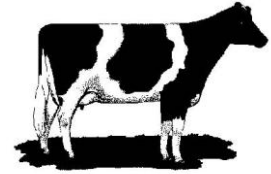


Kentucky Dairy Notes

July 2009



8 “Controllables” During Hard Times in the Dairy Business

Jeffrey Bewley

All dairy producers are asking tough questions of themselves during this economic downturn. Low milk prices accompanied by high input prices have placed many of you in precarious situations. I empathize with the struggles you are going through, and I maintain concern about your current situations. In discussions with dairy producers, the conversation invariably leads to “what can we do about milk prices?” As we all know, in the short term, there is very little that can be done to influence milk prices. In the long term, most changes in milk price will be influenced by factors affecting both milk supply and demand. Currently, there are multiple pricing policy changes being proposed that may influence future milk prices levels and volatility. These policy changes do hold some promise for improving the long-term situation, but individual dairy producers should be cautious with how much of their time they dedicate to policy concerns.

However, it is important to keep in mind the business principle of “control the controllables” during hard times in the dairy business. This principle suggests that most of a business manager’s energy, time, effort, and thoughts should be focused on the parts of the business over which he/she maintains control. Limited time should be dedicated to parts of the business where the manager has no control because this process is self-defeating and can perpetuate an environment of negativity and despair. What aspects of your dairy business do you have the opportunity to control? These areas represent the biggest opportunity to out-survive the competition. Every dairy producer is facing the same challenges with regard to input and output prices; but, you control your own destiny within the areas you can control. Following are eight “controllables” to consider during hard times in the dairy business.

Controllable 1. Milk yield. Milk revenues=milk price × milk yield. Sometimes, we forget the last part of that equation. In addition to increases in milk price, the other way to increase revenues from milk is to increase production. And, you have more control over milk production than you do milk price. Remember that as milk yield per cow increases, fixed costs generally remain the same with only variable costs increasing. Thus, increased milk yield per cow will generally increase margins. The key is to make sure that increased variable costs (increased feed is one example) don’t exceed increased revenue. In other words, we want to make sure that if we are spending a dollar, we are getting at least a dollar back in return.

Controllable 2. Herd health. Because the effects of changes that have a negative impact on herd health are not always immediate, the temptation exists to cut corners during difficult times that will have negative consequences later. Healthy cows produce more milk, stay in the herd longer, and are more profitable. Keeping cows healthy now will help ensure that they are more productive later when prices improve.

Additionally, minimizing mastitis and lowering somatic cell counts help in securing quality bonuses, reducing treatment costs, and increasing production in the short-term.

Controllable 3. Reproduction. The goal of reproductive management is to maximize the amount of time cows spend in peak lactation. When milk prices are low, the impact of cows with extended days open (and consequently lower production during late lactation) is even greater because the breakeven production level is higher. Moreover, considering the cyclical nature of milk prices, reproductive decisions made today will likely impact production levels during the next period of higher milk prices. Thus, practices to minimize days to first service, maximize conception rates, improve estrus detection rates, and minimize intervals between services are just as critical now as when market conditions are good. Lastly, producers should avoid the temptation to switch to a natural service bull. When all costs are considered, natural service bulls are no less expensive than artificial insemination and the genetic merit of cows from natural service-bulls is always lower.

Controllable 4. Replacement heifer quality. Again, because the effects of decisions in calf and heifer raising are not immediate, some may be tempted to cut corners here too. However, since these animals represent the future of the herd, profitable practices to ensure that they are best prepared for future success is essential for future profitability. Heifer raising costs should still be monitored and scrutinized but not at the expense of future replacement heifer quality. Additionally, producers should strive toward achieving an average age at first calving of 24 months to minimize heifer raising costs.

Controllable 5. Feed costs. Every part of the feed cost equation should be scrutinized with a goal of maximizing income over feed costs. Are you maximizing the use of home-grown feeds and forages? Could you replace some existing purchased feeds with cheaper alternative or byproduct feeds without sacrificing production? Are all feed additives in your ration providing enough production or health benefits to merit their inclusion? Are you minimizing feed losses (shrink) during storage to ensure that feed is not wasted? As the largest single cost for a dairy operation, feed costs represent the variable cost where dairy managers can exert the most control.

Controllable 6. Asset base. Farmers tend to collect too many assets for their business, making it difficult to maintain profitability. Are their non-productive assets on your farm? Do you have machinery, land, or farm toys that are not actively generating revenue? Perhaps now would be a good time to examine your asset base and determine if some assets should be sold. Maybe you would be better off custom-hiring tasks done by machinery that is only used a few days a year. Walk around your farm and critically ask yourself whether each asset is helping generate profit.

Controllable 7. Risk management strategy. What do you do to manage risk in your business? Do you utilize available options to contract future milk and feed prices? Remember that the goal of contracting is to lock in a guaranteed profit, not to always get the highest possible price for milk or the lowest possible price for feed. Have you examined the potential of the Livestock Gross Margin for Dairy Cattle insurance policy? Do you have a “rainy day fund” or operating line of credit to help get through tough times? The volatility in commodity markets necessitates a well-planned risk management strategy.

