Winter Crop Meeting 2015

Planning for Manure Storage & other Crop Updates

FRIDAY, JANUARY 23 9am Trade Show Opens 10:15am — 3:30pm Program

> Ramada Inn 2310 N Triphammer Rd Ithaca, NY

Cost* \$25 pre-registration or \$30 at the door *includes hot buffet lunch

2 DEC Recertification Credits Available in Classes 10, 1A, 21, 23

TO REGISTER CONTACT:

CCE Cortland County Amanda Montgomery at 607-753-5078

Pay by credit card online at <u>scnydfc.cce.cornell.edu</u>

Dlanning a Manure Storage — featured panel discussion

- **Moderated** by Karl Czymmek, Environmental Management Specialist with NYS PRO-DAIRY
- Consideration for Siting and Farmstead Needs types of storage, technical complications, manure transfer, O&M, and emergency planning by *Jessica Skinner, Environmental Engineer*
- A Planner's Perspective winter manure spreading guidelines and risk, current CAFO permit language and proposed language for the Clean Water Act permit as well as planning manure needs with expansion plans by *Brian Boerman, CNMP Planner*
- Navigating Public Assistance navigating the labyrinth of agencies and services for public money to help with the cost and technical aspects of

manure storage by Amanda Barber, Cortland County Soil and Water Conservation District Director

• Fostering Positive Neighbor Relations — shared experiences for developing an action plan for fostering positive neighbor relations by *Mike McMahon*, *EZ Acres Dairy and Chair of the Town of Homer Planning Board*

ALSO INCLUDING THE FOLLOWING SESSIONS

(F arm Bill Decoded by *Rob Gallinger*, *Director FSA*

Stormwater Management Requirements — stormwater practices and requirements for agricultural construction when an area greater than one acre is disturbed by Jessica Verrigni, Stormwater Technician

The Rub with Neonicotinoid Pesticides — the controversy with the corn and soybean seed treatments that are relied upon for early season pests and corn rootworm, as well as BT-corn rootworm resistance and recommended management practices by *Elson Shields*, *NYS Extension Field Crops Entomologist*

The Latest on Alfalfa/Grass Mixes — the value of alfalfa-grass mixes for hay crop quality and production by *Dr. Jerry Cherney*, *NYS Extension Forage Specialist*

E merging Technologies for Herbicide Resistance Management by Dr. Russell Hahn, NYS Extension Weed Scientist



Cornell Cooperative Extension South Central NY Dairy & Field Crops Program



Inside this Issue	Pg. #
End of the Year Greetings from	2
Janice Degni	
Milk Quality: Focus on Milking	3
Routine	
Dairy Markets & Policy from the	5
2015 Dairy Outlook	
To Feed or Not to Feed — the	9
Additive Dilemma	
New Technology for Corn	10
Nitrogen Needs	
The New Milk on the Block	12
Identifying Bottlenecks in Your	13
Business, 2015 Dairy Outlook	
Calendar of Upcoming Events	16

We are pleased to provide you with this information as part of the Cooperative Extension Dairy and Field Crops Program serving Cortland, Chemung, Tioga and Tompkins Counties. Anytime we may be of assistance to you, please do not hesitate to call or visit our office.

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Janice Degni Team Leader & Field Crops Specialist CCE Cortland County (607) 753-5215 jgd3@cornell.edu Fay Benson Small Dairy Technologies Educator CCE Cortland County (607) 753-5213 afb3@cornell.edu Betsy Hicks Area Dairy Specialist CCE Cortland County (607) 753-5213 bjh246@cornell.edu

Dairy Digest Designed By: Amanda Montgomery, Administrative Assistant, CCE Cortland County, (607) 753-5078, <u>am2229@cornell.edu</u>.

s we wrap up a year with phenomenal milk price and surprisingly decent crop yields, the outlook for 2015 is sobering. Milk price is projected to be heading into a down cycle with the potential for a fairly abrupt price drop early in the year. Mark Stephenson predicts a \$7 drop/cwt in his dairy price outlook. Such a decrease will have a dramatic and abrupt effect on income which will lead to some hard decisions. In preparation you might want to start taking a hard look at expenses, both farm and family living, to plan where reductions can be made as well evaluating production practices for performance and payback. A New Year can lead to new habits. Tools are available, such as the Dairy Profit Monitor which can help measure the payback of production practices. Perhaps it's time to put a team of advisors together to help shape your plans for the farm's future. We are available if you would like assistance with your 'next steps.' Janice is working with Mary Jo Dudley of the Cornell Farmworker Program to develop highly visual Standard Operating Procedures for Hispanic employees. Fay is educating producers about new market opportunities such as 'grass-fed' milk and Betsy is offering a workshop series on milk quality and the Winter Dairy Management program which will focus on impacting profitability via milk components. We welcome you to contact us for more information on these topics or others that are on your mind.

~Janice, Betsy ≠ Fay

As the end of the year approaches and hope springs eternal, I would like to leave you with some inspirational thoughts. Take what you like and leave the rest! – Janice



- Whatever you can do or dream you can, begin it. Boldness has genius, magic, and power in it. || Johann Wolfgang von Goethe
- I have the opportunity, once more to right some wrongs, to pray for peace, to plant some trees, and sing more joyful songs. || *William Arthur Ward*
- Never give up on something that you can't go a day without thinking about. || A nonymous
- Life is either a daring adventure or nothing. || *Helen Keller*
- I hope that in this year to come, you make mistakes. Because if you are making mistakes, then you are making new things, learning, living, pushing yourself, changing yourself, changing your world. You're doing things you've never done before, and more importantly, you're doing something. || *Neil Gaiman*

Source: <u>http://khamneithang.wordpress.com/2013/12/31/inspiring-year-end-quotes/</u>

- For last year's words belong to last year's language and next year's words await another voice. And to make an end is to make a beginning. || *"Little Gidding," T.S. Eliot*
- The chief beauty about time is that you cannot waste it in advance. The next year, the next day, the next hour are lying ready for you, as perfect, as unspoiled, as if you had never wasted or misapplied a single moment in all your life. You can turn over a new leaf every hour if you choose. || *Arnold Bennett*



Milk Quality: Focus on Milking Routine



Betsy Hícks Area Dairy Specialist CCE Cortland County

I n cooperation with Pro-Dairy and Quality Milk Production Services, the SCNY Dairy & Field Crops Team will be hosting a three-part series on Milk Quality Training and how to improve your milk check through quality milk. The meetings will be held at the NYS Grange in Cortland on January 8, February 5, and March 5, 2015 from 10:30 am to 3:30 pm. More information can be found in the digest on page 15.

Milk quality is a multi-faceted issue, one that can be addressed all year long. This article will focus specifically on milking routine — what happens physiologically inside the cow at milking, the importance of having a set routine, and the University of Wisconsin's "Seven Habits of Highly Successful Milking Routines."

