

# CRITICAL ISSUES FACING THE DAIRY INDUSTRY

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## ABSTRACT

The California dairy industry will generate about \$5 billion in farm gate revenue in 2005 and generate over \$47 billion in economic activity within the state, including 450,000 jobs that depend on our industry. After at least 20 months of low dairy prices, USDA cites record 2004 producer returns, and only slightly lower 2005 returns. The past year has seen the largest rise in production since 1999, despite tight heifer supplies, forage problems, and hot weather. The current economics of the dairy industry, potential for power generation from dairy wastes, and environmental issues are discussed.

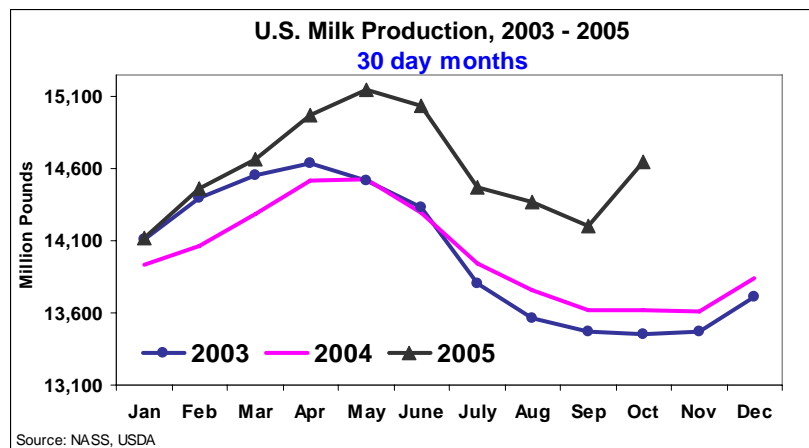
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## MILK PRODUCTION AND PRODUCER PRICES

A surge in milk production has characterized much of 2005. If USDA's projected production expansion of nearly 4 percent is reached for the second half of the year, 2005 milk production will end up over 3 percent higher than last year. This increase would register as the largest rise in production since 1999. The large production surge was fostered by both increased cow numbers and increases in milk per cow.

Although less dramatically, 2005 has stayed the course of the relatively cyclical dairy price trend. For over 20 months, during 2002 and into 2003, producers faced historically low prices that were often far below their cost of production. Producers lost money on every gallon of milk they ship. Prices at these low levels for such a length of time had not been witnessed since the late 1970s. This situation led to many sellouts of dairies and hastened further consolidation of the industry.

As a result of these record low milk prices, supply increases began to slow. While milk production had increased year-over-year in almost every month of 2002 and early 2003, nationwide production dropped below



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the levels of the previous year beginning in May of 2003. This trend continued throughout the remainder of 2003 and into 2004. In late 2004, this trend reversed itself and year-over-year production increases once again became the norm.

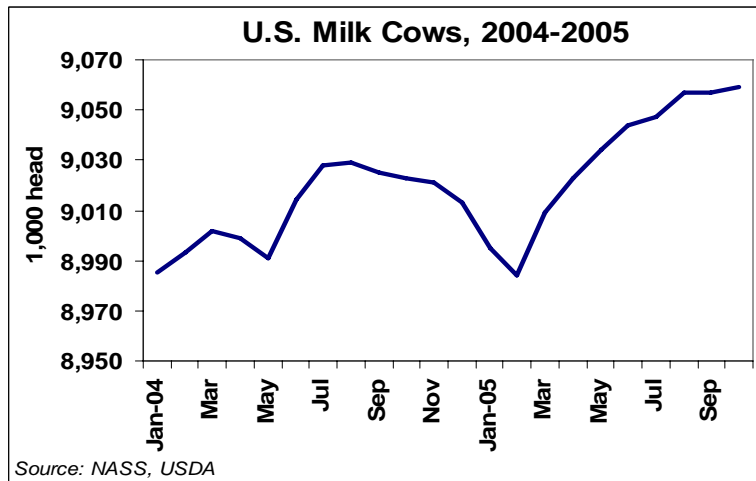
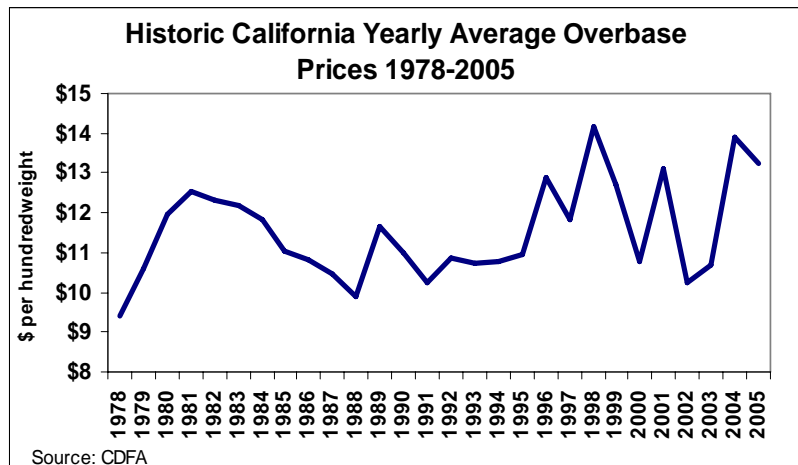
Strong expansion in milk production was solidly established during the summer months of 2005.

