

Ag FOCUS

Does “Then” Sound Like “Now” in Dairy?

By: Jerry Bertoldo

1932 was a year of great distress in the United States with the growing effects of the Great Depression. A review of editions of the “Genesee County Farm and Home News” from that year paints a picture of hope, need for education and community action despite the prevalent gloom.

Topics in those monthly newsletters dealt with themes familiar to us today: loss of farm numbers, transportation costs, high unemployment, cyclical milk prices and surpluses of milk. Farm gate prices bottomed at \$1.40 per cwt that year while the cost of production was estimated to average \$3.14. Deflation rather than inflation was the worry. Farm price supports were being contemplated by Congress. The “New Deal” under president elect Franklin Delano Roosevelt would not begin offering relief to the struggling population until 1933. Noted economist and Cornell Professor of Farm Management, George F. Warren, would become an advisor to Roosevelt.

The cited articles are not reproduced in their entirety for space reasons. The italicized sections are editorial comments introducing each piece.

Let’s take a trip back eighty years in time to rural New York where you could buy a ton of purchased dairy feed for \$25, gas was a dime a gallon, horses still provided much of the farm power and electricity was a luxury many still did not have.

Stabilization Bill Before House

Charles I. Bowman, Editor

The early Depression economy faced a deflationary trend of lower commodity prices, none of which were as severe as those of agriculture. Manufactured goods had experienced significant price increases after World War I, but food had not.

One of the most important proposals affecting agriculture that has appeared anywhere during recent years is the so-called money stabilization and commodity price adjustment bill which is now before the House of Representatives.

The Goldsborough bill proposed to authorize the Federal Reserve Board and the Federal Reserve Banks to take all available steps to raise the present deflated wholesale commodity price level as speedily as possible to a level existing before the present deflation period.

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Continued from page 1

Stuck Again

A.M. Goodman, Agri. Eng. Dept., Cornell University

Good drainage offered by tiling is nothing new. The replacement of hand labor by tiling plows is.

Have you ever sat on a tractor and said to yourself, "Stuck again!" There may be just one or two small places in the whole field that are a little too wet for a tractor. You may have gone through these same places for years with a team. The holes are nasty and never produced a crop, but the team went through and you went through after them. If the drill or planter mudded up a little, you were right behind it and could easily clean it out.

Usually a few rods of tile carefully laid will clear up these wet spots for this year and every year to come. The time required to put in the whole job is not likely to be worth as much as the time wasted in or around one of these holes in any one season.

It is true that drain tile costs money and that this is not a good year for extensive expenditures. However, a few dollars worth of tile and a few days of labor are likely to save much more than the wear and tear on your tractor alone, if you have the misfortune to get stuck in one of these holes this year.

How's Your Pasture?

H. A. Hopper, Animal Dept., Cornell University

Pasture was a part of every dairy farm in 1932. Today the renewed interest in grazing makes the suggestions as timely as they were back then.

In the eastern dairy section, the problem of using pasture wisely is receiving more attention now than ever before. There are two good reasons for this:

1. The old permanent pastures have ceased to be productive as a result of the treatment received in the past.
2. Since prices are low, herd owners feel the necessity of using cheap feed and turn longing eyes toward the pasture.

Where there is a reasonable stand of grass to begin with, there are four possible ways to improve the return from pasture:

1. Use fertilizer. Most pastures are badly starved and need plant food for real recovery. This may not appeal to many farmers when money is hard to get. Excellent returns have been secured from fertilizers applied to pastures, and a farmer really desirous of bettering his income from pasture land would do well to investigate. Try out a small area and become convinced. The county agricultural agent will have useful suggestions.
2. Withhold stock in the spring until the grass is ready to support continuous grazing. The grass plants should be allowed to establish themselves early in the season. The earliest grass is washy and not likely to produce much milk. Too early grazing is fatal to wet lands. The man who gets least from pasture is the one most greedy to get it first.
3. Rotate the pasture areas. A given area will produce more if divided and grazed alternately. When the animals are withheld, recovery is hastened and the quality and amount of grazing is improved.
4. Do not over-graze. Great harm may be done by keeping stock on pasture beyond a certain stage. It is better to keep them in a dry lot on supplementary feed during an emergency or a prolonged dry spell than to destroy all chances of recovery.



Where Grain Quality Matters



- Facility Design
- Installation
- Facility Maintenance
- Millwrighting
- Dryer Service
- Crane Service
- Electrical services



Continued on page 4

Why Keep Dairy Records!

The Dairy Herd Improvement Association began in 1905. A competitive organization called the "Dairy Record Club" was formed in 1931 as an owner sampled service. There were 11 laboratories across New York. Members were charged \$.12/cow/month for fat testing and data compilation. Producers needed to have scales to weigh milk, complete grain feeding rates by cow and note fresh dates. All sample bottles, mailing kits and postage were covered by the basic fee.

