions on how they market their milk/milk products.
- Direct marketers will look at their marketing effort as a combination of decisions regarding product, placement, pricing and promotion.

Program Description: Human Resource Management

Human resource management is an ongoing concern for area dairy farms whether in a steady state or growing. Laws and regulations, personal conflicts, and even language barriers are items that the farm manager must learn to manage along with the "new people" on the farm.

Broad Program Goals:

- Producers will learn how to better understand their management style and limitations
- They will learn skill to better manage their human resources

Program Description: Water Quality and Environmental Stewardship with Crop Protection

Scrutiny of farming practices and their environmental compatibility continues. Practices and expectations continue to evolve with current scientific findings and new public policy. Reduction of non-point source pollution is a national public priority. Our farm audience needs to understand the objectives of these initiatives and evaluate their needs and response to them and develop a strategy for their farm operation.

Broad Program Goals:

- Area dairy and field crop farmers will gain an awareness of these issues and their potential impact on their farming operation.
- We will provide education so that they can develop a response in line with their personal and business goals with resources available to them.
- They will learn and implement best management practices as necessary.
- Farmers will work towards improving forage quality to decrease the input of nutrients in purchased feeds.

Program Description: Forage Quality

Forage Quality plays an integral role in the economic and environmental health of area dairy and field crop farms.

Broad Program Goals:

- Farm profitability will be improved with improved forage quality.
- Improved forage quality will impact positively the nutrient balance on area dairy farms by reducing nutrient import in purchased feeds.

Program Description: Integrated Crop Management

Area farmers need to optimize the profitability and sustainability of their crop production practices.

Broad Program Goals:

- Farmers will be aware of emerging crop production technologies.
- Farmers will learn the skills to evaluate the fit for their operation.
- Farmers will use integrated pest management practices for plant protection.
- Farmers will be aware of and use cultural practices that benefit their production, sustainability and profitability.

Program Description: Technologies for Smaller Dairies

Small farms are important members of our rural communities. They support their communities through taxes and maintenance of open space. Program scaled to the resources and needs of small dairies will be developed and maintained.

Broad Program Goals:

- Farmers will be aware of the role of Intensive Grazing Management in meeting high quality forage needs
- Farmers will explore, evaluate and implement small scale dairy processing
- Farmers will explore, evaluate and implement niche production and marketing opportunities
- Technical support will be provided for organic production

Meetings Fall/Winter 2015-2016

Oct 24	Cortland County Farm Trail	Janice/Betsy/Heather	100+p
Oct 26	Hay Workshop Lilley's Tack and Feed, Dryden	Janice/Betsy/Heather	15p
Nov 5	Hops Workshop Invited Presentation: The Role of Cover Crops in Hops Production Broome CCE, Binghamton	Janice	25p
Oct 28 & Nov 18	Basic Dairy Nutrition Short Course CCE Tioga, Owego in conjunction w/ Ward and VanScoy	Betsy	6p
Nov 19	Annual Feed Dealer's Meeting Ramada Inn, Cortland in conjunction w/ Pro-Dairy, CU	Betsy	9p
Dec 3	Organic Dairy Task Force DFA Offices Syracuse NY	Fay	25p
Dec 16/17	National Grazinglands Conference : Poster Presentations: NY Soil Health Trailer Grapevine, Texas Extending Grazing Season w/ Brassicas	Fay	600p
Dec17	Grain Marketing Discussion Group Hobeaus, Homer	Janice	19p
Jan 11	Keepin' 'Em Comfy: A Workshop on Cow Comfort, Dairy Handling & Public Perception. CU Vet School Teaching Dairy	Betsy	19p
Jan 12	Considering the Angles for Manure Storage Cuyler Fire Hall in conjunction w/ PRO-DAIRY & SWCD	Janice	20p
Jan 12	NY Certified Organic (NYCO) #1: Organic Crop Mgt: Through good years & bad Jordan Hall, Geneva, NY	Fay	85p
Jan 16-17	Vermont Grazing Conference – Poster Presentations: NY Soil Health Trailer Harraseeket,, VT Extending Grazing Season w/ Brassicas	Fay	125p
Jan 21	Cortland Area Dairy Manager's Disc Group CCE CortlandKey areas to focus on as a manager with Julie Patterson	Betsy	11p
Jan 26	Annie's Project: Managing for Today and Tomorrow. Business Planning: Farm Finance & Financial Documents & Decision Making Farm Credit East, Homer	Janice/Betsy/Heather	13p
Jan 29	Winter Crop MeetingNo-Till Crop Production Ramada Inn, Ithaca	Janice	163p
Feb 9	NYCO #2: Managing Soil Health with Crop Rotations & Forage Production Jordan Hall, Geneva, NY	Fay	100p
Feb 9	Annie's Project: Managing for Today and Tomorrow. Farm Credit East, Homer Farm Succession Planning: Setting the Stage & Estate Planning 101	Janice/Betsy/Heather	13p
Feb 10	2016 Milk Outlook Cortland County Office Building Auditorium	Betsy	13p
Feb 11	"Green Up Conference" Presentation on Forage Insurance Heritage House, Lathum NY	Fay	115p
Feb 16	Organic Dairy Discussion Attempts in Reduced Tillage Mclean Fire Hall in Organic Grain Farming with Thor Oechsner	Janice	25p