This was despite tight heifer supplies, forage problems, and hot weather. USDA cites record 2004 producer returns, only slightly lower 2005 returns, and near-normal availability of BST as primary contributors to the boost in milk production.

In October, U.S. milk cows were up 36,000 head or 0.4% over October 2004. Cow numbers have drifted higher as new and expanded operations have come into production and found enough heifers to gradually increase capacity. Also, exit rates have stayed low this year as prices have not decreased enough to encourage sellouts.

Milk per cow returned to the long-run trend and registered an increase over last year of nearly 4% in October. Hot summer weather over most of the nation had some depressing impact on milk production, but according to USDA, additional supplies of rBST, strong incentives for heavy concentrate feeding, and a return to more normal culling practices easily overrode the weather effects.

Coinciding with a surge in 2005 milk production was robust domestic and international demand for dairy products. So far this year consumer demand has absorbed the larger milk supplies. Commercial use of American cheese and butter were especially brisk over the summer months, up approximately 10 percent and 11 percent respectively for the June-July period. Demand for U.S. milk powders was fueled significantly by the standardization of nonfat dry milk down to 34% protein in order to meet international



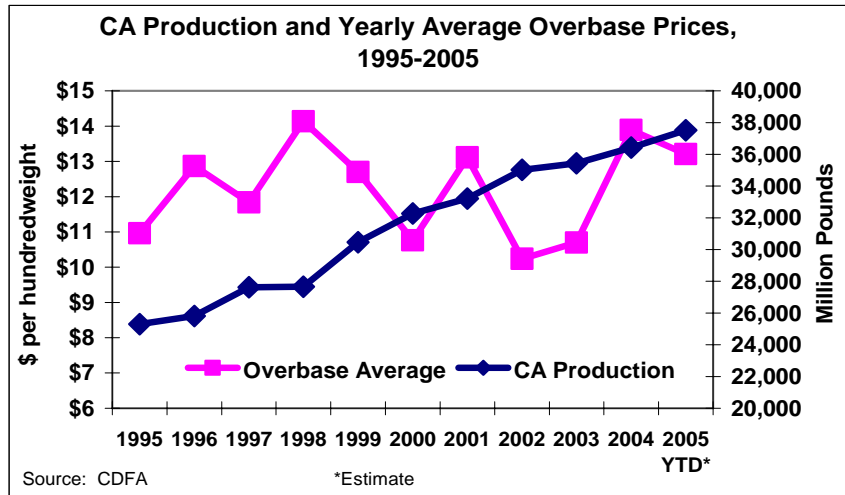
standards. To date, at least 90% of U.S. “nonfat dry milk” exports were standardized skim powders, and exports were up nearly 120% from a year ago. This demand has led to enhanced nonfat dry milk prices and zero government purchases of powder this year. In fact, for the first time since the start of the dairy price support program in 1949, the current marketing year will end with no surplus of any dairy product.

Further aiding higher U.S. milk prices for 2005 was the condition of international markets. Firm international markets this year have lowered available local milk supplies in key dairy exporting regions, and therefore, reduced the surge of imports normally seen during high price periods in the U.S. Higher international prices have also enhanced sales of U.S. dry dairy products to international markets. International market prices are projected to stay relatively high through at least mid-2006.

To date, the California 2005 overbase prices (the minimum price paid to producers) have averaged \$13.25 per hundredweight compared to an average of \$10.24 in 2002, \$10.70 in 2003 and \$13.89 in 2004. Producer prices have started to retreat from their highs and are expected to decline seasonally throughout the remainder of the year. Producer prices are expected to end the year approximately \$1 per hundredweight lower than 2004 prices.