The answer to this question can be stated in three words - MAKE MORE MONEY. Does this interest you. Mr. Dairyman?

Eight hundred dairy record club members in New York State are proving to themselves that dairy records pay. Here are what these records tell them:

- * The butterfat test of each cow in the herd
- * The monthly and annual production of milk and butterfat of each cow
- * The cows that should be "culled out" as unprofitable
- * How to feed grain according to production
- * From which cows to raise the heifer calves
- * How good a bull they must have to increase the herd's production

You, too, can join the dairy record club, improve your production practices, and - MAKE MORE MONEY.

Do Legumes Cost Too Much?

John H. Barron, Agronomy Dept., Cornell University

New York's first county agent, John Barron, was a Professor of Agronomy at Cornell when he penned this article. Today there is little doubt as to whether legumes should be raised or not if you have the soil and climate conditions to support them. Back in 1932, alfalfa particularly was considered an expensive crop. Long term cost benefit was a tough sell over up - front out-of-pocket expense at the time.

Sometimes farmers say that they do not grow more

alfalfa and clover because the cost is too high. In this case as in all others it is not a question of what is the cost but what does one get for his money.

One of the wisest farmers the writer ever knew said during a time when current farm wages were \$30.00 to \$40.00 a month he would rather pay a hired man \$50.00 a month and get one who would earn him \$60.00 than to hire another man for \$30.00 and get one who would earn the employer only \$20.00. It may be the same in growing legumes as compared to growing non-legume crops for feeding to animals.

Cost account figures show that the average cost of producing a ton of alfalfa hay on NY farms from 1927-1930 was less than \$10.00. This ton of alfalfa hay contains about 200 pounds of digestible protein. Similar accounts show that the growing and harvesting costs for a ton of timothy hay containing but about 60 pounds of digestible protein was about \$12.00. It was further found that the cost of growing and harvesting a ton of clover hay was only about \$12.00 even when the seeding was allowed to stand but one year. This ton of clover hay contains 150 pounds of digestible protein.

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The 2012 NY Corn and Soybean Contest rules and entry forms are now out. Forms can be found on the NY Corn and Soybean Growers Association web site at <http://www.nycornsoy.org/>. Entry forms must be submitted and paid for by August 20. For the first time there will be prizes for the top three statewide entries in both corn and soybeans. First place is a paid trip for two to the 2013 Commodity Classic in Orlando, FL. Second place is \$250 and third is \$100.

In 2011, the top corn yield in the contest was 225.4 bushels by Randy Brouillette of Oneida County.

The top soybean entry was 67.1 bushels by Scott Arliss of Wayne County.

Cornell Small Dairy Team Produces New Resources

- * Financial Bench Marks for Small Dairies
- * Off-Farm Processing Start-Up Fact Sheet
- * Web based Geo-Map: Shows all the small dairy processing plants in New York state
- * Small Dairy Case Studies: Four small dairy operators made decisions to keep their farms profitable
- * Production Record-Keeping Book for Grazing Dairies:
- * Organic Dairy Forage and Grain Survey:

To download the resources, visit:

<http://smallfarms.cornell.edu/resources/small-dairy>,

or contact Nancy Glazier. Contact information inside front cover.



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(3) Left

22' Box

(1) 2001 & (2) 1999 Mack CL713, E7 460 h.p., eng. brake, Eaton Fuller 8LL trans, air lift 3rd, 4th & 5th axes, 3 steerable, D.F. Camelback susp., 248" w.b., alum. wheels, 2000 MAC 22' alum. box, air assist gate, 2 way dump.



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(5) 2001 Int'l 5600i, Cums. ISM 305 h.p., 9LL trans., 135k miles, Haulmax susp., T/A, 20,000# F/A, 46,000# R/A, matching 9cyl. McNeilus mixers, stk# 3971-74, \$32,900.



Low Miles

2002 Volvo vH D42B200, Volvo VED12345 h.p., diesel, 8LL trans., air ride, 214,688 miles, 4.30 ratio, 22.5 on alum./steel, 206" w.b., 20,000# F/A, 46,000# R/A, 16' steel body, stk# 3842, \$43,900.



(2) 2008 Heavy Spec Chassis

(2) 2008 Peterbilt 365, CAT C13, diesel, 9LL trans., 105,680 miles, Haulmax susp., alum./steel wheels, 234" w.b., T/A, 20,000# F/A, 46,000# R/A, stk# 3837/3838, \$86,900.



