SCNY Dairy & Field Crops Digest

Market Outlook & Financial Management

Dairy — Markets and Policy

Mark W. Stephenson, Director of Dairy Policy Analysis
University of Wisconsin–Madison

2013 Dairy Outlook

Positive Factors:
- High levels of exports
- Modest increase in U.S. milk supplies
- Continued recovery of U.S. economy

Negative Factors:
- Continued dry weather conditions across much of the U.S.
- High feed prices
- Substantial increase in Oceania milk production

Uncertainties:
- Drought
- World economy influenced by the European Union
- Dairy Policies in a new Farm Bill

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Dairy Situation and Outlook, Feb 2013

Bob Cropp, Professor Emeritus
University of Wisconsin Cooperative Extension

Milk prices could still start to improve beginning with March. With slow improvement in the economy sales continue to show growth. The world supply and demand situation is forecasted to remain relatively tight through at least summer giving opportunity for favorable U.S. exports. So exports ought to be a positive factor going forward for higher milk prices. And prices normally improve as we approach Easter. Milk production normally peaks around May or June giving rise to higher milk prices summer and fall. Dairy cow slaughter continues to run well above a year ago which should reduce cow numbers for at least the first half of the year. But, up to now despite heavier cow slaughter there exist and inventory of dairy replacements to increase cow numbers. Yet, cow numbers are expected to decrease for the first six months before perhaps starting to increase again during the last half of the year. That is, if milk prices improve and there is some easing of feed prices. On January 1st dairy replacements were 2% lower than a year ago but still at 49.4 per 100 milk cows. But replacements expected to calve within the next 12 months were down 4% from a year ago and averaged 31.8 per 100 milk cows. But, as indicated earlier the number of replacements has more than offset increased slaughter increasing cow numbers since October. Reports are that there may be more herd liquidations between now and spring and this could also reduce cow numbers. The number of licensed dairy herds declined by 1,960 in 2012 to 49,331 herds. Whether or not the wide spread drought of last year comes to an end in 2013 will have a major impact on cow numbers and milk production last half of 2013.

While dairy futures still show rather modest improvement in milk prices, the probability of doing better than this still exists. Current Class III futures show no improvement for March and don't reach $18 until June and peaks at $18.55 for August and September. I still believe $19 by September and October is still very possible. There are price forecasters who have Class III as high as $20 by then. And of course there are some who forecast lower prices expecting much stronger milk production second half of the year.

But, I believe the probability is better for higher rather than lower prices. But, recognizing milk prices change with relatively small changes or anticipated changes in milk production, sales or exports all forecasts are possible. This challenges dairy producers and milk processor in managing price risk.

MARCH 2013

Cornell Cooperative Extension South Central NY Dairy & Field Crops Program

March 27, 2013

Dryden Fire Hall
(Located on Rte 13 N of 4 corners in Dryden village)

Registration at 12 pm
Instruction:
12:30 pm -3:30pm
Cost - $20/snacks only
(You are welcome to bring a lunch)

Manuals available at an additional cost. Please order books when registering.

Pre-register with Sharon at 607-753-5078. Questions contact Janice at 607-753-5215.
(Pre-registration important to order books for exams)

This workshop is designed to help prepare for the Licensing Exams.

Who Should Attend?

- **Individuals seeking a license for use of pesticides on their own properties** (Private license).
- **Individuals seeking a commercial license.** *(Please note: This course will provide a basic introduction to safe pesticide handling and use but additional coursework and experience may be necessary for eligibility.)*
- **Current applicators seeking re-certification credits**

Agenda :

- **Pesticide Laws and Regulations**
- **The Pesticide Label**
- **Protecting the Pesticide Handler**
- **Guidelines for Proper Handling of Pesticides**
- **Pesticides and the Environment**
- **Integrated Pest Management**

Core & Category Manual Review and Practice Exam

We are pleased to provide you with this information as part of the Cooperative Extension Dairy and Field Crops Program serving Broome, Cortland, 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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Dairy -- Farm Management

From 2003 Outlook Handbook, Wayne A. Knoblauch, Professor, George J. Conneman, Professor
Linda D. Putnam, Extension Support Specialist

In 2011, there were 4,600 dairy farms in New York State, and 610,000 milk cows. The table above was prepared based on the NYASS data plus the CAFO permit filing for additional herd size categories.

Eighty-nine percent of the farms (less than 200 cows per farm) had 44 percent of the milk cows. The remaining eleven percent of the farms had 56 percent of the cows. About 6 percent of the farms (those with 500 or more cows) had 43 percent of the cows. Farms with less than 50 cows represent 36 percent of all farms but kept only 6 percent of the cows. Farms with 1,000 or more cows (92 farms) represent about 2.0 percent of the farms but kept over 25 percent of the cows.

Ten-Year Comparisons

The total cost of producing milk on DFBS farms has increased $5.06 per hundredweight over the past 10 years (Table 7-4). In the intervening years, total cost of production increased in 2003 and 2004, decreased in 2005 and 2006, increased in 2007 and 2008, decreased in 2009, increased to $17.73 in 2010 and $19.92 in 2011. It is interesting to note that costs of production decrease in low milk price years and increase in high milk price years. Over the 10 years, milk sold per cow increased 10 percent and cows per worker increased 7 percent on DFBS farms (Table 7-5). Farm net worth has increased significantly, while percent equity has been fairly stable.

Farms participating in the DFBS each of the last 10 years have increased size of business, labor efficiency and milk sold per cow. All measures of profitability exhibit wide variability from year-to-year and are highly correlated with milk price received.

Debt to asset ratio has remained stable and debt per cow increased 16 percent while farm net worth more than doubled. During this time, crop yields have fluctuated, largely due to weather. Purchased grain and concentrate as a percent of milk sales varied from 24 to 38 percent, with the high in 2009, and the low in 2007.

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 $27,000 on farms with less than 60 cows to over $1,606,000 on farms with more than 900 cows.

