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MAY-JUNE 2005

Dairy Market News

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Advanced Class I Rises by 67-cents per cwt. in May

Milk and dairy product prices continue to experience substantial ebbs and flows as the industry tries to adjust to rapidly changing market conditions. Surging spring milk supplies have many processors and handlers very nervous about the direction of milk prices over the next several months. Cheese, butter, and nonfat dry milk prices escalated 15% to 20% then tumbled on three different occasions through the first 120 days of 2005. Despite these frequent price movements, the national All Milk Price remains almost 30% higher than the 25-year average. So, for the 13th consecutive month, the relatively high Class I milk price will result in zero (\$0.00) Milk Income Loss Contract (MILC) payments for May.

Once again, the May Class III Advanced skim milk price was the Class I mover (based on the value of skim milk used in cheddar cheese production) because it was greater than the corresponding Class IV price (representing skim milk value in butter and milk powder products). The USDA reports the May 2005 Advanced Class III skim milk price was \$9.14 per hundredweight (cwt.) compared to the Advanced Class IV Skim Milk price of \$6.91 per cwt. The difference between these respective Class III and Class IV prices (after factoring in butterfat prices) resulted in a \$2.15 per cwt. *higher* Class I base price (\$14.80 versus \$12.65). Therefore, on April 22 the USDA announced the May Advanced Class I "base" milk price would be \$14.80 per cwt. (for 3.5% butterfat milk). After adding the \$3.10 Class I price differential for Federal Order 7 (FO7), the Advanced Class I milk price for May 2005 is \$17.90 per cwt. This is an increase of \$0.67 per cwt. (+3.9%) above the corresponding April price of \$17.23. Please remember that the Class I price will be an important, but not the only, factor influencing revenues from milk sales during May, since only about 50-75 percent of Louisiana and Mississippi milk is processed into Class I products.

Table 1. Advanced Class 1 Milk Prices @ 3.5% Fat in FO 7 for selected months

Month	Per Cwt	Current Price vs. Specified Month	Percent Change vs. Specified Month
May 2005	\$17.90	---	---
April 2005	\$17.23	↑\$0.67	↑3.9%
March 2005	\$18.53	↓\$0.63	↓3.4%
May 2004	\$22.75	↓\$4.85	↓21.3%
May 2003	\$12.81	↑\$5.09	↑39.7%



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Market Conditions.

The current general outlook for dairy products markets can best be described as cautious; primarily because of the sharp increases in U.S. milk production in both February and March. The fact that both cow numbers and milk per cow are on the rise is causing dairy manufacturers and milk handlers to be wary about the future of milk and dairy product prices. Adding to this cautious outlook is the fact commercial inventories of cheese and butter increased dramatically during March (see details below). These factors are pushing dairy processors onto the sidelines where they are adopting a “wait and see” approach to allow milk prices to stabilize (or decline) before continuing to build product inventories. The spring flush period has produced a flood of raw milk, especially along the eastern seaboard, and these excess loads of milk are being processed into either butter or powder. Despite these factors, the prospect for favorable milk prices continues during 2005. On April 27th, Class III milk futures market prices averaged approximately \$13.71 per cwt. for the May through December 2005 contract months compared to \$12.27 over the past 25-years. International demand for U.S. nonfat dry milk (NDM) is being bolstered by two factors:

- (1) Diminished NDM production due to reduced milk output in New Zealand and Australia and
- (2) A weak U.S. dollar making American NDM less expensive for our trading partners.

After 18 months of much improved milk prices, U.S. dairy farmers are responding to these market signals and expanding milk output by increasing the number of milk cows in their operations and increasing milk production per cow. Reduced culling rate appears to be the main mechanism being used to increase herd size. The USDA and most dairy industry experts expect milk and dairy product prices to remain strong in 2005 but are very wary of the potential for milk supplies to outweigh demand. The USDA’s March 31 Cold Storage report shows that total inventories of butter grew 20% between February and March but were 16% less than March 2004. Commercial holdings of various types of natural cheeses on March 31 ranged between 83%-105% of February 28 totals and between 94%-100% of March 31, 2004 inventories. However, government owned stocks of butter increased sharply from 276,000 to 602,000 pounds in March 2005 versus March 2004; while government cheese stocks decreased by 44% from March 2005 versus March 2004.

The expansion of milk supplies as the spring flush season progresses across the U.S. will likely push milk prices downward over the next several months. Florida handlers exported 164 tanker loads out of the state during the third week of April compared to 134 tankers during the previous week and 119 loads during the same week of 2004. The general market outlook has transitioned to a more cautious stance in response to growing milk supplies. The June 2005 Class I price is expected to suffer from these negative market factors and decline by as much as 10% to the \$16.50 range. In July and August, Class I prices could be greatly influenced by summer temperatures and crop growing conditions. If a prolonged period of extremely hot, humid weather occurs, milk price could trend up and approach the \$17.50 per cwt. range for FO7.

The USDA remains confident in its forecast for 2005 milk prices to average about \$1.00 to \$1.50 per cwt. less than the record high level set during 2004. However, price variability caused by commercial dairy markets sensitivity to demand and supply will persist.

Milk Production.

First quarter 2005 USDA milk production statistics clearly show milk output growing. Seventeen of the 23 major milk-producing states increased milk output in March 2005 as compared to March 2004. Both significant growth in milk output per cow along with 28,000 more milking cows in the US dairy industry in March compared to February contributed to the increase in US milk supplies. The number of milking cows increased in California, Idaho and Arizona by a total of 74,000 head during the first quarter of 2005.

