



# Dairy Outlook

September 2009

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## Market Psychology

Milk prices are finally increasing as the higher futures market prices have stopped edging away each month. As may be seen in Table 1, the prices are higher for September, and quickly rise for the remainder of the year. While well below the 2008 levels, the expected Class III prices of over \$14.00/cwt. for December and months beyond should provide some welcome relief from the miserable prices of 2009 to date. The Class I mover for October is up \$1.40 over September, which is another sign of stronger markets. By year end, the PA all milk price is expected to be \$3.50/cwt above its low in July.

The U.S. dollar has been falling once again, which is making U.S. exports more competitive. Also lower milk production is helping to raise prices. All the major products except cheese are up this month, with NFDM and butter showing exceptional vigor. Nonfat Dry Milk is up four cents this month to \$1.04 per pound and finally above the support price. Butter hit \$1.27/lb., up from \$1.17 a few weeks ago. Whey products are up about 1 cent, with whey protein concentrate continuing a slow climb, and whey powder climbing after having stalled for several weeks. Cheddar cheese had dipped but seems to be recovering, now at \$1.36 per pound for blocks, up from \$1.27 earlier in the month. Stocks of cheddar cheese and NFDM remain high, with powder stocks high worldwide. Ultimately these stocks will be a drag on the market.

Cheese exports have risen by almost 1,000 metric tons in the last two months. Exports of whey protein concentrate have slipped slightly, but are still similar to last year. In total the value of dairy exports are about \$100 million per month below last year's \$350 million. The trends are promising, but we are still way behind last year.

## Corn and Soybean Markets

Corn futures continue to go nowhere, staying around \$3.20 for the December 2009 contract. The 2009 crop is going to be large and with ethanol companies struggling, the market is drifting. Soybean markets have been falling, down to \$9.09 for the November contract. The USDA forecast yield for beans was been increased again to a record 3.25 bil. bu.. Following beans, soybean meal is falling, closing at \$277 on September 21.



### **Income over feed costs**

The decrease in feed prices and higher milk prices raised August producer margins by \$0.19 per cow per day. Our index of Income Over Feed Costs (IOFC) reflects gross income less feed costs for an average cow producing 65 pounds of milk. As may be seen in Figure 1 and Table 2, the August value is at \$4.62. The September value will be higher with the higher milk prices and higher yet in the remainder of the fall.

The allocation of the revenue per hundred pounds of milk is shown in Table 3. This value, the milk margin, is the estimated amount from the Pennsylvania all milk price that remains after feed costs are paid. As with income over feed cost, this shows that August was somewhat better than July. The improvement was one third lower feed costs and two thirds higher milk prices. The forecast higher milk prices will help this measure in coming months as well.

### **Milk Production**

Monthly milk production numbers (Figure 2) have finally dipped below last year, which is one reason prices have recovered somewhat. There are 171,000 fewer cows than a year earlier, but of course milk per cow continues to rise. At the end of the report there is a discussion of this issue. California in particular is culling cows, with 64,000 fewer than a year ago. With continued culling and a weaker dollar, perhaps exports can improve, which would do wonders for decreasing the inventories of dairy products.

