



# Dairy Outlook

March 2010

**By Jim Dunn**

**Professor of Agricultural Economics, Penn State University**

## Market Psychology

February milk prices were lower than January, with the PA all-milk price down \$0.30 /cwt. The Class IV price fell by \$0.95, while the Class III price fell by \$0.22. As mentioned last month, this decrease was largely a response to more heifers in the January Cattle report. Table 1 has these prices, the Class III and Class IV futures prices as of March 18, and the implied PA all-milk price based on these futures market prices. The predicted all-milk price for all of 2010 is \$0.13 lower than last month's values. The next few months are forecast to be in the \$16.00 range, with the second half of 2010 being above \$17.00, with an average of \$17.27 for the year overall.

The cheese market has dropped steadily since last month, going from \$1.4275/lb. to \$1.2675, or a drop of 16 cts./lb. In contrast the butter milk has climbed from \$1.38/lb. to \$1.46/lb. Non-fat dry milk prices have been flat. Whey powder has lost a couple cents.

January dairy imports were down \$65 million over December, a 33% decrease. This decrease is exactly the same percentage as January 2009 over December 2008, reflecting a typical Holiday-spike and post-Holiday fall-off. December has a lot of parties, often with fancy cheeses, while January has very few. January dairy exports were down as well, but only 5%. This made the January dairy trade balance strongly positive. The dollar is stable compared to the Euro, but still well below the levels of a few months ago. The economic situation of Greece and some other member countries is decidedly shaky, making our economy look good internationally, despite how it may appear to us. Both the Australian and New Zealand dollars have further strengthened versus the greenback, making our dairy prices relatively more attractive.

## Corn and Soybean Markets

Corn has been trading in a narrow range for the past month, closing essentially where it was a month ago. The estimate of the size of the 2009 crop was lowered, but USDA export estimates for the crop year were lowered by the same amount in response to good feed grain crops elsewhere in the world. Like corn, soybeans went nowhere in the past month. Soybean meal dipped in early March, but is now back where it was a month ago. The soybean crops in Brazil and Argentina will be good, so there should be no upward pressure on the prices from that quarter.



### **Income over feed costs**

Penn State's measure of income over feed costs changed little from January's \$7.74 to \$7.72 in February. The January number was readjusted as USDA revised some figures. The price fell in February, but feed prices fell also. This value reflects gross income less feed costs for an average cow producing 65 pounds of milk. The monthly decrease is 0.3%. Figure 1 and table 2 showing the monthly data are appended.

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 measure shows that February was much the same as December and January. Both income over feed costs and the milk margin will be lower in March, and if the price expectations are accurate, these lower values will continue until autumn. As of now, it looks like even the end of the year values will be no higher than February, so the year's highest milk margins may have been in January.

### **Milk Production and Cow Numbers**

Milk production in January was 14,768 mil. lbs., up very slightly from last year. Figure 2 shows the data from the last few years. Of course, February is always the least because it has fewer days. Cow numbers are up 3,000 head this month from January, to 9,088,000 head, although down 201,000 from January 2009. Figure 3 shows this data. The lower milk prices in the futures market are a reflection of the leveling off of cow numbers. If cow numbers don't decrease further, the increases in milk per cow will exceed the ability of the domestic market to absorb the milk. Certainly increasing butter prices in an environment of stable or falling milk prices will not continue. Similarly the prices of other storable products may soften, since making storable products if lower milk prices are foreseen is foolish.

## PA Dairy Income over Feed Costs

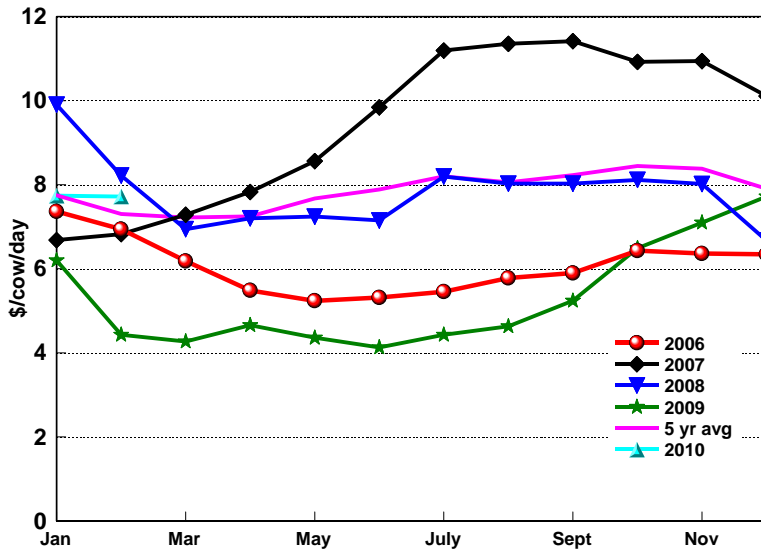


Figure 1. PSU's Income Over Feed Costs (IOFC)