58k Rears

31' Frame

2001 Volvo ACL64, Cums. N14435 h.p., diesel, 8LL trans., eng. brake, Hend.susp., 5.38 ratio, 284" w.b., 22.5 onspoke, triaxle, 20,000# F/A, 58,000# locking R/A, 61,824 miles, 31' of D.F. behind cab, 22.5" CT, Fasse F300SE boom w/24" deck, (boom can be removed), air lift tag behind driver.



Heavy Spec

Long W.B.

1997 Peterbilt 357, CAT C10 300 h.p., diesel, 8LL trans., 172,300 miles, Chalmers susp., 22.5 on all steel, 235" w.b., T/A, 20,000# F/A, 46,000# R/A, stk# 3246, \$20,900.



Heavy Spec

Low Miles

2006 Kenworth W900L, CAT C15475 h.p., 13 spd O/D, eng. brake, airride, 165k miles, 3.91 ratio, all alum. wheels, 232" w.b., T/A, 13,200# F/A, 46,000# R/A, full lockers, southern truck who rust, heavy spec, low miles, stk# 3888, \$94,900.



20,000# F/A

46,000# R/A

2009 Peterbilt 367, CAT C15 475 h.p., 8LL trans., 364,365 miles, eng. brake, airtrac susp., 3.70 ratio, all alum. wheels, T/A, 20,000# F/A, 46,000# full locking R/A, stk# 3874, call.



Clean

Heavy Spec

2005 Freightliner Columbia Day Cab, CAT C15 435 h.p., Jake Brake, 15 spd. manual, 46,000# full locking R/A, 563k miles, \$39,250.



High H.P.

46k Rears

2005 Western Star 4900 w/36" Flat Top Sleeper, CAT C15 475 h.p., diesel, 18 spd., eng. brake, Haulmax susp., 545,068 miles, 4.30 ratio, 22.5 on alum., 244" w.b., T/A, 14,600# F/A, 46,000# R/A, stk# 3636, \$52,500.



High H.P.

46k Rears

2006 Freightliner CL1206ST Columbia 120, Det. 14L515 h.p., diesel, 15 spd., eng. brake, 354k miles, air ride, 4.10 ratio, 24.5 on polished alum., 193" w.b., T/A, 14,000# F/A, 46,000# R/A, stk# 3571, \$49,500.



High H.P.

46k Rears

1999 Int'l 9400, Cums. N14460 h.p., diesel, 10 spd., eng. brake, air ride, 706,503 miles, 22.5 on alum./steel, 206" w.b., T/A, 14,000# F/A, 46,000# R/A, stk# 3543, \$27,900.



Very Clean

Southern Truck

2003 Western Star 4900, CAT C12 410 h.p., 9LL trans., Haulmax susp., 248" w.b., 22.5 on all steel, T/A, 20,000# F/A, 46,000# full locking R/A, 145,295 miles, very clean mixer, 20' of frame behind cab, 1.53" CT, stk# 3999, \$45,000.



18' Alum. Box

1998 Mack RD688S, Mack E7 350 h.p., diesel, 8LL trans., Camelback susp., 667,157 miles, 18' length, 22.5 on alum., 246" w.b., quad axle, 20,000# F/A, 46,000# R/A, alum. body, stk# 3980, \$39,900.



273k Miles

16' Alum.

2006 Sterling LT9522, Det. 14L515 h.p., diesel, 8LL trans., eng. brake, Haulmax susp., 273,552 miles, 16' length, 24.5 on alum./steel, 209" w.b., triaxle, 20,000# F/A, 46,000# R/A, alum. comp., stk# 3981, \$58,900.



Knuckleboom

Low Miles

1998 Kenworth T800, CAT 475 h.p., Jake Brake, 8LL trans., 20,000# F/A, 44,000# R/A, 14,000# T/A, D.F., 25' frame behind cab, 248k miles, current flatbed w/knuckle boom, will separate to make C&C.



Roll Off

Ready To Work

1999 Int'l Paystar 5000, CAT 3406E 455 h.p., diesel, 8LL trans., eng. brake, 372,437 miles, Hend.susp., 22.5 on alum./steel, 250" w.b., tri axle, 18,700# F/A, 46,000# full locking R/A, tarp, very clean, stk# 3916, \$42,900.



Heavy Spec

2002 Kenworth T800, C12 CAT 445 h.p., diesel, 10 spd., eng. brake, airride, 4.30 ratio, 179" w.b., 22.5 on alum., T/A, 13,280# F/A, 46,000# R/A, 456,597 miles, very clean, stk# 3616, \$34,500.



Heavy Spec

Long Boom

2000 Sterling LT9513 w/Fasse 300SE Boom/Lift, CAT 3306 300 h.p., diesel, 8LL trans., eng. brake, 177,269 miles, Turffrac susp., 4.56 ratio, 22.5 on all steel, 278" w.b., triaxle, 18,000# F/A, 46,000# full locking R/A, 25' deck, D.F., 30' of frame, 22.3" C-T, stk# 3913, \$38,500.