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TABLE 7-4. TEN YEAR COMPARISON: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT
New York Dairy Farms, 2002 to 2011

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Operating Expenses										
Hired labor	$2.44	$2.51	$2.67	$2.66	$2.58	$2.70	$2.79	$2.70	$2.61	$2.75
Purchased feed	4.10	4.29	4.88	4.37	4.30	5.21	6.17	5.45	5.41	6.53
Machinery repair, vehicle expense & rent	1.01	.91	1.09	1.07	1.04	1.27	1.24	1.07	1.16	1.36
Fuel, oil & grease	.28	.33	.41	.53	.58	.67	.91	.57	.65	.88
Replacement livestock	.16	.15	.16	.11	.07	.07	.08	.06	.06	.08
Breeding fees	.21	.19	.21	.22	.23	.24	.26	.21	.21	.22
Veterinary & medicine	.56	.56	.59	.62	.65	.65	.68	.63	.63	.67
Milk marketing	.65	.69	.72	.76	.80	.80	.85	.88	.89	.88
Other dairy expenses	1.25	1.30	1.27	1.32	1.29	1.41	1.52	1.44	1.45	1.48
Fertilizer & lime	.27	.26	.30	.34	.31	.40	.47	.41	.37	.45
Seeds & plants	.20	.20	.24	.22	.23	.28	.33	.35	.36	.39
Spray & other crop expense	.22	.19	.20	.19	.19	.25	.26	.20	.21	.25
Land, building & fence repair	.19	.14	.21	.25	.22	.32	.34	.23	.26	.37
Taxes	.20	.21	.22	.23	.21	.23	.21	.22	.22	.23
Insurance	.16	.15	.16	.16	.17	.19	.18	.17	.17	.18
Utilities (farm share)	.34	.34	.36	.39	.41	.44	.43	.38	.41	.42
Interest paid	.61	.56	.57	.65	.78	.83	.54	.51	.53	.48
Misc. (including rent)	.44	.40	.43	.37	.45	.49	.49	.44	.44	.49
Total Operating Expenses	$13.27	$13.39	$14.67	$14.54	$14.51	$16.46	$17.77	$15.90	$16.04	$18.12
Less: Nonmilk cash receipts	1.91	1.57	1.70	1.96	1.94	1.75	1.57	1.89	1.62	2.11
Increase in grown feed & supplies	.12	.27	.17	.12	.22	.39	.66	-.04	.36	0.17
Increase in livestock	.23	.09	.22	.21	.27	.30	.33	.34	.30	0.18
OPERATING COST OF MILK PRODUCTION	$11.01	$11.46	$12.58	$12.25	$12.08	$14.02	$15.21	$13.71	$13.76	$15.66
Overhead Expenses										
Depreciation: machinery & buildings	$1.39	$1.23	$1.32	$1.32	$1.26	$1.32	$1.38	$1.28	$1.32	$1.38
Unpaid labor	.08	.10	.07	.06	.07	.07	.04	.05	.04	.04
Operator(s) labor [a]	.74	.70	.67	.61	.63	.65	.58	.54	.50	.53
Operator(s) management (5% of cash receipts)	.75	.73	.90	.90	.79	1.07	1.10	.80	.96	1.16
Interest on farm equity capital (5%)	.89	.85	.92	1.02	1.06	1.20	1.29	1.21	1.15	1.15
Total Overhead Expenses	$3.85	$3.61	$3.88	$3.91	$3.81	$4.31	$4.39	$3.88	$3.97	$4.26
TOTAL COST OF MILK PRODUCTION	$14.86	$15.07	$16.46	$16.16	$15.89	$18.33	$19.60	$17.59	$17.73	$19.92
AVERAGE FARM PRICE OF MILK	$12.98	$13.24	$16.64	$15.98	$13.85	$20.34	$19.24	$13.88	$17.81	$21.67
Return per cwt. to operator labor, capital & mgmt.	$0.50	$0.45	$2.67	$2.35	$0.44	$4.93	$2.61	$-1.16	$2.69	$3.61
Rate of return on farm equity capital	-5.6%	-5.7%	6.0%	4.1%	-4.6%	13.4%	3.6%	-10.3%	5.2%	13.6%

[a] 2002 = $2,100/month, 2003 through 2005 = $2,200/month, 2006 = $2,300/month, 2007 = $2,400/month, 2008 through 2010 = $2,500/month, and 2011 = $2,550/month of operator labor.

TABLE 7-5. TEN YEAR COMPARISON: SELECTED BUSINESS FACTORS
New York Dairy Farms, 2002 to 2011

