



CALF MANAGEMENT PROGRAM

Topics and speakers include:

Oct. 28 – Young Calf Care – Kim Morrill, PhD, NNY Dairy Specialist, Cornell Cooperative Extension, will discuss the critical first 24 hours, including impact of calving stress, the 5 “C’s” – colostrum, calories, cleanliness, comfort, consistency, as well as biosecurity, controlling scours, controlling respiratory disease, assessing the “off” calf and vaccination strategies.

Oct. 30 – Impact of Environmental Factors – Dr. Theresa Taraska, DVM, Dairy Specialist, CCE Lewis County, and Curt Gooch, PRO-DAIRY Sr. Extension Associate, will discuss housing essentials, air quality, individual versus group housing, water quality, cold and heat stress, and bedding choices.

Also on **Oct. 30 – Operation Overview with Focus on Data Capture** – This panel discussion will answer: What data are you collecting; why and how are you using it; and how are you using data in decision making? Panelists include dairy farmers, theMcMahon’s of E-Z Acres, DVM Dave Stockwell and organic dairy farmer Paul Tillotson.

Nov. 4 – Calf Nutrition and Delivery, from Birth to Weaning – Fernando Soberon, PhD, Technical Services Manager at Nutreco, Canada, will address feeding for biological potential, milk versus milk replacer, gut development, starter formulation, growth rates and weaning strategies.

Nov. 6 – Calf Management Issues – Corwin Holtz, Holtz-Nelson Dairy Consultants, LLC, will address auto feeders versus robots, acidified milk feeding, nipple selection, placement and number, starting calves in groups, cross sucking, basic economics of raising calves and economics of lost and culled heifers.

Farm Walk and Hands-On Demonstrations, 10 am to 3 pm, at McMahon’s E-Z Acres, date to be announced. These local farm tour discussions will cover management of the newborn calf, environmental considerations, feeding and weaning management, sanitation of feeding articles and health strategies.

Local Site: CNY
 Room 361
 Stocking Hall
 Cornell Campus
 Ithaca, NY
 Contact: Betsy Hicks,
 518.428.2064

These programs will be offered statewide at six video conferencing sites from 6:30 to 9:00 pm October 28, October 30, November 4 and November 6. Our local site will be on Cornell Campus in Stocking Hall, Room 361. On-the-farm tour date will be announced at the conclusion of the program. Cost is \$50 per person. Register for all 4 meetings plus on the farm day with Betsy Hicks at 607-753-5213. This program qualifies for Farm Service Agency Borrower Credits.

Program participants will also receive a \$40 voucher toward the full day. Registration fee for the PRO-DAIRY Calf and Heifer Congress December 10 and 11 at the RIT Inn and Conference Center, Rochester, NY.



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OCTOBER/NOVEMBER 2014

Cornell Cooperative Extension South Central NY Dairy & Field Crops Program

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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Preweaned Calves Impact Profit

Attainable goals for a heifer raising program include raising healthy replacements that are ready to breed at 13 to 15 months, and deliver a calf at 22 to 24 months, with little to no complications. Slow growth, sickness and poor body condition lead to delayed breeding, which leads to delayed calving, which translates to increase expense. That expense shows up in having to feed and care for more animals to have enough replacements. The heifer herd size chart below demonstrates the impact of increased age of first calving.

Number of Heifers Maintained, All Ages, for Various Calving Ages and Replacement Rates						
Average Herd Size, Milking and Dry Animals	100					
Non-Completion Rate*, Dairy Replacements	8.00%					
Calving Age Months	Cow Replacement Rate, Percentage					
	20	25	30	35	40	45
20	35	43	52	61	70	78
22	38	48	57	67	77	86
24	42	52	63	73	83	94
26	45	57	68	79	90	102
28	49	61	73	85	97	110
30	52	65	78	91	104	117

* Non completion rate represents the percent of heifers that start the replacement system that don't enter the dairy herd. Prepared by: Jason Karszes, Senior Extension Associate, PRO-DAIRY, Cornell University

This chart is simple and clear, but it doesn't tell the whole story. The cost of raising replacements is one of the largest expenses associated with producing milk, trailing behind feed costs and labor. The preweaned calf stage of the replacement program is the most costly per pound of gain. This is driven primarily by feed costs and then by labor costs. Jason Karszes, Cornell PRO-DAIRY, conducted a study to evaluate heifer raising costs in 2012. The data does not represent the average of all NY dairy farms; it does indicate the relative costs of raising replacement. 📄

Breakdown of Costs of Raising Heifers by Stage of Growth 17 New York Dairy Farms, 3rd Quarter 2012, NY

Cost Per Pound of Gain

Stage of Growth

	Birth to 200 lbs	201-700lbs	701-850 lbs	851-Calving
Feed	\$1.714	\$0.678	\$0.811	\$1.122
Labor	0.805	.140	0.125	0.230
All Other Costs	0.610	.415	0.571	0.857
Total	\$3.128	\$1.233	\$1.507	\$2.209

Feed costs are impacted by the type and amount of feed fed and how it's delivered. Waste milk, whole milk, milk replacer and various combinations of the three can produce healthy calves that grow well. The goal has traditionally been to implement the feeding program with the most cost effective average daily gain. Standard practice has been to gradually reduce the amount of liquid feed a calf receives to stimulate her to eat dry feed, thus saving on feed costs.

Accelerated feeding programs during the preweaned stage take a different approach. Calves are fed higher volumes of nutrient dense liquid feed than the norm. This results in higher daily feed costs. But these higher costs are offset by improved performance in other areas. These calves tend to experience lower mortality and morbidity rates and earlier age of first breeding and calving. More notable is the research that indicates heifers raised in a well-managed intensive program produce an extra 1,700 lbs. of milk during the first lactation (Soberon et al., 2012; Van Amburgh, 2011).

Labor costs are primarily dictated by the feed delivery method and housing system. These two aspects of caring for the preweaned calf go hand in hand. Not surprisingly calves housed and fed individually have a higher labor costs. Group housing and feeding have lower labor costs. Although labor cost are extremely important, other considerations should include the skill of the calf person to observe and understand calf behavior, technology, comfort level and disease control.