An evaluation of the first quarter of 2005 versus the same quarter of 2004 revealed that the 11 Southeastern states experienced a slight overall reduction (down 0.9%) in milk production while the states of Florida and Virginia recorded increased output. Most surprisingly, Mississippi reported no change in its milk production between these quarters and this was the first time that Mississippi has not recorded a quarterly decline since 2000. Louisiana, on the other hand, reported an 8.6% decline in milk production along with a loss of 4,000 milking cows compared to the first quarter of 2004.

Table 2. 1st Quarter 2005 changes in Milk Production and Cow Numbers in Selected States as compared to 1st Quarter 2004

2005 vs 2004	March % Change in Production	1st Quarter % Change in Production	1st Quarter Milk Cows
U.S. Total	↑2.8%	↑1.1%	↑2,000
California	↑3.9%	↑2.2%	↑37,000
Wisconsin	↑2.4%	↑0.4%	↓11,000
Idaho	↑12.0%	↑4.2%	↑26,000
New Mexico	↓0.2%	↓4.1%	↓6,000
Indiana	↓2.2%	↑0.7%	↑8,000
Florida	↑6.1%	↑4.4%	No Change
Kentucky	↓1.6%	↓2.5%	↓1,000
Virginia	↑1.9%	↑2.5%	No Change
Texas	↑3.1%	↑0.6%	No Change
Mississippi	Not Available	No Change	↓2,000
Louisiana	Not Available	↓8.6%	4,000
Alabama	Not Available	↓11.3%	↓1,000
Southeast Region	Not Available	↓0.9%	↓13,000

Dairy Product Prices.

Price volatility in cheddar cheese and butter prices continues to challenge the dairy industry as the market responds to the critical demand and supply balance that controls price movements for all dairy products. Now that the “spring flush” is in full swing and milk production is bulging, traders appear to be looking to push prices downward for both cheese and butter. However, strong international demand for NDM and the weakness of the U.S. dollar continues to bolster milk powder exports and sustain NDM prices while keeping cheese and butter prices from experiencing a free fall. Cheddar cheese prices continue to witness large swings on the Chicago Mercantile Exchange (CME). Block (40 pound) cheese prices declined by 15.25-cents per pound (10%) and 500-pound barrel cheese prices fell by 18.5-cents per pound from March 24 to April 27. Over this same time frame, Grade AA butter prices decreased by 15.5-cents per pound (10.0%) and NDM prices on the CME rose marginally from 97.50 to 98.25-cents per pound. The USDA’s Commodity Credit Corporation (CCC) has not purchased surplus quantities of NDM during the past four months. Since the beginning of the new federal fiscal year (October 1 through April 22), the CCC purchased a total of 31.8 million pounds of NDM; has no (zero) amounts of uncommitted inventories of NDM compared to 253 million pounds during the previous fiscal year; and a total of 656 million pounds of uncommitted inventories. The CCC is obligated by law to make NDM purchases in an effort to support milk prices at the targeted support level of \$9.90 per cwt. for 3.67% butterfat milk. Table 3 shows CME cash dairy prices for selected products.

Table 3. Chicago Mercantile Exchange Cash Prices for Selected Dairy products

CME Cash Dairy Product Prices	March 24 Prices in \$/lb	April 27 Prices in \$/lb	Price Change in \$/lb	% Change in Price
40# Block Cheese	\$1.6025	\$1.4500	↓\$0.1525	↓9.5%
500# Barrel Cheese	\$1.5650	\$1.3800	↓\$0.1850	↓11.8%
Grade AA Butter	\$1.5475	\$1.3925	↓\$0.1550	↓10.0%
Grade A Nonfat Dry Milk	\$0.9750	\$0.9825	↑\$0.0075	↓0.8%

Futures Prices and Near-term Market Outlook.

Chicago Mercantile Exchange (CME) futures contract prices for the upcoming three months are shown in Table 4. While contracts for all three months are trending down, July contracts seem to be holding a bit stronger than May or June contracts.

Class III futures prices indicate the possibility of declining Class III milk prices over the next 5-8 months. The 25-year average for **actual Class III price** for the months of May, June and July were \$11.89, \$11.94 and \$12.15. The current **Class III futures contract** price for May, June and July are \$13.51, \$13.28 and \$13.89. These current Class III futures prices are more than 10% higher than the 25-year average actual Class III prices. The June futures price of \$13.28 has only been exceeded three times since 1980 (1996, 2002, and 2004).

Declining actual Class III prices over the past 5 weeks indicate dairy farmers should be attempting to manage milk price risks through forward pricing milk especially over the next five to eight months. Current **Class III milk futures contract prices** offer excellent opportunities to increase milk sales revenues by “locking-in” a futures contract price that is higher than the corresponding actual pay price.