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of farms	219	201	200	225	240	250	224	204	204	190
Cropping Program										
Total tillable acres	660	659	701	729	730	758	883	965	987	1,086
Tillable acres rented	337	323	345	365	360	385	446	482	493	519
Hay crop acres	323	321	339	361	366	364	421	464	469	477
Corn silage acres	232	233	245	246	249	258	297	348	340	405
Hay crop, tons DM/acre	3.1	3.2	3.5	3.2	3.2	3.0	3.5	3.4	3.5	3.4
Corn silage, tons/acre	15.4	17.2	17.7	18.8	18.4	18.9	19.9	18.7	19.6	16.6
Fertilizer & lime exp./tillable acre	$27	$28	$31	$33	$30	$40	$49	$42	$43	$50
Machinery cost/cow	$520	$497	$565	$624	$618	$708	$800	$660	$712	$839
Dairy Analysis										
Number of cows	297	314	334	340	350	358	414	469	489	531
Number of heifers	226	240	260	270	283	289	348	391	415	459
Milk sold, cwt.	66,177	70,105	73,767	78,250	80,862	82,315	99,884	113,555	119,782	130,898
Milk sold/cow, lbs.	22,312	22,302	22,070	22,998	23,083	22,983	24,115	24,208	24,508	24,648
Purchased dairy feed/cwt. milk	$4.10	$4.27	$4.86	$4.37	$4.29	$5.20	$6.16	$5.45	$5.39	$6.52
Purchased grain & concentrate as % of milk receipts	30%	30%	27%	26%	29%	24%	31%	38%	29%	29%
Purchased feed & crop exp/cwt.milk	$4.79	$4.92	$5.60	$5.12	$5.02	$6.13	$7.23	$6.41	$6.32	$7.62
Capital Efficiency										
Farm capital/cow	$6,794	$6,748	$7,010	$7,508	$7,762	$8,426	$9,145	$9,060	$9,141	$9,629
Real estate/cow	$2,612	$2,722	$2,809	$2,950	$3,030	$3,356	$3,606	$3,713	$3,857	$3,951
Machinery investment/cow	$1,261	$1,208	$1,226	$1,314	$1,384	$1,448	$1,535	$1,553	$1,570	$1,614
Asset turnover ratio	0.53	0.54	0.64	0.60	0.52	0.67	0.59	0.44	0.56	0.64
Labor Efficiency										
Worker equivalent	7.21	7.50	7.97	8.18	8.19	8.40	9.75	10.74	10.93	12.13
Operator/manager equivalent	1.82	1.86	1.64	1.60	1.63	1.62	1.72	1.83	1.82	1.88
Milk sold/worker, lbs.	917,854	934,733	925,553	956,698	987,530	980,234	1,024,799	1,057,063	1,095,897	1,079,423
Cows/worker	41	42	42	42	43	43	42	44	45	44
Labor cost/cow	$725	$738	$752	$765	$757	$784	$823	$794	$771	$818
Hired labor exp./hired worker equiv.	$31,755	$32,659	$33,311	$33,539	$34,071	$34,924	$36,312	$35,908	$35,643	$37,152
Profitability & Financial Analysis										
Labor & mgmt. income/operator	$-14,243	$-15,360	$78,061	$64,745	$-31,269	$189,019	$75,945	$-147,313	$101,484	$227,028
Farm net worth, end year	$1,173,836	$1,207,964	$1,466,674	$1,690,427	$1,736,505	$2,200,655	$2,640,168	$2,639,640	$3,012,912	$3,759,325
Percent equity	57%	56%	60%	63%	62%	68%	68%	62%	65%	70%

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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.

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 2011, net farm income per cow generally increased as pounds milk sold per cow increased.

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 the average, farms with purchased feed and crop expenses exceeding $8.00 per hundredweight of milk sold reported below average farm profits. Farms reporting less than $8.00 per hundredweight 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.

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.

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. (This is an amended report.) For the full report with tables go to: http://dyson.cornell.edu/outreach/ag_outlook_conference.php

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2013 Dairy Outlook (Continued from the cover….)

The Dairy Situation
For dairy producers 2010 and 2011 were recovery years from the recession and low milk prices of 2009. The 2012 milk price declined by about two dollars per hundredweight from the all-time high average price of 2011, but producers might characterize 2012 as a "disastrous year" or a "middling year" depending on their business model or their geographic location. Milk production in New Zealand and widespread drought in the U.S. have really defined this year for the U.S. dairy industry.

The Drought
The related, but very different, weather patterns of La Niña and El Niño were both a part of the 2012 story. We have had a couple of years of La Niña which is a colder body of water in the equatorial Pacific. This tends to create warmer and drier weather in the central portion of the U.S. In fact, the drought here was widespread and one of the worst that we have seen causing significant loss of crops throughout the central portion of the country. Dairy farms located within drought-affected areas experienced outcomes which ranged from total crop loss to greatly reduced yields. All dairy farms

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have experienced significantly higher purchased feed costs, but if your business model is one which depends on both purchased concentrates and forages, the milk price may not have been adequate to cover your variable costs of production.

La Niña also affects the other side of the Pacific by bringing higher-than-normal rains to Oceania. New Zealand has benefited from excellent pastures both last year and in the 2011-12 season. They increased milk production 10.43% in 2011 and are on track to increase just less than 5% this year.

New Zealand production is important to the U.S. dairy industry because they compete for the same export markets that we do. New Zealand production impacts U.S. milk prices just as U.S. production now impacts New Zealand milk prices.

El Niño is a warmer-than-normal body of water in the equatorial Pacific Ocean and it typically brings greater quantities of rain to the western U.S. and drier weather conditions to Oceania. El Niño was expected to form this summer bringing needed rains to relieve the U.S. drought and it would have been expected to worsen the pasture conditions in New Zealand. However, the El Niño did not form and the National Oceanic and Atmospheric Administration does not expect one in the year ahead.

There was little direct impact of the drought on the traditional dairy regions in the Northeast. Drought impacts varied in Midwest from severe on farms in southern Wisconsin, northern Illinois, and in Minnesota and Iowa. But many farms outside these areas were largely spared or even had excellent crop yields. Even the farms that were impacted may have had lower quantity but the quality of the forages were quite good. However, the price of feed was heavily impacted in all parts of the country.

Western dairy business models where all feeds are purchased and where the feed basis is higher than in the Midwest, have suffered substantially. This is evidenced by the milk production reports in the last quarter of 2012. For example, September and October milk production in California declined by3.9% and 3.5% respectively while Wisconsin milk production increased by 3.5% and 4.7% in those same months.

Dairy Product Demand

Unemployment has remained stubbornly high following the recession in 2009. However, there has been some evidence of optimism on the part of consumers as evidenced by increases in the purchase of durable goods and other measures of consumer sentiment. In fact, retail dairy prices have not increased more rapidly than other food or the general economy. Per capita consumption of most dairy products has increased with the yogurt category a particularly bright spot. However, beverage milk is the negative exception to most dairy products and created headlines for dropping below a threshold of 20 gallons per capita.

Dairy Exports

The U.S. continues to solidify its place as a major world dairy product exporter. The European Union and New Zealand are essentially tied with 35% and 34% shares of world trade respectively.

The U.S. comes in at third place with about a 19% share of world exports. Australia is the forth largest exporter with 7% of the trade share. Nonfat Dry Milk or Skim Milk powder is the largest volume of U.S. export followed closely by dry whey products. Lactose, cheese and butter round out the remaining bulk of export products. From January, 2012 through September, 2012, the milk solids exported represent about 13.6% of the total milk solids produced.

