

Dairy Market Report

March 2007
Volume 10, Number 3

by Roger Cryan

➤ General Summary:

- February's **Class III price** was up 62¢ from January to \$14.18. The **Class IV price** was up 18¢ to \$12.71.
- February **milk production** was estimated at 14.30 billion pounds in all 50 states, up 0.4% from 2006.
- Total **cheese production** was up 6.7% from a year ago in January. As of March 27, blocks were \$1.40 per pound, up 3¢ from our last report; and barrels were \$1.41, up 6¢ from the last report. March beginning cheese stocks were reported up 9% from a year ago.
- The **butter price** was up 12¢ to \$1.33 on March 27. Butter production was up 2½% from a year ago in January. Butter stocks at the start of March were reported up 10% from a year ago.

➤ Class & Component Prices

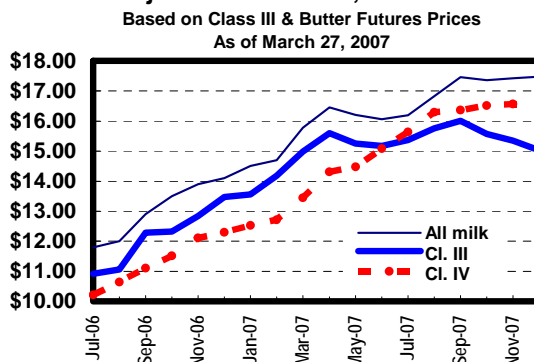
The [February Class III price](#) was announced at \$14.18 per hundredweight, up 62¢ from January and up \$1.98 from last February. The 62¢ increase breaks down as follows: up 10¢ with higher cheese prices, up 1¢ with higher butter prices, up 78¢ with higher whey prices, **and down 25¢ with the change in Federal order make allowances.** (See our discussion in last month's edition.) **It is worth noting that unprecedented whey prices will soon add nearly \$3.00 per hundredweight to the Class III milk price, less than four years since whey prices were a negative component of the Class III milk price.**

The March Class III price is projected to be about \$15.00, when announced on March 30.

Class III [futures prices](#) for the next six months (April through September) averaged \$15.53 per hundredweight on March 27 (see chart). The futures market now projects the Class III price to average \$15.15 in 2007; USDA forecasts an average of \$14.40.

The Class III price is the minimum price processors pay for milk (with 3.5% butterfat) pooled on a Federal order and used to produce cheese.

Projected Milk Prices, 2006 - 2007



The [February Class IV price](#) rose 18¢ to \$12.71 per hundredweight, up 30¢ from higher nonfat dry milk prices, up 6¢ from lower butter prices, and down 17¢ from make allowance changes. This is up \$1.61 from last January. **The March Class IV price projects to be about \$13.45, when announced on March 30.**

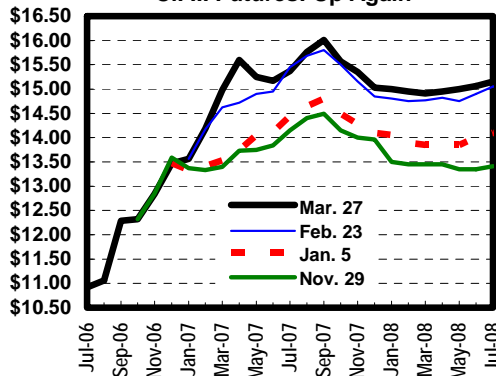
Cash-settled butter futures prices and nonfat dry milk price expectations suggest that the Class IV price will average about \$15.35 for the next six months (April through September), and about \$15.00 for all of 2007. USDA forecasts the Class IV price to average \$13.30 in 2007. The Class IV price is the minimum price processors pay for milk (also at 3.5% butterfat test) pooled on a Federal order and used to produce butter or milk powder.

Volume and open interest in the [Class III milk futures and options markets](#) (including electronic trading of the Class III contract) was 12.1 billion pounds of milk, as of March 23. Open interest in butter futures and options (including the electronic traded cash settled butter contract) represents the butterfat from another 2.0 billion pounds of Class IV milk. Dairy Market Report's Class IV projections are based on cash-settled butter futures prices.