Heavy Duty

Winch Truck

1994 Autocar ACL64FT, Cums. N14410 h.p., diesel, 18 spd., eng. brake, rubber block susp., 25,043 miles, 5.63 ratio, 24.5 on all steel, 280" w.b., T/A, 20,000# F/A, 46,000# R/A, plate & tail roller, Tulsa 65,000# winch, 90% rubber, needs winch cable, stk# 3977, \$37,900.



Quality Old Mack

1987 Mack R688ST, Mack EM6300 h.p., diesel, 5+2 spd., airride, 246,929 miles, 22.5 on all steel, 178" w.b., T/A, 12,000# F/A, 40,000# R/A, stk# 3732, \$13,900.



Big H.P.

Heavy Spec

1998 Volvo vH D42B200, Det. 12.7L 470 h.p., diesel, 18 spd., eng. brake, Hend.susp., 256k miles, 4.33 ratio, 22.5 on spole, 266" w.b., tri axle, 20,000# F/A, 46,000# R/A, 21' length, stk# 3697, \$36,900.

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Increasing Milking Frequency & Implications on Mammary Cell Dynamics

By: Jackson Wright

In the dairy industry efficient milk production is fundamental to profitability. As a result most dairy producers are looking for management strategies that improve milk production per cow. One management strategy capable of increasing milk production efficiency is increasing milking frequency. In dairy cows, the mammary gland is responsive to demands of the offspring and more frequent milking signals higher demand to the dam. Many dairy producers have capitalized on this biology by milking 3X over the entire lactation. However, this practice also increases labor and operating costs associated with milking, and for a growing herd can quickly max out parlor capacity.

To overcome these setbacks, it's important to consider the underlying biology of the mammary gland. Ultimately, milk production is a function of mammary epithelial cell number and activity. In other words, to produce large quantities of milk requires a large amount of mammary epithelial cells and these cells need to be actively secreting milk. Applying this to the lactation curve, during early lactation mammary epithelial cell number is greatest. As milk production ramps up this large pool of cells become increasingly active leading up to peak milk production. Following peak milk yield, the mammary gland enters the declining phase of lactation where mammary epithelial cells slowly become quiescent (stop actively producing milk) and undergo apoptosis (programmed cell death), resulting in a gradual decrease in milk production.

So why is this important? Anecdotally, I've heard many producers reference "For each pound more milk achieved in peak milk, total lactation yield increases 200 lbs," or a higher peak milk yield results in greater lactation persistency. Consider this: during milk letdown hormones such as oxytocin, prolactin, and IGF-1 are released into the blood stream. As we learn more about lactation physiology it is likely that these hormones target mammary epithelial cells and are important in signaling milk demands of the offspring. Therefore, increasing milking frequency during early lactation increases the frequency by

which these hormones are released, signaling a higher demand for milk. Moreover, some authors have hypothesized that these hormones actually stimulate mammary epithelial cell activity preventing these cells from becoming quiescent and undergoing apoptosis, resulting in greater lactation persistency. Taking this a step further, because mammary epithelial cell number is greatest during early lactation, frequent milking during the first three weeks of lactation influences a greater number of target cells. Essentially, it is telling the dam there is high demand for milk and it is important to sustain this large pool of actively secreting mammary epithelial cells to meet future demand. As a result, increasing milking frequency through only day 21 of lactation can permanently increase the milk production capacity of the gland even after cows are returned to 2X milking.

Maybe more importantly, increasing milking frequency during early lactation is simple to put into practice. Milking intervals do not need to be evenly spaced throughout the day; therefore fresh cows can be milked at the beginning and end of each milking (4X). This adds only a modest amount of time to each milking shift and does not require additional wash cycles, improving milk production per cow and parlor efficiency. Despite these exciting opportunities some early adopters of frequent milking during early lactation were discouraged by the results. This is likely because milk production drops as cow's transition from 4X milking to 2X milking. However, it's important to recognize that even though production drops following cessation of 4X milking, increasing milking frequency during early lactation permanently increases the milk production capacity of the udder into late lactation. The immediate increase in milk production, minimal labor requirement, and increase in lactation persistency make increasing milking frequency during early lactation a profitable management strategy.

Increased Milking Frequency during Early Lactation: Expected Changes in Profit for a Less than 200 Cow Dairy Farm

By: John Hanchar and Jackson Wright

Increased milking frequency during early lactation is an effective management tool for increasing milk yield. On a less than 200 cow dairy, given the expected benefits and costs, tradeoffs -- including additional labor, purchased feed and crop expense, and other costs -- is increased milking frequency an effective management tool for increasing profit when compared to 2X milking?