The Milk Letdown Reflex - what's going on inside

In a nutshell, milk letdown occurs because of a combined effort of nerves and chemical signals within the cow. Unconditioned factors, such as stimulation of the udder at milking time, sends a nerve signal to the brain, which sends a signal to the cow's pituitary gland to release oxytocin. Oxytocin is released into a branch of the jugular vein, which bring oxytocin directly to the heart where it leaves via the aorta and travels to all parts of the cow, but directly to the udder via the pudic arteries. Conditioned factors, such as the sight of a calf, the sounds of the milking system, or the schedule of milking time approaching can also initiate the release of oxytocin.

Once oxytocin arrives at the udder (usually 60-90 seconds after initial stimulation), it signals the blood vessels at the base of the teat to fill with blood, which allow milk to enter the teat from high in the udder and pass through the teat. Oxytocin also signals the muscle cells around the alveoli to contract and force the stored milk into the ducts in the udder. Milk flows through these ducts to the udder cistern and then into the teat cistern where it is ejected by milking equipment.

Negative events can disrupt this flow, mainly by the release of epinephrine (adrenaline). Epinephrine can constrict the blood vessels and capillaries in the udder, minimizing how much oxytocin reaches the muscles around the alveoli. It can also inhibit the contraction of the muscle cells themselves (Figure 1).

Why have a set milking routine?

In order to achieve efficiency during milking as well as minimize risk to the cow, we must recognize and take advantage of the timeframe that she gives us for her milk to be let down. Remember, 60-90 seconds after first stimulation of the udder, the oxytocin will reach her udder and she will be able to let down. If we attached a LactoCorder® to the unit while she was being milked, we would see a graph of the flow of milk. With a cow that has been properly prepped and the unit attached in the correct timing, the graph would appear soon after the units are attached as only one peak with a high flow rate (Figure 2). On a cow that was improperly prepped, or did not have adequate time for oxytocin to reach the udder, the graph would be bimodal, one that had two peaks in milk flow (Figure 3). Basically, in the time between milkings, a certain amount of milk will have gathered in the cisterns and be available to be immediately released. However, if she was not properly prepped and oxytocin was not given enough time to stimulate let-down, the flow of milk will slow until oxytocin has done its job and then the flow will pick up again. This gap in milk flow is the dangerous part for cows, and putting units on too early can put excessive pressure on teat ends and can cause over-milking and hyperkeratosis of the teat ends (Figure 4). This makes the cow much more susceptible



Figure 1 – Positive Stimulation vs Negative Stimulation of Milk Letdown (source www.dairynz.co.nz)









to mastitis, as well as significantly lengthening the time of milking. Overmilking can also occur if there is a delay in removing the units at the end of milking. Figure 5 shows that while the unit was attached for nearly ten minutes, there was little to no milk for more than the last three minutes. Automatic takeoffs (ATOs) will help to take the guess work out of when to remove units, but producers should be sure that their equipment is performing as they desire. Quality Milk Production Services (QMPS) has LactoCorders® available to help you determine the milk flows on your farm. You can contact them at 877-645-5522 or at <u>qmps@cornell.edu</u> for questions or services.

The "Seven Habits of Highly Successful Milking Routines"

The University of Wisconsin has a great series of YouTube videos explaining the characteristics of the best routines used during milking, along with a factsheet explaining them in both English and Spanish. The videos, as well as the fact sheets, can be found at <u>http://milkquality.wisc.edu/</u>.

Habit #1 – Calm and Clean

A successful milking routine starts even before cows enter the milking parlor. The cleanliness of the cows and the manner in which they are handled impacts not only how fast they will get milked but also the rate at which new infections of mastitis can develop in the milking herd.

Habit #2 – How Cows are Grouped

Usually, the milking string is managed in groups for nutritional and reproductive reasons. Adding a grouping strategy for milk quality should also be considered. Cows generally fit into three classes: non-infected, infected, or unknown infection status. In order to control the new infection rate, minimizing exposure to cows known to be infected with subclinical mastitis becomes necessary. In addition, grouping cows by milk yield or milking time may increase parlor performance and efficiency.

Habit #3 – Consistent Pre-milking Preparation

In comparing a variable milking routine to one that is consistent, research has shown a 5.5% increase in milk yield. In other words, a herd with no set routine averaging 70 lbs could gain almost 4 lbs of milk just by establishing and sticking to a standardized routine. A careful pre-milking routine for attaching units is one that balances speed and efficiency with completing the required steps to clean teats and stimulate milk let down. While the order of steps within a routine can be debated, the more important issue is that the routine is established and done the same way every milking.

Habit #4 – Teats are Clean and Dry

Proper disinfection of the teat is paramount to a successful milking routine. Most of the harmful bacteria on the teat is on its end, and as such, the most care in disinfecting teats should be given to that area. Along with the cleaning of teats, air drying is not sufficient. Dry teats are necessary, as wet teats allow bacteria to enter the mammary gland and decreases the amount of friction between the liner and the teat.

Habit #5 – Units are Properly Attached

Both the timing of attaching the unit as well as the alignment of the unit are important when discussing this habit. Timing of attachment should be within one minute of first stimulation, but a range of 45 seconds to a minute and a half is acceptable for parlor efficiency. Lag times longer than three minutes have been shown to increase residual milk and decrease overall milk production. The second factor, proper alignment, is necessary for minimizing liner slips, with the

goal being less than five to ten slips per 100 cow milkings. Milking efficiency will be lower when there is a higher number of reattachments needed.

Habit #6 – Units are Removed when Milking is Completed

Over-milking is the biggest hazard in this area, and is characterized by the unit being attached to teats when there is no flow of milk (Figure 2). The largest cause for concern in regards to over-milking is the damage to teat ends. Careful observation is necessary if ATOs are not utilized, but teat ends should be visually examined on a routine basis regardless of how units are removed.

Habit #7 – After the Milking Units are Removed

Two areas that are important after the units are removed include post-milking teat dipping and ensuring that the cow remains standing for at least 30 minutes after milking, usually managed by cows returning to fresh feed in their pens.