[February component prices](#) were as follows: \$1.3112 per pound (up 1¢ from January) for butterfat in Class III, Class IV, and producer milk; \$2.4125 (up 1¢) for protein in Class III and producer milk; \$0.9356 (up 2¢) for total nonfat solids in Class IV milk; and \$0.4170 (up 10¢) for other solids in Class III and producer milk.

The [February Class II price](#) was up 23¢ to \$13.08 per hundredweight, **based on old make allowances in the skim price calculation and new make allowance in the butterfat calculation.** **The March Class II price is projected to be about \$13.55, when announced on March 30.** This is the minimum price for pooled milk used to make soft dairy products and in most food processing.

Cl. III Futures: Up Again



The [April Class I base price](#) was up 75¢ from March, and up \$3.78 from last year, to \$15.00.

The futures markets continue to project that the Class III (cheese price) formula will set the Class I price indefinitely. The Class I base price plus the Class I location differential is the minimum price processors pay (at the plant) for milk pooled on a Federal order and bottled for beverage use.

➤ Producer Prices

USDA estimates February's all-milk price at \$14.70, up 20¢ from January's revised figure, and up \$1.20 from a year ago. We project the all-milk price to rise a dollar or more in March, to \$15.80, and to jump again to about \$16.50 in April. Based on futures prices, the next six months (April through September) are projected at about \$16.50; for all of 2007, futures project an all-milk price of \$16.40. USDA raised its 2007 all-milk price forecast again to \$15.35.

The table above shows projected FY 2007 payment rates for the USDA's [MILC program](#). The projections are based on futures prices as of March 23, 2007. No payments are projected before its scheduled expiration at the end of September.

➤ U.S. Milk Production

NASS estimated total February [U.S. milk production](#) at 14.30 billion pounds, up 0.4% from a year ago. The herd is up about 0.4%, and milk per cow is unchanged. January's production was 15.6 billion pounds, up 1.4%.

USDA reports monthly production for 23 states. Ten of these showed year-over-year growth in February, including Idaho (up 7.0%), Michigan (up 4.6%), and Iowa (4.3%). Twelve had lower production, including Missouri (-9.3%), New Mexico (-7.4%), Illinois (-6.3%), Vermont (-6.3%), and Kansas (-6.0%). (Texas was too close to call.) California production was up 3.5%, on 2.6% higher milk per cow from 0.8% more cows, accounting for 22% of U.S. milk production in February. Wisconsin production was up 2.9%.

February's one-year production growth was down to 0.4%, and two- and three-year

MILC Payment Rate		
Year	Class I Base	Payment Rate
FY 2007		
October '06	12.42	0.4318
November	12.40	0.4386
December	12.43	0.4284
January '07	13.59	0.0340
February	13.39	0.1020
March	14.25	0.0000
April	15.00	0.0000
May*	15.60	0.0000
June*	15.45	0.0000
July*	15.31	0.0000
August*	15.66	0.0000
September	16.31	0.0000

* Months in italics are projections.
Based on futures as of March 27, 2007.
Rate for September 2007 is zero.

growth were off the pace of previous months, as well. Dairy cow slaughter numbers through March 10 are running near recent averages, and well above the last couple of years. (See graph on page 6.) This increased cull rate is expected to continue through 2007, as replacement heifers are readily available and high feed costs are stressing many producers.

The feed price stress seems to be overwhelming faster herd improvement, and it stopped milk-per-cow growth in February. This stress will continue to grow, as many producers who have benefited from feed price contracts over the last year

will face renewal of these feed contracts in the spring, at the higher current feed prices. Reduced use of rBST is also modestly reducing overall milk-per-cow, as high feed costs undercut the profitability of its use and as retailers' demand for "rBST-free"

fluid milk grows.

The U.S. herd cull will be further boosted by the fourth round of herd retirements by the Cooperatives Working Together (CWT) [program](#) of the National Milk Producers Federation.