## Milk Production

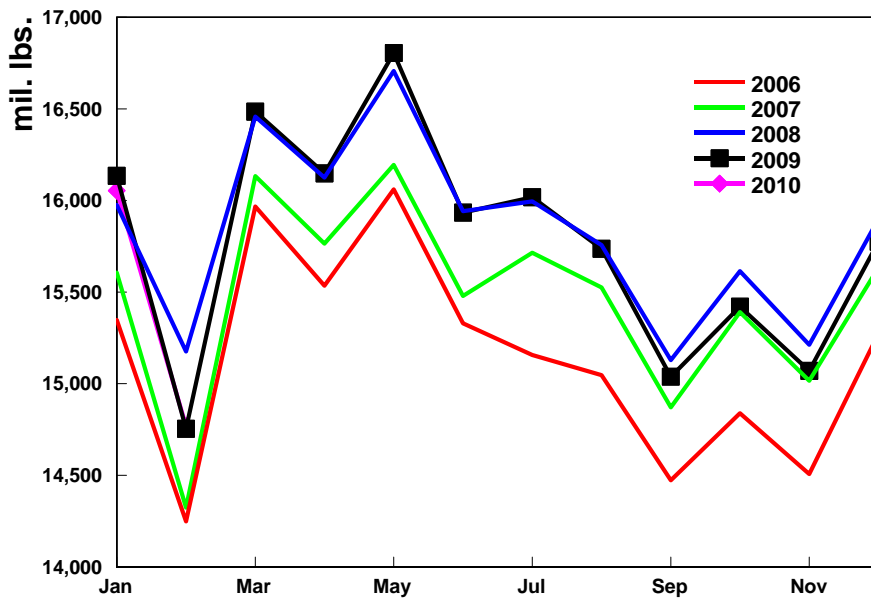


Figure 2: U.S. Milk Production (source USDA)



Table 1. Implied Milk Prices and Futures Prices for 2010

(Based on futures prices of March 18, 2010)

	Class III \$/cwt	Class IV \$/cwt	PA All Milk \$/cwt		Class III \$/cwt	Class IV \$/cwt	PA All Milk \$/cwt
2009				2010			
Jan	10.78	9.59	16.20	Jan	14.50	13.85	18.00
Feb	9.31	9.45	13.50	Feb	14.28	12.90	17.70
Mar	10.44	9.64	13.00	Mar	12.80	12.98	16.06
Apr	10.78	9.82	13.40	Apr	12.43	13.32	15.97
May	9.84	10.14	13.40	May	12.89	13.58	16.33
Jun	9.97	10.22	12.90	Jun	13.60	13.79	16.82
Jul	9.97	10.15	13.00	Jul	13.95	14.09	17.14
Aug	11.20	10.38	13.30	Aug	14.41	14.42	17.53
Sep	12.11	11.15	14.20	Sep	14.88	14.56	17.85
Oct	12.82	11.86	15.40	Oct	14.83	14.67	17.86
Nov	14.08	13.25	16.40	Nov	14.76	14.84	17.89
Dec	14.98	15.01	17.80	Dec	14.68	14.69	17.78
Annual	11.36	10.89	14.38	Annual	14.00	13.97	17.24
Annual change	-6.08	-3.76	-5.67	Annual change	2.64	3.09	2.87
% change	-34.9%	-25.7%	-28.3%	% change	23.3%	28.3%	20.0%

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	\$13.30	\$4.01	\$4.63
Sep-09	\$14.20	\$3.99	\$5.24
Oct-09	\$15.80	\$3.78	\$6.49
Nov-09	\$16.80	\$3.82	\$7.10
Dec-09	\$17.90	\$3.92	\$7.72
Jan-10	\$18.00	\$3.96	\$7.74
Feb-10	\$17.70	\$3.79	\$7.72

Table 3: Pennsylvania 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	\$13.30	\$6.17	\$7.13
Sep-09	\$14.20	\$6.14	\$8.06
Oct-09	\$15.80	\$5.82	\$9.98
Nov-09	\$16.80	\$5.88	\$10.92
Dec-09	\$17.90	\$6.03	\$11.87
Jan-10	\$18.00	\$6.09	\$11.91
Feb-10	\$17.70	\$5.82	\$11.88

# Number of Cows

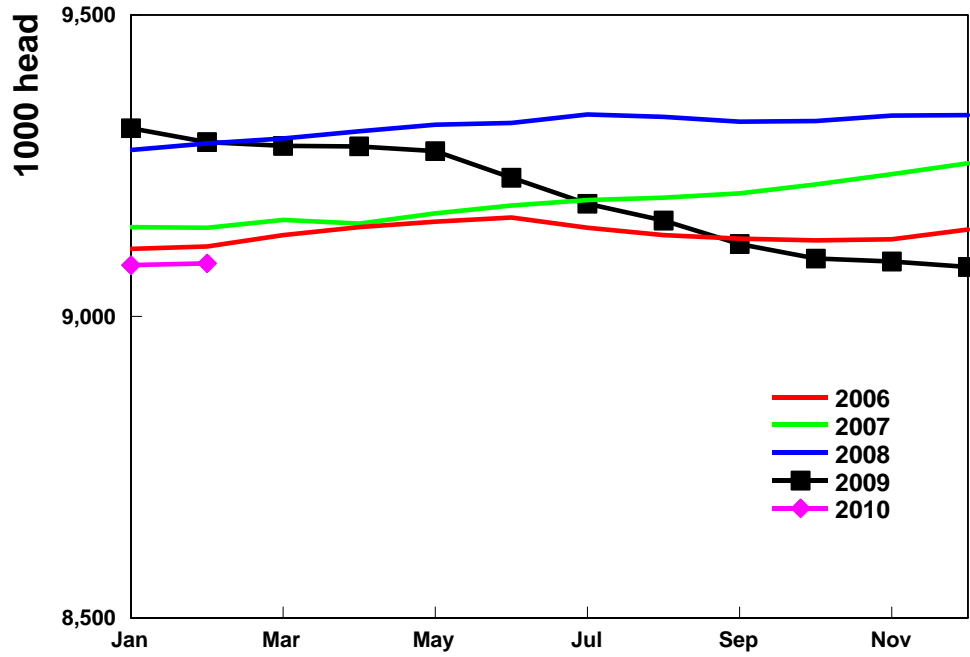


Figure 3. Estimated US Milk Cows (source USDA)