2015 Dairy Outlook

NY Economic Handbook: 2015; Chapter 6. Dairy — Markets and Policy Mark W. Stephenson, Director of Dairy Policy Analysis; University of Wisconsin — Madison

Oositive Factors:

- The U.S. economy continues to improve and domestic sales have been strong
- Feed prices are much lower

Negative Factors:

- All major exporters including Oceania, the European Union and the U.S. have had substantial increases in milk production
- Milk prices have begun to drop and are forecast to be significantly lower

New York Dairy Situation and Outlook 2013, Projected 2014, and Estimated 2015						
				Percent	Change	
Item	2013	2014	2015	13-14	14-15	
Number of milk cows (thousand head) Milk per cow (lbs.)	610 22,080	<mark>615</mark> 22,343	614 22,536	0.8 1.5	-0.2 0.9	
Total milk production (million lbs.)	13,469	13,741	13,837	2.3	0.7	
Blended milk price (\$/cwt.) ^a	20.25	24.40	17.34	20.8	-28.9	

Uncertainties:

- Extreme drought in California
- The beginning of an El Niño event.
- The need for and the effectiveness of the new Margin Protection Program
- Demand strength from China

The Dairy Situation

Many dairy farmers have a modesty, a quietness, about them that tends to understate their actual circumstances. A poor harvest may be shrugged off as being a risk of the business and a great harvest might be commented on as "could have been worse." This year I am hearing dairy farmers refer to 2014 as a "healing year," a year in which they are making up for the damages inflicted on their balance sheets from the low milk prices in 2009 and the high feed prices in 2012. This is the soft-peddled dairy speak for what has been a truly great year. Milk prices hit an all-time high, feed prices contracted significantly from the levels of recent years and interest rates continue to hover at very low levels.

Domestic consumer and export customers were also hit by record high cheese, butter, nonfat dry milk and other dairy product prices. But rather than run away from consumption in the category, they seemed willing to explore these higher prices. Dairy farmers were also introduced to a new tool in

South Central NY Dairy L Field Crops Digest

their risk management toolbox—the Margin Protection Program (MPP). This new dairy policy has also brought the discussion of "margin" or income over feed costs (IOFC) into common use. A high margin suggests greater profitability for producers and the MPP margin also hit an all-time high in 2014.

Milk Supply

Strong margins are a market's signal telling producers that they want more milk and dairy products. Such signals not only supply the incentive, but also the wherewithal to expand. The previous peak of high profitability—late 2007 and early 2008—saw dairy farms jump on the signal with rapidly increased expansion. This time milk production was slower to expand but eventually it began to pick up pace.

We saw a decline in the number of dairy cows heading for slaughter which is an advanced signal that late lactation and marginal cows were being kept in the milking herd. Year over year dairy cow slaughter was down 11 percent compared to the same months in 2013. This decline was later reflected by an increase in dairy cow numbers in the U.S. and most regions of the country. The rate of cow expansion was similar to that seen in 2008 in response to the positive margins of that year.

Table 6-1. U.S. Milk Supply and Utilization, 2004 - 2013

	2005	2008	2007	2008+	2009	2010	2011	2012*	2013 a	2014 ^b	2015 ^c
Supply		8									
Cows Numbers (thous.)	9,043	9,137	9,189	9,315	9,203	9,119	9,194	9,232	9,221	9,255	9,325
Production/cow (lbs)	19,566	19,894	20,204	20,396	20,572	21,148	21,346	21,696	21,822	22,285	22,770
Production	176.9	181.8	185.7	190.0	189.3	192.8	196.3	200.3	201.2	206.2	212.3
Farm Use	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
Marketings	175.9	180.8	184.6	189.0	188.4	191.9	195.3	199.3	200.2	205.3	211.4
Beginning Commercial Stocks	7.2	6.7	9.5	10.3	10.01	11.3	10.8	10.9	12.2	11.2	10.5
Imports	7.4	7.5	7.2	5.3	5.6	4.1	3.5	4.1	5.3	42	3.8
Total Supply	190.5	196.2	201.3	204.6	203.9	207.2	209.6	214.3	217.7	220.7	225.7
Utiliz stibu											
Domestic Commercial Use	179.8	183.7	185.5	185.8	187.1	187.5	189.3	193.3	194.2	197.9	202.6
Ending Commercial Stocks	7.9	9.5	10.3	10.0	11.3	10.8	10.9	12.2	11.2	10.5	12.1
Commercial Exports	2.8	3.1	5.4	8.8	4.9	8.7	9.4	8.8	12.4	12.3	11.0
Net Removals (excluding exports)	0.0	0.0	0.0	0.0	0.7	0.2	0.0	0'0	0'0	0'0	0.0
Total Use	190.5	196.2	201.3	204.6	203.9	207.2	209.6	214.3	217.7	220.7	225.7

Dairy Situation and Outlook, Milk Production, and Dairy Market News, U.S. Department of Agriculture. Note that total may not add exactly due to rounding. Source:

* Leap year.

"Revised.

^b Based on preliminary USDA data and Cornell estimates.

e Projected by Mark Stephenson.

An excellent growing season and a softening demand for gasoline yielded a tremendous corn and soybean crop available for feed and a much lower prices for concentrates resulted. Producers responded to these lower feed costs by increasing ration density and pushing more milk per cow. By April 2014, production per cow was showing the impact on productivity. In combination, more cows and more milk per cow began to supply significantly more milk to the market.

High milk price signals were also received outside the U.S. Grazing regions, like Oceania, are more constrained to expansion by the limits of their pasture. But, Australia and New Zealand have had plentiful spring rains and pasture conditions have been excellent. As a consequence, both countries have increased milk production by more than four percent and New Zealand land values have increased by more than seven percent from previous year's levels.

The European Union has also had a good growing season but they have had further reason to consider expansion. By April of 2015, the EU milk production quotas will be coming off and in anticipation, a few countries are selling milk at a penalty and in excess of current quota limits. As an example, Ireland has a stated goal of increasing their country's milk production by 50 percent. Germany and the Netherlands are also in growth mode. In total, the 27 countries of the E.U. have been up in production by more than four percent year-overyear.

Dairy Product Demand

The U.S. economy has passed a number of milestones after the recession of 2009. By September of 2014, the unemployment rate had dropped below the magic number of six percent. This was the target level set by the Fed at which their quantitative easing policy would be retracted and where interest rates may be allowed to rise.

There is additional evidence that consumers are feeling better about the economy. Auto sales have picked up, the housing market has strengthened (both new home starts and value of homes sold) and this optimism is reflected in the monthly measure of the consumer's confidence in the economy which has been steadily improving for the last three years. More closely related to our industry, we can observe the Restaurant Performance Index which has been above a level of 100 for the past two years. This indicates expansion of the restaurant trade where dairy products are prominently featured.

One dairy product whose sales continue to be challenging is fluid milk. Per capita consumption has been on the decline for many years but total sales remained relatively flat as population growth offset individual consumption. However, since 2010 total fluid sales appear to be in dramatic decline. Some of this likely due to intense competition in the beverage space, and some of the decline is probably due to category shifting within dairy products. For example, substantial increase in yogurt consumption for breakfast has no doubt cannibalized fluid milk previously used on cereal. Cold cereal

South Central NY Dairy & Field Crops Digest

consumption has also shown a dramatic decline in recent years.