Summary

- ◆ Partial budget analysis suggests that increased milking frequency, that is, 4X for days 1 through 21 of the lactation, 2X thereafter, is attractive over a wide range of milk prices and marginal purchased feed and crop costs per additional pound of milk when compared to 2X for a dairy farm described as averaging 90 cows for the year.
- ◆ Results are sensitive to expected milk price, marginal purchased feed and crop cost, and milk yield response.
- ◆ Due to the sensitivity of results to changes in key variables, a farm manager's decision making regarding frequent milking during early lactation will benefit from analyses that reflect conditions, and expectations specific to the farm.

Economic Analysis

One measure that producers use to evaluate possible changes in practices is the expected change in profit. Profit equals the total value of production minus the costs of inputs used in production. Expected change in profit equals the expected change in total value of production minus the expected change in costs. Analysts construct a partial budget to estimate the expected change in profit associated with a proposed change in the farm business, for example, frequent milking during early lactation.

Selected Assumptions

- ◆ Average number of cows for the year: 90 (Source: Cornell University Cooperative Extension's Dairy Farm Business Summary (DFBS) Program, 2011, Group average for NYS, less than 200 cows, 2X milking, May 2, 2012)
- ◆ Proposed change: 4X milking in early lactation, that is days 1 through 21, 2X for the remainder
- ◆ Current: 2X milking
- ◆ Additional pounds of milk per cow per day, days 1 through 21: 17.27
- ◆ Additional pounds of milk per cow per day, days 22 through 270: 6.80
- ◆ Additional labor hours per cow per day attributed to 2 additional milkings: 0.2
- ◆ Number of animals milked 4X daily: 5
- ◆ Annual pounds of milk sold per cow per year_current: 18,800
- ◆ Milk receipts in \$ per cwt. and marginal purchased feed and crop costs (\$/additional pound of milk) are varied

Results

Twenty-two of 25 expected milk price, expected marginal purchased feed and crop cost combinations yielded expected changes in profit greater than zero (Table 1).

Continued on page 10



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Table 1. Expected Change in Profit by Gross Milk Sales per Cwt. by Purchased Feed and Crop Expense per Additional Pound of Milk -- 4X Days 1 through 21, 2X thereafter vs. 2X; Average Number of Cows is 90; Initial Expected Milk Response.

Gross Milk Sales (\$ per Cwt., Table 1)					
Purchased Feed & Crop Expenses (\$ per additional lb. Milk)	14	16	18	20	22
---DOLLARS---					
0.06	8,275	11,975	15,675	19,374	23,074
0.08	4,576	8,275	11,975	15,675	19,374
0.10	876	4,576	8,275	11,975	15,675
0.12	-2,824	876	4,576	8,275	11,975
0.14	-6,523	-2,824	876	4,576	8,275

Given DFBS net farm income results for 2009, 2010 and 2011, the results from table 1 suggest that 4X milking during early lactation can be expected to increase profit by about 33 percent on average when compared to 2X.

If a farm expects to achieve only half of the yield response assumed initially, then the results in Table 2 apply. Fifteen of 25 expected milk price, marginal purchased feed and crop expense combinations yielded expected changes in profit greater than zero (Table 2) when milk yield response expectations were lowered.

Table 2. Expected Change in Profit by Gross Milk Sales per Cwt. by Purchased Feed and Crop Expense per Additional Pound of Milk -- 4X Days 1 through 21, 2X thereafter vs. 2X; Average Number of Cows is 90; One Half of Initial Expected Milk Response.

Gross Milk Sales (\$ per Cwt., Table 2)					
Purchased Feed & Crop Expenses (\$ per additional lb. Milk)	14	16	18	20	22
---DOLLARS---					
0.06	1,819	3,669	5,519	7,369	9,218
0.08	-31	1,1819	3,669	5,519	7,369
0.10	-1,880	-31	1,819	3,669	5,519
0.12	-3,730	-1,880	-31	1,819	3,669
0.14	-5,580	-3,730	-3,730	-31	1,819

Given DFBS net farm income results for 2009, 2010 and 2011, the results from table 2 suggest that 4X milking during early lactation at the reduced expected yield response can be expected to increase profit by about 9 percent on average when compared to 2X.

To learn more about this work, please contact John Hanchar.

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Dairy Profit Monitor: A Useful Tool for Your Dairy Farm

By: B. Howland, Dept. of Animal Science,
PRO-DAIRY Program Cornell University

Given the relatively unfavorable milk price, feed cost relationships expected for 2012, many experts in the dairy industry are encouraging producers to examine feeding strategies based upon marginal feed costs to produce an additional pound of milk relative to the value of additional milk produced. The Dairy Profit Monitor is a tool that producers can use to examine such income over feed cost relationships

The Dairy Profit Monitor (DPM) is a web-based business management tool that allows producers and their advisers to track operating performance in five areas: milk production, herd health, milk check analysis, efficiency parameters and financial management. DPM can generate real-time reports for trend analysis and highlight how the dairy changes monthly, quarterly and annually. DPM incorporates herd production and health data with financial and efficiency information, and provides a baseline report to determine how different parts of the business affect each other.