CWT announced this month that it would retire 343 herds containing 54,000 cows. These herds produced just over one billion pounds of milk in 2006, or nearly 0.6% of U.S. production. If the February milk production

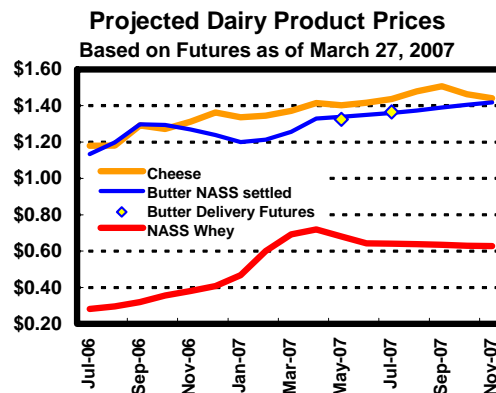
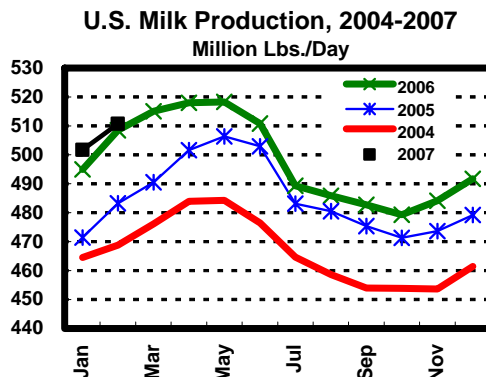
number is not a fluke, the additional CWT retirements could set April and May milk production back to its 2006 levels or lower. The first herd in this round was retired on March 22.

USDA's has cut its projection for 2007 growth, to 1.0%. Following the announcement of the latest round of CWT herd retirements, we now project annual production growth of less than 1%.

➤ Cheese

[CME cheddar cheese prices](#) were down. As of March 27, forty-pound blocks were up 3¢ from our last report, to \$1.40 per pound. Five hundred-pound barrels were up 6¢ from last month's report, to \$1.41.

For the month of February, the average price for cheddar in 40-lb. blocks was \$1.34, up 2¢ from January and up 14¢ from last February. The average CME price for cheddar cheese in 500-lb. barrels was



\$1.34 per pound, up ½¢ from January and up 16¢ from last February.

The Class III futures market currently projects the equivalent of an average cheese price for 2007 near \$1.40. World prices for cheddar cheese are about \$1.37 per pound.

In January, total [U.S. cheese production](#) (excluding cottage cheese) was 824 million pounds, up 7% from a year ago, but down 1% from December. Production of American type cheese totaled 343 million pounds, up 6% from a year ago, and up 1% from December. Production of Italian types was 350 million pounds, up 7% from a year ago, but down 1% from December.

USDA/NASS estimated natural American [cheese stocks](#) at 555 million pounds at the beginning of March, up 2% from February and nearly even with from a year ago. Stocks of other cheese, including Swiss, began March at 298 million pounds, up 3% from last month and up 30% from last year. **As we noted last month, these are the new expanded storage numbers, resulting from mandatory reporting and for which NASS now has a full year of data to compare year over year. The new numbers for all of 2006 are available in NASS' [Cold Storage annual report](#).**

USDA's Economic Research Service estimates that [commercial disappearance](#) of American cheese in the last quarter of 2006 was 1.03 billion pounds, up 4½% from a year ago. For other cheese it was 1.56 billion pounds, up 6% from last year. Three-month commercial disappearance of all cheese was up 5%. For all of 2006, commercial disappearance of all cheese was up 3.5%, 9.85 billion pounds.

The average [retail price](#) for cheddar cheese in U.S. cities was \$4.01 per pound in February 2006, down 30¢ from a year ago and down 5¢ from January. The average retail price for American processed cheese was \$3.70½ per pound, down 18¢ from a year ago and down 7¢ from December.

