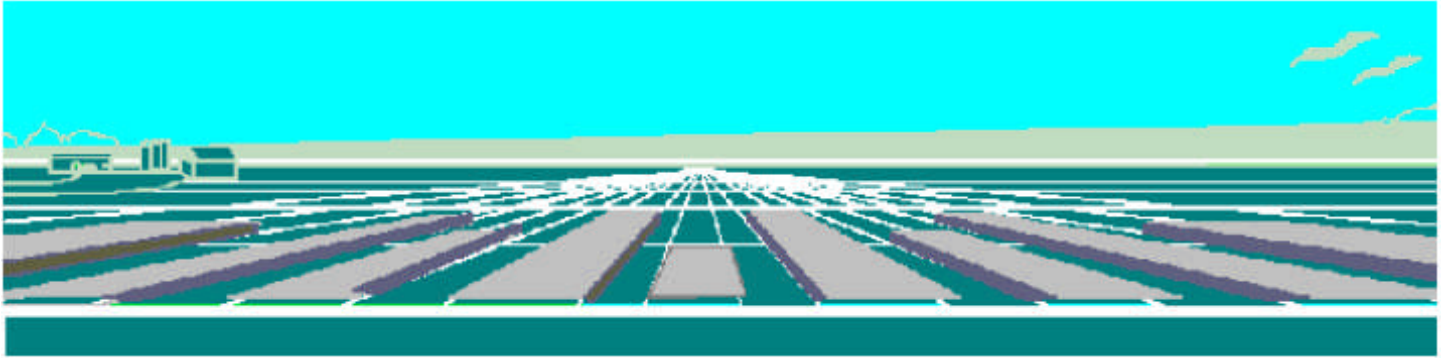


# Iowa Farm Outlook



October 31, 2006

Ames, Iowa

Econ. Info. 1945

## Impact of Higher Corn Prices on Feed Costs

Corn and soybean meal prices have increased rapidly and may move higher over the next year. In the six weeks from mid-August to late-October Omaha corn prices increased \$1.08/bushel and Central Illinois SBM increased \$25.10/ton. What impact will the higher prices have on breakeven selling prices for hog and cattle producers? The answer is relatively simple to calculate if you know how much corn and SBM is being used to finish the animal.

Adjusting the Iowa State University Livestock Budgets to a 265 pound finished hog results in the feed usage estimates in Table 1. This simple analysis looks at the change in breakeven cost per cwt due to a change in corn and SBM prices. It ignores other feed cost like vitamins, minerals and processing that have not changed with the recent run up in feed prices.

Table 1. Estimated Change in Hog Feed Cost Due to a \$1/bushel Increase in Corn Price and \$25/Ton Increase in SBM Price

	Wean - Finish	Breed-Wean	Breed-Finish
Sell wt	265	10	265
Corn (bu)	10.6	0.7	11.3
SBM (lbs)	131.5	9.5	141.0
Feed cost impact per head and per cwt			
\$1/bu	\$10.60	\$0.70	\$11.30
\$25/ton	<u>\$1.64</u>	<u>\$0.12</u>	<u>\$1.76</u>
Total \$/hd	\$12.24	\$0.82	\$13.06
Total \$/cwt	\$4.62	\$8.19	\$4.93

Table 2. Estimated Change in Breakeven Selling and Buying Price for Steer Calves and Yearlings Due to a \$1/bushel Increase in Corn Prices

	Calves	Yearlings
In weight	550	750
Out weight	1200	1300
Corn (bu)	74.00	69.80
Feed cost impact per head and cwt		
\$1/bu (\$/hd)	\$74.00	\$69.80
Sell price (\$/cwt)	\$6.17	\$5.37
Buy price (\$/cwt)	\$13.45	\$9.31

The estimated impact on feed cost of production for hogs is in the range of \$4.50-\$5.00 per hundred pounds of live weight or \$6.08-\$6.75 per hundred pounds of carcass weight on the finished hog. The weaned pig cost has increased less than \$1 per head. Finishers buying weaned pigs or feeder pigs will try to bid down the price of pigs due to the rising cost of gain.