Over 60 farmers regularly track key financial and key production data through The Dairy Profit Monitor, and farm performance can be compared over time. The same 48 farms were compared for their averages for the months of July and August of 2009, 2010, and 2011. These 48 farms grew in herd size from an average of 725 cows in 2009 to 771 cows in 2010 and to 781 cows in 2011, a growth of 7.6%. The minimum and maximum herd size grew, indicating that herds of all farm sizes grew. Milk production also increased; both on a component and milk produced basis. Component production increased by 2.74% from 5.07 pounds per cow per day in July to August of 2009 to 5.21 pounds per cow per day for the same months in 2011. Fat and protein corrected milk production increased from 76.6 pounds per cow per day in 2009 to 78.9 pounds per cow per day in 2011, an increase of 2.98%.

With increased output came increased efficiency. Milk sold per worker increased from 188,006 lbs. (1,128,036 lbs. annualized) to 198,807 lbs.

(1,192,842 lbs. annualized). Driving this increase was increased milk production with the same labor. Feed efficiency also increased. While dry matter intake averaged nearly the same, feed conversion (lbs. of energy corrected milk per lb. of dry matter) increased from 1.49 in 2009 to 1.54 in 2011. This increase positively affects net milk income over feed costs.

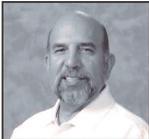
Total lactating cow feed costs increased. 2010 costs were lower than 2009, however from 2010 to 2011, prices increased by \$1.27 per cwt. Overall increase from 2009 to 2011 was \$0.95 per cwt. or 13.5%. Lactating feed costs per lb. of dry matter increased from 10.5 cents in 2009 to 12.4 cents per lb. of dry matter in 2011, an 18% increase. This affected margins.

Continued on page 14

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Nitrogen Miser

The need for speed: Surface urea application saves time and money



By Harold Brecht

If corn production were an Olympic event, it would be part sprint and part marathon. Growers and applicators work around the clock during planting season and harvest. They finally have a little time to catch their breath while the crop is growing.

During the busy part of the season, growers look for ways to do more with less — less time, less manpower, less fuel and equipment expense, and less money. Avoiding the hassle and expense of knifing-in liquid nitrogen or mechanical incorporation of urea by applying it along with AGROTAIN® nitrogen stabilizer is one method growers use.

AGROTAIN® stabilizer can be blended with urea or liquid nitrogen (UAN) to create stabilized nitrogen that controls

surface loss by blocking the urease enzyme. The stabilized nitrogen is applied at standard nitrogen rates. Once applied, nitrogen is immediately available to the plant, which can mean more bushels per acre than standard nitrogen. This allows growers to apply nitrogen to their fields — and keep it there — for pennies per pound of N, with no additional expenses for fuel, equipment and labor.

Craig Fenstermaker, product manager at New Leader which manufactures spinner spreaders, has conducted field tests comparing applying AGROTAIN® stabilizer using broadcast and injection systems. "The harder the product and the bigger the size, the wider we can broadcast it and AGROTAIN® stabilizer gives us exactly that," he says. "With a straight urea product, we

could broadcast it at 70 to 80 foot spread widths. With AGROTAIN® stabilizer, we can increase that by 10 to 15 feet which means now we can safely apply at 80 to 90 foot spread widths."

Combine the efficiency of AGROTAIN® stabilizer and the efficiency and cost savings of broadcast applications technology and growers can have a little more assurance that they are going to get the most out of their nitrogen investment without sacrificing yield.

If you have a question for the Nitrogen Miser or would like to get more information about Stabilized Nitrogen Technology, don't hesitate to contact me at harold.brecht@kochind.com or 570-245-8675.