High Moisture Corn Harvest and Storage Considerations

Mike Rankin, Crops and Soils Agent
UW Extension-Fond du Lac Co

Even the best plans to ensile high moisture corn at the proper moisture level are sometimes thwarted by weather and time constraints. These types of situations prompt the question,

South Central NY Dairy & Field Crops Digest

"What can I get away with?" Here are some factors and suggestions to consider when making decisions regarding the harvest and storage of high moisture corn.

Moisture

Consider the type of silo first. High moisture corn can be stored in conventional, oxygen limiting, bunker, or bag silos. Recommended moisture levels for these silo types are presented in Table 1.

Table 1. High Moisture Corn Storage in Conventional, Bunker, Bag, and Oxygen Limiting Silos.

Conventional Top Unloading Silos, Bunkers, and Silo Bags			
	Corn Kernel Moisture, %		
	Minimum	Desired	Maximum
Ear Corn	26	32-36	40
Shelled Corn	26	28-32	36
Bottom Unloading Oxygen Limiting Silos			
	Corn Kernel Moisture, %		
	Minimum	Desired	Maximum
Ear Corn-rolled*	26	28-32	36
Shelled Corn	24	26-28	32
*OL Silo with Forage Unloader			

In years when crop maturity has lagged behind normal or frost puts an early halt to the growing season, corn may be wet (or dry slowly) and maximum moisture percentage to preserve corn becomes a primary issue. For corn stored above 40% moisture, an undesirable fermentation may take place and yeast may proliferate along with high ethanol levels. Animal acceptance may be poor with this type of fermentation. Additionally, harvesting high moisture shelled corn above 32% kernel moisture for oxygen limiting silos equipped to handle high moisture shelled corn may result in unloading problems.

Processing

Most high moisture corn is processed (rolled or ground) before going into the storage unit. The two exceptions to this rule are shelled corn being stored in an oxygen limiting unit and corn that is excessively wet (near 35% kernel moisture). Take care not to over process corn that is over the desired moisture level. It is easy to get excessively fine high-moisture corn that may result in rumen acidosis, fat test depression, off-feed problems or an increased incidence of displaced abomasums. As the corn approaches optimum moisture content, increase the degree of processing.

Harvest Recommendations

Check corn kernel moisture from different fields and determine if the grain can be removed from the cob (shelled corn). Harvesting high moisture corn as shelled corn as compared to snaplage or high moisture ear corn may reduce mycotoxin risk. Harvest corn nearest to optimum moisture contents first and place at the bottom or back of storage structures. Corn with higher than desirable moisture levels may more of a problem at feed-out during the warm months

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and is best to put on the top or front of the silo for winter feeding. Very wet corn may be prone to aerobic instability (heating) upon removal from the silo. Plan to feed higher risk (wet or moldy) high moisture corns during the coldest months to facilitate slow removal rates if needed.

Corn with significant mold on the kernels and cob is best harvested and stored as high moisture shelled corn (rather than ear corn). Some producers have taken moldy corn and dried it down to storable moisture while screening off the fines. Where drying is not an option, propionic acid is recommended. The propionic acid will not lessen any problems from the mold, but will likely prevent mold problems from getting worse.

If high moisture corn is stored in bags, locate bags away from trees, long grass, and keep snow removed from around the bags. For best results, remove bagged high moisture corn during cooler months. Punctures, rips, or tears in the summer can cause rapid and expansive spoilage.

Preservation

High moisture corn offers some unique preservation challenges compared to corn silage because it ferments more slowly and less extensively while containing high levels of starch, which promotes aerobic deterioration. Any aid to hasten fermentation, use up available oxygen, and inhibit yeast growth (once exposed to oxygen) is beneficial in the ensiling process. Several options are currently available to producers. Here's a quick rundown of each:

Standard bacterial inoculants

High moisture corn inoculants have been available for many years. These primarily produce lactic acid during the fermentation process (homofermentative) and increase the speed of fermentation, while reducing dry matter loss. They MAY also increase animal performance.

Choose an inoculant that has been specifically developed for ensiling high moisture corn. Specific strains of bacteria may not grow well on all crops and across a wide range of moisture contents. Thus, a corn silage inoculant may or may not work well under the drier conditions of high moisture corn. Most standard high moisture corn inoculants were developed to improve fermentation. For this reason, aerobic stability during and after feed-out may not be significantly improved. In fact, some standard lactic acid producing bacterial inoculants may actually improve fermentation but decrease aerobic stability (heating at feedout). With all inoculants, it is important to follow the manufacturer's application rates. Typical rates are between 100,000 and 500,000 colony forming units (cfu) per gram of high moisture corn.

Lactobacillus buchneri

Lactobacillus buchneri is a unique bacterial inoculant that has been developed to improve aerobic stability of silages and high moisture corn by reducing the growth of yeasts. The net South Central NY Dairy & Field Crops Digest

result is grains inoculated with *L. buchneri* are more resistant to heating when exposed to air as compared to untreated silages. *L. buchneri* was originally isolated from naturally occurring aerobically stable silages. It is a heterofermentative bacteria that produces both lactic and acetic acid during fermentation. Silages treated with an effective dose (600,000 CFU/gram of wet corn) of *L. buchneri* have higher concentrations of acetic acid and lower levels of lactic acid than untreated silages.

The beneficial impact of *L. buchneri* appears to be related to the production of acetic acid. Although the precise mechanism has not yet been determined, it is likely that aerobic stability is improved because acetic acid inhibits growth of specific species of yeast that are responsible for heating upon exposure to oxygen. As a result, the temperature of fermented feed inoculated with *L. buchneri* does not readily rise upon exposure to air and tends to remain similar to ambient temperature for several days, even in warm weather. Using *L. buchneri* often results in a slightly higher dry matter loss during fermentation compared to standard homofermentative bacterial inoculants.

