

# WAUPACA COUNTY UW-EXTENSION AGRICULTURE NEWSLETTER

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### Inside this Issue...

<i>Farm Financial Outlook for 2009</i>	<b>1-2</b>
<i>Farm Financial Ratios/Benchmarks</i>	<b>3</b>
<i>Crop Profit Tips</i>	<b>3-6</b>
<i>Dairy Profit Tips</i>	<b>7</b>
<i>LGM—Dairy</i>	<b>8-9</b>
<i>3x-4x a day Milk-</i>	<b>9</b>
<i>Calendar</i>	<b>10</b>
<i>Conservation Ease-ment Program</i>	<b>10</b>

## FARM FINANCIAL SITUATION & CONSIDERATIONS FOR 2009

With rising unemployment, record home foreclosures and government deficits, the agricultural sector (even with current tight cash flow conditions) is a sea of tranquility by comparison. But, the big question for many farmers, lenders and other agribusinesses is when will these broader economic conditions start to have a bigger impact on agriculture and what can be done to avoid or lessen their impacts.

First, it's important to realize the net worth of the agriculture sector in today's dollars is at historically high levels. Stated another way, the debt-to-asset level of the US farm sector is as low as it has been since the 1960s. Why is that important, because net worth is a critical asset during hard or uncertain times. Net worth provides a credit reserve or unused borrowing capacity that can be tapped if adverse conditions occur. And it also means that even with reduced returns to assets, less income is needed to pay for debt service.

As for farm income, the picture is a little less rosy. Inflation-adjusted farm income was fairly stagnant from the late 1980s through the next 20 years. Beginning in 2002, net income began to rise, as did price volatility. In 2008, farm income leveled off and decreased slightly when adjusted for inflation. Despite the plateau, net farm income over the past few years has been significantly above levels that persisted throughout the 1990s for most farms.

So, if volatility, risk and reward have dominated agriculture over the last few years, what's ahead for the agricultural economy in 2009 and beyond? In an effort to better understand what is happening in the agricultural economy, a survey was conducted in January of this year by the Extension Risk Management Education Center and the Center for Farm Financial Management at the University of Minnesota. The following summary charts describe the perspective of respondents on the current and future farm financial situation.

### Probability of Financial Stress?

Eighty-four percent of agricultural professionals surveyed expect the probability that producers will experience financial stress in the next three years is high or very high.

However, lenders as a group were less negative. Twenty-six percent of lenders think the probability is very high that producers will experience financial stress in the next three years versus 39 percent of all respondents. However, eighty percent of lenders expect the probability is high or very high.

### Informational Meeting Thursday, April 2

Attend one of these Informational Meetings on Thursday, April 2 to learn more about the proposed Waupaca County Voluntary Conservation Easement Program...

10 am - Courthouse, Waupaca

1 pm - Bear Creek Town Hall

7 pm - Helvetia Town Hall

...see details on back page





*“Agriculture has always been a cyclical industry and good financial managers have learned to balance profit and loss to ensure long-term success.”*

## FARM FINANCIAL SITUATION & CONSIDERATIONS FOR 2009

...CONTINUED

### How Many Producers are Experiencing Financial Stress?

To provide more specific information, respondents were further asked to describe how many of the producers with whom they work are experiencing financial stress now and how many they expect will experience financial stress in the next three years.

Currently, 63 percent of respondents stated that 10 percent or less of the producers they work with are experiencing financial stress, with 15 percent indicating that less than 2 percent of the producers they work with are currently experiencing financial stress.

In the next three years, however, more than 28 percent of respondents expect at least 30 percent of their agricultural clients will experience financial stress. Seventy-five percent of respondents expect 11 percent or more producers will experience financial stress in the next three years.

### Factors Contributing to Farm Financial Stress

Respondents were asked to identify the impact various factors are having on farm and ranch financial stress. The major factors are the price/input cost margins, price volatility, and negative cash flows.

### How Well Equipped are Producers?

A recent credit study suggests the vast majority of farms (80-90%) are in a strong or stable financial position heading into these troubling times, while 10-20% are in a weak to vulnerable position.

Moreover, the survey indicates less than ten percent of all producers are “very well prepared” in terms of financial management skills to manage their businesses through a period of financial stress.