Dairy Stocks

Strong U.S. milk production in the first half of the year has given way to almost flat milk production or even modest declines in some months. Domestic and export demands have remained strong enough to take all of dairy product produced and, depending on the product, stocks are normal to tight in the third quarter. Butter stocks are in a normal range, but cheese, whey and to a lesser extent nonfat dry milk stocks are tight.

The Dairy Outlook

Short inventories of dairy products would normally suggest strong product and milk prices. Yet product prices have been falling precipitously on the spot markets in recent weeks. This points out another complexity of our emerging dependence on export markets. Figure 5 shows the high and low monthly prices for Oceania and the NASS/AMS monthly prices for cheddar cheese. U.S. products normally trade at a discount relative to Oceania prices in world markets. Since September of 2012, U.S. cheese and butter prices have been substantially higher than those of Oceania producers. Even though our stock levels are not burdensome and would normally indicate strengthening prices, our ability to compete for export sales is eroded when prices are higher than our competitors. That is the most likely reason that domestic prices have fallen.

Oceania has very seasonal milk production and they are now several months past their peak lactation. World markets have absorbed the products during their flush and this is an indication of a robust demand for dairy products. It is likely that U.S. prices will not have much further to fall but rather that world prices will come up to meet our prices.
I am projecting a New York All Milk price to average about $20.75 in 2013. This would be an increase of about $1.35 from the 2012 levels. Moreover, the futures markets show a continual decline in soybean meal prices from now through

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the next harvest season representing a $70 drop. Corn prices are expected to remain at the current high levels until next harvest season when futures markets anticipate a decline of about $1 per bushel. The combination of increased milk price and an easing of feed prices would improve farm margins.

Dairy Policy

At the time of this writing, we are in the lame duck session of congress. Although Democrats picked up a few seats, the balance of power was not altered and a stalemate exists on most pieces of legislation. The Senate has passed their version of a farm bill and the House Agricultural Committee has reported their version out but it has not made it to the floor of the House for a vote. If the House moves on the farm bill before the end of the year, it is likely that the dairy provisions in the House and Senate (which are quite similar) will be the new policy for dairy.

The dairy provisions are a marked departure from previous policy. They would seek to find budget savings by eliminating the Dairy Product Price Support Program and the Milk Income Loss Contracts. These safety net programs would be replaced by a voluntary margin insurance program and a market stabilization program.

The most likely scenario for passage in the lame duck session is to attach the farm bill to whatever legislation may be passed to address the so-called "fiscal cliff". If that doesn't happen, then it is likely that congress would pass an extension of the previous farm bill until new legislation can be passed later on. This is a dangerous proposition for promoters of the current House and Senate bills.

By March, the Congressional Budget Office will have a new baseline against which all bills with fiscal consequences will be evaluated. Few believe that the new CBO baseline will look better than last year's and most believe that it will look much worse. If that is true, then congress will have to go back and reconsider the proposed House and Senate farm bills and find new areas for cost saving. Opening up the bills to new scrutiny increases the likelihood that we could see substantial changes in any of the programs—including dairy. Substantial changes in dairy policy are likely. But, what those changes will be and when they will take place is an unknown at this time. ⊡

SAVE THE DATE: *The Tompkins County Agriculture & Farmland Protection Board presents…*

The 2013 Tompkins County Agricultural Summit

The Future of Farming: Land Use & Policy

Wednesday, March 13th, 10: a.m. to 2:30 p.m.
Dryden VFW, 2272 Dryden Road, Dryden

Planned Agenda:

10:00 Welcome – Ed Scheffler, TC AFPB Chair

10:15 Estate Planning 101
- What you need to know now to preserve your assets, plan for retirement and ensure a smooth transition of your farm.
- Steven A. Walker & Jeffrey Fetter, Scolaro, Shulman, Cohen, Fetter & Burstein, P.C.

11:15 Purchase of Development Rights, Conservation Easements
- Scott Doyle, Senior Planner, Tompkins County Planning
- David Diaz, Director of Land Protection, Finger Lakes Land Trust

11:45 Lunch, featuring locally-sourced foods: **chili, cornbread, green salad, apple crisp**

12:30 Agricultural District Law and Local Laws: How they Relate
- Robert Somers, Manager of Ag Protection Unit, NYS Ag and Markets

1:30 Tompkins County Farmland Valuation Update
Applying for Ag Assessment
- Jay Franklin, Director, & Irene Kehoe, Assistant Director, Tompkins County Assessment
- Craig Schutt, District Manager, Tompkins County Soil and Water District

2:15 Tompkins County Agriculture Plan Update
- Monika Roth, Ag Program Leader, CCE-Tompkins

2:30 Adjourn

$10 per person - *RSVP to Debbie Teeter, 607-272-2292, DLT22@cornell.edu.*

Agri-Economic Development Mini Conference

(Part 2: Small Scale Enterprises)

Friday, March 22, 2013 NYS Grange
4:30-9pm, dinner will be provided
(Event is free and open to the public)

Pre-registration is required, to register call
607-756-5005 or email info@cortlandbusiness.com

- **Emerging Opportunities and Challenges**: crop diversification, irrigation/drainage, and season extension
- **Beyond Produce, the Next Step**: insurance, programs and grants, GAP, labels/containers
- **Marketing: How to Make Your Product More Sellable:** networking, funding opportunities, connecting eaters and growers

BDC IDA Cortland County

Farming is an inherently risky business.

USDA Risk Management Agency
This institution is an equal opportunity provider.

Fortunately, crop insurance helps you level the playing field by protecting you and your family from substantial losses. In fact, in 2011, New York farmers with crop insurance received a record-breaking $46 million dollars in indemnity payments or about $4.31 for every dollar paid in premiums. Farmers across the country say it's the most important program they can participate in.

Crop insurance is a smart investment for your peace of mind and a valuable financial planning and risk management tool for your farm.