L. buchneri is a well-researched, highly effective inoculant to use for high moisture corn preservation in all storage units. Use of *L. buchneri* improves aerobic stability and this is important if high moisture corn removal rates need to be reduced because of mycotoxins or excessively degradable starch.

Propionic acid

Preserving high moisture corn with propionic acid or propionic acid mixtures (propionic, acetic, benzoic) has been a proven effective practice for many years. However, it is more costly than simply using a standard inoculant and requires specialized equipment to apply.

There are several situations where the use of propionic acid to reduce pH and preserve corn makes good sense. In years past, some producers have successfully used concrete or wood floors/bins to store high moisture corn. In this case, it's a must that corn be treated with propionic acid. Applying propionic acid at the proper rate reduces the pH of preserved corn to about 4.0 and inhibits the growth of harmful microorganisms. The cost of treatment is usually comparable to that of on-farm drying.

The proper application rate depends on two factors: 1) the moisture content of the grain, and 2) the intended length of storage (Table 2). Rates are based on pounds of actual acid. It's most economical to treat corn with acid when kernel moisture is near 30 percent. It typically takes 10 to 20 lbs. of actual acid to fully preserve a ton of high moisture corn. Another situation where acid may prove beneficial is when an upright silo is being filled but not fed from for an extended period of time. In this case, producers often only apply acid to corn that will fill the last 5 to 10 feet at the top of the silo. It is at the top where spoilage is most likely to occur as a result

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of oxygen infiltrating the grain. Again, determine rates based on length of storage and moisture.

Table 2. Recommend application rates of propionic acid to preserve high moisture corn¹

Corn moisture %	Lbs. propionic acid to apply per 1000 lbs. wet corn ¹		
	-----Months corn to be stored-----		
	6	9	12
20	3.3 – 5.0	4.0 – 6.0	5.0 – 7.5
25	5.0 – 6.5	6.0 – 8.5	7.5 – 10.0
30	6.5 – 8.5	8.5 – 11.0	10.0 – 12.5
35 – 40	8.5 – 10.5	11.0 – 14.0	12.5 – 15.0

¹Use lower rate for well-mixed corn and higher rate if acid and grain cannot be well-mixed.

Feedout

Be careful to plan for variable removal rate from the silo. A removal rate of 3 to 4 inches per day is typically required to prevent heating during feeding in warmer weather. However, if the high moisture corn contains mycotoxins or is wet with rapidly degradable starch, which may induce acidosis, the removal rate may need to be reduced to augment the addition of clean dry corn to the diet. Treating the bottom third to half the silo of high moisture corn with *L. buchneri* or propionic acid (12-15 lb/ton) may be desirable to insure flexible removal rates and maintain quality during warm weather feeding. ☑

For more information on inoculants: **Inoculating High Moisture Corn** at <http://fyi.uwex.edu/forage/files/2014/01/Inoculating-HM-Corn-V.2-FOF.pdf>.

Guidelines for Pricing Earlage

Roy Black, Steven Rust, Michigan State University Extension

It may not be practical to harvest the late maturing corn as grain corn. Alternatives may exist including harvesting as silage or earlage.

The weather challenges leading to late planting season last spring have raised a concern about corn reaching maturity this fall. It may not be practical to harvest the late maturing corn as grain corn. Alternatives may exist including harvesting as silage or earlage. If the crop is insured under one of the USDA/RMA facilitated COMBO insurance plans (Yield, Revenue Protection or Revenue Protection with Harvest Price Protection), check with your insurance crop agent about the options available.

This article describes the nutrient values of corn using different harvest, storage, and processing methods and suggests benchmark pricing methods which might be used to initiate negotiate discussions between cash crop producers who have later maturing corn for sale and livestock producers

who can use the corn for feed and have the harvest and storage capacity to handle the corn.

The nutrient content of corn for beef cattle for different harvest, storage, and processing models is described in Table 1. Corn silage harvested before black-layer formation (immature corn silage) has a feed energy value similar to normal silage but will likely have less tonnage per acre. Harvesting the ear is another option. Several terms have been used to define harvest of the ear.

Table 1. Nutrient content of corn using different harvest, storage, and processing methods.

Corn type	Dry matter %	TDN, %	NE _m , Mcal/lb	NE _g , Mcal/lb	CP, %	Escape protein, % of CP
Dry Rolled Corn	86	90	1.02	0.70	9.8	60
Ear Corn	87	83	0.92	0.62	9.0	60
Steam Flaked Corn	82	94	1.06	0.73	10.0	45
High Moisture Corn	75	90	1.02	0.70	10.0	40
High Moisture Ear Corn	75	83	0.92	0.62	8.7	40
High Moisture Snapped Corn	74	81	0.90	0.59	8.8	40
Corn silage, few ears	29	62	0.63	0.36	8.4	25
Corn silage well-eared	33	70	0.77	0.49	8.7	30

Table adapted from NRC (2000) and Stock, R., R. Grant, and T. Klopfenstein (1995) *Average composition of feeds used in Nebraska*. G91-1048-A. University of Nebraska.

Corn and cob meal results from harvest of only the ear and has very little contamination from the husks, leaves and tassel. Earlage generally contains the ear and husks with small amounts of leaf and tassel material. Snapped ear corn is harvested by placing a snapper head on a silage chopper which harvests the ear, husks and a significant amount of leaves and tassel. As leaf and tassel material in the corn and cob meal increases, the energy value decreases.

Earlage

Earlage is more difficult to price because of the variable amount of leaves and tassels in the various forms and there is not an established industry standard for pricing relative to US No. 2 corn. Earlage is ensiled corn grain, cobs and, in some cases, husks and a portion of the stalk (depends on the harvest method). Earlage is higher in energy than corn silage, but it has lower energy than dry or high-moisture corn grain.