However, the survey also found nearly 75% of all farmers are “moderately well prepared” and with some assistance could do a good job of managing these uncertain financial times.

For starters, review your financial performance over the past two years. Determine what went well and what could have been better. Then identify an action plan to build on your strengths and areas where you can or must improve. Look for established or developing trends that need priority attention.

As one lender told me, often and open communication will be a MUST over the next few years. This is not a time for surprises. Those who understand their financial position and develop proactive steps to deal with the challenge will be looked at much more favorably.

The rest of this newsletter includes tools to help you better understand your farm financial position, as well as research based ideas to help you manage through these challenging times.

Use the chart on the next page to do your own financial health check up. The formula for calculating your own farm financial performance is also included in the center of the table. More “green” or “yellow” results mean strong to stable financial position. Keep in mind, trends are more important than any one year, so going back a few years (2-3) can be very helpful in determining whether you’re getting stronger or weaker.

If you have questions about where to find these numbers or values, contact your lender or accountant, they’ll be happy to help you document and better understand your financial standing, because your success is their success too.

# Farm Financial Ratios and Benchmarks

## Calculations & Implications

(> = greater than.....< = less than)

Liquidity Analysis	Calculation	Strong	Stable	Weak
Current Ratio	Total Current Farm Assets ÷ Total Current Farm Liabilities	> 1.5	1.0 - 1.5	< 1.0
Working Capital	Total Current Farm Assets – Total Current Farm Liabilities	Compare with business expenses; amount varies by size of operation		
Working Capital Rule**	Working Capital ÷ Total Expenses	> 50%	20 - 50%	< 20%
Solvency Analysis	Calculation	Strong	Stable	Weak
Owner Equity	Total Farm Assets ÷ Total Farm Liabilities	> 30%	30 - 70%	< 70%
...or Debt / Asset Ratio	Total Farm Liabilities ÷ Total Farm Assets	< 30%	30 - 70%	> 70%
Equity / Asset Ratio	Total Farm Equity ÷ Total Farm Assets	> 70%	30 - 70%	< 30%
Debt / Equity Ratio	Total Farm Liabilities ÷ Total Farm Equity	< 42%	42 - 230%	> 230%
Profitability Analysis	Calculation	Strong	Stable	Weak
Rate of Return on Farm Assets (ROA) <i>(mostly owned)</i>	(NFIFO* + Farm Interest Expense – Operator Management Fee) ÷ Average Total Farm Assets	> 5%	1 - 5%	< 1%
Rate of Return on Farm Assets (ROA) <i>(mostly rented or leased)</i>	(NFIFO* + Farm Interest Expense – Operator Management Fee) ÷ Average Total Farm Assets	> 12%	3 - 12%	< 3%
Rate of Return on Farm Equity (ROE)	(NFIFO* – Operator Management Fee) ÷ Total Farm Equity	Look at trends and compare to other farm and non-farm investments		
Operating Profit Margin	(NFIFO* + Farm Interest Expense – Operator Management Fee) ÷ Gross Revenue	> 25%	10 - 25%	< 10%
Financial Efficiency	Calculation	Strong	Stable	Weak
Asset Turnover Ratio	Gross Revenue ÷ Average Total Farm Assets	Depends heavily on type of operation and whether it is owned / leased		
Operating Expense / Revenue Ratio <i>(mostly owned)</i>	Operating Expenses (less interest & depreciation) ÷ Gross Revenue	< 65%	65 - 80%	> 80%
Operating Expense / Revenue Ratio <i>(mostly rented or leased)</i>	Operating Expenses (less interest & depreciation) ÷ Gross Revenue	< 75%	75 - 85%	> 85%
Depreciation Expense Ratio	Depreciation Expense ÷ Gross Revenue	compare to capital replacement and term debt repayment margin		
Interest Expense Ratio	Interest Expense ÷ Gross Revenue	< 12%	12 - 20%	> 20%
Net Farm Income From Operations Ratio	NFIFO* ÷ Gross Revenue	Look at trends; varies with cyclical nature of agricultural prices & income		
Repayment Analysis	Calculation	Strong	Stable	Weak
Term Debt and Lease Coverage Ratio	[(NFIFO* + Gross Non Farm Revenue + Depreciation Expense + Interest on Term Debts and Capital Leases) – Income Tax Expense – Family Living Withdrawals] ÷ Scheduled Annual Principal and Interest Payments on Term Debt and Capital Leases	> 150%	110 - 150%	< 110%
Debt Payment / Income Ratio**	Scheduled Annual Principal and Interest Payments on Term Debt and Capital Leases ÷ (NFIFO* + Gross Non-Farm Revenue + Depreciation Expense + Interest on Term Debts & Capital Leases)	< 25%	25 - 50%	> 50%