Table 4. Chicago Mercantile Exchange Class III Futures Prices for May, June and July 2005

CME Dairy Futures Commodity Prices <u>Class III Futures</u>	March 24 Settlement Prices — \$/cwt —	April 27 Settlement Prices — \$/cwt —	% Change Mar 24 to Apr 27
May Contract	\$14.85	\$13.51	↓9.0%
June Contract	\$14.70	\$13.28	↓9.7%
July Contract	\$14.75	\$13.89	↓5.8%
<u>Butter Futures</u>	— \$/lb —	— \$/lb —	
May Contract	\$1.5900	\$1.3950	↓12.3%
July Contract	\$1.6100	\$1.4250	↓11.5%

FO 7 Uniform Blend Prices for March and April and the Advanced Class I Price for May

The Southeast Federal Order Milk Market Administrator reported the March 2005 uniform blend price for milk delivered in the Atlanta base zone of FO 7 was \$16.63 per cwt. for 3.5% butterfat milk. The April 2005 uniform blend price for milk delivered in the Atlanta base zone of FO 7 was \$15.85 per cwt. for 3.5% butterfat milk. The May Advanced Class I price for milk delivered in the Atlanta base zone of FO 7 is \$17.90. Please remember that milk is priced based on the location of the plant that processes the farmer’s milk and NOT the site of a dairy farm.

Table 5. FO 7 Uniform Blend Prices for Selected Months

FO 7 UBP for Atlanta Zone	UBP in \$/Cwt	Price Change vs April 2005	% Change vs April 2005	Class I %
April 2005	\$15.85	————	————	56.55%
March 2005	\$16.63	↓\$0.78	↓4.7%	59.28%
February 2005	\$15.80	↓\$0.05	↑0.3%	61.00%
January 2005	\$17.16	↓\$1.31	↓7.6%	61.83%
April 2004	\$16.72	↓\$0.87	↓5.2%	69.46%

Diluting Maintenance Cost and Marginal Milk

Dr. Charles F. Hutchison, Dept. of Dairy Science
LSU AgCenter

Feed cost accounts for half of all production costs on a typical Louisiana dairy farm. There are several different measures (feed cost per cow per day, feed cost per cwt milk produced and income over feed cost) used to analyze feed cost. All of these measures have some usefulness as indicators of economic and production efficiency. Milk production per cow is another indicator of economic and production efficiency. Determining what level of milk production and feed cost yields the most profit for the farm should be the main objective of any measure of economic and production efficiency; because at the end of the day, the main thing that counts is the number of cwt produced and the amount of profit from each cwt. This is the economic indicator that tells you the total net income for the farm.

Higher production per cow will tend to yield greater profits because cows convert feed to milk more efficiently as they produce more milk and eat more. The maintenance cost of the cow is diluted at higher levels of milk production. Maintenance cost is the feed cost associated with the cow being able to maintain normal body functions. The amount of feed needed for maintenance does not change regardless of the level of milk production.

A typical Holstein cow requires 10 Mega-calories (Mcal) of Net Energy of Lactation (NE_L) per day just to maintain normal body functions. If her diet on a Dry Matter basis (DM) contains 0.76 Mcal/lb of NE_L , she must eat **13 lb of feed DM** to meet maintenance requirements.

If a cow produces 30 lb/day of milk, she needs an additional 10 Mcal of NE_L . Therefore, she must consume **26 lb of feed DM** or twice as much feed as needed for maintenance. In other words, she is using 50% of her diet for maintenance.

If she produces 61 lb/day of milk, she needs to consume a total of 30 Mcal/day of NE_L or **39 lbs of feed DM**. In other words, 33% of her diet is being used for maintenance.

As the cow produces more milk, the **amount of feed** needed for maintenance remains constant. However, the **percentage of feed** needed for maintenance decreases. Therefore the more milk a cow produces, the more her maintenance costs are diluted to a smaller percentage of the total feed cost per day. At about 120 lb of milk, only 20% of feed NE_L goes toward maintenance and 80% into the bulk tank. Feed efficiency increases as a cow produces more milk up to a certain point; probably somewhere between 100 and 150 lb of milk daily.

Although feed efficiency is closely related to profitability, the relationship is not absolute. As the cow produces more milk and eats more feed, eventually she will no longer have the ability to consume more feed. Therefore, as cows produce more milk, their diets must become more nutrient dense to offset the decrease in additional Dry Matter Intake (DMI). Increasing the nutrient density of the diet requires adding ingredients that are more expensive. The following table* ranks feed according to cost per Mcal of NE_L with the lowest cost ingredients listed first.

1. Pasture – 2 to 3¢/Mcal
2. Corn Silage – 4 to 5¢/Mcal
3. Corn grain and byproduct feeds – 5 to 8¢/Mcal
4. Alfalfa – 7 to 10¢/Mcal
5. Oilseeds and animal fat – 8 to 12¢/Mcal
6. Protected fats and protein supplements – 12 to 40¢/Mcal
7. Minerals, vitamins and buffers – very expensive per Mcal because they do not contain energy

*Table adapted from Focus on Profits Rather Than Feed Costs by M.J. VandeHaar, Ph.D.
Alliance Nutrition® Dairy webpage.

Dry Matter Intake (DMI) is influenced by a variety of different variables such as cow comfort, heat stress, energy level of the diet, ration digestibility, palatability and others. Therefore, increasing DMI requires not just adding more expensive ingredients to increase the nutrient density of the diet, but also changing the management of the cow to offset the other variables affecting DMI.

Feed cost per 100 pounds of milk produced is a common indicator of economic efficiency and decreases considerably as daily production increases. For example, suppose the feed cost per cow per day is \$2.50 for cows producing 30 lb per and \$3.00 per day for cows producing 60 lb of milk per day. Feed cost per cwt milk produced for each production level would be:

<u>Milk Level</u>	<u>Feed Cost</u>	<u>Feed Cost/CWT</u>
30	\$2.50	$\$2.50/30 \times 100 = \8.33
60	\$3.00	$\$3.00/60 \times 100 = \5.00

Feed costs per 100 lb of production would further decrease above 60 lb of milk production; even though feed cost per cow per day and DMI would continue to rise as more of the expensive ingredients are incorporated into the diet. Even though feed cost per cow per day and DMI continues to increase, feed efficiency and economic efficiency would also still be increasing.