➤ Butter

[January 2007 U.S butter production](#) totaled 151 million pounds, up 2½% from a year earlier, and up 10% from December.

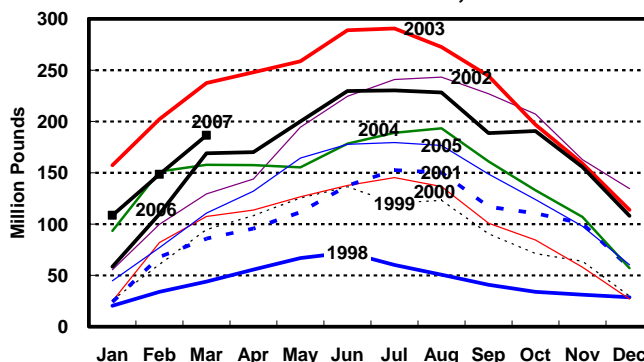
NASS estimates that March's starting [butter stocks](#) were 187 million pounds, up 25% from a month earlier and up 10% from a year ago. These are the second highest March stocks in a decade. (See graph.)

USDA's Economic Research Service estimates that [commercial disappearance](#) of butter in the last quarter of 2006 was 470 million pounds, up 11% from a year ago. **For all of 2006, commercial disappearance of butter was up 4.5%, to 1.43 billion pounds.**

The CME butter price was up 12¢ to \$1.33 on March 27. The [CME butter price](#) averaged \$1.22

per pound during February, down a penny from January, and up 2½¢ from a year ago. **The futures markets expect butter prices to average about \$1.34 in 2007. World butter prices continue rising and are now about 93¢ per pound.**

Commercial Butter Stocks, 1998-2007



Source: USDA/NASS (beginning stocks)

The average [retail butter price](#) for U.S. cities was \$3.01 per pound in February, down 7¢ from a year ago and up a half penny from January.

➤ Nonfat Dry Milk

NASS' estimate of [U.S. nonfat dry milk production](#) was 111 million pounds in January, up 3% from a year ago and down 3% from December. Adding 9 million pounds of modified "skim milk powders" made in January, total skim powder production was 120 million pounds, down 12% from a year ago and down 8% from December. **Falling powder production is coming mostly out of the export-oriented protein-standardized "skim milk powders."**

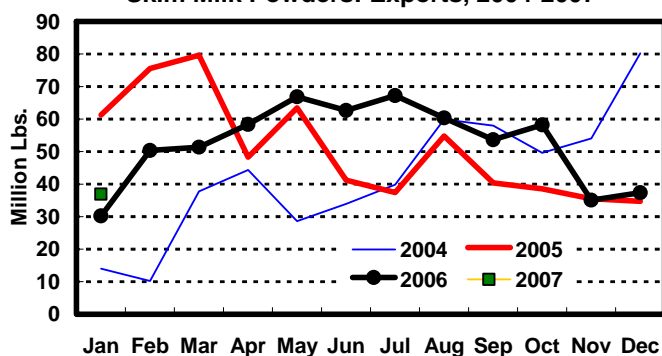
USDA's Commodity Credit Corporation held only 20 million pounds of [nonfat dry milk](#) on March 1, all committed to domestic and foreign feeding programs. Manufacturers' February 1 stocks of nonfat dry milk (*per se*) were 81 million pounds, down 29% from a year ago, and up 1% from January 1.

[The CME prices of extra grade and grade A nonfat dry milk](#) were \$1.45 and \$1.65 on March 27, unchanged and up 12½¢, respectively, from last month's report. According to USDA's weekly [survey](#), the average U.S. manufacturers' price was \$1.17 the week of March 17. **The average sale prices continue to move slowly toward the spot prices reflected in the CME.**

Overseas powder prices have passed \$1.55 per pound in a tight world market, but U.S. exports are flat as manufacturers struggle to meet strong domestic demand.

USDA's Economic Research Service estimates that [commercial disappearance](#) (which includes exports) of nonfat dry milk (only) in the three months ending December was 231 million pounds, down 10% from a year ago. For the year it was down 4.7%, to 1.20 billion pounds.