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Agricultura

By: Libby Gaige

7 Phrases to Ease Communication During Calving

As anyone who has studied a foreign language can tell you, achieving fluency takes a lot of time and effort. It's certainly not something that takes place overnight! Dairy producers are extremely busy people. After being on your feet from dusk till dawn, how many of you are motivated to spend time studying Spanish? And yet there are profound benefits to be gained, even from learning a minimal amount of dairy-related vocabulary. Employees greatly respect those who make an effort to learn even just a few phrases of Spanish, since they undoubtedly have struggled with English themselves. With that in mind, I'm going to start a series of articles to help you better communicate with and train your employees to complete different tasks on the farm. Please share this with your employees. Have fun! **Hint* For help with pronunciation, check out the link below**



*A healthy heifer calf; what we hope for in every calving
Una becerra sana—lo que esperamos de cada parto*

7 Dichos Para Facilitar la Comunicación Durante el Parto

Como cualquiera persona que haya estudiado una idioma segunda le podría decir, llegar a hablar con fluidez requiere mucho tiempo y esfuerzo. ¡No es algo que se puede lograr de un día al otro! Los que trabajan en granjas lecheras son muy ocupados. Después de trabajar de la madrugada hasta el anochecer, ¿cuántos entre ustedes van a estar motivados para estudiar inglés? Pero hay muchas ventajas de aprender algo de vocabulario que tiene que ver con la granja. Los encargados tienen mucho respeto para los que aprenden aunque sea un poco de inglés, como ellos mismos sin duda han luchado para aprender español. Tomando esto en cuenta, voy a escribir una serie de artículos para ayudarles a comunicar mejor en varias áreas de la granja. ¡Disfruta! **Consejo* Para ayuda con la pronunciación de estas palabras, vaya a este sitio del internet: www.wordreference.com. **

Calving Assistance – Ayuda Durante El Parto

This cow is going to calve- *Ésta vaca va a parir*

Examine the cow – *Examine la vaca*

The cervix is not dilated - *La cervix no está dilatada*

We need to pull the calf - *Tenemos que jalar el becerro*

Always use lube - *Siempre use lubricante*

The cow needs a bottle of calcium - *La vaca necesita una botella de calcio*

And remember... *Y recuérdese...*

It's not backwards until you find the tail! - *¡No ésta al revés hasta que encuentre la colita!*

What about those times when you get completely stumped, and need help quick to communicate? A great online source for Spanish is www.wordreference.com (there is also an app available for iPhones). In addition to a Spanish-English dictionary, you can find synonyms, verb conjugation tables, audio clips of word pronunciation and word forums, where you can get answers to all of your questions about Spanish grammar and vocabulary.

If you're in need of dairy skills training and employee management services in Spanish, please feel free to contact: Libby Gaige at 607.793.4847 or geg24@cornell.edu.

June Soybean Comments

By: Mike Stanyard

Some soybeans were just starting to go in the ground the last couple days of April. That quickly came to a halt the first week of May when as much as 3 inches of rain fell in parts of WNY. A lot of tillage had been already done and it took a while to get back to planting beans in many of these areas. Thinking ahead to June, I wanted to get you thinking about some potential problems and opportunities.

Pest Management

We are still not sure what soybean aphids are going to do yet. We prepared for a bad year in 2011 and it never happened. Last year I first observed winged females flying onto soybeans on June 7. A high percentage of our soybeans are being treated with a systemic insecticide seed treatment which will reduce this initial flight. The unpredictability of this insect makes scouting your beans even more important! Remember: Threshold is 250 aphids per plant.

Lambsquarters continues to cause producers fits late into the season. Russ Hahn has shown that you get better control of this weed if you spray it when it is under 5.5 inches tall. At this point, we do not have glyphosate resistant lambsquarters. One weed that I would like you to watch for is marestail/horseweed. I am seeing this weed more commonly in all grain crops. My concern is that PA has glyphosate resistant marestail and seeds can travel a good distance. If you think you are not controlling this weed, please call me.

Double-Crop Soybeans?

Wheat got off to a fantastic start this spring. Wheat planted in early September was pushing heads the second week of May. If weather stays favorable for grain development and dry down, we could see a lot of wheat harvested at the end of June. This could provide a very narrow window of opportunity to plant soybeans after wheat. We have some producers in the region that double crop beans after rye that is cut for straw. Much of this occurs around mid-June and in an average year 25-35 bushels can be harvested. The current new crop price of soybean still makes



this very attractive. There are roughly 100,000 acres of wheat in the state. If 20% of this crop was planted in September, that's potentially 20,000 additional soybean acres.

Tips for double-crop beans

- ◆ Planting an early to mid-group 2 soybean seems to work best
- ◆ No-till into wheat stubble to conserve moisture
- ◆ Probably need to add some P and K
- ◆ Adjust planting depth to get into moisture
- ◆ 7" rows at 180,000 plants/A have worked best in other states

Potential pitfalls

- ◇ Dry planting conditions
- ◇ Lack of rainfall after planting
- ◇ Early frost

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Continued from page 11

The DPM measures net milk income (NMI) over purchased and total feed costs for the lactating herd on a per cow per day basis. This reflects the money that is available to cover all additional expenses on the farm and is key to track changes herd performance. Actual net milk income over feed costs uses milk price, premiums and marketing expenses.