Depending on the material being ensiled and the harvest equipment, you also may hear the following terms: (1) **snaplage**: This term describes ensiled corn grain, cobs and husks typically harvested with a forage harvester equipped with a corn snapper header so that only the ear and a portion of the ear shank is removed, chopped and ensiled or (2) **high-moisture Ear Corn** or **Corn and Cob Meal**: This refers to corn grain and cob material that is harvested with a combine set to return the grain and a portion of the ground cob to the hopper. See Lardy, G. and V. Anderson, 2010, *Harvesting, Storing and Feeding Corn as Earlage* AS-1490 NSDU

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www.ag.ndsu.edu/pubs/ansci/livestoc/as1490.pdf for additional background. There may be more approaches to storage of earlage than corn silage.

Typically, earlage is priced off corn grain based upon their relative energy values (Table 1). Adjustments for livestock producers who are purchasing earlage “on the stump” follow the same logic as described for corn silage.

Example:

Assumptions for the example:

- Local corn price that matches earlage delivery date): \$3.65/bu
- Earlage is 38% dry matter/62% moisture
- Earlage is worth 90% of corn grain delivered at the feedbunk (based upon relative energy values from Table 1)
- Shrink in ensilage storage: 12%


Cost of harvesting, hauling, filling: \$10.00/ton (less confident in these estimates than silage)

Calculations:

- Calculate price delivered to feedbunk: $0.90 \times \text{No 2 corn/bu} = 0.90 \times 3.65 = \$3.29/\text{bu}$ on a 15% moisture/85% dry matter basis since No. 2 corn is quoted on that basis.
- Convert to 38% moisture/68% dry matter on \$/ton basis if that is how loads will be measured:
 - Convert to price/lb dry matter:
 $(\text{price}/56)/0.85 = (\$3.29/56)/0.85 = \$0.069/\text{lb DM}$
 - Convert price/lb DM price to wet basis/ton: $(\text{DM price} \times \text{DM}) \times 2000 = (\$0.069 \times 0.62) \times 2000 = \$85.56/\text{ton}$ at 62% dry matter
- Calculate cost of harvesting, hauling, filling: = \$10.00/ton
- Calculate net tons delivered/ton in field = $1.0 - \text{shrink} = 1 - 0.12 = 0.88 \text{ ton net/ton in field}$
- Calculate net value/ton in the field: net tons delivered to feedbunk \times price – cost of delivery = $0.88 \times \$85.56/\text{t} - \$10.00/\text{t} = \$65.29$ \$/ton in the field @ 62% dry matter

Other Considerations:

- Offer some guarantee of payment as sellers get nervous when they deliver \$40,000 worth of corn to a person they don't know, and may never meet - routinely some farms are getting a guaranteed note from their lender up to a set dollar amount; others are setting up an escrow account with a third party such as a lender to draw out of as the corn is delivered.
- Ask the crop owner if there is a mortgage on the crop, and if there is, how the payment should be handled (this will avoid legal hassles down the road).

- Be clear on the method and location that will be used to select the price of corn if corn silage and/or earlage are priced off number 2 corn. 

Replacing MILC with the new “Margin Protection Program (MPP)”

Fay Benson, Cornell's South Central NY Dairy Team

MPP is the new dairy protection tool described in the Farm Bill. Farmers are asked to sign up for 2014 and 2015 years prior to this November 30th at their FSA offices.

Here are a few basic facts:

- Margin refers to the difference between Milk Income vs. Feed Cost. This is similar to the current MILC
- If you received MILC you are eligible for MPP, but you need to apply at FSA
- It uses a national milk price and your farm's production history to determine “Income”
- and a combination of national prices for corn, soybean, and hay to determine “Feed Cost”
- At sign-up you will need to verify the higher of 2011, 2012 & 2013 milk sales for your farm
- The three decisions you need to make are:
 - Do you want to sign up at all? (Not much chance in collecting for 2014)
 - How much of your milk production do you want to protect? 25% to 90%
 - What margin do you want to ensure? \$4 to \$8/cwt
- Margins are determined every two months starting with January and February. You can take the catastrophic level which is a \$4 margin at 90% of your herd's production for a \$100 administrative fee. Once a farm signs up they are in for at least the catastrophic level for the duration of the Farm Bill.
- To get the same coverage as you had under MILC you would need to buy up to the \$5.50/cwt margin. For less than 4 million lbs of yearly production this would cost the \$100 administrative fee plus \$0.03/cwt covered.
- The sign-up for 2016 will be next July thru September 2015

Some farms will see MPP as less coverage and something they have to pay for. Others will see they can have a choice in what they cover and when. Farmers will be able to look at market forecast for the upcoming year and decide how comfortable they are with the margins offered. If prices look like they will be reasonable they can go in for the \$100. If there is uncertainty in the markets farmers can choose to buy up in their margin coverage. Usually in risky times there is an increase in cost of protection, with MPP there is no change in the cost which makes this a unique risk management tool.

For more information go to:

<http://dairymarkets.org/Tools/MILC-MPP.html> 

“Grassfed Dairy” New Opportunity for Organic Dairy Farmers

New York Organic Dairy farmers are weighing their options whether to join a new milk market. The pay price is higher for “Grassfed” milk but production is usually lower. The New York Organic Dairy Initiative is providing information and contacts to farmers who are thinking of transitioning to the new market. Grassfed milk is produced without the use of grain. During the grazing season it’s easy to produce this milk, but the non-grazing season presents a challenge for farmers as they seek to feed their lactating animals without energy dense grains. Some organic dairy farms here in NY have evolved to feeding no grain prior to the market opening up due to the high cost and limited availability of organic grain.

With organic corn meal selling for as much as \$700/ton delivered, the income over feed cost margin is tough to cover even with a pay price of \$30/cwt for organic milk. A farmer feeding a moderate 7 lbs of corn meal / cow for a 200 day lactation will pay a total of \$490 for the corn. In order to pay for the corn, time spent for daily feeding, and storing the corn, a cow would have to produce approximately 2000 lbs more just to break even. Bob Zufall of Lisbon NY is an organic grassfed dairyman. He also sits on the NY Organic Dairy Task Force, and has fed no grain for 6 years. He feels that the best way to transition animals away from grain is to start with the young stock. He says, “Cows don’t handle the transition well.”