Cattle feeders also have rising feed cost. Most of the change is due to the change in corn prices, as protein supplement for cattle is less impacted by changes in SBM prices (Table 2). For corn-hay rations the breakeven selling cost increases \$5.00-\$6.50 per cwt depending on the weight of the cattle and the ration. The price that feedlots can afford to pay for feeder cattle decreases, all else equal, due to the higher feed cost. Because the higher feed cost is spread over fewer pounds, the impact is larger on the feeder cattle price.

For both feeder cattle and feeder pigs the actual market price will depend on several factors, but given the higher cost of gain buyers will want to pay less for the feeder animal.

## Distillers Grains and Solubles

While much of this fall's corn price rally is due to short world wheat supplies, current and anticipated demand for corn from ethanol plants is also supporting prices. Ethanol production also results in a corn and SBM substitute, distillers grains and condensed distillers solubles. These products may contain only the distillers grain (DG), only the condensed distillers solubles (CDS), or more typically both distillers grains and solubles (DGS).

The DG or DGS typically come in three forms: wet (approximately 35% dry matter), modified (approximately 50% dry matter), and dry (90% dry matter). While the actual nutrient analysis will differ by plant, these products are generally high in crude protein and fat. They can replace both corn and protein supplement in a ration.

In a grow-finish hog diet a common recommendation is to use DDGS for 10% of the ration. In a ton of feed 200 pounds of DDGS and 3 pounds of limestone will replace 160 pounds of corn, 38 pounds of SBM, and 5 pounds of DiCal Phosphate. With the current prices of \$3/bu corn, \$185/ton SBM and \$95/ton DDGS this substitution will lower the cost of feed approximately \$2.62 per ton. This amount of savings is approximately \$.90-\$1.00 per head compared to not using DDGS. A calculator to help evaluate the economics of substituting DDGS in hog rations is available at: <http://www.ipic.iastate.edu/ethanol/ISUCalculator.xls>

Feedlot cattle perform very well on ethanol coproducts, either wet or dry. In fact, cattle perform better on wet DGS than on DDGS and the products can be fed at much higher levels than in hog diets. The cost savings from feeding DGS to cattle depend on starting and ending weights and on the price of the product. The DGS will replace corn and approximately two-thirds of the commercial supplement. A vitamin and mineral supplement is still needed. At current prices of \$3/bu corn and \$35/ton modified DGS (approximately 50% dry matter), the cost savings per head is \$40 and \$65 per head when fed at the 20% and 40% of dry matter levels for 650 pounds of gain. Table 3 compares the impact on the breakeven purchase price for three levels of selling

prices and three levels of modified DGS in the diet.

Table 3. Breakeven Buy Price for 650# Steers Finished at 1300# at Three Levels of Modified Distillers Grains and Solubles, \$3 Corn \$35 MGDS

MDG%	Fed Cattle Price at Slaughter		
	\$80	\$85	\$90
0%	94.38	103.91	113.44
20%	100.66	110.19	119.72
40%	104.38	113.91	123.45

Feed cost and breakeven cost of production has increased for cattle and hog producers due to the higher corn prices. Using corn coproducts in the ration may offset some of the increased costs. Because DGS is a substitute for corn, its price will likely be bid higher along with corn prices, particularly for the dry product DDGS.