Dairy Exports

The value of U.S. dairy product export sales was at its highest level ever in the first half of 2014. However, those strong sales had a draw on our stocks of dairy products—particularly butter and cheese. A modest spring flush of milk in the U.S. was inadequate to rebuild those stocks to comfortable levels until late in the fourth quarter of 2014. Short stocks drove our domestic dairy product prices to all-time highs for cheese, butter and nonfat dry milk.

In the second half of 2014, China withdrew from its intense dairy product buying in part because they had adequate commitments for delivery and because world prices were falling—this supported a "wait and see" buying attitude.

China's economy has experienced extraordinary growth over the last many decades. They have had more than a nine percent growth in GDP in 30 out of the last 50 years. And, this growth has fueled improvements in the quality of the diet and demand for dairy products. Their current growth is still more than seven percent, but the rate of growth has been in decline since 2009 and some are worried about continued growth in demand for dairy products.

In contrast to China's GDP growth, the U.S. has been feeling good about the climb out of recession and back into positive growth of about 2 percent per year. The European Union has experienced slightly slower growth than the U.S. including the stronger economies such as Germany, the United Kingdom and France. The E.U. continues to have some troubling economies as well, such as Greece, Spain and Portugal. Recently, the third largest economy in the world—Japan—has slid back into recession.

The lackluster performance of the largest economies of the world makes the U.S. look like a standout if only by comparison. One reporter has commented on the U.S. as being "the best looking horse in the glue factory." The U.S. economy has at least had a slow and steady march toward improvement and world investment dollars have been moving back to our currency. This has given strength to our currency relative to other country's. While that may sound like a good thing, it makes exports from the U.S. look relatively more expensive to importing countries. If we are to be competitive in export markets, the price of U.S. sourced product must be sold at a discount.

Dairy Stocks

The short dairy product stocks in the U.S. supported high product prices at a time when world prices were in decline. The U.S. prices were being almost entirely supported by the demand from our domestic market while export sales from the U.S. were in decline. Toward the end of 2014, U.S. dairy product prices were falling but were still above historic relationships of the both the Oceania and the European Union prices.

By the fourth quarter of 2014, holiday sales commitments had been made and stocks of the major

commodities had returned to more normal levels. This has also provided the slack in demand necessary for dairy product, and thus milk prices to begin to decline from the record levels.

I am projecting U.S. All Milk Prices to decline by an average of \$7.00 for 2015 relative to 2014.

The Dairy Outlook

The futures market is an excellent, and unbiased source of forecast milk prices. Participants are great sponges for information about milk production, product stocks, overseas supply and demand for exports. And, when you have investments in your position with futures contracts, the appetite for data relevant to the industry is quite keen. Futures markets almost always get the direction of future prices correct and they are very often right about the turning points the times when direction changes. However, futures markets often understate the magnitude of the change, positive or negative, more than a few months out. That is probably because investors tend to be cautious about the future until they have overwhelming evidence to the contrary.

Futures markets are forecasting a year of much lower milk prices than we have had in 2014. They are already incorporating knowledge about drought in California and its impact on western milk supplies. They are looking at NAOA forecasts about the probability of an El Niño event.¹ Futures markets are looking at demand for dairy products in China and other Asian countries as well as a growing demand in North Africa. They are watching to see if Brazil, Uruguay and Argentina will be able to increase milk production and export more dairy product. And, of course, they are watching conditions here at home.

Currently, futures markets are forecasting somewhat more than a \$5.00 drop in average class III and IV milk prices in 2015 relative to 2014. I believe this may be understated. The Agricultural Marketing Service (formerly NASS) National Dairy Product Sales report is presently showing U.S. product prices well above our export competitors (Oceania and the European Union). U.S. products normally sell at a discount relative to these other suppliers. If our domestic prices were in a more normal alignment with current world price, then our federal order product price formulas would suggest current class III and IV milk prices of \$15.73 and \$12.80 respectively. It isn't clear that the world product prices have even found their bottom yet. These competitive class prices would be more like \$6.65 lower class III and \$9.25 lower class IV than 2014 milk levels. but I resist bringing my price forecasts inline with what current export prices would indicate. My own forecasts expect that China will resume dairy product purchases and that the likelihood of an El Niño event is growing. That would tend to slow down milk production growth in Oceania. And, significantly lower milk prices should cause U.S. producers to tap on the brakes. Feed prices are favorable except that alfalfa prices in California remain stubbornly elevated due to extreme drought conditions and those are likely to persist for another year. I am projecting U.S. All Milk Prices to decline by an average of \$7.00 for 2015 relative to 2014.

Dairy Policy

Dairy policy for the new farm bill had been discussed and crafted by various industry organizations for more than five years. Ultimately led by National Milk Producers Federation and sponsored by Colon Peterson, democrat and ranking member of the House Ag Committee, an insurance-like product was proposed which also contained a soft-quota on milk production referred to as market stabilization. The concept of the insurance was not controversial and widely embraced, but market stabilization was very contentious. Many producers felt that stabilization was the cornerstone of the legislation while others were staunchly opposed. Dairy processors were nearly uniformly opposed to stabilization. The Senate passed their version of the farm bill with the stabilization included but the House would not even let the legislation come up to the floor for a vote.

A compromise was finally suggested which included language that kept the insurance product but discarded stabilization. The substitution for stabilization was a market purchase requirement of non-storable dairy products by the Secretary of Agriculture if a national milk-feed margin fell below a \$4.00 level. This was passed and signed into law on February 7, 2014.

The new insurance product is called the Margin Protection Program (MPP) for Dairy and is run by the Farm Service Agency. The milk-feed margin is the U.S. All Milk Price minus a ration value meant to support a hundredweight of milk production from an average cow including the complement of dry and hospital cows, and young stock. The historic margin value has averaged about \$8.50 over the last decade but has varied from less than \$3.00 to more than \$14.00. Once a year, dairy farms will be able to purchase margin protection from \$4.00 to \$8.00 in 50¢ increments and cover from 25-90 percent of their historic annual production which is defined as the highest milk production achieved in 2011, 2012 or 2013 for most producers.

The level of protection from \$4.00 to \$8.00 comes in rates at two different premium tiers. The first 4 million pounds of milk covered is at the lower rate and milk above the first 4 million at a significantly higher rate (more than double). In most years, farms will elect coverage levels for the coming calendar year

I am more pessimistic than the futures markets are at this time

¹There is a 58% chance of El Niño during the Northern Hemisphere winter. This would bring much needed rain to California and tend to cause drier conditions in Oceania.

in July through September of the previous year. This year, the election decision took place from September 2 through December 5, 2014. We don't have data yet on the signup to know how many producers have chosen to use the new product or what the typical buy-up level will be. The margin forecast has been eroding and is approaching what would be payments under the MPP at the highest levels.