Three years ago there was interest generated here in New York when Organic Valley Coop put their non-homogenized “Grassmilk” on the shelves of the west coast. This fall they expanded the market to the East. Peter Miller, Organic Valley’s East Division Pool Manager, reported that in reviewing supermarket sales where they 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.

An earlier entry into the grassfed market here in New York is Maple Hill Creamery in Stuyvesant, NY. They produce Maple Hill Yogurt. 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. They buy from 20 dairies mostly in NY. 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. Both processors are paying similarly, \$35 - \$38/cwt for grazing season milk and \$42 - \$45/cwt for non-grazing season milk.

Fay Benson, project manager for the NY Organic Dairy Initiative, will be highlighting this new market at the November 4th Organic Dairy Task Force in Syracuse. Tim Joseph of Maple Hill Creamery will explain their new business. Peter Miller of Organic Valley will share their study into milk fatty acids contained in their producer pool, and Dr. Andre Brito of the University of New Hampshire will give reports on two studies examining the way forage affects fatty acid profiles in milk: one by feeding flax meal and the other using molasses and forage.

Further proof of the growing interest, the editor of the American Agriculturist Magazine asked Fay to write an article for their magazine on the new Grassfed Dairy market. It will be published in the December issue. In an effort to help farms that are considering the transition Fay is the principle investigator on a SARE Research and Education Grant proposal that would allow him and Co-PI, Dr. Heather Darby to study and report on the new market from the farmers’ perspective. ✂

Elizabeth Burrichter

I will be leaving my position as Program Assistant with the South Central Dairy and Field Crops team in November to move to the Hudson Valley, and hope to eventually have a farm of my own there. I have enjoyed my time working at CCE in Cortland, and especially appreciate the chance I've had to meet organic farmers all over the state and learn by their dynamic examples. I will continue to work with organic farmers by performing organic inspections next season. I hope that my replacement also enjoys providing resources for farmers to experiment with their cropping systems, and continues to teach the community about home dairy processing.





USDA Farm Service Agency Announces Key Dates for New 2014 Farm Bill Safety Net Programs

Farmers can Update Yield History and/or Reallocate Base Acres through Feb. 27, 2015;

Producers Select the Safety Net Program Best for Their Operation Beginning Nov. 17, 2014 through March 31, 2015

WASHINGTON, Oct. 2, 2014 – The U.S. Department of Agriculture (USDA) is announcing key dates for farm owners and producers to keep in mind regarding the new 2014 Farm Bill established programs, Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC). The new programs, designed to help producers better manage risk, usher in one of the most significant reforms to U.S. farm programs in decades.

“The ARC and PLC programs are a significant reform in the farm safety net,” said Farm Service Agency (FSA) Administrator Val Dolcini. “FSA wants to keep producers well informed on all steps in the process. We will continue our outreach efforts and maintain resources online to help them understand the new programs before they come in to make decisions for their operations.”

Dates associated with ARC and PLC that farm owners and producers need to know:

Sept. 29, 2014 to Feb. 27, 2015	Land owners make base reallocation/yield updates
Nov. 17, 2014 to March 31, 2015	Producers make election between ARC/PLC
Mid-April through Summer 2015	Producers sign contracts for 2014 and 2015 crop years
October 2015	Payments for 2014 crop year, if needed

USDA helped create online tools to assist in the decision process, allowing farm owners and producers to enter information about their operation and see projections that show what ARC and/or PLC will mean for them under possible future scenarios. The new tools are now available at www.fsa.usda.gov/arc-plc. Farm owners and producers can access the online resources from the convenience of their home computer or mobile device at any time. USDA

provided \$3 million to the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri and the Agricultural and Food Policy Center (AFPC) at Texas A&M (co-leads for the National Association of Agricultural and Food Policy), along with the University of Illinois (lead for the National Coalition for Producer Education) to develop these online tools.

The screenshot shows the 'Farm Bill Toolbox' page on the farmdoc website. It features a navigation bar with 'Home', 'About', 'Support', 'Tools', 'Legal', and 'farmdoc'. The main heading is 'Farm Bill Toolbox' and the sub-heading is 'ARC-PLC Decision Steps'. Below this, it states: 'The following 7 steps are designed to help guide you through the decisions required for each FSA farm.' A progress bar shows 7 steps: 1. Collect Information, 2. Keep or Update Yields, 3. Retain or Reallocate Base Acres (highlighted), 4. Compare ARC-CO and PLC, 5. Consider ARC-CO, 6. Consider SICO, and 7. Signup. The current step is 'Step 3: Retain or Reallocate Base Acres'. Under this step, there are several sections: 'View Fact Sheet for Step 3', 'Your Decision' (The decision is to: Keep the current allocation of base acres on each farm, or Reallocate base acres according to plantings from 2009 through 2012), 'Watch video on base acre decision', 'Information Needs' (Current base acres were provided in the letter received from FSA...), 'Watch video on base acre data', 'Online Tool' (This decision will not change the amount of total base acres for any farm...), 'Watch video on APAS tool | base acre' and 'Visit APAS tool online', and 'Guidance' (Generally, producers should choose the allocation...), 'Watch video on base acre decision guidance'.

Covered commodities include **barley**, canola, large and small chickpeas, **corn**, crambe, flaxseed, grain sorghum, lentils, mustard seed, **oats**, peanuts, dry peas, rapeseed, long grain rice, medium grain rice (which includes short grain rice), safflower seed, sesame, **soybeans**, sunflower seed and **wheat**. Upland cotton is no longer a covered commodity.

Today's announcement was made possible through the 2014 Farm Bill, which builds on historic economic gains in rural America over the past five years, while achieving meaningful reform and billions of dollars in savings for the taxpayer. Since enactment, USDA has made significant progress to implement each provision of this critical legislation, including providing disaster relief to farmers and ranchers; strengthening risk management tools; expanding access to rural credit; funding critical research; establishing innovative public-private conservation partnerships; developing new markets for rural-made products; and investing in infrastructure, housing and community facilities to help improve quality of life in rural America. For more information, visit www.usda.gov/farmbill. □

USDA Crop Programs Partially Unraveled

Dr. Andrew Novakovic, Cornell Program on Dairy Markets & Policy

USDA has just announced the sign up process for the new set of programs for major crops (corn, soybeans, wheat, etc). The process involves three steps.