With recent developments, the outlook for the upcoming year is uncertain. USDA predicts 2006 milk production to be up about 2.65%. Coupled with

production increases this year, USDA expects these large back-to-back increases to overwhelm demand strength in 2006. Given these projections, 2006 average U.S. producer prices are forecast to be about \$1 to \$2 per hundredweight below the averages of 2005. Though lower, these price levels would still be above the record lows experienced in 2002 and 2003.



## RENEWABLE ENERGY

Several pilot methane digester projects funded through Western United Resource Development, Inc., and using funds allocated by the California legislature to the California Energy Commission, have come on line in 2005 with several others in various stages of construction. These projects are attempting to reduce costs on California dairies by offsetting as much of the farm’s electrical needs as possible.

Legislation sponsored by Western United Dairymen (WUD), AB 728, was signed by Governor Schwarzenegger recently and allows dairy farms with methane digesters to net their electricity usage against the power generated on farm. Furthermore, federal legislation sponsored by WUD passed the Congress last year and was signed by President Bush that allows for a federal tax credit for on-farm power generation. These efforts go part of the way toward making these projects economically sustainable.

However, a number of significant impediments continue to make broader expansion of and future investment in these projects in California problematic.

The biggest impediment is financial. Dairy producers, like other businesses involved in production agriculture, face the challenge of having price swings dictated by the marketplace. Volatile dairy markets likely discourage extended outlays in renewable energy. Further, our experience has been that producers who might have determined that investing in renewable energy technologies fit within their dairy management scheme were turned off by the fact that they could never get paid for any power they would produce.

For instance, a 1000 cow dairy could likely produce enough electricity to cover all of the farm's needs and have power to spare. Unfortunately for the farmer, the additional electrons that he or she sends out to the grid to electrify homes, businesses, schools, etc, don't generate the producer any revenue. The utility receives the excess power for free.

Whereas in other countries, renewable energy from biogas is provided significant financial incentive for generation (up to \$0.15 per kWh in some cases); in California utilities will not pay for any power generated from dairy methane.

Another significant issue has been investor owned utility (IOU) barriers to distributed generation. IOUs are in business to make money for their shareholders. The best pathway to capture the most dollars for owners of any business is to buy your inputs at the cheapest price available and to sell your output at the highest price the market will bear. Renewable energy is not as inexpensive as energy generated from coal, natural gas, or nuclear power. However, energy developed from anaerobic digestion of dairy manure is far more cost effective than renewable energy generated from wind turbines or solar panels.

Record fossil fuel prices experienced in 2005 may well spur further development of renewable energy from dairies. If methane digesters are ever to become an attractive investment for manure management on California dairies and widely implemented, a market for the power that they are able to generate must be developed.

## **ENVIRONMENTAL ISSUES**

Western United Dairymen has for years been recognized for its leadership on environmental issues within California. Our expertise is also now sought at the national level due to our reputation for seeking common sense solutions to complex problems.

How dairy producers in California address an ever more complicated rural/suburban interface is an issue that will not soon diminish. Environmental regulations, workers compensation costs and the desire to capture ever more evasive economies of scale in a global marketplace have driven the trend to ever-larger dairy farm facilities.

In 1998, an innovative environmental certification partnership was undertaken in California that joined regulators with the regulated and environmental interests to protect California's resources. Western United Dairymen was one of the first signors to this partnership agreement that is now being used as a template for environmental enhancement across the United States. A majority of California's dairy producers have now completed the educational components of this program and are advancing toward independent third-party certification of dairy compliance with all federal and state environmental regulation.

At the same time that these stewardship efforts on California dairies are underway and having a positive impact on air and water quality, additional scientific research is needed to identify and quantify potential dairy sources of environmental concern.

On August 1, 2005, the Air Pollution Control Officer of the San Joaquin Valley Air Pollution Control District issued a report finding that air emissions of smog forming gasses from dairy cows exceed similar emissions from all of the planes, trains, trucks and automobiles that crisscross the Valley each day. This report, labeled as an inaccurate overestimation by the international scientific community, highlights the need for additional research into the issue.

## **SUMMARY**

California's dairy families provide consumers with an abundant and wholesome supply of milk and nutritious dairy products every day. The marketplace for dairy products is becoming increasingly more global, more competitive, and more volatile. The California dairy industry will generate about \$5 billion in farmgate revenue in 2005 and generate over \$47 billion in economic activity within the state.

California's dairy regions have a great deal to offer: the synergy generated by a large number of producers, a skilled labor market, a nearby supply of quality feeds, processing power, a beneficial climate, and an ever-increasing supply of consumers. California's dairy industry, and the 450,000 jobs that depend on our industry, needs a business climate that encourages them to stay and to be an important part of our state's future.