New York State Department of Agriculture & Markets
www.agriculture.ny.gov/AP/CropInsurance.html
518.457.4531

To learn more about crop insurance and to enroll by the March 15 deadline, contact your crop insurance agent.

Or visit www.rma.usda.gov/tools/agent.html to find a local agent near you.

Call an agent or Fay Benson today for a review of premiums. You will have until March 15, 2013 to sign up for or modify Crop Insurance for most vegetables and field crops.

Women in Agriculture Discussion Group

Session Four: March 20

Strategic Marketing —Matthew LeRoux, Ag Marketing Specialist, South Central NY Ag Team, Cornell Cooperative Extension.

Is your marketing strategy, "we sell whatever we have, to anyone that will buy it?" If so, time to tune up! Strategic marketing allows you to take full advantage of the local foods market. Learn to sharpen and focus your marketing to attract customers and save time.

Communication & Stress Triggers —Erica Lubner, MSW, Personal Consultant with Farm Net

This will be an open discussion. What's challenging you. Have you found the balance between farm demands and family?

Contact Janice @ (607) 753-5215 with questions.

Cornell Cooperative Extension and Cornell University Pro Dairy Program

The Winter Dairy Management Program 2013

"Managing Your Dairy for Resiliency"

March 26th
9:30 to 3:30 pm
at the NYS Grange, Cortland
Cost: $25

This program will address crucial areas in the long term resiliency of New York Dairy Farms. From reproduction to lighting to cow comfort, this diverse program will offer practical ideas that can be implemented to improve the profitability of dairy farms.

- **Is Your Repro Program the Most Profitable Alternative?**
  Dr. Julio O. Giordano, PhD, DVM, Assistant Professor – Dairy Cattle Biology and Management, Cornell University
- **Dairy Modernization - Five Factors Affecting Profitability to Consider.**
  Beth Dahl, Dairy Modernization Specialist, Cornell University Extension.
- **LED Lighting-field research results; the dividend from taking advantage early.**
  Jackson Wright-Western New York Dairy Team, Cornell Cooperative Extension
- **From this point forward… holding on to the most crop nutrients grown through optimal preservation tools and technique.**
  Dr. Jerry Bertoldo DVM, Western New York Dairy Team and Cornell PRO-DAIRY
- **Optimizing Cow Comfort throughout the Barn; a Rebalance for Resiliency.**
  Curt Gooch, P.E., Dairy Environmental Systems and Sustainability Engineer, PRO-DAIRY, Program Cornell University

Pre-register by calling Sharon at 607-753-5078 or shv7@cornell.edu. If you have questions, contact Janice at 607-753-5215 or jgd3@cornell.edu.

PRO-DAIRY

DAIRY OF DISTINCTION

2013 New York Application

DairyofDistinction.com

Purpose of Program

Attractive dairy farms give the consumer greater confidence in the wholesomeness of milk and stimulate milk sales which encourages public support of the dairy industry. The award gives recognition to the dairy farmer for maintaining a well-kept farmstead.

Eligibility

All Northeast dairy farms producing milk for sale are invited to submit an application for the award. Dairies receiving the 10 highest scores in each of the 10 districts will receive an 18" x 24" Dairy of Distinction sign to be displayed in front of their farm.

Application

Name_____

Farm Name_____

Mailing address_____

Town_____

Zip_____

Phone number _____

Email _____

Milk Cooperative or Handler

_____

Location (driving directions for judging team_____

_____

_____

County where farm is located_____

_____

I hereby apply to the Northeast Dairy Farm Beautification Committee to have my dairy scored in accordance with the rules of the program for the purpose of obtaining a Dairy of Distinction sign to be displayed on my premises (No producer will be charged for scoring or sign expense).

Signature of owner/operator

_____

Date_____

____ Please check if farm is rented or leased

Application must be **postmarked by April 15 to:**
Nancy Putman
80 Chipman Corners Road
Lisbon, NY 13658

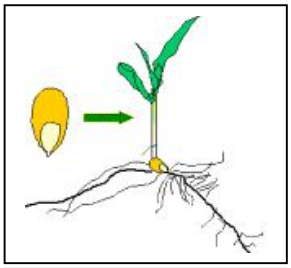
Diagnosing Chilling and Flooding Injury to Corn Prior to Emergence

Imad Saab and Steve Butzen, University of Vermont

Summary

- Farmers often plant corn very early to increase yield potential and to avoid weather delays late in the season.
- This early planting offers potential advantages, but it also carries significant risks related to cold injury and damage from pests.
- Ultra-early planted corn may require up to five weeks to emerge, depending on soil and weather conditions.
- During this time, the seed and emerging seedling are highly vulnerable to damage from insects, diseases and herbicide exposure. The emerging seedling may also encounter adverse field conditions such as crusting or ponding.
- In addition, chilling temperatures caused by rain, melting snow or cold soils can damage the seed during imbibition or injure the delicate structures of the emerging seedling.
- These stresses are often compounded under no-till conditions due to lower soil temperatures and excess water in the crop residue.

Introduction



Very early-planted corn faces challenges in producing a healthy emerged plant.

Choosing corn planting date is an important management practice for increasing corn yield potential. Too often, that date is dictated by prevailing weather and soil conditions, as well as the size of acreage to be planted. To avoid the possibility of delayed planting and resultant yield reductions, farmers have moved average corn planting dates ever earlier, and in some cases, too early. This corn is subsequently at increased risk of encountering cold temperatures and adverse weather systems normally expected for those early spring dates.

Corn is a warm-season crop with tropical origins. It is not surprising then, that corn is susceptible to stresses that result from early planting under cool soil conditions. When corn is planted extremely early, and soil temperatures are below 50 F, it is likely that corn seeds will remain in the soil at least three to four weeks prior to emergence. The length of this period will depend on the soil temperature and its water holding properties. During this time, corn may encounter a number of problems, including herbicide, insect and disease pressure. But even more problems may result from the physical properties of the seedbed, including crusting, ponding or saturated soils. In addition, cold temperatures resulting from cold rain or even snow can severely impact the seed. This Crop Insights will discuss effects of cold soils and water on germination and emergence of corn, including diagnosing plant injury symptoms caused by chilling and flooding.