Now let's look at another example of feed costs per 100 lb of production and determine which ration is more profitable.

<u>Milk Level</u>	<u>Feed Cost</u>	<u>Feed Cost/CWT</u>
80	\$3.50	$\$3.50/80 \times 100 = \4.38
90	\$4.50	$\$4.50/90 \times 100 = \5.00

Milk is valued at \$15.00 per cwt.

The difference in milk production is 10 lb per cow, feed cost per cow per day is \$1.00 higher and feed cost /cwt is \$0.62 higher. It appears that the milk level of 80 lb of milk would be more profitable. However, the price of milk is \$0.15 per lb, so the extra 10 lb of milk would be worth \$1.50 and it only cost \$1.00 to get the extra 10 lb of milk. This would be considered *marginal milk* which is defined as the additional amount of milk that is produced from increasing feed intake or nutrient intake over and above the amount of feed and nutrients required to cover the total maintenance cost of the cow. The marginal milk cost in this case would be \$1.00 for the extra 10 lb of milk produced per cow. This still amounts to an extra \$0.50 per cow per day of potential profit for cows producing 90 lb of milk even over cows that are producing 80 lbs of milk. In this particular scenario, the feed cost per cwt of milk produced is, by itself, not a good economic or feed efficiency indicator. You also have to take into consideration feed cost, level of production **AND** the value of the milk being produced.

Increasing milk production per cow will usually mean greater profitability. However, striving to maximize production requires more nutrient (particularly energy) dense rations which can lead to more management challenges. Meeting these challenges requires close monitoring of the forage DM content; overall feed quality and dietary DMI along with routinely adjusting the overall nutrient content of the diet. The level of milk production and the feed cost associated with a particular level of milk production are key indicators of the profit potential of the herd. Keep in mind also, as milk production increases non-feed cost variables will also usually increase. These factors should also be taken into consideration in determining the level of milk production that is the most profitable for your operation.

The main questions are these: do you know the level of milk production that is most profitable for your operation? Are you maximizing the potential returns from your assets by maximizing the potential output from your farm? Are you getting the best return for your assets, your labor and your management knowledge? Are you diluting those cow maintenance costs and maximizing your ability to capture those marginal returns from your efforts and expertise? Are you leaving money on the table that could be in the bank? Are you interested in learning more about increasing your profit potential? If you are contact your local county agent or the LSU Department of Dairy Science at 225-578-4411.

Lowering Summertime Cell Counts

Dr. Gary M. Hay & Dr. Charles F. Hutchison
Dept. of Dairy Science, LSU AgCenter

It's that time of year again. The weather's getting hot, milk production is falling and bulk tank somatic cell counts (BTSCC) are rising. Keeping your summertime cell counts at acceptable levels CAN be done with a little extra effort and monitoring in 4 key areas of the operation.

1. Nutrition. One of the biggest problems for herds that rely on ryegrass grazing as their primary forage source in their feeding program is that ryegrass grazing usually plays out in early May. As ryegrass pasture ends, Dry Matter Intake (DMI) and subsequently milk yield will begin to drop severely unless some type of high quality forage such as corn silage, ryegrass baleage or alfalfa hay is substituted for ryegrass grazing. As their milk production drops, the number of somatic cells in the milk remains constant, so, the somatic cell count begins to rise dramatically. This is called a concentration effect because the cells become more concentrated in less milk.

One absolutely critical component of summertime nutrition is ready access to an abundant amount of clean, fresh drinking water. Using stagnant ponds or streams or having one water trough that cows have to walk several hundred yards through the sun to get too won't work. Cows need clean, fresh sources of water with immediate access in order to maximize their water intake and help regulate their body temperature. Without it, they will have trouble maintaining their normal body core temperature resulting in more feed nutrients going toward maintenance instead of production, reduced DMI, lower milk production and higher cell counts.

Other nutritional areas to consider during the summertime are: making the ration more nutrient dense in regard to energy, protein, vitamins and minerals while still maintaining enough fiber in the ration for proper rumen function and health. Cows lose a lot of sodium and potassium through sweating and primarily panting. The level of sodium (Na) in the total ration on a DM basis should be 0.40% to 0.45% with the potassium (K) level a minimum of 1.5%. The use of products such as potassium carbonate, potassium bicarbonate and sodium bicarbonate to increase the levels of Na and K are recommended instead of increasing the level of salt in the ration and the addition of potassium chloride to meet these mineral levels. Both of these products will tend to raise the chloride level in the ration which has been shown to cause a drop in DMI. The addition of sodium bicarbonate, potassium bicarbonate and potassium carbonate to the ration has an added advantage of increasing the buffering capacity of the diet as well as increasing the dietary cation anion difference (DCAD). The Magnesium (Mg) level should be raised to 0.40% of the total ration DM because of the possibly of the higher K level in the diet causing problems with Mg absorption. Also, the timing of feeding and feeding frequency along with good bunk management will help maintain DMI levels during the summer.