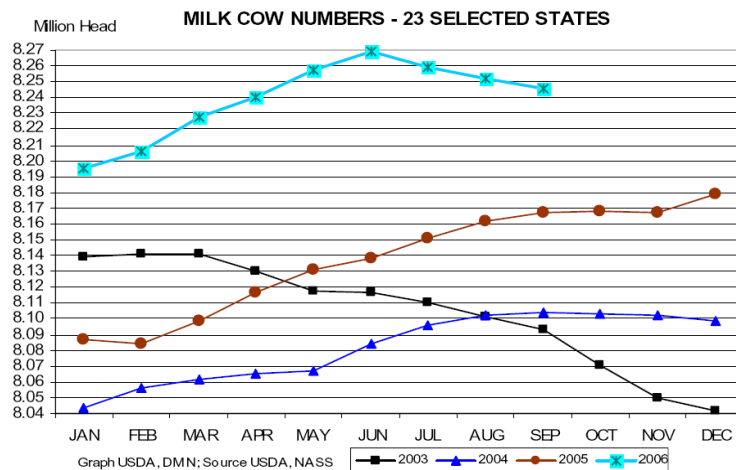
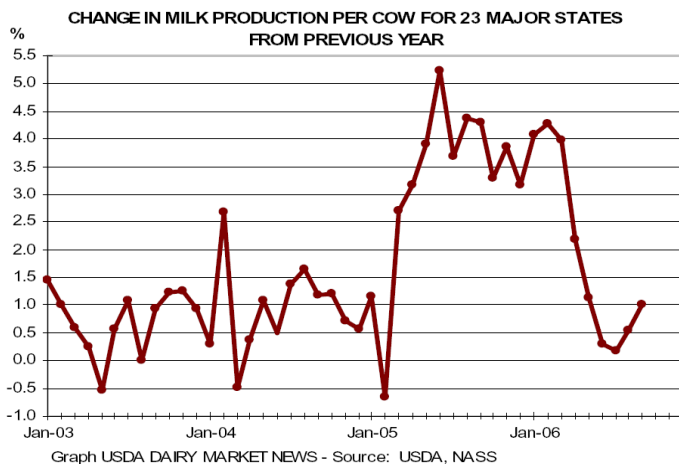
*John Lawrence*

## September Milk Production Up 2%

The 23 reporting dairy states had a Sept 06 milk production increase of 2% according to the most recent USDA report. Milk per cow was up only 16 pounds but cow numbers were 79,000 higher than one year ago. Cow numbers did decline by 6000 compared to August. August milk production was unrevised.

Milk cow numbers in Iowa were 3000 higher than last year but the same as last month. Milk per cow declined by 75 pounds leading to -3% total milk production. If Iowa cows had produced at the level as one year ago, total milk production would have risen by 15 million pounds or 4.7%. Iowa cheese production declined by 5.9% from one year ago and was -1.8% from the previous month.

State	2005 cow numbers	2006 cow numbers	% change cow numbers	2005 milk per cow	2006 milk per cow	% change milk/cow	total milk production	total milk production	% change total milk
Iowa	197	200	1.52%	1665	1590	-4.50%	328	318	-3.05%
MN	450	450	0.00%	1435	1470	2.44%	646	662	2.48%
WI	1237	1245	0.65%	1510	1510	0.00%	1868	1880	0.64%
IL	104	103	-0.96%	1450	1485	2.41%	151	153	1.32%
CA	1762	1772	0.57%	1750	1775	1.43%	3084	3145	1.98%
ID	469	497	5.97%	1850	1860	0.54%	868	924	6.45%
NM	333	360	8.11%	1710	1650	-3.51%	569	594	4.39%
NY	649	640	-1.39%	1515	1530	0.99%	983	979	-0.41%
PA	561	553	-1.43%	1500	1560	4.00%	842	863	2.49%
TX	320	338	5.63%	1515	1585	4.62%	485	536	10.52%
23-State	8167	8246	0.97%	1599	1615	1.00%	13057	13318	2.00%



Source: Dairy Market New

## Demand & Dairy Products

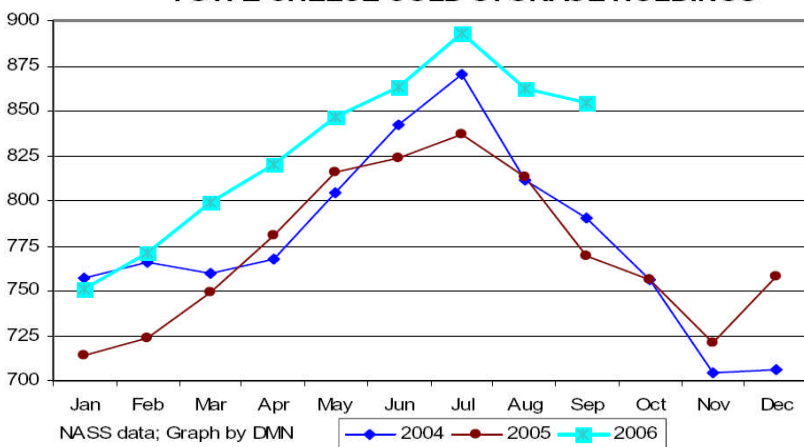
US cheese production during Aug 06 was up 3.9% and was 2.5% higher than July. Nearly all of the year over year increase took place in the S Central and Western US. These areas include Texas, New Mexico, California and Idaho. New Mexico has recently opened a new large cheese plant and now has enough production entities for an individual monthly state report.