Skim Milk Powders: Exports, 2004-2007



Source: USDA/FAS

⇒ Yogurt & Whey

U.S. yogurt production was 279 million pounds in January, up 11% from a year ago and up 13% from December.

The new CME dry whey futures contract settles against the monthly average NASS survey whey price used to calculate the Federal order Class III price. Based still on very small volume, this contract projects whey prices to peak above 70¢ in April, then spend the rest of the year in the low- to mid-60's. (See the graph on page 2.)

U.S. production of dry whey for human consumption was 92 million pounds in January, up 12% from a year ago, and up 6% from December. Manufacturers' stocks at the start of February were 33 million pounds, down 12½% from last year, and down 6½% from the beginning of January. January production of whey protein concentrates (for human and animal use) with 25% to 50% protein was 23 million pounds, down 12% from a year ago, and down 6% from December. January production of whey protein concentrates from 50% to 90% protein was 11 million pounds, up 12% from a year ago, and down 1% from December. January production of whey protein isolates (over 90% protein) was 3.4 million pounds, up 30% from a year earlier, and up 2% from December.

The manufacturers' price of whey was 71¢ per pound the week of March 17, according to NASS' survey. *Rising powder prices continue to drive rising WPC-34 spot prices, to a reported \$1.33 per pound, according to USDA's Dairy Market News. The international whey price is approaching 75¢ per pound, and international WPC-34 prices are near \$1.40. As we have noted, high prices for dry sweet whey are, in part, a result of short processing capacity, rather than short supplies of raw whey. Another factor is growth in demand, driven both by high skim powder prices and by innovation in ingredient use.*

⇒ Ice Cream

U.S. ice cream production was 90 million gallons in January, up 2% from a year ago and up 21% from December. January ice cream mix

production was 37 million gallons, up 7% from a year earlier, and up 33% from December.

February's average retail ice cream price for U.S. cities was \$4.02 per ½-gallon, down a penny from January, and up a quarter from a year ago.

⇒ Fluid Milk

Fluid milk sales for January were reported up 2.9% from a year ago, and up 0.8% after USDA adjustments for calendar composition. (See table on page 6.)

The announced cooperative Class I milk price for major cities averaged \$18.57 per hundredweight (\$1.60 per gallon) in March, \$1.79 (15¢) above the Federal order minimum, \$1.84 (16¢) higher than a year ago, and 78¢ (7¢) higher than February.

The U.S. average city retail price for whole milk was \$3.08 per gallon in February, up 2¢ from January, and down 14¢ from last year.

⇒ Market Outlook

Exceptionally strong demand is the happy background for a very unusual dairy market. In 2006 commercial disappearance (including exports) of skim solids was up 2.0%, and milk fat was up 2.9%. This may seem like the natural result of low dairy prices; except that some of the strongest growth of the year (2.4% for skim solids and 3.7% for milk fat) was in the last quarter of 2006, when prices were rising again.

Prices continue rising throughout the dairy complex, but it is too little and too late for many dairy farmers. February milk production growth was only 0.4%, far below the five-year average of nearly 2%. This seems to signal that many large, once well-capitalized, dairy producers are at last reaching their breaking point. As feed costs sky-rocket, they are turning the cost advantages of large feeding operations upside-down, and for the first time in memory the small diversified farm has been better equipped to handle a tough market.

This unusual situation has made the timing of the milk production supply response unpredictable: it has been obvious that production must pull back, but it has been unclear how long it would take. These first signs of faltering production, along with strong demand-side fundamentals, at home and abroad, are driving rising futures prices. If the February production figure is a bellwether, then we could see declining production this spring, before all-milk prices above \$17 per hundredweight begin to cover costs and restore modest production growth.

In the middle of all this, the fourth CWT herd retirement is now on track, and nearly a billion pounds of annual milk production is already heading for that big pasture in the sky.