2. Cow Comfort. For herds that rely on nature as their cow housing facilities, hot weather makes cows seek shade. If the only shade available is from trees, cow will congregate under the trees and quickly make a wallow of mud, urine and feces. As cows continue to lie around in these areas, their udders will be constantly exposed to high levels of bacteria which will lead to more subclinical and clinical mastitis infections and higher BTSCC.

Two ways to reduce this potential environmental mastitis disaster are to provide portable shade structures that can frequently be moved to avoid creating wallows and/or to build properly designed and functioning cooling ponds. Cooling ponds should have a constant flow of water in and out of the pond to reduce bacterial levels in the water and the out-flowing water must go directly into a waste management lagoon. Also, the cooling pond should have a concrete bottom and concrete entrance and exit ramps.

Two additional suggestions for cow comfort are to place high velocity fans and sprinklers in a covered holding lot. Cows crowded together for several hours a day waiting to be milked will not disperse body heat and this will raise their body temperature and drastically reduce their Dry Matter Intake. Placing fans and sprinklers in a covered feeding area will also help cool the cows.

For herds with free stall housing, the bedding area needs to be kept clean and dry to avoid exposing udders to large concentrations of bacteria. The best bedding material to use is still good, clean sand. Avoid organic materials such as wood chips, especially green hardwood chips, since organic materials will harbor bacteria.

3. Milking Procedures. Avoid milking wet udders. Use a minimum of water to get teats clean and be sure to dry teats thoroughly. The best procedure is to clean and dry the teats; fore-strip one or two streams of milk; then apply a disinfectant pre-dip to the teat ends for 20-30 seconds. Finish by pre-milking routine by wiping off the pre-dip and attaching the milking unit. Avoid over-milking or machine stripping which can cause damage to the inside of the teat canal. Use a commercial disinfectant teat dip recommended by the National Mastitis Council for both pre- and post-dipping. Avoid using commercial disinfectants such as Clorox as a teat dip. Clorox can dehydrate and irritate teat ends causing them to chap and crack and harbor mastitis causing bacteria.

Monitor your milk hands on a regular basis. Don't assume they are doing a good job; make sure they are doing a good job and make sure they understand how important their job is to you and the financial security of your investments.

4. Monitor Individual Cows. There is absolutely no way to control your BTSCC if you don't know which cows have high cell counts. You can measure cell counts in individual cows using the tried and true cow-side California Mastitis Test "paddle test". This test will give you an indication of which cows have a high SCC but will not give you an exact SCC for each cow nor the amount of somatic cells that are being contributed to the bulk tank by the individual cow. A better alternative would be to get on the DHIA monthly individual cow electronic cell count program. The benefits of monthly individual cow cell counts in managing your BTSCC far outweigh the costs. The cost of DHIA is around \$1 to \$1.50 per cow per month. Maintaining your BTSCC below 300,000-400,000 will return you several times this amount through higher milk production, less dumped milk, less treatment cost and lower culling rates for mastitis and low production. There are also several additional financial benefits in managing your herd using DHIA. The DHIA program is a very useful management tool *designed by dairymen* to assist you in doing a better job managing *YOUR* assets and increasing *YOUR* net income.

Usually no more than 6-10 cows are causing a large majority of BTSCC problems in a herd. Once high cell count cows have been identified, individual cows can be dealt with by either treating, culling or drying them off to get their milk out of the bulk tank until their cell counts have been reduced. Without getting the milk from these high cell count cows out of the bulk tank, it is very difficult to keep BTSCC under control.

Controlling your BTSCC during the hot summer and early fall months has two very substantial benefits for you and for the consumer: (1) Lowering your BTSCC will usually raise your milk production more than enough to offset any additional costs associated with achieving lower BTSCC; (2) Consumers will get a better quality product that has a longer shelf-life.

Review Your Milking Management Practices

Dr. Donald E. Pritchard, North Carolina State University

As a dairy herd manager, how well are you monitoring the job being done by the people who milk your cows? Do you check to see that they are following the milking routine you established for them to use? Do you have that routine and the other things the workers are supposed to do while milking cows written down? Do you train new milkers, and do you ever retrain workers who have been with you for sometime? I would guess that very few producers are doing all these things. However, research conducted at the University of Wisconsin by Dr. Pamela Ruegg, DVM, and her colleagues strongly suggests you should be.

Results from their study on 101 Wisconsin dairies using freestalls revealed that the combination of using a complete milking procedure, providing frequent milker training, and having and using a written milking routine protocol resulted in improved parlor throughput and a reduced number of new cases of mastitis when compared to herds that did not follow these procedures. A complete milking procedure was defined as a routine that included **forestripping, predipping, drying before unit attachment, and post-dipping**.

The use of the four practices independently had a significant impact on cow throughput rate and clinical mastitis cases. The number of cows milked per hour per operator increased by over 5 when a complete milking routine was used, and the monthly rate of clinical mastitis was cut in half (from about 10% to about 5%). The impact of milker training was also dramatic. Cow throughput rate increased to almost 50 per hour with frequent training versus only about 33 per hour with no training and about 41 per hour with training only at time of hiring. Clinical mastitis cases were reduced by about 50% with training versus no training. Following a written milking routine protocol also impacted performance greatly. Throughput rate was increased by about 12 cows per hour, and clinical mastitis cases were reduced by about 50%. Combining the practices resulted in the greatest improvement in parlor throughput rate, increasing from between 35-38 to 52 cows per hour.