Developed by Dr. David Kohl, Agricultural Economist, Virginia Tech University and modified by Greg Blonde, Waupaca County UW-Extension Agriculture Agent. \*NFIFO = Net Farm Income From Operations, excluding gains or losses from disposal of farm capital assets. \*\* Not an official standard or benchmark, but widely used in the financial industry.

# TOP 10 FACTORS AFFECTING CORN YIELD & PROFIT

MULTIPLE SITE YEAR RESEARCH ANALYSIS

BY JOE LAUER, EXTENSION CORN AGRONOMY SPECIALIST, UW-MADISON

The following list highlights some of the greatest influences on corn, both agronomic and economic. These are not cumulative, but can help target areas where management decisions will have the greatest impact.

**Weather / Environment** - as we all know, and Dr. Lauer's research shows, mother nature is still the boss affecting corn yield and profitability more than any other single factor. Although it can't be controlled, it can be monitored and responded to in timely fashion. Several weather related links can be found on Dr. Lauer's web page at: <http://corn.agronomy.wisc.edu>.

**Pest Control** - the difference between good and bad pest control is also near the top of the list for profitable corn production. Recent research shows that weeds need to be controlled before they reach 4 inches tall or the subsequent yield loss can not be recovered, even if additional fertilizer is applied. The UW Pest Management Recommendations and Guidelines are updated each year to include new products. It can be found online at: <http://learningstore.uwex.edu/Pest-Management-in-Wisconsin-Field-Crops2009-P155C0.aspx>.

**Soil Fertility** - the proper rate and timing of nitrogen can affect corn yield and profitability by 20-50%. (See next newsletter article in this issue).

**Hybrid Selection** - UW corn hybrid trials show as much as 30% difference between top and bottom performers...and even more when genetic traits are included. Current and previous year trials are available on Dr. Lauer's web site (see link listed above) including a seed cost calculator to evaluate the added investment and return needed for new hybrid technology.

**Planting Date** - late April or early May for this part of WI, can affect corn yield and profits by as much as 30%. Corn planted after May 20 returns \$75 to \$150 less per acre and costs \$0.50 to \$1.00 more per bushel to produce than corn planted in early May. Early planting can help further lower cost per bushel by reducing drying costs.

**Rotation** - corn yield and profit can be enhanced by as much as 30% without any additional inputs from the effect of crop rotation alone, especially following alfalfa or soybeans.

**Stand Density** - can account for up to 20% yield difference, so consider a higher planting rate if the following is typical in your corn fields: ears always filled to the tip; many big or double ears; less than 3-4% earless stalks; many plants with tillers.

**Harvest Timing** - which is obviously influenced greatly by other factors, was shown to affect corn yield and profit by as much as 20%.

**Tillage** - type of tillage (or not-till) can influence yield and profitability by as much as 10%. Consider using no-till or very minimum tillage for corn planted into soybean stubble as research indicates no yield reduction and considerable cost savings. For other tillage systems, be sure to wait until satisfactory soil conditions exist as yield loss from compaction can be greater than the loss from delayed planting.

**Row Spacing** - research shows changing from 36-inch or wider rows to 30-inch rows alone can increase corn yield by as much as 10% (typically 7-8%). Narrower row spacing of 15 or 20-inches has shown to increase yields an additional 1 to 3% compared to 30-inch spacing.

Finally, **STICK TO THE BASICS:** Avoid the temptation to buy unproven products. Stick with the proven, recommended practices. Often new miracle products only increased production costs and lower your net return.

Be prepared to perform the appropriate task at the appropriate time. The one factor that successful growers all seem to have is **TIMELINESS**.