## PA Dairy Income over Feed Costs

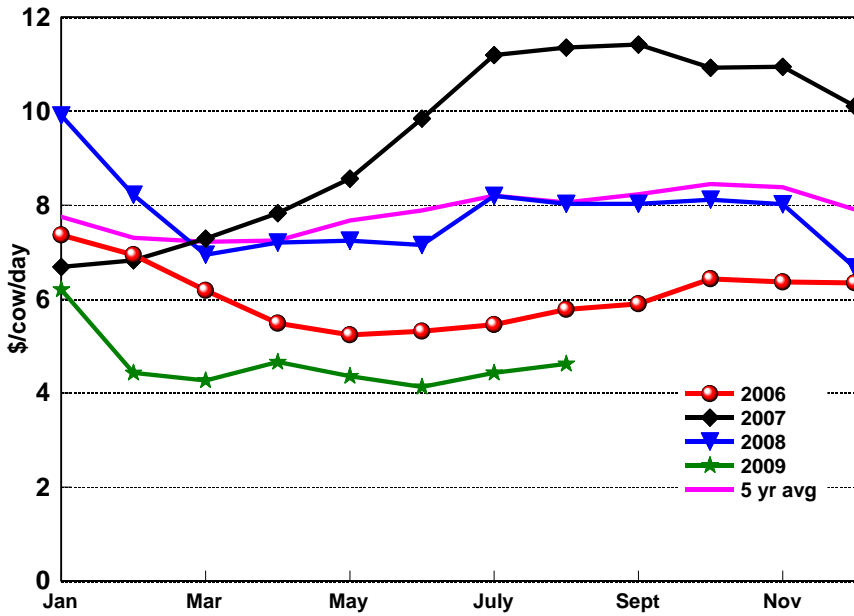


Figure 1. PSU's Income Over Feed Costs (IOFC)

## Milk Production

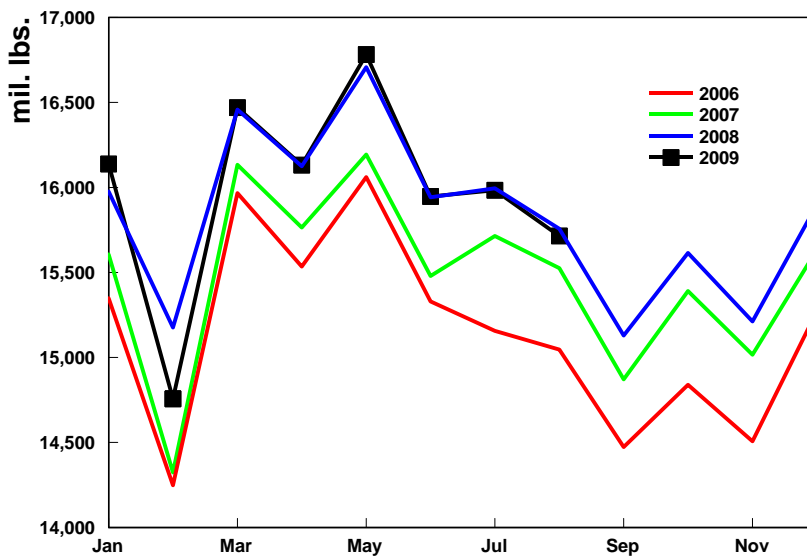


Figure 2: U.S. Milk Production (source USDA)



Table 1. Implied Milk Prices and Futures Prices for 2009

(Based on futures prices of September 21, 2009)

	Class III \$/cwt	Class IV \$/cwt	PA All Milk \$/cwt		Class III \$/cwt	Class IV \$/cwt	PA All Milk \$/cwt
2008				2010			
Jan	19.32	16.29	22.60	Jan	14.30	12.33	16.71
Feb	17.03	14.67	21.00	Feb	14.50	12.37	16.84
Mar	18.00	14.17	19.10	Mar	14.54	12.47	16.90
Apr	16.76	14.56	19.90	Apr	14.59	12.47	16.93
May	18.18	15.26	19.50	May	14.60	12.57	16.97
Jun	20.24	15.92	20.30	Jun	14.90	12.82	17.24
Jul	18.25	16.60	21.40	Jul	15.10	13.57	17.63
Aug	17.32	16.64	20.50	Aug	15.45	13.62	17.85
Sep	16.28	15.45	20.50	Sep	15.70	13.62	18.00
Oct	17.06	13.62	19.40	Oct	15.69	13.87	18.08
Nov	15.51	12.25	19.20	Nov	15.75	13.87	18.12
Dec	15.28	10.35	17.10	Dec	15.84	13.97	18.21
Annual	17.44	14.65	20.04	Annual	15.08	13.13	17.46
				Annual change	3.82	2.71	3.12
				% change	34.0%	26.0%	21.8%
2009							
Jan	10.78	9.59	16.20				
Feb	9.31	9.45	13.50				
Mar	10.44	9.64	13.00				
Apr	10.78	9.82	13.40				
May	9.84	10.14	13.40				
Jun	9.97	10.22	13.00				
Jul	9.97	10.15	13.40				
Aug	11.20	10.38	13.20				
Sep	12.08	11.06	14.96				
Oct	12.71	11.35	15.43				
Nov	13.70	11.44	16.04				
Dec	14.28	11.81	16.51				
Annual	11.26	10.42	14.34				
Annual change	-6.18	-4.23	-5.71				
% change	-35.4%	-28.9%	-28.5%				