It is not difficult to make the case that this is the most significant change in dairy policy in the last 35-40 years. Previous policies, like the Dairy Price Support Program, operated at a market level with the government being willing to purchase as much storable dairy product as anyone wanted to sell to them at announced prices consistent with a milk price goal. Dairy farmers did not have an individual decision to make with this program. Likewise, the Milk Income Loss Contracts (MILC) was quite passive. Producers had to signup for the program and, if they sold more than 2.85 million pounds of milk, they would have to choose the start month for payments. But this program required minimal decision making on the part of producers. The new MPP requires that individuals make annual decisions about the level of protection desired and invest in program with premiums.

Only time will tell whether this program is widely embraced by producers and is considered a success. The premiums for the MPP are implicitly subsidized, but it is difficult to know the degree. In years like 2015, we are not forecasting much, if any, payments. However, in years like 2009 or 2012, the payouts would have been substantial at any level of protection.

To Feed or Not to Feed — the Additive Dilemma

By Jerry Bertoldo, Genesee County Dairy Management NWNY Dairy, Livestock and Field Crops Team

onsidering whether to add feed ingredients that are not basic nutrients has been on the dairy producer's mind for years. All sorts of claims from manufacturers, retailers and salesmen exist, some of them well founded, others not. How can you really decide whether a feed additive is worth the money to give it a try?

Dr. Mike Hutjens, a well-know Professor Emeritus from the Department of Animal Sciences at the University of Illinois, had some thoughts on the subject at a recent meeting in Syracuse. He suggests that four "Rs" be looked at before signing on for any additives regardless of an attractive cost per day per cow.

Response: What is the product supposed to do – improve digestibility, milk yield and components, reduce stress, improve health, promote a growth response or drive feed intake?

Returns: What is the cost: benefit ratio? What animals should be targeted?

Research: Has the product been tested using accepted scientific methods with proper controls and statistically significant results rather than "feed 'em and weigh 'em" type farm trials? Ask for published findings!

Results: Can the outcome of additive adoption be effectively captured by DHI records, herd summaries or graphic representation?



The risk of no return or loss on investment may be dependent on your particular situation despite what sound research trials may have reported. Conditions within the herd may change over time making it necessary to review even what appears to be a success story once or twice a year.

Dr. Hutjens offers three lists to categorize feed additives, first grouped by economic impact and within each group by order of potential benefit.

The "priority" list

- Monensin (Rumensin®)
- Yeast and yeast culture
- Sodium bicarb/S-carb
- Silage inoculants
- Organic trace minerals
- Biotin

The "as needed" list

- Propylene glycol (300-500 ml. once daily)
- Calcium propionate (150 gm.)
- Niacin (3 gm. protected; 3 gm. unprotected)

- Mycotoxin binders (clay based or yeast cell MOS compounds)
- Protected choline (15 gm./day)
- Anionic salts
- Acid based preservatives for dry hay and high moisture corn (0.5 1.0%)

The "watch" list

- Essential oil compounds (0.5 1.5 gm.)
- Direct fed microbials (probiotics)
- Feed enzymes
- Chromium



As with all products there are knock off versions of an original good performer that may have quality or performance issues. Brand X choices often are cheaper for good reason. They may not have been tested well. The package label may read the same despite inherent shortcomings. No additive area is as full of this quandary as the microbials whether silage inoculants, probiotics or yeast products. Rumen buffers and inert fats join into that mix as well. It is a "buyer beware" world out there. Be careful and do your homework!

New Technology for Corn Nitrogen Needs

By Bill Verbeten, Niagara County Field Crops and Soils NWNY Dairy, Livestock and Field Crops Team

F armers and agronomists are constantly looking for better tools to improve crop production, and corn nitrogen is no exception. In an effort to account for the spatial variability within every field and the temporal variability of nitrogen due to weather farmers are beginning to use two new tools, GreenSeeker and Adapt-N, on a small scale in northwestern NY. While these tools have great potential to improve corn nitrogen management it is important to understand what they require to work well and the situations where their use may not be warranted until more experience is gained with them.

GreenSeeker

What is it? The GreenSeeker was developed at Oklahoma State University for use in wheat. It uses the normalized difference vegetation index (NDVI) values (0 to 1) to determine crop health status. Over time it has been adapted for use in corn. Generally recommended nitrogen fertilizer levels are low at low NDVI values, increase in the middle range, and decline again as NDVI values continue to increase. The idea is that the low NDVI plants have lower yield potential so there is no need to apply much nitrogen. Corn plants in the midrange of NDVI values have higher yield potential, and require more nitrogen to reach those yields. Finally the high NDVI corn plants have higher yield potential, but already have more of the nitrogen they need to finish producing those yields. This technology easily allows for variable rate nitrogen management. Boom mounted and handheld sensors are available. Examples can be seen in Figure 1.

What is required? A nitrogen rich strip at corn planting, the GreenSeeker sensors, and high clearance equipment for a later sidedress nitrogen application (past V6) are needed to effectively use the GreenSeeker in corn. The nitrogen rich strip (placed in fields with different soil types, varieties,

South Central NY Dairy & Field Crops Digest



Figure 1: GreenSeeker Sensors Source: http://www.trimble.com/

planting dates, etc.) is necessary to calibrate NDVI readings.

When does it work? For a GreenSeeker to effectively measure corn health there needs to be a high enough leaf area index (LAI) to have the sensors not be biased by bare soil. This occurs around the V6 stage in corn. Wheat did not have this problem as it covers the soil more quickly.

When does it fail? Early adopters in Ontario, Canada have found that scanning at the traditional early sidedress timing (V4-V5) biases the GreenSeeker because too much bare soil is present, which results in lower NDVI values regardless of corn nitrogen status. Scanning and applying sidedress nitrogen at or after V6 overcomes this issue.

How much does it cost? For each GreenSeeker unit mounted on a spray boom/toolbar a farmer can expect to pay between \$3000 and \$4000. Farmers in our region are placing them every 10-20 feet on their equipment, requiring a \$20,000+ investment for using this technology. Handheld GreenSeekers sell for around \$500 and we are currently using them for some ongoing nitrogen response research trials.

Current use and research: About half a dozen GreenSeeker-equipped applicators are in commercial use in northwestern NY. A collaborative research project between Agrinetix, Quirine Ketterings of Cornell University, regional farmers, and our Extension team is being conducted during the 2014 season.

Adapt-N

What is it? Adapt-N is a web-based, modeling software developed by Harold Van Es at Cornell University. It uses farmer/agronomist inputs along with weather data to estimate the corn sidedress nitrogen needs. For detailed information about this tool, check out the instructional videos and Adapt-N manual on our website.

What is required? An Adapt-N account and a lot of accurate information are needed to effectively use this tool to determine corn nitrogen needs. If inputs are constant within a management zone in a field, then variable rate nitrogen is possible, but each zone needs to be modeled separately.