Effect of Cold Soils and Water

The early spring seedbed is a very unfavorable environment for corn seeds. Though dry seeds can be stored unharmed for many years at -20 F or below, corn planted very early is at risk to cold injury and even death.

1. Good planting conditions

2. Snow after planting

3. Seedling damage

*(Continued **on page 12**)*

(Continued from page 11)

4. Poor stand establishment

*Good spring weather in Quebec, Canada in 2002 allowed for planting on April 24. **2**. Snow occurring five days later covered the field. Cold imbibition resulted in seedling damage and stand loss like that shown in pictures **3** and **4**, respectively.*

Early planting often exposes seeds to hydration with cold water, which can cause direct physical damage. In addition, prolonged exposure to low temperatures reduces seed and plant metabolism and vigor, increases sensitivity to herbicides and seedling blights and causes oxidation damage due to the effects of free radicals in the cell (Figure 1). Free radicals are unstable molecules that damage cells and organs. This damage is similar to that which occurs in mammals during aging and sun exposure.

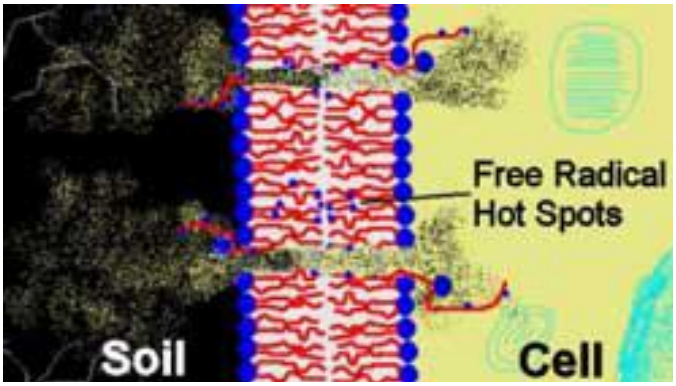


Figure 1. Free radicals can disrupt cell membranes leading to cracking during cold imbibition. Leaked cell contents can attract soil fungi leading to seedling disease.

When the dry seed imbibes cold water as a result of a cold rain or melting snow, imbibitional chilling injury may result. The cell membranes of the seed lack fluidity at low temperatures, and under these conditions, the hydration process can result in rupture of the membranes. Cell contents then leak through this rupture and provide a food source for invading pathogens. Cold water can similarly affect seedling structures as they begin to emerge.

Research has shown that temperatures at or below 50 F are most damaging to the germination and emergence process, especially if they persist long after planting (Table 1.)

Table 1. Final stand counts, planting dates and soil temperatures in research plots in 2002.

Location	Planting Date	Ave. Soil Temp. 4 Weeks Post-plant	Final Stand (%)
Michigan	Apr 16	56 °F	90
Minnesota	Apr 23	48 °F	81
North Dakota		41 °F	61
*Data for 100 hybrids across all CRMs.			

As the table indicates, the percent final stand varied considerably depending on the average soil temperature during the four weeks following planting. In Michigan, an average soil temperature of 56 F produced an acceptable final stand of 90%. However, a soil temperature of 48 F resulted in only 81% of plants emerging, and a soil temperature of 41 F produced only a 61% stand in other northern environments. These data suggest that prolonged soil temperatures below 50 F after planting can have serious consequences for stand establishment. However, the degree of damage will vary with soil type and is generally greater in heavier or poorly drained soils.

Flooding Effects on Emergence

Flooding can have an equally devastating effect on seedling emergence and survival as cold soils. Most corn hybrids can only survive for 24 to 48 hours under water, with smaller seedlings suffering the most damage.

Flooding damages corn biochemically. By impairing mitochondria, it causes release of free radicals which damage cell membranes. Flooding also causes oxygen starvation and shifts the plant's metabolic processes to anaerobic fermentation. Resulting acidosis (low pH) can kill the cells. At the minimum, flooding reduces the plant's metabolic rate, making seedlings more sensitive to disease, insects and herbicides. In fact, many disease-causing fungi such as Pythium thrive in standing water. Seedlings that are weakened by flooding or cold damage usually succumb to disease if the pathogen is present in the soil.

Flooding damage does not only occur in obvious ponded areas of a field. If fields are completely saturated to the soil surface and remain that way due to continual rain or limited drainage, seeds and non-emerged seedlings are under water. Flooding damage may occur in these areas just as in ponded areas.

Diagnosing Stand Establishment Problems

Careful examination of damaged seedlings can provide clues into the likely causes of stand establishment problems following early planting or abnormally cold weather conditions. Table 2 lists the main symptoms and likely causes of early season damage. Table 3 shows diagnostic images of chilling and flooding damage to corn seedlings during germination and emergence.

(Continued on page 13)

(Continued from page 12)

Pioneer Research

For decades, Pioneer plant breeders have selected within the natural variation expressed by corn genotypes to develop hybrids with strong emergence and vigor characteristics under cool soil conditions. Pioneer has recently introduced a new early-season trait called Stress Emergence. Stress emergence refers to the genetic potential of a hybrid to germinate and emerge under stressful conditions associated with early planting including cold, wet soils or short periods of severe weather. Stress emergence is not a rating for seedling disease and should not be confused with the "early growth" rating, which refers to seedling vigor after emergence.

Pioneer research scientists are continuing to work to improve early season corn performance through conventional and molecular breeding, as well as through rigorous testing of research and commercial hybrids. By identifying molecular markers and pathways associated with superior cold germination, Pioneer researchers are beginning to develop an understanding of the genetic basis of stress emergence. This knowledge should eventually lead to even stronger early-season performance in elite Pioneer corn hybrids.

Table 2. Corn seedling symptoms and likely causes*.

