

**OUTLOOK FOR U.S. DAIRY**

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The U.S. dairy industry enters 2011 in an environment of generally rising commodity prices. The outlook for feed grains is for exceptionally high prices. Corn prices are forecast to average \$5.05 to \$5.75 a bushel in the 2010/2011 crop year. Soybean meal prices are forecast to rise to \$340 to \$380 per ton in 2010/2011. Corn ending stocks are expected to dip to 675 million bushels, pushing the stocks-to-use ratio to its lowest level since 1995/96. Consequently, the 16 percent protein ration which reached just over \$8 per cwt in the fourth quarter of 2010 is expected to climb much higher in 2011. On the other hand, strong demand has boosted milk prices since the first quarter of 2010 and milk prices are staged to climb further during 2011. However, it is unlikely that the increase in milk prices will fully offset the increase in feed costs. The milk-feed price ratio, which remained above 2.0 in each of the four quarters of 2011, will likely slide below 2.0 in 2011 and remain there for most of the year. Two years ago when I gave this presentation, I suggested the milk-feed price ratio could decline to 1.5 during 2009 and leave producers with the worst profit outlook in years. In 2011 the outlook is not so grim. In fact, many producers may still show profitability.

**Outlook for 2011: Ultimately, Herd Retrenchment**

Based on data from the Agricultural Resource Management Survey (ARMS) the average net cash income per dairy farm recovered significantly last year, rising in 2010 from 2009, an admittedly poor year, by 203 percent from \$70,000 per farm to an average \$212,000 per farm. Putting 2009 in perspective, one has to go back to 2003 to find a worse net cash income number for dairy farmers. The outlook for 2011 is for net cash income to drop by over 13 percent to average \$184,000 per farm. By contrast, crop producers are expected to experience a year of double-digit gains in net cash income while livestock producers, as a group, will encounter declines. Dairy producers are projected to experience the largest year-over-year decline among all livestock producers. Despite the decline, the forecast net cash income for dairy producers, if realized, would be the third highest since 1996. The forecasts are based on USDA's short-term farm-income forecast model. The recovery in 2010 allowed producers to financially recover after 2009. In 2011, dairy producers will likely continue to adjust production practices to minimize the impact of higher costs, especially feed.

The improved financial performance of dairy farms in 2010 compared to 2009 likely contributed to a modest expansion in cow numbers in the second half of the year that is likely to continue into 2011.

Despite high feed prices and a forecast decline in net cash income from record highs, incomes should be strong enough to buoy some continued expansion during part of this year. However, based on expectations of weakening milk-feed price ratios during the year, some decline in cow numbers by the end of 2011 is expected. Average cow numbers for 2011 will be slightly higher in 2011 at 9.15 million head compared to 9.1 million head in 2010. Output per cow is also expected to rise in 2011, but by a more modest 1.3 percent this year compared to a 2.8 percent rise last year. Overall, milk production is forecast to rise to 196.1 billion pounds this year.

#### Demand to Continue to Be Strong in 2011

Economic recovery is expected to continue this year and, along with, it continued robust domestic demand for dairy products. Economic growth is forecast at about 3 percent for 2011. The National Restaurant Association's *Restaurant Performance Index* rose in December by 1 to 1.01 and the Association's Expectations Index, which measures expected sales over the next 6 months, stood at 102.4 in December the highest in nearly four years. The industry generally regards Index numbers above 1.00 as optimistic. This index is used by the restaurant industry as an indicator of the health and outlook for the industry which is a large user of cheese. The general upturn in the economy forms the basis for increasing total domestic U.S. commercial use 2.2 percent in 2011, on a fats basis, compared to 2010's anemic 0.4 percent rise. On a skims-solids basis, U.S. domestic commercial use is forecast to climb by about 3 percent in 2011 after preliminary estimates show a contraction of nearly 3 percent last year.

#### World Demand, Especially in Asia, Will be Exceptionally Strong

While the domestic demand situation is growing but stable, the global demand for dairy products is climbing sharply and could be volatile. China will be the primary driver of world dairy trade. Chinese imports of whole milk powder (WMP) are forecast at 880 million pounds in 2011, a 126 percent increase in two years. Fueling this rapid growth is an expanding population enjoying a steady rise in disposable income, and food safety concerns, a residual of the Melamine disaster and a subsequent decline in domestic production resulting in tight domestic supplies. Chinese imports of WMP are likely to continue into the foreseeable future. Chinese imports of skim milk powder (SMP) have risen at an annual 11 percent rate from 2005 to 2009 and are expected to total 220 million pounds in 2011.

World dairy prices jumped in January more than any other group of food commodities in the monthly Food Price Index published by the Food and Agriculture Organization (FAO) of the United Nations. The increase in dairy prices comes in the context of a trend toward higher prices for food commodities in general. The FAO Food Price Index stands at its highest level, both real and nominal, since the index was inaugurated in 1990.