# FERTILIZER MANGEMENT STRATEGIES


BY CARRIE LABOSKI  
EXTENSION SOILS FERTILITY SPECIALIST, UW-MADISON

**Nitrogen Application Rate for Corn**—The current nitrogen to corn price ratio is running 0.10 to 0.15, which indicates the most economical rate of nitrogen for corn is between 100-155 units of nitrogen on the most productive soils (195-205 on irrigated sand) in our area and 90-120 units for other low-to-medium yielding soils or non-irrigated sand. Use the upper end of the range if any of the following circumstances apply:

- 100% nitrogen coming from organic sources.
- More than 50% residue at planting.
- Soils less than 2% organic matter.

Use the following table to help determine your N rate.

**Use Starter Fertilizer Wisely** - Starter fertilizer is recommended for corn planted in Wisconsin using a minimum of 100 lbs of 10-20-20 on medium- and fine-textured soils. In most corn fields, all the recommended P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O can be applied as starter fertilizer. In fields with excessively high soil test levels, starter fertilizer applications in excess of 10 lb N, 20 lb P<sub>2</sub>O<sub>5</sub>, and 20 lb K<sub>2</sub>O per acre should be avoided. Corn yield responses to starter fertilizer can still occur on soils that are excessively high in P and K. **The probability of response on excessively high testing soils varies with hybrid RM and planting date as seen in the table at the bottom of the page.**

 <b>Nitrogen Guidelines for Corn in Wisconsin</b>		N:Corn Price Ratio (see other side)			
		0.05	0.10	0.15	0.20
SOIL	PREVIOUS CROP	LBS N/ACRE (total to apply) <sup>3</sup>			
high/very high yield potential soils	Corn, Forage legumes, Legume vegetables, Green manures <sup>4</sup>	165 <sup>1</sup> 135-----190 <sup>2</sup>	135 120-----155	120 100-----135	105 90-----120
	Soybean, Small grains <sup>5</sup>	140 110-----160	115 100-----130	100 85-----115	90 70-----100
medium/low yield potential soils	Corn, Forage legumes, Legume vegetables, Green manures <sup>4</sup>	120 100-----140	105 90-----120	95 85-----110	90 80-----100
	Soybean, Small grains <sup>5</sup>	90 75-----110	60 45-----70	50 40-----60	45 35-----55
sands/loamy sands	Irrigated—All crops <sup>4</sup>	215 200-----230	205 190-----220	195 180-----210	190 175-----200
	Non-irrigated—All crops <sup>4</sup>	120 100-----140	105 90-----120	95 85-----110	90 80-----100

Relative Maturity	Planting Date							
	4/25	5/1	5/5	5/10	5/15	5/20	5/25	5/30
% probability of economic return from starter fertilizer on excessively high P & K								
90	10	15	20	25	30	35	40	45
95	15	20	25	30	35	40	45	50
100	20	25	30	35	40	45	50	55
105	25	30	35	40	45	50	55	60
110	30	35	40	45	50	55	60	65

## FERTILIZER MANGEMENT STRATEGIES

...CONTINUED

### Nitrogen Application Timing

Because of high N fertilizer prices, some farmers are asking if there is an ideal timing for N fertilizer application that would result in greater efficiency for uptake.

For sandy soils, sidedress N applications are a must to reduce the probability of N leaching before the crop has a chance to use it. On medium- and fine-textured soils that are moderately well- to well-drained, there is probably minimal benefit to sidedressing N compared to preplant applications because there is usually not much opportunity for N loss via leaching or denitrification. However, some preliminary research results from Lancaster Ag Research Station in 2007 suggest that there is likely a benefit to having some N applied preplant or in a starter fertilizer if the majority of the N will be applied at sidedress for silage corn. On poorly- and somewhat poorly-drained soils, there may be a benefit to sidedressing N to minimize the opportunity for denitrification.