On a per cow per day basis net milk income over lactating purchased feed costs increased from \$5.57 in 2009 to \$13.76 in 2011. The driver for the increase was the significant increase in milk price from \$11.61/cwt in 2009 to \$22.64/cwt in 2011. NMI over total lactating feed costs using actual milk price also increased from \$3.52 to \$11.63 per cow per day. This is an increase of \$8.11 or 230%. However, feed costs also increased over the past few years.

Net milk income over purchased and total feed costs (NMIOFC) using fixed milk price factors removes change in milk price, premiums, or marketing costs. It uses a three year average, for component milk price, premiums and marketing costs. This gives farmers the ability to isolate what affect increases in components, change in feed efficiency, and/or feed costs have on their NMIOFC.

NMI over purchased feed costs decreased from \$8.84 per cow per day in 2009 to \$8.30 per cow per day in 2011. This decrease is directly correlated to increases in feed costs. Feed conversion ratio and component production both increased, however feed costs increased significantly, which affected margins. NMI over total feed costs decreased from \$6.78 per head per day to \$6.17 per head per day. This decrease of \$0.61 results from the increase in feed costs, however it is not as dramatic as purchased feed costs, as forage growing costs don't tend to vary.

The change in NMIOFC using fixed milk price factors is congruent with what many farmers have experienced recently -- increased milk price with increased price of inputs.

For more information on how to get started with the Dairy Profit Monitor as a tool for your business, visit www.dairyprofit.cornell.edu, or contact Betsey Howland at BLH37@cornell.edu or 607-592-6222.

Still Time To Plant Buckwheat



Guaranteed Price for 2012 is \$27.00 per cwt.

Buckwheat can be planted as late as mid-July in many areas and is fast growing — 70 days from planting to harvest.

Buckwheat improves the soil and suppresses weeds.

Buckwheat needs very little attention during the growing season.

Buckwheat makes a great rotation crop.

Buckwheat often grows well on low-fertility land.

Buckwheat is a high-yield crop. The Birkett Mills offers growers a specially developed, high-yield seed variety.

Buckwheat requires no chemicals and little or no fertilizer, producing savings in labor, fuel and chemical inputs.

There's still time to plant buckwheat in 2012. So, let's talk. We're looking primarily for full-production, contracted commercial, or, if you are a **certified organic** farm, we'll contract organic buckwheat as well. And, for those not wishing to contract, we also offer both commercial and organic cover crop buckwheat seed.

This year start managing price stability, crop size and the changing export market, contract with The Birkett Mills, where both price and market are guaranteed before you plant.

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Save the Date...

June, 2012

- 7 Cornell Small Grains Management Field Day, 10:00 a.m. - 12:00 p.m., Musgrave Research Farm, Poplar Ridge Road, Aurora
- 10 Agri-Palooza, Noon - 4:00 p.m., Friendly Acres, Sondericker Family, 1408 Exchange Street Road, Attica, Free admission & parking. For more information contact: Wyoming Co. Chamber of Commerce: 585.237.0230 or CCE-Wyoming Co.: 585.786.2251
- 16 BQA in a Day Workshop, 9:30 a.m., New Beginnings Fellowship Church, 4377 Route 78, Hermitage, Cost: \$20 includes a BQA manual, additional family/farm members: \$10. Registration: Cathy Wallace, 585.343.3040 x138 or cfw6@cornell.edu

July, 2012

- 10-14 Yates County Fair, Old Route 14A, Penn Yan, Contact: 315.536.3830
- 11-15 Monroe County Fair, 2695 E. Henrietta Road, Henrietta, Contact: 585.334.4000
- 16-21 Seneca County Fair, 100 Swift Road (Corner of Swift & North Road), Waterloo, Contact: 315.539.9140
- 17-21 Genesee County Fair, 5056 E. Main Street, Batavia, Contact: 585.344.2424
- 17-21 Hemlock Fair, 7370 Water Street, Hemlock, Contact: 585.367.3370
- 17 Cornell Weed Science Field Day, 9:00 a.m. - 3:00 p.m., Musgrave Research Farm, Aurora
- 18 Aurora Farm Field Day, 9:00 a.m. - 3:00 p.m., Musgrave Research Farm, Aurora
- 24-28 Ontario County Fair, 2820 County Road #47, Canandaigua, Contact: 585.747.9698

August, 2012

- 7-9 Empire Farm Days, Rodman Lott & Son Farms, Route 414, Seneca Falls
- 10 Tile Drainage Field Day, Yates County
- 14 NY Corn & Soybean Growers Summer Tour, Dumond Farms, Union Springs, NY

October, 2012

- 3-7 Cornell University & New York Beef Producer's Associate 2012 "Buckeye" Beef Tour, Contact: Mike Baker: 607.255.5923 or mjb28@cornell.edu

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