When does it work? If the model inputs are accurate, then the Adapt-N software usually gives a reasonable sidedress nitrogen recommendation in corn. As the old saying goes if you put "garbage in" you will get "garbage out." Adapt-N gives better recommendations with later sidedress nitrogen application timing (V6 or later) because more of the growing season is in the model. Checking the model with traditional nitrogen soil tests, GreenSeeker technology, or potentially tissue testing can help validate/calibrate the model. Cash grain farmers have been the majority of early adopters in our region along with some of the consulting agronomists.

When does it fail? If the input data is inaccurate, Adapt-N will not give an accurate corn sidedress recommendation. Challenges encountered by early adopters have included underestimating corn yield (often due to not having accurate records), problems documenting manure inputs (variable nutrient analysis, un-uniform application rates, losses during incorporation, etc.), overestimating root depths (plow pans and poor drainage limit root growth), and incorrect soil OM levels (these can be highly variable across a field). Do not use default values in the program for your field inputs. Nitrogen credits from cover crops are not currently modeled in Adapt-N. Dairy farms have generally had more difficulty in using Adapt-N than their cash-grain counterparts, but it can still be used if the input information is accurate.

How much does it cost? Farmers can expect to pay \$2-3 per acre to run the Adapt-N model unless a volume discount applies. Full product descriptions are available at http://www.adapt-n.com/products/.

Current use and research: Individual farmers and consultants are continuing to use Adapt-N in our region. Like any new tool some farmers have tried it and have moved on to other tools for various reasons. It has been used by Extension specialists in other regions with mixed success. We will continue to monitor and evaluate Adapt-N as part of our ongoing on-farm research efforts. Questions about Adapt-N should be directed to Janice Degni at jgd3@cornell.edu.



Gen York, grown making barley (both) winter and spring varietien) is in high demand by the static-growing number of cramb houses, between sign of distillents: exact his is herge conduction is denrify the bott mating hardey varieties for New York environments and to develop bott crop management practice which will result is grain of high quality for utilization by these local between just houses. Barley first well inte crops vorticious on New York: (Photo by: Gany Bargetone, Hard Handberg and PlaceAcorden Biology, Courell University, Ishnea, NT)



The 2015 edition of the *Cornell Guide for Integrated Field Crop Management* is now available. This annual publication is designed as a practical guide for New York field crop producers, crop consultants, ag chemical dealers, and others who advise field crop producers.

In addition to the annual variety and pesticide updates, highlighted changes in this edition of the *Field Crops Guide* include:

- Significantly revised nutrient management information for all field crops.
- Updated information on recycling agricultural plastics.
- An expanded malting barley discussion.

New for 2015 are three different product options for the Cornell Guidelines:

- Print Only: \$26 plus shipping
- Online-only Access: \$26
- Combined Print and Online Access: \$36.50 plus shipping

Order from CCE Cortland County at 607-753-5077 or online at: <u>http://store.cornell.edu/c-874-pmep-manuals-and-guidelines.aspx</u>



ealth conscious consumers used to say, "You are what you eat." Today's health conscious consumers have expanded on this idea: Not only what you eat, but what the plants and animals eat is important. Of particular concern for dairy products is how much grain, especially corn, is in the animals' diet and the increased amount of omega-6 fat this adds to the dairy products. Omega-6 is not unhealthy but what is important for humans is the ratio of Omega-6 vs. Omega-3. Studies vary on the amount of increase but they all agree that as farmers feed more grain to increase cow's milk production the ratio of Omega-6 vs. Omega-3 has raised by as much as eightfold. This information has pushed the demand for no grain or grassfed dairy.

The health connection for milk or meat produced by animals consuming fresh pasture and all forage has been known for a number of years. Some of the benefits include: less total fat, saturated fat, cholesterol, and calories. It also has more vitamin E, beta-carotene, vitamin C, and a number of health-promoting fats, including Omega-3 fatty acids and "conjugated linoleic acid," or CLA.

In the Northeast the demand has grown into a new niche market for farmers and processors. An early entry to the grassfed market is Maple Hill Creamery in Stuyvesant, NY. In 2009, Tim and Laura Joseph were making yogurt for their children from their farm's all-grass milk. Today their Maple Hill yogurt is sold in 5000 stores in all 50 states. Tim says part of what has fueled the growth of demand for his product is educated consumers who understand practices and



ingredients for dairy products. He stands and watches consumers at the dairy case and is amazed at how many turn the yogurt container around to read the back label.

Organic Valley Cooperative first put their non-homogenized "Grassmilk" on the shelves on the west coast in 2011. They have now expanded the market to the east. Peter Miller, Organic Valley's East Division Pool Manager, reported that in reviewing supermarket sales where they already had their organic milk and then added Grassmilk to the shelves, they saw no decline in their regular organic sales. This led them to believe the sales for Grassmilk were new customers and not people switching from their regular

organic milk. They are excited to be able to add a new opportunity for their farmers. This October, Organic Valley started two truck routes for grassfed milk, one in New York and one in Vermont, to secure enough milk to meet the growing demand for a grassfed product. Both processors are paying similarly, \$35 - \$38/cwt for grazing season milk and \$42 - \$45/cwt for non-grazing season milk.

Defining the diet of the grassfed cow in the grazing season is pretty straight forward, but even then questions arise about legumes, forbs, and small grains that aren't grasses. To help with a standardization of the practices,

energy to the lactating cow.

Pennsylvania Certified Organic (PCO) has created standards for farms that need to have third party verification for being grassfed. These can be found at: http://www.paorganic.org/grassfed. One practice which is allowed under these standards is the

Consumers expect to have milk year round so seasonal dairying is not an option which means the non-grazing season brings the biggest challenges for the grassfed farmer. The loss of energy and vitamins in stored feed can make it hard on lactating cows. Timing of grass cuttings is, of course, key to getting increased energy and lower Neutral Detergent Fiber (NDF) in winter forages. The lower NDF forage takes less time to digest in the rumen so that the cow can make room for more forage. Raising young stock is another challenge for the grassfed farmer. Farmers I have talked to say they feed milk longer than when they could transition the young stock to a calf grain. Quality forages are necessary for all the animals on the farm. Traditionally lower quality forages are blended into the young stock rations. Grassfed farmers say they plan on harvesting more forage than their animals require. This allows them to sell their poorer quality forage and still have adequate supply for their needs.

feeding of molasses to help with the challenge of providing

Farms that are currently producing grassfed milk produce 8,000 to 11,000 lbs per cow per year. Tim Joseph of Maple Hill Creamery says that one of the factors of sustainability he found in producing grassfed milk was that even with low volumes of milk being produced there wasn't the capitol expenditures required to produce the milk. With lower needs for machinery, seed purchases, labor, and the resulting lower debt allowed his farm to make it through tough years easier than when he had higher expenses and overhead. Another factor of sustainability the grassfed market offers is the addition of diversity to the dairy market. Not every farm or farmer is suited to be large, efficient dairies. The more opportunities there are for dairy farmers, the more chances they will find a management style that will help them remain viable.