The first is to decide if one wants to take advantage of an opportunity to update base assignments and yields. This must be done by 27 February 2015. Previous participants in FSA programs should have received a notification of their current base allocations and yields in August. Keep in mind that, in situations where the farmer rents land, it is the LAND OWNER who gets to make this decision. (It is not an option.) Also, please note that the decision about base is only whether the Land Owner wants to reallocate existing total base acres based on recent (2009-12) historical cropping patterns. Take careful note. This is not an opportunity to change total base acres. Also, the reallocation is based entirely on averages of recent historical production. Thus, the Land Owner gets a choice between A) the current allocation of base pertaining to specific crops OR B) a new allocation based on recent plantings. Picking some third reallocation is not an option. I don't know to what extent this will make sense in the NE but in many parts of the country farmers have been planting corn like crazy. Picking the reallocated base quite likely would mean moving more of the total base into corn and away from small grains or oilseeds, for example.

This is an important step in the overall process. It is fairly likely that producers will find that what is being decided is a little different than what they thought it would be.

The second decision has a 31 March deadline. This is the important and "permanent" decision to choose between three options. There are two programs that are triggered off of the familiar county yield and price variables: Agriculture Risk Coverage (ARC) vs. Price Loss Coverage (PLC). There is also an Individual farm variation of ARC. The tradeoffs

between the two programs can be described in principle but the choices are not simple. Also keep in mind that the choice made this year is irrevocable and will define the program that a producer can use for the life of the bill - through 2018.

Producers can change certain coverage choices annually but these are only within the program elected this year. As a very general rule, PLC will be appealing if one is prepared to assume that prices for the next five years will be stuck in a low pattern, such as exists this year. PLC will also be more appealing if farms are in an environment that has lower than average yield risk. ARC will be more appealing if prices are volatile or yield risk is greater. ARC, for example, can offer payments when prices drop from high to medium, because it is the dropping that tends to trigger a payment. PLC would not make a payment for "medium" range prices. On the other hand, persistently stable low prices might not trigger an ARC payment whereas PLC would. This barely scratches the surface of the differences between the two programs. As noted below, the FSA website points to two different sets of decision tools. Both are worth giving a serious look; however, neither are for the faint of heart. In addition, the Texas/MO tool begins with the assumption that the user is a farmer who can enter in pertinent information about their farm, including their FSA number. It is harder for a non-farmer to explore that tool and just play with it. The Illinois tool parses the choices into smaller bites and makes it a little easier to play around with the program. As I said, both tools deserve a serious look.

Crop year contracts must be completed at a later date that has yet to be specifically announced, but it will be sometime next summer. It is at this time that specific crop year choices are made for the program the producer has chosen. Producers who elect PLC will find that they also are eligible for a new risk management program called Supplemental Coverage Option (SCO).

The good news is that producers have quite a bit of time to sort this all out. The bad news is that there is quite a bit of sorting required. ✕

Operations Managers Conference

Effective Management through Teamwork and Leadership

January 20 - 21, 2015

Holiday Inn, 441 Electronics Parkway, Liverpool/Syracuse, NY

Join other dairy and crops managers in January to increase your operations management skills. Topics include:

- Employee Engagement
- Servant Leadership
- Communicating for Results
- Transitioning to Manager and Owner
- Using KPI's to Improve Performance
- Knowing Your Employees
- Building Diverse Teams
- On-Farm Technology
- Training Equipment Operators
- Interactive Tour at Lawnhurst Farms



For more information, including a conference agenda, visit prodairy.cals.cornell.edu/OMC/ or contact PRO-DAIRY at (607) 255-4478.

Grain Crop Marketing Update

John Berry, Ag Marketing Educator,
Penn State Cooperative Extension

What did the recent USDA crop expectations report reveal?

With most states well into harvest (maybe a slow harvest because of rain?) this past week's USDA report on crop expectations was of interest to many. Most are expecting a big 2014 crop. This report is looked at as having some definitions of how big. Remember, these are average yields when you take the entire U.S. into account and they are merely projections at this time.

NASS October Crops Projections

	September 2014 USDA	Industry October Estimate	October 2014 USDA	last year
U.S. Yield (bushels per acre)				
Corn	171.7	174.7	174.2	159.00
Soybeans	46.6	47.6	47.1	44.00
U.S. Harvested Acres (million)				
Corn	83.8	83.2	83.1	87.70
Soybeans	84.1	83.6	83.4	76.00
U.S. Production (billion bushels)				
Corn	14.39	14.5	14.47	13.90
Soybeans	3.91	3.97	3.93	3.36
U.S. Ending Stocks (billion bushels)				
Corn	2	2.13	2.08	0.821
Soybeans	0.475	0.472	0.45	0.141
Wheat	0.698	0.704	0.654	0.718
World Ending Stocks (million tons)				
Corn	189.91	192.02	190.58	137.66
Soybeans	90.17	90.76	90.67	56.84
Wheat	196.38	196.38	192.59	174.00

Our National Agricultural Statistics Service (NASS) indicates - "Corn production is forecast at 14 billion bushels, up less than 1 percent from the previous forecast and up 4 percent from 2013." With yields expected to average 174 bushels per acre, up 15 bushels above the 2013 average. "If realized, this will be the highest yield and production on record for the United States."

This same report tells us - "Soybean production is forecast at a record 3.9 billion bushels up 17 percent from last year." Yields for beans are expected to average a record high 47 bushels per acre up 3 bushels from last year." Things I consider when folks ask me about marketing opportunities:

- We are now two years since the significant Midwest drought, and production is back on trend.
- The grain pipeline is full.
- Transportation and storage is in the news.
- Current prices are near / below the full cost of production.
- Crude oil (energy) has been in a price decline since early summer.
- Livestock sectors are able to capture some profits, and seem to be expanding.
- Global policy and economic "bubbling" continues.
- World population continues to grow. ☹

New FSA Programs to Help Farmers Manage Risk – Explained

November 5th, Dryden Fire Hall, 1-3pm, No Fee
Registration requested, call 607-753-5077.