SCNY Dairy & Field Crops Extension Program

Feb 17	Broome/Tioga/Chemung Dairy Discussion Group CCE Tioga, Owego Managing with Low Milk Prices w/ Betsey Howland, PRO-DAIRY	Betsy	6p
Feb 18	Cortland/Tompkins Farm Managers Discussion Group CCE Cortland Employee Management w/ Tom Maloney, CU	Betsy	8p
Feb 23	Annie's Project: Managing for Today and Tomorrow. Farm Credit East, Homer Retirement Planning	Janice/Betsy/Heather	13p
Mar 1	Farming for Soil Health Invited Presentation:Cover Crop Benefits American Legion, Horseheads and Interactions with Herbicides Co-sponsored with Schuyler County SWCD	Janice	45p
Mar 1	Winter Dairy Management School Transiton Cows: Nutrition, Animal Behavior & Environmental Considerations, Cow-Side Care and Decision Making CCE Broome Cty, Binghamton w/ Pro-Dairy	Betsy	25p
Mar 3	Corn & Soybean Update CCE Broome Cty, Binghamton Co-sponsored with Page Seed	Janice	18p
Mar 8	NYCO #3: New Markets Jordan Hall, Geneva, NY	Fay	80p
Mar 8	Annie's Project: Managing for Today and Tomorrow. Farm Credit East, Homer Framework for Farm Succession & Communication & Conflict Resolution	Janice/Betsy/Heather	13p
Mar 16-17	NE Pasture Consortium – Poster Presentations: NY Soil Health Trailer Freeport ME Extending Grazing Season w/ Brassicas	Fay	115p
Mar 17	Cortland/Tompkins Farm Manager's Discussion Group CCE Cortland Dan Welch and Kim Fortin, NY Farm Net Consultants	Betsy	8p
Mar 18	Pesticide Applicator Training CCE Broome County, Binghamton	Janice	8p
Mar 19	Farming 101 Invited Presentations: Site & Soils TC3, Dryden Managing Pasture	Janice/Fay	20p
Mar 22	Annie's Project: Managing for Today and Tomorrow. Farm Credit East, Homer Communication cont. and Putting the Plan into Action	Janice/Betsy/Heather	13p
Mar 23	BTC Disc Group- Working with Families, Managing Conflict CCE Tioga Robert Lynch, DVM PRO-DAIRY	Betsy	7p
Mar 24	Feeder School: Hands-On Training for Feeders on Dairy Farms CU Vet School Teaching Dairy	Betsy	27p
Mar 31	Organic Dairy Task Force - Topics: Dairy Grazing Apprentice Program, DFA office, Syracuse Increasing the sale of organic cull cows	Fay	30p
Mar 31	Meet Your Ag Agency Professionals CCE Broome - Sponsored by FSA	Janice/Betsy	32p
April 18	Grazing and Pasture Management Technical Course Invited Wellspring Farm, Mecklenburg - Sponsored by Groundswell	Janice	7p

Dairy Productivity & Profitability

Feeder School

27 people representing over 8500 cows from 8 counties attended our Feeder School, a workshop aimed at training and educating the employees that mix feed for delivery to dairy cows. The Cornell Vet School Teaching Dairy hosted the workshop, which had presenters from industry teaching on topics such as managing shrink, calibrating mixer wagons, understanding dry matter and how to adjust, safety, TMR audits, and why the job of feeder is so important. Feed accounts for about half of a dairy's expenses every year, so naturally making sure our dairies' feeders are trained properly can certainly impact a farm's bottom line. One example used in the shrink portion showed how reducing shrink by 5% on a 500 cow dairy can save $150 per day, or $54,000 per year. Extrapolating out to our attendees, this 5% reduction in shrink could save the farms who sent feeders over $918,000 in feed costs in one year.

Cow Topics – Cow Comfort and Winter Dairy Management: Transition Cows

This winter, the team also focused on cow topics in two separate seminars. "Keepin' 'Em Comfy" highlighted issues with cow comfort, dairy handling and public perception. In conjunction with Pro-Dairy, Winter Dairy Management focused on transition cows in the areas of nutrition, animal behavior and environmental considerations, as well as cow-side care and decision making. Speakers from two land grant universities, Cornell University and the University of Wisconsin solidified the information presented with solid research. Between the two different seminars, close to 50 people attended representing dairy farms, veterinarians, nutritionists, Cooperative Extension from 10 different counties. Over 5000 cows were represented from dairy farms alone. As discussed in both seminars, lying time for dairy cows is important for increasing profitability, as increasing lying times by just an hour increases milk production by roughly 2 pounds of milk. If herds that attended increased lying times, over one year, this could add up to over $620,000 in additional milk revenue at $17/cwt milk. The presence of the agribusiness personnel that attended works as a multiplier as they take the information back to the herds that they work with.

Cortland Dairy Manager Discussion Group

This discussion group is in its second year coming together to meet. Participants in this group are managers of medium to large size freestalls that have to not only manage cows and equipment, but also people. We have met three times, and had several people come in to facilitate discussion around writing employee handbooks, farm succession and communication with employees and style of communication. We also had a manager from a large farm come in and talk about the things that she takes care of from a human resources standpoint on their dairy. Managers from these dairies represent about 5000 cows in 5 surrounding counties. Participants stated that they value the opportunity to discuss farm practices and issues with other farmers and interacting with and learning from other farm members of the group as well as utilizing invited speakers to better their management abilities.

Feeder School

Cow Comfort

Winter Dairy Management

Cornell Cooperative Extension links the research and extension efforts at Cornell University, the Cornell University Agricultural Experiment Station and the New York State Agricultural Experiment Station, providing the knowledge to maximize New York State's agricultural and natural resources.