If conditions for denitrification exist (warm, wet soils), then use of a nitrification inhibitor would be economically beneficial. **Remember, urea containing fertilizer must be incorporated into the soil by tillage or rainfall.** Ammonia volatilization will usually be prevented if 0.1 to 0.2 inches of rain falls within 24 hours of application. If 0.1 to 0.2 inches of rain falls within 2 to 4 days after application, then some ammonia volatilization will occur. Significant volatilization losses occur if no rainfall occurs within 5 days of surface urea application. If physical incorporation is not possible and rainfall is not predicted, consider using a urease inhibitor to prevent urea volatilization for 10 to 14 days. Use of both nitrification and urease inhibitors is economically viable only if conditions for N loss are likely.

### Don't Forget About Liming!

With higher fertilizer prices, it's easy to ignore lime recommendations and focus solely on fertilizer application rates. Maintaining pH at the target level for the most sensitive crop in a rotation is the cornerstone to a good soil fertility program. If the pH is not suitable for crop production, yields will suffer and applied fertilizers will not be used efficiently.

### Fertilizing Alfalfa

In addition to making sure pH is adequate for alfalfa, annual potash applications are necessary for good yields and maintenance of stand. Splitting higher K application rates will reduce luxury consumption of K and help maintain feed quality. It may be tempting for producers to reduce K applications on alfalfa given the current potash prices and generally larger K application rates compared to other crops. This decision should not be taken lightly for several reasons.

First, alfalfa removes approximately 60 lb K<sub>2</sub>O/ton of dry matter. Thus, reducing or eliminating K fertilization will cause soil test levels to decrease and may limit production in future years particularly on low testing soils.

Second, K is required to enhance disease resistance and winter hardiness as shown by the data in Table 3. Nitrogen credits from alfalfa to future crops is dependent on stand at the time the alfalfa is killed, ie. better stands produce more N credits. With high N fertilizer prices it may be beneficial to consider the N credit to future crops as part of the overall economic evaluation of a rotation.

Finally, if producers are feeding all of the alfalfa produced on their own farm, they may want to produce the highest alfalfa yields to insure an adequate feed supply. Remember that annual applications of sulfur and boron may be required on sandy soils. For medium- and fine-textured soils use soil and tissue tests to evaluate sulfur and boron needs.



## IDEAS FOR INCREASING DAIRY FARM INCOME

### 2009 COW COLLEGE PRESENTATION BY DR. RANDY SHAVER EXTENSION DAIRY NUTRITION SPECIALIST, UW-MADISON

Although there are no silver bullets or easy answers to the current financial challenges facing dairy farmers, here are some ideas to consider to improve earnings on your farm.

**Higher Milk Price** - make sure you have signed up for the Milk Income Loss Contract (MILC) program at the Farm Service Agency. This could add \$1.00/cwt or more with the current price of milk. Also, reducing cell count and bacteria count to take advantage of any premiums through your milk plant (at the very least avoid any deducts). When price returns to profitable levels, consider using some form of price risk management (see announcement for local LGM-Dairy insurance workshop on March 26 in New London).

**Forage Quality** - depending on the amount of forage and fiber digestibility in the diet, high quality forage can save \$0.80 to \$1.00 per cow each day. Forage quality, including proper length of chop, has never been more important.

**Improve Feed Conversion** - look for 1.5 to 1.8 lbs milk per lb DM intake. Lower days in milk with improved breeding practices to can help reduce the number of stale cows in your herd. Improved cow comfort and rBST can also help improve feed conversion. Pay special attention to feed bunk management by feeding and cleaning more often (and/or push feed up more often). Avoid feeding spoiled feed and consider tuning the ration for more fiber digestibility and starch availability.

**Explore Alternative Feed Options** - a summary of by-product feeding guidelines and a feed cost comparison spreadsheet (FeedVal 4) is available on Dr. Shaver's web site at: [www.uwex.edu/ces/dairynutrition/](http://www.uwex.edu/ces/dairynutrition/)

**Watch Protein Feeding Levels** - meet but don't exceed protein feeding requirements. Recent research, including several local farms, shows that even top producing herds over 30,000 lb RHA feed only 16-18% crude protein in their high TMR group.

**Don't Overfeed Phosphorus** - research shows 0.32-0.38% total phosphorus in the diet is enough to support both milk and efficient reproduction. With the price of phosphorus today, it makes more cents than ever to follow these new feeding guidelines.