SCNY Risk Management Update:

- **PRF Crop Insurance is drought Protection for Pasture and Hay Enroll by November 15, 2014 for the 2015 Insurance Year**
- **Covers lack of precipitation for pasture, hay and hayland forage.**
- **No historical production records are required.**
- **Producers choose acreage and months to cover.**
- **If an indemnity payment is owed, payment is mailed automatically.**
- **Available in all New York Counties for 2015.**

The PRF program insures pasture, hay and forage against drought by using reported rainfall versus the historical average rainfall for the period to represent pasture and hay yield loss **due to drought**. The program compares estimated rainfall during an insured two-month window with the historical "normal" rainfall index in a 12-square mile grid where the insured acreage lies. Historical precipitation data based on more than 50 years of data from the National Oceanic and Atmospheric Administration (NOAA) defines "normal" rainfall for each 12-mile square region.

How do you enroll?

Your crop insurance agent will guide you through the enrollment steps, which must be completed before **November 15, 2014 for the 2015 insurance year.**

For more information contact Fay Benson
afb3@cornell.edu or 607-753-5213. ■

Commodity Market Outlook

Jim Hilker, Professor and MSU Extension Economist
Department of Agricultural, Food, and Resource Economics,

CORN

Does the corn market appear to have bottomed yet? A lot of information, mostly showing larger and larger supplies, has been hitting the market since mid-summer, including the August and September Crop Production Reports, the weekly Crop Progress Reports, and Quarterly Stocks Report just released September 30. Did the USDA/NASS October Crop Production Report released October 10 continue the trend? Or change it? The price movement for the five days after the October 10 may be telling.

On September 30 USDA/NASS released the September 1 Quarterly Stocks Report. The report showed that on September 1 there were 1,236 million bushels of 2013 corn still in storage. This was 55 million more bushels than the USDA/WASDE had projected in their September 11 Supply/Demand update and was 50-55 million more bushels than the average trade estimate. The 1,236 million bushels becomes the 2013-14 corn marketing year ending stocks, and the 2014-15 corn marketing year beginning stocks. This report is important for at least 2 reasons, it allows us to estimate 2013-14 feed and residual use, and it informs us how much 2013 corn production will become part of the 2014-15 corn supply.

My 2014-15 Supply/Demand Projections for 2014-15 are shown in Table 1 below. How close do they match up with the October 10 release of the USDA/NASS October corn production projections and the USDA/WASDE October 10 Supply/Demand Update? While I have increased the projected 2014 U.S. corn yield by close to a bushel per acre, I lowered planted and harvested acres each by a half million acres given the FSA reported planted acres, so my corn production projection did not change much.

If the report was negative, I suspect that it will be in the market fairly quickly, and hopefully we will see a bottoming of the market and demand will pick up. If the report is neutral or positive, it may take a bit longer for the market to find its trading range.

WHEAT

On September 30 USDA/NASS released the Small Grains 2014 Summary Report and the September 1 Quarterly Wheat Stocks Report. The small grains summary is usually the final projections for the year until the January Annual Projections are released. However, due to the lateness harvest of the spring planted small grains the NASS resurvey some states. If

the resurveys show changes are needed, the updates will be released in the November with the next set of crop reports.

The report showed that about 300,000 more acres of wheat were planted and then harvested in 2014 than the previous reports indicated. It also showed the average U.S. wheat yield at 43.8 bu/ac was a tenth of a bushel smaller than previously projected. The net of all this was an increase of the projected U.S wheat crop of 5 million bushels, to 2,035 million bushels.

The Quarterly Stocks Report, one quarter into the June-May wheat marketing year, showed there were more wheat stocks on hand than expected. Part of this is due to the larger than expected wheat production estimate, and the rest is likely due to less wheat being fed in the summer quarter than previously thought.

The USDA/WASDE will put the new stocks and production numbers in their October 10 release of their Supply/Demand update.

SOYBEANS

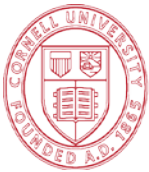
The USDA/NASS September 1 Quarterly Soybean Stocks Report, released September 30, showed 92 million bushels of 2013 soybeans left in storage. This was 38 million bushels less than both the average of trade estimates and the latest USDA/WASDE estimate. This number becomes both the ending stocks for the 2013-14 soybean marketing year and the beginning stocks for the 2014-15 soybean marketing year.

If it had not been for the previous days soybean crop progress report, which showed 2014 soybeans in the best shape in about forever for this late in the crop year, the soybean stocks report would have been more market positive, but..... The positive was 38 million fewer soybeans than previously thought being part of the 2014-15 supply. But I guess 38 million bushels doesn't seem like as big of deal when you expected to harvest over 3.9 billion bushels of soybeans this fall.

Given the September 1 Stocks Report, and by this point in time knowing how many soybeans were used, it was clear that we produced more soybeans in 2013 than previously thought, so the USDA immediately updated the 2013 soybean production estimate by 70 million bushels. They did this by increasing the 2013 yield from 43.3 to 44 bu/ac, which matches the previous record yield set in 2009, but will be close to three bushels per acre lower than the expected yield this year. I expect USDA/WASDE will lower 2014 planted and harvested acres in their October update due to the FSA count of prevented plantings. I lowered my projection of 2014 planted and harvested acres by a half million acres. But I also raised my projected 2014 yield, which was about offsetting. The USDA will fit the September 1 stock number along with their October survey of 2014 soybean production in their October 10 Supply/Demand update. ☐