So, the message from this study is that the people who are milking cows need to have a written milking routine protocol they can refer to and use, the workers need to be trained when hired and then receive periodic refresher training, and the milking routine they use needs to be a complete one (strip, predip, dry attach, post-dip). Cow udder health will improve and parlor throughput rate will increase when these procedures are followed. For more information on the Wisconsin study, contact their internet web site at <http://www.uwex.edu/milkquality>.

Top Stories from Dairy Herd Management Magazine:

Milk production continues to climb

April milk output in the top 23 dairy states surged 3.2 percent above year-earlier levels. Strong cow numbers and robust milk output per cow led to the strong advance. Milk per cow averaged 1,679 pounds during April — up 2.6 percent versus a year ago. Milk-cow numbers were up 44,000 head versus April 2004 and 12,000 head more than March. For more details, go to: dairyherd.com

MILC faces tougher odds

House and Senate budget committees have agreed to cut the agriculture budget by \$3 billion over the next five years. On top of that, extension of the Milk Income Loss Contract program would be considered “new” spending, so one of two things must happen:

- MILC is funded at the expense of some other farm program.
 - A sizeable majority in Congress agrees to waive budgetary-spending restraints in order to make room for MILC.
- The bar that MILC must clear for passage “has been raised significantly higher,” says National Milk Producers Federation spokesman Chris Galen.

Web Site of the Month

Researchers at the University of Florida have developed the “University of Florida Dairy Reproduction Cookbook” Web site. The site is a compilation of useful Web sites about cattle reproduction. It offers a variety of information organized into specific topics — like artificial insemination, pregnancy diagnosis and infertility problems. To access, go to: <http://www.animal.ufl.edu/reproguide>

Dairy Science Student Receives College and Regional Awards

Justin Roberts of Kentwood, La. is the recipient of the 2005 Southern Student Affiliate Division – American Dairy Science Association Outstanding Student Award. The award was presented at the annual meeting of the Southern SAD-ADSA in Athens, Ga. on March 18-20, 2005. Justin was also recognize as the Outstanding Senior in the College of Agriculture at an LSU awards convocation on April 29, 2005 and was further recognized that evening by the Agricultural Student Association as the 2005 Outstanding College of Agriculture Graduating Male at their annual spring banquet.

Justin is a senior in the Department of Dairy Science majoring in animal, dairy and poultry sciences with a concentration in dairy production. He is an excellent student with a GPA of 3.68 and is an active member and leader in various organizations. Justin is currently President of the Dairy Science Club and has served as 2nd Vice-President and as chairman of various committees since joining the club in his freshman year. Justin has represented the Dairy Science Club at regional and national meetings and was elected as 1st Vice-President of the National SAD-ADSA in July 2004 at the national meeting in St. Louis, Mo. He is a member of the Les Voyageurs student speaker's bureau which represents the College of Agriculture, the Pre-Vet Club and has served as Treasurer of the Agricultural Student Association. Justin is also a member of Gamma Sigma Delta Honor Society.

Justin will receive his B.S. degree on May 20, 2005 and will enter the LSU School of Veterinary Medicine in August to begin studies for the D.V.M. degree. Our congratulations and best wishes to Justin.

May 2005 Dairy Science Graduates

Mary Beck	Baton Rouge, La
Doug Hurst	Port Allen, La
Lena Hardin	Winnsboro, La
Jason Lavigne	St. Bernard, La
Jonathan Lott	Covington, La
Elizabeth Rees	Lafayette, La
Justin Roberts	Kentwood, La
Emily Seal-Rouse	Varnado, La
Christopher Aaron Sissell	Baton Rouge, La

Scholarships Available for Dairy Science Students

Students having an interest in agriculture are encouraged to consider the various programs offered in the Department of Dairy Science at LSU. Dairy Science is the study of basic scientific and business principles, and the application of these principles to the scientific, technical, and business phases of the dairy industry. You do not have to be raised on a dairy farm or have a dairy plant background to consider a career related to the dairy industry. Career opportunities remain strong for college-educated agricultural students. The flexibility of the programs in the Department of Dairy Science allows students to gain a strong knowledge of dairy science as well as develop skills in related areas.

In addition to a strong educational program, the Department of Dairy Science has one of the best scholarship programs in the College of Agriculture. Eight to ten \$1,800 scholarships are available yearly to new freshman and transfer students in dairy science. These scholarships can be renewed for an additional three years, giving a total value of \$7,200. More than \$45,000 in scholarships was awarded to dairy science students for the 2004-05 academic year.

There are good career opportunities and demand for college-educated dairy science graduates. If you or someone you know is interested in our scholarship programs, please contact Dr. Bruce Jenny, Head of the Dept. of Dairy Science at 225-578-4411 for more information.