**Avoid Costly Un-Proven Additives** - be sure to ask your nutritionist or feed dealer for independent research to support any "extra" feed additives. Remember, times are tough everywhere and everyone is looking for ways to increase their revenue too.

**Consider Feeding Lower Level of Starch** - consider feeding more corn silage as milk performance usually responds with 25-35% corn silage in the diet; research shows no added milk when increasing to 35-65% corn silage in the diet, and feeding more than 65% corn silage diet may or may not help...at the very least it can be a risky proposition, one that requires a high level of management and close monitoring.

**Consider Purchasing vs. Growing Feed** - less practical as grain prices and input cost decline, but for some, especially those without adequate machinery and/or labor, it may be something to consider.

**Test Forages Often & Monitor Feed Prices** - more frequent feed testing will detect changes quicker and allow you to adjust the ration accordingly. This is also a great way to spend more time with your nutritionist who can also help you stay on top of changing feed prices. Remember, feed can account for more than half of your production cost.



# Managing Your Margins with LGM-Dairy: A New Risk Management Tool



This UW-Extension program workshop is designed to help dairy producers learn more about a new USDA Livestock Gross Margin Insurance program for protecting dairy farm gross margins (one of only six workshop sites being offered throughout the state).

**WHEN:** Thursday, March 26 from 10:45 a.m. to 3:00 p.m. (lunch included)

**WHERE:** Larsen Coop, New London

**COST:** \$20.00 per person (Advance registration required by Friday, March 20).

### Program Topics:

What is the Livestock Gross Margin-Dairy Program?

Price Risk and Price Risk Management

for Managing Price Risk

Putting LGM-Dairy to Work on Your Farm

Evaluating Your Marketing Risk Preferences

### Speakers:

Victor E. Cabrera, Dairy Management Specialist & Assistant Professor, University of Wisconsin-Madison & University of Wisconsin-Extension  
Brian W. Gould, Associate Professor, University of Wisconsin-Madison & University of Wisconsin-Extension

Directions: Larsen Coop headquarters is located on the east side of New London; just east of the Hwy 45/54 interchange; go south off Hwy 54 one-quarter mile on County Hwy S.

### Registration Form — Return by Friday , March 20



#### *Managing Your Margins with LGM-Dairy: A New Risk Management Tool*

Thursday, March 26, 2009, 10:45 a.m. – 3:00 p.m.  
Larsen Coop, New London

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
City: \_\_\_\_\_ State \_\_\_\_\_ Zip: \_\_\_\_\_

Cost: \$20.00 per person    Make checks payable to: Waupaca County UWEX  
Or Outagamie County UWEX

Send check/registration to:

Waupaca County UW Extension  
811 Harding Street  
Waupaca, WI 54981  
715 - 258 - 6230

Or

Outagamie County UW Extension  
3365 West Brewster Street  
Appleton, WI 54914  
920-832-5119

## LIVESTOCK GROSS MARGIN FOR DAIRY (LGM-DAIRY)

With uncertain and volatile prices for milk and feed, there's need more than ever for effective risk management strategies on dairy farms. While tools like futures and option contracts can protect against low milk prices, they do not protect against high production costs.

A new product now covers the overall gross margin rather than just milk or the feed price. The Livestock Gross Margin Insurance for Dairy Cattle (LGM-Dairy) offers that very alternative as a new risk management strategy. The LGM-Dairy is more like an insurance program on the bottom line in which a premium is paid to protect against the decline in overall gross margins (milk prices less the feed costs).

LGM-Dairy pays the difference, if positive, between an expected gross margin guarantee and actual gross margin, where gross margin is milk price less the feed costs per cwt. The insured margins are calculated using futures prices for milk, corn and soybean meal. Producers need to estimate the quantity of milk to be marketed, the feed quantity to be used, a deductible level and the months to insure the gross margin.

LGM-Dairy allows farmers to insure any amount of milk up to 240,000 cwt per insurance period. Deductible level ranges between \$0 and \$1.50 of the gross margin guarantee. Insurance coverage begins one full month after the sales closing date.

