



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

## **OUTLOOK FOR U.S. DAIRY**

Shayle D. Shagam  
Livestock Analyst  
World Agricultural Outlook Board, USDA

The U.S. dairy sector enters 2006 having experienced 2 years of good returns which have fueled a significant production expansion. Milk prices in 2005, while below 2004's record remained at levels rarely seen before. Milk cow numbers climbed steadily during the year. Production was boosted by a recovery in milk per cow during the year. Milk-feed price ratios in 2005 were generally higher than 2004, which favored production increases; and gains were also aided by increased availability of rBST, favorable weather, and adequate supplies of alfalfa hay.

Despite what was the largest milk production increase since the early 1990's, the price decline in 2005 was relatively modest. Supported by strong demand for U.S. dairy products both domestically and in international markets, the all milk price in 2005 averaged \$15.15 per cwt, down 90 cents per cwt from 2004. Commercial disappearance on a fat solids basis increased just under 2 percent as disappearance of American cheese and butter increased about one-half percent but other cheese use increased 3.3 percent (adjusted for leap year). However, fat basis stocks have moved above year earlier levels as supplies have out paced demand and product prices have weakened to clear the markets. Commercial disappearance on a skim solids basis increased more rapidly than that for fats as higher cheese use was joined by increased exports of skim solids products. However, skim solids basis supplies of dairy products have also outpaced demand and stocks measured on a skim solids basis, which were below 2004 for much of the year rose above year earlier in the fourth quarter.

### **Outlook for 2006: Steady Supply Pressure**

Milk production is forecast to increase just under 3 percent in 2006. Although less than the 3 percent growth in 2005, it reflects the sector's response to good returns over the past 2 years. The expansion is expected to be the result of both increased cow numbers and continued growth in output per cow.

The relatively high milk prices of the past 2 years, coupled with a continuation of relatively low feed costs are expected to encourage further expansion in the dairy sector during 2006. Returns in 2005 were slightly below 2004, but the decline in the number of dairy farms in 2005 was well below its five year average and the lowest percentage decline since the early 1980's. Returns in 2006 are forecast to decline and the pace of dairy farm exits probably will increase slightly even though MILC payments are likely to offset part of the decline in milk prices. However, it is likely that in the short run most operations will be able to withstand the decline in returns, and recent buyouts under the Cooperatives Working Together (CWT) program may have already encouraged the exit of some of the most vulnerable operations.

Herd expansion has been under way since late 2004 but has been limited by tight supplies of heifers. The U.S. dairy cow herd increased 1 percent during 2005 and the January 1, 2006 *Cattle* report indicated that producers expect to add 3 percent more heifers to the dairy herd in 2006. However, prices for replacement heifers climbed steadily during 2005, reaching a record \$1870 in late 2005 before declining to \$1840 in January of this year. Although further softening is expected, prices likely will remain high through much of 2006. Despite this constraint, the cow herd in 2006 is expected to grow just under 1 percent during the year, the highest rate of growth since the mid-1980's and the first multi-year increase in numbers since the early 1980's.

Output per cow is forecast to increase almost 2 percent in 2006. Although less than the growth rate in 2005, it more closely resembles historical rates of growth. Milk per cow on a daily basis increased more than 3 percent in 2005, a rate well above trend growth but which reflects a return to full allocations of rBST coupled with good weather and some recovery in alfalfa hay supplies. Alfalfa prices have declined from their mid-2005 highs but they remain above year earlier levels. Stocks of all hay on December 1 were below year earlier which may be reflected in tight supplies in the spring. Although stocks in the Northern Plains were above year-earlier levels, hay quality has been a concern. Nonetheless, in the absence of weather related disruptions, supplies should be sufficient to keep alfalfa prices near last year's levels. Increased numbers of new heifers may slightly lower the rate of growth of milk yields but the impact may be less than normal because of a relatively large number of less productive cows which are likely waiting to be culled.

### **Will Demand Keep Up with Supply Increases?**

Demand for dairy products has been remarkably strong over the past 2 years. Commercial use increased just under 2 percent in 2005 on a fat basis while skim solids use increased about 4 percent. However, as production of butter rose 10 percent and cheese production was 1 percent higher, lower prices were needed to clear markets. On the other hand, strong international demand strengthened nonfat dry milk and whey prices despite 6 percent and 3 percent more production respectively. Stock levels returned to levels of the recent past, increasing slightly in 2005 on both a fat basis and skim solids basis. Much of the increase from 2004 occurred in the last part of year as stocks of American-type cheese followed by butter stocks were higher. Higher lowfat milk sales more than offset declines in sales of whole milk and total fluid milk consumption through November increased slightly.

The prospects for continued increases in product use in 2006 are favorable but the demand picture likely will more closely resemble 2005 where price declines balanced markets rather than 2004 when prices rationed supplies. Economic growth is forecast to remain robust although energy price shocks or interest rate increases may result in a reallocation of discretionary spending by consumers. Nonetheless, restaurant sales have been reportedly firm and the trends toward continued away from home meal consumption and prepared meal consumption, both important for continued strong product demand, are expected to benefit the dairy sector. Commercial use on a fat basis is expected to increase just over 3 percent in 2006, which should result in smaller than year-earlier stocks by the end of the year. However, growth of commercial

use on a skim solids basis may lag fat basis use a bit, resulting in small sales to the CCC sales later in the year.