Гау Венбон Small Dairy Technologies Educator CCE Cortland County

Farm Management

2015 Dairy Outlook

NY Economic Handbook: 2015; Chapter 7. Dairy — Farm Management; pgs. 11-14. Wayne A. Knoblauch, Professor; George J. Conneman, Professor Emeritus; Cathryn Dymond, Extension Support Specialist

Identifying Bottlenecks in Your Business

Introduction

Before a recommendation can be made regarding where a dairy farm business can improve, it must first be determined what the business is striving to accomplish. A mission statement is very helpful in this respect as a mission statement will describe why the farm exists. An example mission statement is "Our mission is to produce and market high quality milk in sufficient quantities to provide a good standard of living for our family. The business should also be sufficiently profitable to provide above average compensation for employees and long term security for our family." The above mission statement will not be right for all farms and mission statements will change over time as the age of the operator increases and family situation changes. An analysis of a farm business is most useful to the manager when the mission is known and thereby conveys to the evaluator what the business wants to accomplish.

The objectives of the farm are also of value to the evaluator because they more specifically state business direction. Objectives are general, challenging and untimed directions for the business. Example objectives might be to build net worth, increase profits and allow more time for personal and family activities.

Operating a profitable dairy farm business requires that the factors of production such as land, labor and capital be combined and managed to achieve a value of production that is greater than the cost of production. There are numerous ways to accomplish a profit in dairying; striving for high output per cow but with corresponding costs, low output per cow but with low costs or high output per cow with low costs. The latter category, high output with low costs is a characteristic of most of the highly profitable dairy farms.

Evaluating a Dairy Farm Business

Evaluating a business to determine areas for improvement can be accomplished in the most simple terms by ascertaining if the business has 1) an adequate herd size, 2) excellent rates of production, 3) high labor efficiency, 4) stringent cost control and 5) strong financial position. Again, the evaluation should be set within the context of the mission and objectives of the farm family.

Farm Size

The question to be answered when examining the size of a dairy farm is "Is size of the farm sufficient to meet the family

mission and objectives?" Or if the objective of the family is to increase profitability, is the size of the business a limiting factor?

There is a strong and well established relationship between farm size and farm income on well-managed farms. Net farm income without appreciation increases as size of herd increases, ranging from about \$25,000 on farms with less than 60 cows to over \$1,351,000 on farms with more than 900 cows. See Figure 7-2.

In 1918, George F. Warren made an insightful observation regarding the relationship between farm size and income. "Not only are average incomes much larger on larger farms, but the chances of making a good profit are much better. However, no farm is large enough to ensure a profit."

Rate of Production

Achieving high rates of milk production per cow does not guarantee a profit, but on average, farms with higher rates of production do achieve higher incomes. As pounds of milk sold per cow increase, net farm income, net farm income per cow and labor and management income per operator generally increase. See Table 7-10.

Profitability measured as net farm income per cow rather than per farm removes the influence of herd size and also shows a positive relationship with milk sold per cow. In 2013, net farm income per cow generally increased as pounds milk sold per cow increased with some fluctuation.

Labor Efficiency

Labor efficiency is a measure of the amount of work done, on average, by one full time equivalent worker. A full time





equivalent worker is considered to represent 230 hours of work per month. The labor efficiency measure used here is pounds of milk sold per worker. As can be seen from Table 7-11, as pounds of milk sold per worker increases, so does net farm income and labor and management income per operator. In a stanchion barn, labor efficiency should be 600,000 pounds of milk sold per worker or higher. Small freestall barns should achieve 800,000 pounds per worker or higher and large freestall barns over 1,000,000 pounds of milk sold per worker.

Cost Control

Cost control is very important in operating a profitable dairy farm. If the three major costs in operating a business are under control, some of the smaller expense categories can be slightly higher and not seriously impact overall profit. The three largest cost categories on a dairy farm are purchased feed, hired labor, and machinery repairs; with milk marketing expense a close fourth. In this analysis, purchased feed and crop production

expense per hundredweight of milk and machinery costs will be discussed. Hired labor was discussed under the category of labor efficiency. Purchased feed and crop expense per hundredweight of milk is one of the most useful feed cost measures because it accounts for some of the variations in feeding and cropping programs, and milk production between herds. It includes all purchased feeds used on the farm, and it includes crop expenses that are associated with feed production.

On average, farms with feed and crop expenses exceeding \$8.00 reported below average profits in 2013. Farms reporting less than \$8.00 per hundredweight generally showed above average profits. However, reducing feed and crop expenses does not necessarily lead to higher profits particularly when milk output per cow falls below average as can be seen in the farms in the group reporting less than \$7.00 per hundredweight. See Table 7-12.

Most machinery costs are associated with crop production and should be analyzed with the crop enterprise. Total machinery expenses include the major fixed costs (interest and depreciation), as well as the accrual operating costs. Machinery costs have not been allocated to individual crops, but they are calculated per total tillable acre. See Table 7-13.

171 New York Dairy Farms, 2013					
Pounds of Milk	Number	Average Number	Net Farm Income without	Net Farm Income	Labor & Management Income Per
Sold Per Cow	of Farms	of Cows	Appreciation	Per Cow	Operator
Under 16,000	14	179	\$75,069	\$274	\$16,445
16,000 to 18,999	15	120	62,845	585	13,278
19,000 to 20,999	7	173	161,736	1,002	43,502
21,000 to 22,999	17	288	203,188	659	65,086
23,000 to 24,999	34	750	627,201	770	206,337
25,000 to 26,999	51	826	665,356	815	157,628
27,000 & over	33	1,003	1,195,727	1,094	368,774

TABLE 7-11. MILK SOLD PER WORKER AND NET FARM INCOME 171 New York Dairy Farms, 2013

Pounds of Milk	Number of Farms	Number of Cows	Pounds Milk Sold Per Cow	Net Farm Income (without appreciation)	Labor & Management Income Per Operator
Linder 500,000	10	75	16 557	\$22.225	\$ 10 767
011del 300,000	15	115	10,007	\$25,255	3-10,707
500,000 to 699,999	18	115	21,265	73,881	15,941
700,000 to 899,999	24	355	21,925	228,910	29,679
900,000 to 1,099,999	33	565	24,068	392,816	105,666
1,100,000 & over	77	1,046	26,049	1,052,843	321,854

Controlling machinery costs can have a significant impact on profitability. Machinery costs should be evaluated along with labor efficiency. If machinery costs are high, as a result of use of labor saving technologies, then a high labor efficiency must result to offset the high machinery costs.

Financial Position

Farm debt per cow should be below \$3,500. Businesses that have been in operation for many years without an increase in herd size should have a very low debt per cow, below \$1,000. Total farm investment per cow (market value) should be less than \$9,000 and for large dairy farms \$8,000 or less.