Controllable 8. Business strategy. What is your business strategy? What is your source of competitive advantage as compared to other dairy businesses? What are you better at than your neighbor? What is your long-term survival strategy? Would your best business strategy be to exit the dairy business? Though the thought of exiting is rarely pleasant, some producers may find that they will be happier doing something else after selling their cows. Now is an important time to ask these kinds of questions to establish a business strategy that will maximize the chances for success in the future.

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Dairy Returns in 2008
Curtis Mahnken and Rush Midkiff

The year 2008 was one of both positives and negatives for dairy farmers on the Kentucky Farm Business Management program. Unlike this year, milk prices remained high for most of 2008 with an average price received of \$21.33 per cwt of milk sold. This was an increase from 2007, when the average price was \$20.41/cwt. As could have been expected, KFBM dairy cooperators increased milk production in response to the higher price. Production per cow was 18,467 lbs in 2008 versus 17,952 lbs in 2007. More cows were milked per farm as well, 146 in 2008 compared to 130 in 2007.

On the negative side, feed prices increased to \$10.73/cwt of milk produced, up 12% from 2007. This was the result of a second consecutive dry year, coupled with increased hay prices, corn, and soybean prices. The net result was a return above feed costs that decreased from \$10.87/cwt of milk produced in 2007 to \$10.60/cwt of milk produced in 2008.

During 2008, there were 19 KFBM cooperators that had less than 100 cows, 18 were milking 100-199, and 11 were milking 200 or more. The table below shows that in our dataset, larger operations had considerably greater management returns per cow.

Selected Results: KFBM Cooperators by Size			
	<100	100-199	200+
Number of Cows/Farm	64.2	128.7	323.2
Milk Sold Lbs/Cow	17,056	17,788	19,619
Avg. Milk Price	20.84	20.65	21.44
Management Returns/Cow	-476.55	35.03	356.79
Net Farm Income/Operator/Cow	\$539.39	\$663.17	482.97
Cows/FTE	30	36	41
Milk Sold/FTE	506,793	640,010	811,547

In last month's Economic and Policy Update, Kenny Burdine mentioned that milk futures were low through the summer and showed some seasonal rebounding during the late part of the year. When considering these prices expectations, combined with expected corn and soybean prices, dairy producers are likely looking at another difficult year.

While milk production per cow is an important production measure, other input efficiencies can improve management returns as well. If we look at milk sold/fte (full time equivalent), KFBM producers are below key benchmarks for dairy producers. In the publication "Analyzing Your Dairy Business: A Systematic Approach to Using Benchmarks", by Hilty, Tozer, and Hyde of Penn State University, it is suggested that milk sold per worker should be 1 million pounds or more. None of the reported KFBM groups approach this number, which leaves tremendous room for improvement. One idea on how to improve this number is to offer worker incentives for production and animal health.

Another key number to examine is cows/fte. Full-time equivalents (FTE's) include both paid labor and unpaid operator labor. According to this same publication, dairy and crop operations (most of Kentucky dairy farms) should be between 45-50 cows per worker or more. The 200+ group is at 41, close to this benchmark, but the other groups are well below this suggested level.

Dairy is an industry under tremendous stress at the current moment, and will be for the foreseeable future. However, producers should take the time to examine how efficiently they are using their assets and inputs.

If a producer can keep his cows happy and use his other inputs efficiently, then the storm can be weathered. The University of Kentucky has resources to assist producers in improving their operation, including Kentucky Farm Business Management.

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Reproductive Status of US Holsteins and Jerseys
Jack McAllister

Regular reproduction continues to be a challenge in dairy herds. Researchers at the Animal Improvement Programs Laboratory of USDA have reported regional and national statistics on reproduction in the July 2009 issue of the Journal of Dairy Science. These statistics were obtained from DHI records from 1996 to 2007 for nearly 20 million AI breedings. These breedings occurred during over 8 million lactations of over 5 million Holstein and Jersey cows in over 23,000 herds. Data reported were days to first breeding (DFB) after calving, nonreturn rate at 70 days after breeding (NRR70), conception rate (CR), number of breedings per lactation (NB), breeding interval between first and last breeding (BI), days between calving and last breeding (DLB) and calving interval (CI). Statistics were summarized separately for Holsteins and Jerseys by year and for Holsteins by six regions of the US.