TOP HERDS BY WEIGHTED AVERAGE TEST DAY SOMATIC CELL COUNT

NAME	DATE	BR	COWS	DIM	SCC	ECM	MILK	FAT%	PRO%	RHA
CIRCLE G FARMS	3/17	H	165	162	120	60.7	63.7	3.2	3.1	18156
LEESFIELD DAIRY FARM	3/8	H	85	194	127	61.5	66.2	3.1	3.0	17239
NED SIMMONS	3/11	H	162	190	147	44.6	41.9	3.9	3.5	13963
LANNY CONERLY	3/24	H	58	163	167	42.9	42.8	3.6	3.2	12854
HILL FARM RESEARCH STATION	3/22	J	65	110	175	55.6	56.0	3.2	3.7	15714
ROBERT POTTS	3/21	H	146	210	213	49.1	51.2	3.2	3.1	16258
PHILLIP ROBERTS	3/3	H	163	154	215	48.8	49.1	3.4	3.4	15980
LSU DAIRY	3/22	H	80	168	224	72.7	72.3	3.7	2.9	20505
RODNEY HOLDEN	3/10	H	82	194	224	49.8	51.7	3.3	3.1	14178
LOUISIANA TECH DAIRY	3/9	H	48	173	266	60.1	61.8	3.5	2.9	18492
LADD BLADES	3/3	H	223	160	266	66.7	67.9	3.5	2.9	19280
CLINTON STEVENS	3/2	H	123	203	267	48.1	49.1	3.4	3.1	15556
C S GOTTSCHALCK	3/16	H	154	149	277	.	42.9	.	.	14434
USL DAIRY	3/15	J	10	169	279	42.8	37.1	4.6	3.5	9186
M & B DAIRY FARM INC.	3/29	H	157	180	287	49.2	51.4	3.3	3.0	16216
ROYCE SALLEY	3/16	X	267	138	290	34.8	38.6	2.9	3.0	13261
DARYL & MARYJO ROBERTSON	2/25	H	157	185	294	54.5	54.5	3.5	3.2	18083
TO-BEV FARMS	3/16	H	152	205	295	50.0	54.3	3.1	2.8	17723
EUGENE ROBERTSON	3/7	H	172	212	305	55.3	56.7	3.2	3.4	19031
BRENT & LAURIE DUNCAN	3/29	H	262	176	308	58.2	61.4	3.3	2.9	16091
GEORGE HYDE	3/14	H	101	152	317	.	64.4	.	.	16588
MARVIN FLETCHER	3/9	H	156	225	323	58.9	62.4	3.2	2.9	19055
J PAUL ALFORD	3/7	H	106	169	330	63.1	64.0	3.5	3.1	19800
MAYFIELD'S DAIRY	3/15	H	64	109	349	53.4	56.8	3.2	2.9	15780
MARK WASKOM	2/28	H	87	182	350	54.7	56.6	3.3	3.1	16431

TOP HERDS BY WEIGHTED AVERAGE TEST DAY SOMATIC CELL COUNT

NAME	DATE	BR	COWS	DIM	SCC	ECM	MILK	FAT%	PRO%	RHA
PHILLIP ROBERTS	4/13	X	148	145	170	46.8	46.1	3.5	3.4	14683
LSU DAIRY	4/21	H	80	186	205	78.5	77.3	3.8	2.9	20998
HILL FARM RESEARCH STATION	4/19	J	64	258	213	36.8	36.8	3.4	3.4	12048
LEESFIELD DAIRY FARM	4/26	H	86	226	218	60.0	60.0	3.6	3.1	17817
RODNEY HOLDEN	4/13	H	81	216	223	49.7	48.8	3.7	3.1	14669
CLINTON STEVENS	4/6	H	120	223	237	51.4	50.9	3.7	3.1	15493
LADD BLADES	4/7	H	221	188	245	61.5	65.3	3.3	2.8	19645
PHILLIP ROBERTS	4/13	H	165	154	248	48.0	49.1	3.4	3.2	15943
FORTENBERRY AND FORTENBERRY	4/21	H	117	187	258	46.9	51.0	3.1	2.8	15387
SE LA EXP STATION	4/22	H	212	185	267	68.9	71.4	3.5	2.8	21578
GEORGE HYDE	4/18	H	100	173	270	.	64.2	.	.	16577
ROBERT POTTS	4/20	H	141	223	272	48.9	48.6	3.7	2.9	16197
USL DAIRY	4/6	J	10	191	286	38.7	35.4	4.3	3.2	9053
CLIFFORD CHAMPLIN	4/14	H	200	142	301	74.0	75.4	3.5	2.9	20786
TO-BEV FARMS	4/19	H	151	225	313	48.0	54.3	2.9	2.8	17585
EUGENE ROBERTSON	4/17	H	197	213	325	55.4	57.1	3.2	3.3	19046
ROYCE SALLEY	4/20	X	275	156	331	33.4	37.0	2.9	2.9	13133
JEFF & MARY ADDISON	4/19	J	67	177	334	45.0	40.9	4.1	3.5	11764
LOUISIANA TECH DAIRY	4/11	J	35	189	335	48.0	44.4	4.0	3.5	13394
BRENT & LAURIE DUNCAN	4/26	H	259	202	339	53.1	56.4	3.3	2.8	16347
RAYMOND SCHMIDT	4/13	H	76	222	365	55.6	58.3	3.3	2.9	17343
J PAUL ALFORD	4/4	X	108	168	373	63.9	64.5	3.4	3.2	19670
CIRCLE G FARMS	4/15	H	161	184	397	58.4	59.8	3.5	2.9	18098
MARLYNN FARMS	4/25	X	128	223	406	37.1	42.6	2.7	2.9	14009
DARYL & MARYJO ROBERTSON	4/7	H	147	210	406	52.5	50.8	3.9	3.0	18127

TOP HERDS BY AVERAGE TEST DAY ENERGY CORRECTED MILK (ALL COWS)