The Oct 20, 2006 Cold Storage Report indicated a 7% draw down of butter stocks but they are still 42% above a year ago. Total cheese stocks at the end of Sept 06 were 11% higher than one year ago and showed a 1% decline from September. Total cheese on hand Sept 30 was the highest since 2000.

USDA also revised the August cheese stock estimate. The previous estimate had shown inventories below Aug 05 but the new estimate put them at slightly above, 11 million pounds.

Aug 06 commercial disappearance showed a strong 3.2% gain. American-style cheese demand was only 0.9% following 7 months which had a total 6.2% demand increase. Other cheese demand was up 6.6% for Aug 06. Butter was up 7.3%. Fluid milk sales rose 1.3% for the June-Aug period compared to last year.

### MILLION POUNDS TOTAL CHEESE COLD STORAGE HOLDINGS



Whey demand has been very good and inventories very low. Whey price has increased about 8 cents per pound since last summer. NFDM stocks are below 2005 levels which were well below 2002, 2003 and 2004 levels. Much of the reason for low NFDM stocks can be explained by commercial exports, unsubsidized. NAFTA has led to Mexico buying 341 million pounds and displaced EU purchases. The weak US dollar has helped exports also and without DEIP incentives.

## Analysis

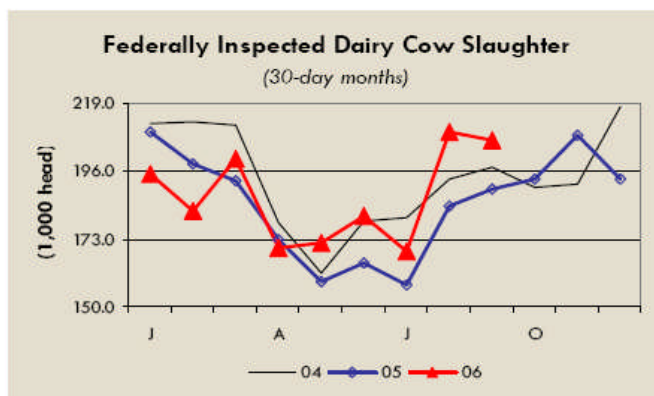
Now, how do we interpret this market information? As mentioned last month, the dairy markets appear to be looking for direction. On Oct 30, barrel cheese settled 1 cent above blocks. Historically this has tended to indicate a move in cheese price is ready to occur. Barrel cheese prices are usually 3-4 cents below blocks. Two dairy economists have commented on a shortage of barrel cheese for processing needs. This cheese is needed for the food industry due to featuring in the fast food markets.

The market is also focusing on the US milk output increase, 1.6%, rather than the 23 dairy state rate of increase, a larger 2%. Milk cow numbers in the US are larger than one year ago, although month-to-month numbers have shown declines in recent months. The issue holding back higher increases in milk production is the weak rate of increase for milk per cow. CA showed a normal increase in milk per cow during September. But the number two state, WI, had flat production. NM had a 60 pound decline and Idaho only gained 10 pounds. Whether dairy producers are able to get back to normal milk per cow production gains is the question.

Recent ethanol and corn market impacts have brought that possibility into question. By now many dairy producers have feed prices for the coming several months mostly fixed since they grow feed or have contracted

feed requirements. Also many US dairy farms have not experienced the full impact of low summer milk prices due to MILC payments. Those herds in the 250-400 or so cow range seem to be having the most financial challenges right now. These have run out of the MILC allotment.

During September, dairy cow slaughter was 206,400, down 10,100 from August but 16,000 more than one year ago. To get milk price direction, dairy markets will need to see real reduction in the US dairy herd. With higher milk prices anticipated, dairy farmers are not as likely to begin reducing cow numbers.



Source: Daily Dairy Report

*Robert Tigner*