Several changes in reproduction are apparent in reviewing the statistics and are highlighted in the table below. First breedings after calving appear to be taking place sooner in recent years. DFB increased slightly from 1996 to 1999 for both breeds and then decreased until 2007. For Holsteins DFB went from 92 up to 94 days and down to 85 days and for Jerseys from 85 up to 88 days and down to 83 days. Nonreturn rates at 70 days for first breedings after calving have decreased. NRR70 decreased in Holsteins by 9% (54% to 45%) while in Jerseys it decreased 5% (from 57% to 52%). For all breedings, the decrease in NRR70 was 8% (from 52 to 44%) in Holsteins and 6% (from 54 to 48% for Jerseys). Conception rates for both first and all services declined in Holsteins and Jerseys; by 2% for first and 3% for all services in Holsteins and by 3% for first and 4% for all services for Jerseys. The number of breeding per lactation (NB) increased in both breeds by .4 breedings in Holsteins and .3 breedings in Jerseys. This was accompanied by a lengthening of the breeding interval from first to last breeding (BI) in Holsteins of 18 days and in Jerseys by 11 days. Days from calving to last breeding (DLB) reflected the combined changes of decrease in days to first breeding and an increase in the number of breedings. The DLB increased 10-11 days from 1996 – 2006 for Holsteins and Jerseys. Overall calving interval (CI) increased 12 days in both breeds. For Holsteins CI in 2006 was 12 days longer than for Jerseys.

Breed	Breeding Year	DFB, d	NRR70, % 1 st Breeding	NRR70, % All Breedings	CR, % 1 st Breeding	CR, % All Breeding	NB, n	BI, d	DLB, d	CI, d
Holstein	1996	92	54	52	34	33	2.1	51	133	410
	2001	91	51	49	27	26	2.3	60	142	428
	2006	86	47	44	31	30	2.5	69	144	422
	2007	85	45	-	32	-	-	-	-	-
Jersey	1996	85	57	54	42	39	2.0	44	119	398
	2001	83	55	52	34	30	2.1	44	119	412
	2006	84	53	48	39	35	2.3	55	129	410
	2007	83	52	-	39	-	-	-	-	-

Adapted from Norman, et al. Journal of Dairy Science 92:3517-3528.
 DFB = days between calving and first breeding; NRR70 = nonreturn rate at 70 d after breeding; CR = conception rate; NB = number of breedings per lactation; BI = interval between first and last breeding; DLB = days between calving and last breeding; and CI = calving interval.

The effect of number of calvings (parity) on these reproductive measures in the 2006 breeding year revealed Holsteins with more calvings having greater increases in DLB, longer CI and more breedings (NB) than Jerseys with more calvings. DLB went from 142 days for 1st lactation Holsteins to 156 for 6th or greater calvings while the comparable figures for Jerseys were from 131 to 138. Calving interval was 12 days longer in 2nd versus 6th or greater lactation Holsteins while it was only 3 days longer in Jerseys of comparable parities.

Number of calvings and number of breedings effects were also apparent in comparisons of nonreturn rates at 70 days (NRR70). NRR70 declined over breedings as well as with more calvings. Holsteins NRR70 declined from 48% in first breeding of first calvers to 45% for 6th or greater calvings while Jerseys went from 53% to 51%. Jerseys showed a much greater decline in NRR70 % for second to fifth breedings with more calvings than did Holsteins. For Holsteins at third breeding, NRR70 was 43 for both first and 6th or greater calvings while in Jerseys the NRR70 for the third breeding of first calvers was 49% which declined to 41% for 6th and greater calvings. Fifth breeding of Holsteins for first calvers had an NRR70 of 39% which increased to 40% by 6th and greater calvings while NDD70 of fifth breedings of Jerseys declined from 42% for first calvers to 35% for 6th or greater calving. Conception rates (CR) declined for both Holsteins and Jerseys as more breedings took place in a lactation or as number of calvings increased. CR for first calf Jerseys was 40 % which declined to 28% by fifth breeding. For 6th or greater calvings Jerseys CR's were 33 and 25%, respectively. Holstein first calvers had CR of 34% in first breeding which declined to 26% in 5th breeding. For 6th or greater calvings CR at first breeding was 24% compared to 25% at fifth breeding. Intervals between breedings, from 2006 breedings, averaged 38.2 days for Holsteins and 35.5 days for Jerseys.

Six geographical regions were defined for the US Holsteins for breedings in 2006: Mideast, Midwest, Mountain, Northeast, Northwest, Southeast, and Southwest. Kentucky along with Delaware, Maryland, North Carolina, Tennessee, Virginia and West Virginia were included in the Mideast region. Regional differences were observed for all reproductive traits. The highest and lowest regions and the overall US average are given in the table below. Overall, the Southwest region had the most desirable reproductive performance and the Southeast the least.

	DFB, d	NRR70, %	CR %, 1 st Breeding	NB, d	DLB, d	CI, d	Pregnancy Rate, %
Highest	Mountain 92	Southwest 50	Southwest 33	Southeast 2.7	Mountain 157	Southeast 440	Southwest 28.3
Lowest	Southwest 84	Northwest 42	Southeast 26	Northeast 2.3	Southwest 127	Southwest 406	Southeast Mideast 22.2
US Average	86	47	31	2.5	144	422	24.9

Adapted from Norman, et al. Journal of Dairy Science 92:3517-3528.

Pregnancy rate was calculated as $100(0.25)(233 - \text{days open})$, with days open limited to 50 to 250 days.

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