If you would like to learn more about LGM-Dairy, plan to attend the training workshop on March 26 at the Larsen Coop in New London (the last of six statewide workshops being offered this spring by UW-Extension). The workshop runs from 10:45 a.m. to 3:00 p.m. Attendance is limited to the first twenty individuals who pre-register by Friday, March 20 (cost is \$20 per person; use the registration form included on the previous page).

For more information about the LGM-Dairy, visit UW-Extension Dairy Management Specialist Victor Cabrera's web site at: [www.uwex.edu/ces/dairymgt/](http://www.uwex.edu/ces/dairymgt/). Victor and another colleague, Brian Gould, will be the featured presenters on March 26 in New London.

## MILKING 3X OR 4X/DAY? DENNIS ARMSTRONG, EXTENSION DAIRY SCIENTIST, UNIVERSITY OF ARIZONA

More farms are talking about increasing their milking frequency as a way to increase cash flow by milking more often. This decision should not be taken lightly. While the general consensus is that cows like it and people hate it, visit with farmers who have first hand experience. Here is summary of the research presented by Dr. Dennis Armstrong, University of Arizona, at the Third Western Dairy Management Conference.

- 1) Once a day or skipping a milking is not acceptable with high production dairy cows under intensified daily systems.
- 2) Twice -a-day milking with intervals of 10-14 and 12-12 are acceptable with very little research information as to the benefit of the 12-12 interval.
- 3) Three times-a-day milking will increase milk production 10-18% over 2x. Reproductive efficiency will be slightly lower, and udder health will be improved.
- 4) Four-times-a-day milking will increase milk production from 8 to 12% over 3x. Udder health will be improved, with no data available on reproductive efficiency.
- 5) When changing from 3x to 2x or 4x to 3x, dairy farm managers should not expect to see a 8 to 15% decrease in milk products. Research has shown (30, 32) that after 20 and 14 weeks of an increased frequency of milking there is a carry-over effect of 9 to 11%, which is the effect of lactation persistency.
- 6) Superior facilities and management are necessary to receive the height percentage increase from either 3x or 4x milking frequency.
- 7) Keep the daily milking and feeding schedule the same each day. Do not milk 3x or 4x with more cows than the capacity of the milking parlor capability in a 24-hour period.

Financial benefits of increasing milking frequency will be affected by feed cost, milk price, and labor cost. Visit [www.uwex.edu/ces/dairymgt/tools/index.cfm](http://www.uwex.edu/ces/dairymgt/tools/index.cfm) to download a new decision aid tool develop by Victor Cabrera at UW-Madison to help analyze your situation.

Waupaca County UW-Extension  
Courthouse  
811 Harding Street  
Waupaca, WI 54981

Non-Profit Organization  
U.S. Postal Paid  
Waupaca, WI 54981  
Permit No. 3



Upcoming Events:

March 24-25  
*Manure Summit*  
*Lambeau Field, Green Bay*

March 26  
*LGM Dairy Workshop*  
*New London*

March 31- April 2  
*Farm Show, EAA Oshkosh*

April 2  
*Conservation Easement Donation Informational Meetings:*

*10 am Courthouse*  
*1 pm Bear Creek Town Hall*  
*7 pm Helvetia Town Hall*

May 1  
*Ag Lender & Farm Manager*  
*Spring Conference, Kimberly*

**Thursday, April 2<sup>nd</sup>**  
**Important Informational Meetings on**  
**Proposed County Conservation Easement Donation Program**

The proposed Waupaca County Working Land Conservation Easement Program is designed to help farmers and woodland owners ensure their crop and forest land stays in production...the same land that supports our local economy with agriculture and tourism.

A conservation easement is a voluntary agreement (contract) between a landowner and a qualified organization (land trust, non-profit or government).



This easement will permanently limit use of the land to agriculture or forestry and is binding on future owners. The property remains privately owned, including management decisions and transfer options (sell or lease).

Benefits include leaving a legacy for you

and your family while helping to protect working land in your area, as well as federal income tax deductions and estate planning options. A grant program is also available to help landowners cover any related expenses without any obligating to donate.

For more details, attend one of the upcoming informational meetings on Thursday, April 2 at...

**10 am Courthouse, Waupaca**  
**1 pm Bear Creek Town Hall**  
**7 pm Helvetia Town Hall**

No advance registration or fee required; however, seating will be limited.