Symptom*	Likely Cause	Result
Stubby coleoptiles Leaves emerging prematurely	**Imbibitional chilling or cold damage**	**Death, unless unprotected leaf reaches the surface**
Brown tissue behind root tip Adventitious roots	**Chilling damage Flooding**	**Chance for survival unless shoot meristem is damaged**
Leafing underground Leaves growing along soil crust	**Mechanical damage Soil crusting**	**Usually death, as seedlings lose ability to penetrate soil**
Corkscrew mesocotyl or coleoptile	**Temperature fluctuations Herbicide injury**	**Seedling death**
Fused coleoptile or bursting on side	**Cold damage Genetic tendency**	**Seedling death</TD< tr>**
Rotted seed or mesocotyl Spotty wilting	**Seedling disease**	**Seedling death or stunting**
Bleached leaves	**Herbicide or cold injury**	**Seedlings can grow out of it unless impairment of photosynthesis is extensive**
Pruned roots	**Insect damage**	**Weak seedlings, wilting**

*See Photos for diagnostic images.

Photos. Diagnostic images of chilling and flooding damage to corn seedlings during germination and emergence.

Imbibitional chilling and cold injury. Note club-shaped coleoptile and underground emergence. (See photo below)

Imbibitional chilling and cold injury. Note club-shaped coleoptile and underground emergence. (See photo above)

Fused coleoptile/bursting on the side.

Flooding damage – note necrotic area of each root above root tip.

Flooding/chilling damage –note dead primary root (above seed) and adventitious roots on mesocotyl (below, left of seed).

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Immobile Nutrient Movement and Uptake

Greg LaBarge, The Ohio State University Extension, Crop Observation & Recommendation Network (C.O.R.N.) Newsletter 2013-03,

Phosphorus and potassium are both considered immobile nutrients in the soil. This characteristic is important as we consider how the plant takes these nutrients up and how we make fertilizer recommendations. The characteristic is why we can use soil tests to determine plant available concentrations and work with defined soil test "critical levels" that will supply the crops need.

Plants primarily obtain immobile nutrients via diffusion. Diffusion is where a gradient of nutrient concentration is established around the root and the surrounding soil. At the root surface concentrations are low and a higher concentration exist in soil surrounding the root establishing a gradient of low to higher concentration which moves phosphorus or potassium to the root. The zone around the root system where diffusion is taking place is fairly small, measured in millimeter(s).

Through soil testing we measure the ability of the soil to supply these immobile nutrients to the plant we are growing. Once soil test levels reach a critical level, the soil is able to supply the plant needs without additional fertilizer.

Another principal that is important in understanding fertilizer recommendations for phosphorus and potassium is the plant root structure. The root system of our annual plants make up <1% of the soil volume. As discussed, the primary uptake of nutrient is via diffusion which happens close to the root surface. The small overall volume of roots and the small zone around that root system where uptake occur combine to indicate there is not a lot of plant to plant competition for phosphorus and potassium uptake. This is important in that higher yields do not require higher soil test levels and critical levels do not change with increasing yield goals.

To be clear, the root system is very important in the overall nutrient uptake of the plant. For example, in years when we have seen phosphorus deficiency symptoms it has been under conditions in which the root system has been held back. Sidewall compaction, cool wet soils or compaction are generally more likely associated with phosphorus deficiency.

HOW DO YOU MEASURE SUCCESS?

Fay Benson, Extension Educator

Without good financial records the benefit of grazing may elude dairyman

It is easy to measure milk production on a dairy. A farmer can finish milking, check the bulk tank stick, compare it to an earlier reading and see whether production is up or down. Most likely since it is easy to measure, herd production has frequently equated with a farm's success or profitability. Milk production per animal as a measurement of success has been the basis of the dairy industry since neighbors driving by a farm and counting how many milk cans were sitting by the road waiting for pickup. This basis is also evidenced in the Dairy Herd Improvement data printed in agricultural periodicals which lists a county's dairy herds in the order of the herd's production level. There is a correlation between herd average and farm profitability but it is not the whole story. In the current era of management with narrow margins there are stronger measurements of profitability such as: Operating Cost per cwt. or Net income per cow. To use these measurements it requires a farm to have good records of production paired with income and expense. Without good records a practice that results in lower production levels but higher profitability would be missed. A good example of this is seen when comparing grazing and non grazing dairies of similar herd size.

Table 1 shows data taken from the Cornell Dairy Farm Business Summary (DFBS) for Grazing farms during the period of 2006 thru 2011. The grazing data comes from the 30-50 dairies that participated during those years and the non-Grazing data is from 80-100 dairies that participated during those same years. Quite striking is the difference in milk production per cow between the two groups. The grazing dairies averaged 5000 fewer pounds of milk per animal than the non grazing herds, yet their return on equity was at twice the rate and they had a $65/cow increase in income.

When using the DFBS data it's important to remember that we are dealing with averages. There is a significant range that goes into any of the averages. Grazing has never been a guaranteed method to achieve higher profits. There are many factors involved but most importantly does it fit management's style. It is also important to remember that the grazing season is only 150 – 200 days long in New York. The rest of the time the cows utilize confinement feeding and housing.

There are no simple reasons for this increase in profitability at a lower production level but in many cases grazing lowers operating costs since the cow harvests a portion of her daily diet and reduces chore time during the grazing season. One of the biggest challenges confinement dairies face when they begin the transition to a pasture based dairy is the probable drop in milk production. Many dairies will give up on the transition when bulk tank levels drop. For those that learn to manage through the transition and balance pasture and supplemental feeding and who have kept good records to help them reflect on performance find that there is usually an economic return from pasture.