The January bump in prices was at least partially attributable to continued firm world demand as well as generally tight supplies in the Southern Hemisphere which is at least partially attributable to the drought in New Zealand. Notably, EU production is forecast by USDA to be flat in 2011. Although herd size is expected to fall in the EU, output will be maintained by improved yield per cow. Since Australia and New Zealand rely more on pasture and less on manufactured feed, their production is more seasonal

and that effect is reflected both world and U.S. prices. A return to more normal weather in Australia should contribute to increased production there.

Total milk production in Australia is forecast to increase by 3 percent above 2010. Producers there will begin to rebuild their drought ravaged herds but total herd size is expected to be well below the peak attained in 2001/02. New Zealand's milk production declined in 2010 due to drought. This year, production is expected to rise by 10 percent. New Zealand's herd is expanding, a return to more normal weather and improved genetics and management underpin the rise. Argentina is expected to boost production by about 4 percent as well. It should be remembered that the total forecast output of these three countries is about 87 billion pounds compared to 196.1 billion pounds in the United States and nearly 297 billion pounds in the EU. However, much of Australia and New Zealand's product is exported while about 16 percent of U.S. production was exported in 2010 on a skim-solids basis.

U.S. milk equivalent exports in 2011 are forecast at 6.35 billion pounds on a fats basis and 30.7 billion pounds on a skims-solids basis. Export totals for 2011 are forecast below 2010 totals but in the face of improving domestic demand, export demand will be significant enough to impact prices for milk and dairy products.

#### Cheese

U.S. cheese exports for 2010 were nearly 30 percent above 2008's record. U.S. exports could remain at or near this level in early 2011. Although Australia's cheese exports are projected to climb 9 percent this year the total would still be well below Australia's 5-year average of about 416 million pounds. New Zealand's exports are expected to grow to 650 million pounds in 2011 but this is only slightly higher than 2009, the year before the drought. EU exports are expected to grow slightly but strong domestic demand and Russian import demand, as a result of their drought, will move more EU milk production to cheese rather than powder, a situation that could help firm powder prices.

Despite increased consumption and exports, total cheese ending stocks were above the average for the last 5 years in each month of 2010. Softening the price outlook for U.S. cheese is the high level of carryover stocks, and higher expected production in Oceania, all of which limits exports later this year. USDA currently forecasts cheese prices to average \$1.640 to \$1.710 per pound, higher than 2010 but below 2008's highs.

#### Butter

U.S. butter production declined in 2010. Strong cheese demand likely encouraged milk to move to cheese production from butter. In addition, the fat content of U.S. milk in 2010 was below that of the previous four years until November. Reasons for this are not certain, but it has been attributed to poorer feed quality in 2010. The fat test rose in November and December above the last three years as the new crop became available and the fat test was 3.83 percent in January, well above that of recent years. This would some credence to the feed quality hypothesis. If the fat test rises to more near normal levels the increased availability of fat along with higher production could help boost the supply outlook for both butter and cheese.

U.S. butter and butter equivalent exports peaked in July and totaled 130 million pounds in 2010 and butter stocks are near record low. This helps explain the 2-dollar-plus per pound butter prices on the Chicago Mercantile Exchange.

Although butter exports are likely to be lower in 2011 than 2010, tight stocks and strengthening domestic demand could support butter prices. Butter prices are expected to remain above year-earlier levels through mid-2011 but begin to decline as U.S. milk supplies continue to rise and relatively high butter prices encourage butter production. USDA forecasts the price to average \$1.710 to \$1.810 per pound this year.

#### Nonfat dry milk (NDM) /skim milk powder (SMP)

Powder prices will likely be higher in 2011 than last year. USDA forecasts NDM prices averaging \$1.345 to \$1.405 per pound. Strong export demand for these products, will underpin the price forecast. Generally, the EU will be less of a factor in the powder market as it has shifted more milk into cheese production. Imports of both SMP and WMP to major importing countries is expected to expand by 10 percent this year. Major gains in WMP production are likely from both New Zealand and Argentina to counter EU export declines. Exports of SMP from the United States could increase this year as world demand rises with continued economic growth. But competition from Oceania countries could limit U.S. export totals.

#### Milk Price Outlook

With continued economic recovery in the U.S. boosting domestic demand and a potentially good export year, despite increased competition, milk prices will likely be higher in 2011 than last year. The all milk prices is forecast by USDA to average \$17.70 to \$18.40 per cwt in 2011, an increase from the \$16.29 estimated price for 2010. Both Class III and Class IV prices will be higher in 2011 than last year. Again in 2011, the Class IV price will likely average above the Class III price as it did in 2010.

The projected income forecasts suggest that 2011 could be a successful year for many U.S. dairy producers despite high feed prices. However, price formation in the U.S. dairy industry is becoming more dependent on events in global markets. The result is likely to be greater variability in prices for dairy products and milk.

Additional information about the 2011 dairy forecasts is available at:

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/dairy/dairy.asp](http://www.fas.usda.gov/dlp/dairy/dairy.asp)

World Agricultural Supply and Demand Estimates

[www.usda.gov/oce/commodity/wasde/index.htm](http://www.usda.gov/oce/commodity/wasde/index.htm)