TABLE 7-12. PURCHASED FEED AND CROP EXPENSE PER HUNDREDWEIGHT OF MILK AND FARM INCOME MEASURES 171 New York Dairy Farms, 2013

Feed & Crop Expense Per Cwt. of Milk	Number of Farms	Number of Cows	Forage Dry Matter Harvested Per Cow	Pounds Milk Per Cow	Net Farm Income Without Appreciation	Labor & Management Income Per Operator
\$9.00 or more	76	623	7.7	16,429	\$432,566	\$121,087
8.50 to 9.00	25	835	8.7	23,676	839,815	223,885
8.00 to 8.49	29	657	8.7	24,658	669,485	216,978
7.50 to 7.99	15	904	8.4	25,916	1,120,158	324,673
7.00 to 7.50	13	633	8.8	21,383	722,267	206,431
Less than 7.00	13	163	7.4	17,814	139,977	32,198

TABLE 7-13. ACCRUAL MACHINERY EXPENSES

	Average	166 Farms	Average Top 10% Farms ^a	
Machinery Expense Item	Total Expenses	Per Tillable Acre	Total Expenses	Per Tillable Acre
Fuel, oil & grease	\$143,737	\$108.95	\$241,825	\$108.91
Machinery repairs & vehicle expense	167,528	126.98	241,059	108.56
Machine hire, rent & lease	70,889	53.73	133,629	60.18
Interest (5%)	59,093	44.79	77,345	34.83
Depreciation	155,340	117.74	224,495	101.10
Total	\$596,587	\$452.19	\$918,352	\$413.58

^aAverage of 16 farms with highest rates of return to all capital (without appreciation) that grow forages.

Milk Quality Training

Program Dates:

This 3-day program will meet on Thursday: January 8, 2015 February 5, 2015 March 5, 2015

10:30am — 3:30pm

Registration fee is \$100.00*

*Includes one bulk tank and bedding sample per farm.

Program Location**

NYS Grange 100 Grange Place Cortland, NY 13045 *Register/Contact* CCE Cortland County Amanda 607-753-5078 or Betsy Hicks, 607-753-5213

**Program offered via live presentations & video conferencing.

South Central NY Dairy & Field Crops Digest

Jan. 8— What is Mastitis Costing your Farm?

- Analysis of Potential Lost Income
- Mammary Physiology & the Basics of Mastitis Culturing
- Importance of a Consistent Milking Protocol
- Knowing Your Mastitis Organisms
- How to Take a Proper Milk or Bedding Sample for Culture

Presenters:

Dr. Kimberley Morrill, PhD, CCE Regional Dairy Specialist Dr. Theresa Taraska, DVM, CCE Lewis County Dairy Specialist Dr. Rick Watters, PhD, Quality Milk Production Services

PRO-DAIRY

Feb. 5 — Importance of Cow Comfort, Environment & Equipment Maintenance

- Scoring Systems to Implement On-farm to Monitor Cleanliness and Teat Health
- Cow Comfort and its Impact on the Immune System and Quality Milk
- Impact of Equipment Maintenance on Milk Quality

Presenters:

Curt Gooch, Agricultural Engineer, Cornell ProDairy Program Dr. Jerry Bertoldo, DVM-NWNY Dairy Specialist Dr. Paul Virkler, DVM, Quality Milk Production Services Dr. Rick Watters, PhD, Quality Milk Production Services



March 5th Importance of Record Keeping for Mastitis Control.

- Economic Impact of Management Changes to Improve Milk Quality.
- Residues & Treatment Records.
- Dairy Comp The Value of Recordkeeping.
- Review of NYSCHAP Quality Milk Module

Presenters: Dr. Michael Capel, DVM, Perry Vet Clinic Dr. Dwight Bruno, DVM, New State Dept. of Ag and Markets





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



60 Central Avenue Cortland, NY 13045 Phone: (607) 753-5077 http://scnydfc.cce.cornell.edu

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Building Strong and Vibrant New York Communities

"Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities."



Change Service Requested

JAN 8 FEB 5 MAR 5	MILK QUALITY MEETINGS — Improve Your Milk Check through Quality Milk & Components: Meeting 1: What is Mastitis Costing Your Farm? Meeting 2: Importance of low Comfort, Environment, and Equipment Management Meeting 3: Importance of Record Keeping for Mastitis Control NYS Grange, 100 Grange Place, Cortland Thursdays, 10:30am — 3:30pm. Attend all 3 for \$90 or \$35/session Contact Betsy Hicks at 607-753-5213
JAN 13 FEB 10 MAR 10	NY CERTIFIED ORGANIC (NYCO) MEETINGS — New Opportunities, Old Problems, Honoring the Soil Meeting 1: Unlocking the Potential of Your Soil with Jean Bonhotal and Looking Into the Soil Renaissance Initiative with Klaas Marten Meeting 2: Forage Quality Meeting 3: Organic Grain Jordan Hall; 614 North St; Geneva, NY Tuesdays, 10am — 2pm Contact Fay Benson at 607-753-5213
JAN 16	SOIL HEALTH AT NY BEEF PRODUCERS MTG: Double Tree Hotel, 6301 St Rte 298, East Syracuse, NY. Two-day conference, Jan 16 — 17 from 9am to 5pm. Soil Health Session at 11:30am, Jan 16. For more information, contact Fay Benson at 607-753-5213 or visit <u>http://www.nybpa.org/Annual_Mtg_Schedule2015.pdf</u> .
JAN 20-21	OPERATIONS MANAGERS CONFERENCE: Holiday Inn, 441 Electronics Pkwy. Syracuse NY. For more information, including a conference agenda, visit <u>prodairy.cals.cornell.edu/OMC/</u> or contact PRO-DAIRY at (607) 255-4478.
JAN 23	WINTER CROP MEETING — Planning for Manure Storage & Crop Updates: Ramada Inn, Ithaca NY 9:00 am registration 10:15am - 3:30pm. \$25 by Jan. 16. \$30 at the door. Register online at <u>scnydfc.cce.cornell.edu</u>
FEB 26-28	NEW YORK FARM SHOW: New York State Fairgrounds, Syracuse
MAR 4	NOFA Organic Dairy & Crop Conference: Holiday Inn, 441 Electronics Parkway, Liverpool, NY. 8:30am — 5:00pm. This year's program includes a half-day intensive workshop entitled "Homeopathic, Herbal and Holistic Solutions to Common Situations in the Dairy Herd." For more information visit <u>http://www.nofany.org/events/</u> <u>winter-conference/organic-dairy-field-crop-conference</u> .
MAR 12	WINTER DAIRY MANAGEMENT — Impact Profitability via Milk Components: Cortland, NY; time and location to be assigned