The current circumstances of strong demand and quick (and large) exits may be leading to a relatively fast adjustment to the higher prices necessary to sustain a balanced market. We don't

expect the coming high prices to be high enough to drive expansion anytime soon; but other countries are also facing high feed costs so dairy prices could stay high for longer than expected.

We continue to expect energy markets to dictate the long-term dairy price outlook. Whenever, corn ethanol production peaks (perhaps in 2009 or

2010), corn prices could fall again and spark a expansion.

In the meantime, we will watch slaughter numbers to gauge the impact of CWT's herd retirement and farm exits, along with the monthly production reports.

This report is produced for [Dairy Management Inc.](#), by [National Milk Producers Federation](#). Please direct questions, comments, and subscription requests to [Roger Cryan \(rcryan@nmpf.org\)](mailto:rcryan@nmpf.org)

**Estimated Total U.S. Sales of Fluid Milk Products:
December and Year to Date, and Percent Change from Previous Year 1/**

Product	January 2007		2006 Total	
	Mil. Lbs.	%	Mil. Lbs.	%
Whole Milk	1,428	-0.1	16,491	-2.3
Flavored Whole Milk	64	2.3	713	-5.1
Organic Whole Milk	26	32.5	244	n/a
Reduced Fat Milk (2%)	1,573	3.1	17,813	2.6
Low Fat Milk (1%)	575	4.7	6,390	3.3
Fat-Free Milk (Skim)	712	3.8	8,030	2.6
Flavored Fat-Reduced	369	3.2	3,728	2.3
Organic Fat-Reduced	88	37.1	818	n/a
Buttermilk	44	2.4	521	-1.1
Total 2/	4,891	2.9	55,064	1.0
Total - adjusted 2/ 3/	4,845	0.8	55,177	1.2

Source: Monthly summaries of *Federal Milk Order Market Statistics*, AMS/USDA, and *California Dairy Information Bulletin*, California Department of Food and Agriculture.

Adapted from *Dairy Market News*, AMS/USDA, March 9, 2007. Organic milk is included in with conventional milk in calculating percentage changes.

1/ Estimates for the U.S. based on federal order and California data.

2/ Includes misc. products

3/ Adjusted for calendar composition.

n/a = "not available"

On-line Sources Much of the information for this report is from the World Wide Web. To make the most up-to-date numbers available to you, the text above contains hyperlinks to some of the following sites:

Dairy Market Report Archive:

<http://www.nmpf.org/meData/dairyMarket.cfm>

U.S. Dairy Markets and Outlook Archive:

www.nmpf.org/meData/outlook.cfm

USDA's National Agricultural Statistics Service:

Milk production:

usda.mannlib.cornell.edu/reports/nassr/dairy/pmp-bb/

Dairy product production:

usda.mannlib.cornell.edu/reports/nassr/dairy/pdp-bb/

Dairy product inventories:

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1034>

Dairy product prices:

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1450>

U.S. and Canadian cattle:

usda.mannlib.cornell.edu/reports/nassr/livestock/uscc/

U.S. livestock operations:

<http://usda.mannlib.cornell.edu/reports/nassr/other/zfl-bb/>

USDA's AMS Dairy Programs, Fed. Order Prices:

Class I:

<http://www.ams.usda.gov/dyfmom/mib/advanprc.pdf>

Others:

<http://www.ams.usda.gov/dyfmom/mib/classprcacnmt.pdf>

Historical Class Prices:

http://www.ams.usda.gov/dyfmom/mib/nass_fedord_prc.htm

Federal order formulas:

www.ams.usda.gov/dyfmom/mib/price_form_2003.htm

AMS Dairy Market News: Fluid sales, coop. Class I prices: www.ams.usda.gov/dairy/mncs/weekly.htm

USDA's Economic Research Service:

Commercial disappearance, price projections, etc.:

usda.mannlib.cornell.edu/reports/erssor/livestock/ldp-mbb/

USDA's Farm Service Agency:

Information on the MILC program:

<http://www.fsa.usda.gov/pas/publications/facts/html/milc06.htm>

Information on the price support program:

Notices to the industry:

<http://www.fsa.usda.gov/daco/notices.htm>

Announcements, invitations, etc.:

<http://www.fsa.usda.gov/daco/dairy.htm#Inv>

Inventory reports and statistics:

<http://www.fsa.usda.gov/daco/reports.htm>

USDA's Foreign Agricultural Service:

Dairy trade data:

<http://www.fas.usda.gov/dlp/Dairy>

Bureau of Labor Statistics: Retail prices: www.bls.gov/ or paste the following codes:

APU0000709112 for whole milk;

APU0000710111 for butter;

APU0000710211 for processed cheese;

APU0000710212 for cheddar cheese; and

APU0000710411 for ice cream

into this page: <http://146.142.4.24/cgi-bin/srgate>

Federal Register: Formal notice of regulatory actions:

<http://www.gpoaccess.gov/fr/index.html>

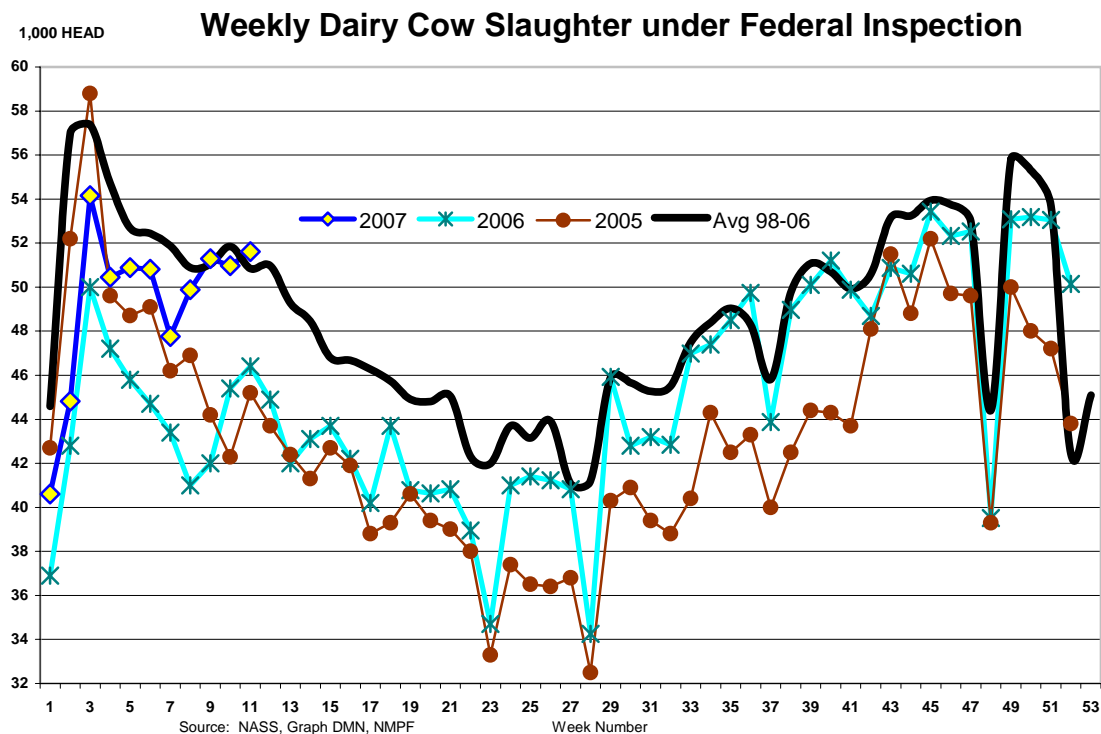
Chicago Mercantile Exchange Daily Prices:
Cash cheese & butter prices; milk & butter futures:
www.cme.com/dta/hist/daily_settlement_prices.html?type=com

Daily Dairy Report: www.dailydairyreport.com/

For more information on cash-settled butter futures:
www.cme.com/trading/prd/overview_CB14731.html

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Federally inspected slaughter through March 10, 2007.
The "98-05 Avg." series was added by *Dairy Market Report*.