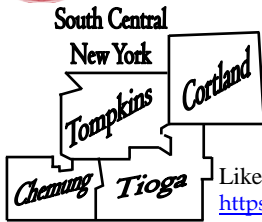
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
(million acres)														
Acres Planted	78.9	78.5	83.9	81.8	78.3	91.5	86.0	95.4	88.2	91.9	97.2	95.4	91.1	
Acres Harvested	69.3	70.9	73.6	75.1	70.6	86.5	78.6	79.5	81.4	84.0	87.4	87.7	83.3	
Yield/Bushels	129.3	142.2	150.4	148	148.1	150.7	153.9	184.7	192.8	147.2	123.4	158.5	172.5	
(million bushels)														
Beginning Stocks	1596	1087	658	2114	1947	1304	1624	1673	1708	1128	989	821	1236	
Production	8987	10089	11807	11114	10531	13038	12092	12092	12447	12350	10790	13925	14369	
Imports	14	14	11	9	12	20	14	8	28	29	180	35	30	
Total Supply	10578	11910	12776	13227	12510	14362	13729	14774	14182	13517	11929	14781	15625	
Use:														
Feed & Residual	5583	6798	6108	6156	5591	5913	5182	5125	4795	4557	4339	5120	5300	
Food, Seed & Ind	2340	2537	2686	2981	3490	4387	5025	5961	6426	6428	6039	6500	6555	
Ethanol for Fuel	956	1163	1223	1653	2119	3249	3709	4051	5019	5209	4841	5125	5180	
Total Domestic	7913	9335	9344	9154	9091	10230	10207	11086	11221	10955	10375	11620	11895	
Exports	1558	1897	1818	2134	2128	2437	1849	1680	1834	1543	730	1925	1775	
Total Use	9491	10232	10662	11270	11206	12737	12056	13066	13055	12508	11100	13545	13630	
Ending Stocks	1007	950	2114	1947	1304	1624	1673	1708	1128	989	821	1236	2006	
U.S. Loan Rate	11.5	9.4	19.8	17.5	11.6	12.8	13.9	13.1	8.6	7.9	7.4	9.1	14.7	
U.S. Season Ave	52.32	52.42	52.06	52.00	53.04	54.20	54.06	53.55	55.18	56.22	56.89	54.42	53.10	
Farm Price, \$/Bu.														

Source: USDA/WASDE and Jim Hilker. (9-30-14)



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

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Area Dairy & Field Crops Team

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CALENDAR OF EVENTS

- NOV 5** **NEW FSA PROGRAMS FOR DAIRY & CROPS – EXPLAINED:** Dryden Fire Hall, 1-3pm. Agricultural Risk coverage, Price Loss Coverage, Commodity Farm Safety Net Programs and Margin Protection Program for Dairy will be explained and decision tools demonstrated. Please call 753-5077 to pre-register. There is no cost to attend.
- NOV 30** **USDA FSA MARGIN PROTECTION PLAN FOR DAIRY: Sign-ups 2014 & 2015. Deadline Nov 30th.**
“Margin Protection Program (MPP)” – The Next Step in Federal Support for Dairy Farms
 Registration for MPP-Dairy for the two separate years 2014 and 2015 will occur simultaneously with final deadline November 30th at FSA Offices. Farmers need to make more decisions for this program than they made for MILC which is ending this month. See page 7 for more information.
- OCT 28, 30** **CALF CARE WORKSHOPS:** 6:30 pm – 9 pm. 361 Stocking Hall, Cornell University.
NOV 4, 6 More details on page 2. On-farm November 8th tentative.
- NOV 11-12** **STRATEGIC MARKETING CONFERENCE - New, Niche, and Non-Traditional Market Opportunities:**
 Developing a successful and profitable relationship for all. Contact Bob Weybright Cornell Cooperative Extension, Eastern NY Horticulture Program at 845-797-8878, rw74@cornell.edu. Conference and registration Information at: dyson.cornell.edu/outreach/strategic_marketing_conference.php.
- NOV13** **FEED DEALERS MEETING:** NY State Grange, 100 Grange Place, Cortland NY. 11:00 am. Speakers are Tom Overton, Professor of Dairy Management, Maris McCarthy, Ph.D. candidate, and Brittany Sweeney, Ph.D. student, all from Cornell University. \$25 Fee. For more information contact Betsy Hicks at 607-753-5213.
- NOV 14** **NRCS ANNUAL COVER CROP AND SOIL HEALTH WORKSHOP:** USDA-NRCS Big Flats Plant Materials Center. Registration 9:15 am. Program 9:45 am – 3:30pm. Cost \$12. For complete program and registration go to: <http://events.r20.constantcontact.com/register/event?oeidk=a07e9ixnnn9a7d33a5c&llr=fzz4ttqab>.
- NOV 18-19** **WILLOW BIOMASS ENERGY SHORT COURSE:** SUNY-ESF Campus & Willow Demonstration Site in Ava, NY. For more information go to: www.esf.edu/outreach/willow or call 315-470-6775.
- DEC 9** **AGRIBUSINESS ECONOMIC OUTLOOK CONFERENCE:** B25 Warren Hall, Cornell University 9:00 am registration 10:00 am - 12:30 pm. \$65 by Dec. 1st, \$80 afterwards. For more information visit dyson.cornell.edu/outreach/ag_outlook_conference.php.
- DEC 11-12** **CALF & HEIFER CONGRESS:** RIT Inn & Conference Center, Rochester NY.
- 2015:**
- JAN 8** **MILK QUALITY MEETINGS: Improve Your Milk Check through Quality Milk & Components:**
Meeting 1: What is Mastitis Costing Your Farm?
- FEB 5** **Meeting 2: Importance of low Comfort, Environment, and Equipment Management**
- MARCH 5** **Meeting 3: Importance of Record Keeping for Mastitis Control**
 Attend all 3 for \$90 or \$35/session. NYS Grange, 100 Grange Place, Cortland. Contact Betsy Hicks at 607-753-5213.
- JAN 20-21** **OPERATIONS MANAGERS CONFERENCE:** Holiday Inn, 441 Electronics Pkwy. Syracuse NY. For more information, including a conference agenda, visit prodairy.cals.cornell.edu/OMC/ or contact PRO-DAIRY at (607) 255-4478. See page 7 for more details.