NAME	DATE	BR	COWS	DIM	ECM	MILK	FAT%	PRO%	RHA
SE LA EXP STATION	3/16	H	219	166	75.2	72.0	4.0	3.0	21491
BILLY ANDREWS	3/9	H	104	152	73.5	75.1	3.4	3.1	18655
LSU DAIRY	3/22	H	80	168	72.7	72.3	3.7	2.9	20505
LADD BLADES	3/3	H	223	160	66.7	67.9	3.5	2.9	19280
FARMER'S DAIRY	3/9	H	45	192	65.5	66.7	3.4	3.1	18728
J PAUL ALFORD	3/7	H	106	169	63.1	64.0	3.5	3.1	19800
RUSSELL AND RUSTY CREEL	3/9	H	28	207	62.2	64.6	3.3	3.1	17333
LEESFIELD DAIRY FARM	3/8	H	85	194	61.5	66.2	3.1	3.0	17239
CIRCLE G FARMS	3/17	H	165	162	60.7	63.7	3.2	3.1	18156
C JOHNSON & W LITWILLER	2/25	H	106	186	60.5	64.8	3.1	2.9	20316
GALEN NIGHTINGALE	3/30	H	72	194	60.3	68.1	2.9	2.8	20133
LOUISIANA TECH DAIRY	3/9	H	48	173	60.1	61.8	3.5	2.9	18492
BROWN DAIRY FARM	3/1	H	188	143	60.1	65.6	2.9	3.1	16591
JOHN FAUNCE JR DAIRY	3/1	H	228	187	59.6	62.3	3.3	3.0	18192
MARVIN FLETCHER	3/9	H	156	225	58.9	62.4	3.2	2.9	19055
BRENT & LAURIE DUNCAN	3/29	H	262	176	58.2	61.4	3.3	2.9	16091
HOLLIS BANKSTON & SONS	3/30	H	104	165	57.7	56.9	3.7	3.1	16751
RAYMOND SCHMIDT	3/15	H	76	210	55.9	58.5	3.3	3.0	17297
HILL FARM RESEARCH STATION	3/22	J	65	110	55.6	56.0	3.2	3.7	15714
O B MITCHELL	3/21	X	52	200	55.6	50.0	4.4	3.1	17159
DUSTY SCHILLING	3/24	H	106	159	55.3	60.0	3.1	2.8	17884
EUGENE ROBERTSON	3/7	H	172	212	55.3	56.7	3.2	3.4	19031
RUSSELL AND RUSTY CREEL	3/9	H	73	224	55.1	55.1	3.5	3.2	17713
MARK WASKOM	2/28	H	87	182	54.7	56.6	3.3	3.1	16431
DARYL & MARYJO ROBERTSON	2/25	H	157	185	54.5	54.5	3.5	3.2	18083

TOP HERDS BY AVERAGE TEST DAY ENERGY CORRECTED MILK (ALL COWS)

NAME	DATE	BR	COWS	DIM	ECM	MILK	FAT%	PRO%	RHA
LSU DAIRY	4/21	H	80	186	78.5	77.3	3.8	2.9	20998
CLIFFORD CHAMPLIN	4/14	H	200	142	74.0	75.4	3.5	2.9	20786
GALEN NIGHTINGALE	4/26	H	72	216	69.7	72.6	3.3	3.1	20366
SE LA EXP STATION	4/22	H	212	185	68.9	71.4	3.5	2.8	21578
KIRBY VARNADO	4/11	H	102	174	66.7	66.6	3.7	2.9	18431
BILLY ANDREWS	4/15	H	103	181	66.6	64.9	3.8	3.0	18837
JOHN FAUNCE JR DAIRY	4/5	H	233	207	64.7	66.2	3.4	3.1	18135
J PAUL ALFORD	4/4	X	108	168	63.9	64.5	3.4	3.2	19670
C JOHNSON & W LITWILLER	4/27	H	104	221	62.5	65.7	3.2	3.1	19730
LOUISIANA TECH DAIRY	4/11	H	47	187	62.2	64.7	3.4	2.9	18449
LADD BLADES	4/7	H	221	188	61.5	65.3	3.3	2.8	19645
BROWN DAIRY FARM	4/7	H	195	164	60.2	65.5	3.1	2.9	17114
LEESFIELD DAIRY FARM	4/26	H	86	226	60.0	60.0	3.6	3.1	17817
FARMER'S DAIRY	4/7	H	46	211	59.5	63.3	3.1	3.0	18789
CIRCLE G FARMS	4/15	H	161	184	58.4	59.8	3.5	2.9	18098
O B MITCHELL	4/18	X	55	205	57.1	54.7	4.0	2.9	17139
MARVIN FLETCHER	4/12	H	163	226	57.0	56.3	3.7	3.0	18949
HILL FARM RESEARCH STATION	4/19	J	72	134	56.1	57.3	3.3	3.3	15805
RAYMOND SCHMIDT	4/13	H	76	222	55.6	58.3	3.3	2.9	17343
EUGENE ROBERTSON	4/17	H	197	213	55.4	57.1	3.2	3.3	19046
VICTOR WOMACK	4/11	H	113	166	55.3	53.2	3.9	3.0	15411
MARK WASKOM	4/26	H	85	230	54.8	58.3	3.2	3.0	16832
RUSSELL AND RUSTY CREEL	4/14	H	28	219	54.8	59.1	3.0	3.1	17951
BRENT & LAURIE DUNCAN	4/26	H	259	202	53.1	56.4	3.3	2.8	16347
DARYL & MARYJO ROBERTSON	4/7	H	147	210	52.5	50.8	3.9	3.0	18127

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Louisiana

Dairy Digest

Your Herd Management Resource

Contact your county agent
for more information on any
dairy herd management topic.

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