Table 2: Determinants of PA income over feed cost

	all milk price	feed cost/65 lbs milk	Income over feed cost
Jan-08	\$22.60	\$4.79	\$9.90
Feb-08	\$21.00	\$5.43	\$8.22
Mar-08	\$19.10	\$5.47	\$6.94
Apr-08	\$19.90	\$5.73	\$7.20
May-08	\$19.50	\$5.43	\$7.24
Jun-08	\$20.30	\$6.04	\$7.15
Jul-08	\$21.40	\$5.71	\$8.20
Aug-08	\$20.50	\$5.30	\$8.03
Sep-08	\$20.50	\$5.30	\$8.03
Oct-08	\$19.40	\$4.49	\$8.12
Nov-08	\$19.20	\$4.46	\$8.02
Dec-08	\$17.10	\$4.44	\$6.67
Jan-09	\$16.20	\$4.33	\$6.20
Feb-09	\$13.50	\$4.35	\$4.43
Mar-09	\$13.00	\$4.18	\$4.27
Apr-09	\$13.40	\$4.05	\$4.66
May-09	\$13.40	\$4.35	\$4.36
Jun-09	\$12.90	\$4.25	\$4.13
Jul-09	\$13.00	\$4.02	\$4.43
Aug-09	\$13.20	\$3.96	\$4.62

Table 3: Milk Margin (Portion of milk price going to feed and portion remaining for other expenses)

	All milk price/100 lbs	Feed cost/100 lbs milk	Milk margin/100 lbs
Jan-08	\$22.60	\$7.36	\$15.24
Feb-08	\$21.00	\$8.36	\$12.64
Mar-08	\$19.10	\$8.42	\$10.68
Apr-08	\$19.90	\$8.82	\$11.08
May-08	\$19.50	\$8.36	\$11.14
Jun-08	\$20.30	\$9.30	\$11.00
Jul-08	\$21.40	\$8.79	\$12.61
Aug-08	\$20.50	\$8.15	\$12.35
Sep-08	\$20.50	\$8.15	\$12.35
Oct-08	\$19.40	\$6.92	\$12.48
Nov-08	\$19.20	\$6.87	\$12.33
Dec-08	\$17.10	\$6.83	\$10.27
Jan-09	\$16.20	\$6.66	\$9.54
Feb-09	\$13.50	\$6.69	\$6.81
Mar-09	\$13.00	\$6.44	\$6.56
Apr-09	\$13.40	\$6.23	\$7.17
May-09	\$13.40	\$6.70	\$6.70
Jun-09	\$12.90	\$6.54	\$6.36
Jul-09	\$13.00	\$6.18	\$6.82
Aug-09	\$13.20	\$6.09	\$7.11

**A Longer Run View – Population, Cow Numbers, and Milk Per Cow**

The figure below shows index numbers for the U.S. population, cow numbers, and milk per cow, for 1990-2008, where 1990=1. It is apparent that production per cow is growing faster than the population. As a result, even if per capita dairy production consumption was flat, each year fewer cows would be needed to provide the milk that the domestic market would require. Of course, if per capita consumption falls, even fewer cows are required. In fact, per-capita consumption, as measured on a milkfat basis fell and then rose over the period, so this was not an important factor. However, the average herd size per farm rose over the period, meaning that the number of dairy farms fell by more than the number of cows. This trend has been occurring for decades. It is the major reason that if the industry is going to maintain its size or grow, it must export milk. Serving only the U.S. market leaves the industry on a treadmill of shrinking cow and farm numbers.

## Milk/Cow, Population, & Cows 1990-2008