(Continued on page 15)

2006-2011 Average*

Item	Grazing Dairies	Non Grazing Dairies
Number of cows	126	128
Milk sold/cow (lbs.)	16,079	21,131
Operating cost/cwt	$13.22	$14.11
Net Farm income/cow	$539	$474
% Return on equity	4%	2%

*This data was compiled from annual averages reported in the year-appropriate DFBS. The data set for each year may include different farms, as the farmers who return surveys vary

While attending a dairy grazing conference in Missouri a few years back I had the opportunity to talk with a dairyman from New Zealand who had immigrated to Missouri to farm. He said their method of measuring success depended very little on production but rather cost of production and rate of return on their investment. In New Zealand a typical goal would be to purchase 50% of a farm in 5 years through a program called "Milk Shares". A 50/50 Share milker takes responsibility for the production system, maintains farm infrastructure and machinery and may employ labor where required. They are responsible for the financial management of their own business. To achieve this, many dairyman in New Zealand pay to meet with their bankers once a month to review the business's performance. They review the previous month's financial goals and whether the farm achieved them, they then set goals for the next month. From my experience with US dairy farmers this differs from our over focus on milk production rather than on business goals.

Profits are not the only benefits that NY dairy farmers have enjoyed by converting to a pasture based system. The Grazing-DFBS asks each year "Has the adoption of grazing impacted your family's' quality of life?" The respondents have answered positively 80% of the time. Some of the other comments are:

- Environmentally friendly
- Reduced chore time
- Healthier cows
- More opportunity to involve the children
- Positive comments from neighbors and tourists

How to increase profitability on a grazing dairy: A trait that is found in successful grazing dairy farmers is the ability to daily change their management to minimize the changes that are inherent to grazing. Here are some management tips to hit the high side of the average for profitability.

- **Sample Pasture every two weeks;** Pasture Quality changes during the grazing season, regular ration balancing will help adapt to changing NDF and Crude Protein variations of the grazing mix.
- **Short Residencies;** Giving the milking herd fresh paddock after every milking will lead to increased pasture efficiency and better pasture intake. There is truth to the saying "First 12 hours of grazing is like eating in the kitchen, second 12 hours, like eating in the bedroom and the third 12 hours is like eating in the bathroom,"
- **Treat pasture as a crop;** Each new grazing paddock should be sized to be harvested during the herd's residency on it. Once that period is over don't let animals on again till the new growth is ready to be harvested again. This keeps the desirable pasture plants healthy and reduces the growth of undesirable plants.
- **Have a plan for changes in the weather;** High temperature reduces an animal's desire to graze, saving paddocks with shade or having an area where the herd can get under cover during the hottest part of the day will prevent drops in production. Good laneways will allow herd to access paddocks during long periods of wet weather.

Where to Get Started Measuring Your Success:
Contact your county Extension Office and ask for a Farm Account book. January is the good time to start with an account book. An account book is basically like a check book record only it has room to categorize what the money was used for, such as; labor, feed, electricity, etc. It also has room to keep track of income categories too.
Other Resources:
On-line you can go to Cornell's E-extension for more information
http://www.extension.org/pages/11140/establishing-and-using-a-farm-financial-record-keeping-system

Since 1996 The Department of Applied Economics and Management at the Cornell University College of Agriculture and Life Sciences has collected and published business summaries for 30-50 NY dairy farmers that make use of Intensive Grazing on their farms. For more information contact: Linda Putnam – (607) 255-8429 or email lpd2@cornell.edu. ♥

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

South Central New York Area Dairy & Field Crops Team

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

The Cornell Cooperative Extension educational system enables people to improve their lives and communities through partnerships that put experience and research-based knowledge to work.

CALENDAR OF EVENTS

MARCH 12 **NY CERTIFIED ORGANIC MEETING** Jordan Hall, NYSAES, Geneva. 10 am – 2 pm. Topics: Nutrients and Soil Fertility. Farmer panel featuring; Jack Lazor, Butterworks Farm, Klaas Martens and Derek Christianson. No need to pre-register. Dish to pass for lunch. For more information, contact Fay Benson at 607-753-5213 or afb3@cornell.edu.

MARCH 13 **THE 2013 TOMPKINS COUNTY AGRICULTURAL SUMMIT**- *The Future of Farming: Land Use & Policy*. Dryden VFW. 10 a.m. to 2:30 p.m. *See page 8 for more information.*

MARCH 19 **CORTLAND COUNTY AGRICULTURE CELEBRATION BANQUET** Hathaway House, Solon. 6:30 pm social hour and 7 pm dinner. $15 per person. Contact the BDC office at 607-756-5005 for tickets.

MARCH 20 **WOMEN IN AGRICULUTURE WORKSHOP** Dryden Fire Hall. 10 am – 2 pm. Social time with refreshments: 9:15 -10 am. Cost: $10/session. Pre-register with Sharon at 607-753-5078. *See page 6 for more info.*

MARCH 21 **CROP PROTECTION MEETING** Orchard Vali Golf Club, Lafayette. 10:30 – 3 pm. $15 includes lunch. 3.25 DEC credits. Topics: Weed, Insect and Disease Management in Corn, Overview of 2012 Crop Season and Pest Challenges, Weed Control Update: Corn & Soybeans, pH and Lime: A review of soil chemistry, New Herbicide Registrations, Adjuvants, Tank Additives and Nozzles. To pre-register contact Sharon at 607-753-5078 or slv7@cornell.edu.

MARCH 22 **AGRI-ECONOMIC DEVELOPMENT MINI CONFERENCE** NYS Grange. 4:30 – 9 pm. Small Scale Enterprises. Event is free and open to the public. *See page 9 for more info.*

MARCH 26 **WINTER DAIRY MANAGEMENT MEETING** NYS Grange, Cortland. 9:30 am – 3:30 pm. Are you planning a change? Consider this meeting. Cost $25. *See page 7 for more information.*

MARCH 27 **PESTICIDE APPLICATOR TRAINING** Dryden Fire Hall. Registration is at noon. Instruction is 12:30 – 3:30 pm. Prepare for tests for new license. *See page 2 for more information.*

MARCH 28 **FARM SUCCESSION WORKSHOP:** Dryden VFW. 10:30 am – 2 pm. Registration 9:45 am. Cost: $15/person, $25/couple. Topics: Managing Family Communication and Conflict. Discussion and Case Studies to Illustrate Paths of Farm Succession. Contact Sharon at 607-753-5078 to pre-register.