### **International Markets Remain Firm**

U.S. milk producers benefited in 2005 from tight world supplies of dairy products and a U.S. dollar that remained relatively weak, albeit appreciating through the year. Lower nonfat dry milk production in New Zealand, Australia and the European Union limited export supplies and international nonfat dry milk prices in 2005 averaged about \$2,000 per ton, or 10-15 percent above 2004. With robust demand and international powder prices above domestic prices, the U.S. was able to expand commercial powder exports. Tight international supplies and relatively strong demand supported international butter prices at slightly above 2004 levels. However, lower U.S. butter and cheese prices largely eliminated the incentive to ship over-TRQ levels of dairy products to the United States. Total imports of dairy products fell by more than half during 2005, primarily reflecting a virtual halt in over-quota (high-tier) imports of butter (down 97 percent) and a sharp decline in American-type cheese (down 75 percent).

Good global economic growth is expected to help maintain international demand for butter and powders. Some easing of global supplies is expected in 2006. Although milk production in Australia is forecast to increase slightly during its 2006 marketing year, New Zealand's production likely will decline further as poor weather conditions have affected early year milk flows. Milk production in the European Union is expected to grow less than 1 percent, constrained by quotas. As global demand for dairy products has remained firm, international prices thus far in 2006 have remained near last year's levels. The U.S. dollar has been gradually strengthening against competitor currencies. However, in the absence of sharp movements, U.S. prices may remain relatively competitive and exports strong. Some weakening in prices is likely as global supplies increase but U.S. commercial exports of skim milk powders are expected to continue, albeit at lower levels than in 2005.

### **Commercial Stocks Steady**

After their sharp drawdown in 2004, commercial dairy product stocks increased slightly in 2005. As previously mentioned, this to a large extent reflected a build up of cheese beginning in mid year, followed by higher levels of butter towards the end of the year. On a fat basis, stocks at the end of 2005 were about 8 percent higher at 7.7 billion pounds, milk equivalent while on a skim solids basis, stocks were 6 percent higher at almost 8.7 billion pounds.

Government stocks remained quite small in 2005 as relatively high market prices discouraged sales to the government under the support purchase program. There was no buying activity reported for nonfat dry milk and in fact, sellback for unrestricted use and other programs resulted in negative net removals. Small amounts of cheese were also sold from government storage.

Stock levels in 2006 are expected to decline a bit from those of 2005. Although it is difficult to measure pipeline stock levels, much of the buildup of late 2005 is expected to dissipate in the second half of 2006. Although domestic demand is expected to absorb increased supplies of fat

basis products with little increase in stocks, continued strength of international markets will be a key determinant of whether there will be significant growth in skim solids basis commercial stocks or removals. Large supplies and weaker export prices may weaken domestic nonfat dry milk prices, encouraging sales of powder under the price support program. However, it is expected that powder removals during 2006 will be limited.

### **Prices to Edge Lower in 2006**

Wholesale dairy prices weakened for some products in 2005, as production growth outpaced growth in demand. Monthly average cheddar cheese prices in January 2005 were about 20 cents per pound above 2004 but by the end of the year about averaged about 30 cents below December 2004. Likewise January butter prices averaged about 19 cents above January 2004 but in December averaged 41 cents below the previous year. On the other hand, a strong market for nonfat dry milk generated NDM prices which were above year-earlier levels throughout 2005. Domestic NDM use may have increased, supporting prices but strong export sales of products containing skim milk powders played the most significant role in strengthening prices.

As 2006 begins, wholesale prices are under pressure from larger supplies of products. Steady price declines are expected through mid-year before the seasonal bump in second half prices. However, even with a price recovery in butter and cheese, prices in 2006 will still be below 2005. For 2006, cheese prices will average \$1.27 to \$1.34 per pound and butter will average \$1.26 to \$1.36 per pound.

Nonfat dry milk prices are expected to decline steadily through the year as production increases and export prices soften. International demand will continue to generate commercial exports but it is likely that increased international supplies will pressure U.S. prices. NDM prices are forecast to average 87.5 to 93.5 cents per pound, about 4 cents below the 2005 average. Although average prices are likely to remain above support, it is expected that there will be small sales to CCC during the year. Whey prices are forecast to average near 2005's level as continued strong domestic use and export demand supports prices.

In the face of generally weaker dairy markets, the 2006 all milk price is forecast to average \$13.10-\$13.80 per cwt, compared to \$15.15 in 2005. Class prices are also likely to decline by a \$1-2 per cwt although slower declines in NDM prices may result in a smaller absolute decline in Class IV prices. The Class III price is forecast to average \$11.85 to \$12.55 per cwt and the Class IV price is expected to average \$11.20 to \$12.00 per cwt.

Dairy retail prices likely will move lower as milk and wholesale dairy product prices fall. In 2005, prices rose just over 1 percent as the spread between farm and retail prices widened modestly. Although retail dairy prices are expected to decline slightly, the farm-retail spread likely will again widen a bit.

Additional information about the 2006 dairy forecasts are available at:

World Agricultural Supply and Demand Estimates  
<http://www.usda.gov/oce/commodity/wasde/index.htm>

Livestock, Dairy, and Poultry Situation and Outlook  
[www.ers.usda.gov/publications/ldp/](http://www.ers.usda.gov/publications/ldp/)

Dairy: World Markets and Trade  
[www.fas.usda.gov/dlp/dlp.html](http://www.fas.usda.gov/dlp/dlp.html)