AN200

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Florida Dairy Farm Situation and Outlook 2008[1]

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Situation

Dairy farming is an important part of Florida's agricultural industry. UF/IFAS has estimated that the value of cash receipts from the sale of milk for 2007 was $474 million, up 22% from the $388 million reported for 2006. Total dairy farm receipts were estimated at $518 million dollars.

United States Department of Agriculture (USDA) estimated about 124,000 dairy cows in Florida in December, 2007. That total is down from 130,000 in 2005. Total milk production in Florida has decreased from 2.25 billion pounds in 2004 to 2.17 billion pounds in 2006. In contrast, national milk production as reported by USDA has been on a growth trend since 2004. The 2004 national production was 170 billion pounds. The totals for 2005, 2006 and 2007 were 177, 182, and 186 billion pounds, respectively.

Florida Department of Agriculture has reported the number of Florida dairy farms at 142. The number of farms has declined at a faster rate than numbers of cows due to farm mergers, consolidations, expansions, etc. This trend will likely continue due to narrow margins, escalating land values and the cost of environmental regulations.

The average milk price received by producers that sell milk to Southeast Milk, Inc., the major milk marketing cooperative in Florida, was $20.49 per cwt in 2007, up from $17.09 in 2006 and $18.20 in 2005. The increase in milk prices in 2007 were triggered by the increased global demand for dairy products and a devaluation of the U.S. dollar. Meanwhile, U.S. per capita consumption of all milk and dairy products rose again in 2006, up 1.5% from 2005 to 606 pounds. Growth in demand for cheese and yogurt products is responsible.

Input costs increased as well in 2007, especially feed cost. Several factors had remarkable impacts on the price of feed. First, the blenders credit (not directly a subsidy to ethanol producers) of $0.51 per gallon of ethanol blended with gasoline drove significant changes into commodity markets as crop growers shifted acreage towards corn at the expense of soybeans and other crops. This dramatically shifted the supply of corn and soybeans/soybean meal, which influenced prices of those ingredients. Additionally, the value of the U.S. dollar declined relative to many currencies, which resulted in significant export of corn, citrus pulp, dry distillers grains, and others. A variety of byproduct feeds were in short supply due to reduced acreage or poor crop performance (cotton products and beet pulp are

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examples). Rising crude oil prices also drove fuel prices higher, which resulted in increased freight charges for delivered feedstuffs. In the end, several factors combined to raise feed ingredient prices to 160-200+% of typical values from before 2007.

Outlook

Southeast Milk, Inc. has projected that in 2008 the average Florida farm level milk price will be about $21.25 per cwt. There is much uncertainty about this forecast and several factors could affect that prediction. Factors to watch are growth in the national milk supply, milk and milk product demand, export markets and relative strength of the U.S. dollar and continuing volatility in dairy commodity markets.

Heading into 2008, the cost of many inputs will likely continue to rise, particularly feed commodities and those affected by increased energy costs; utilities fuel, fertilizer, hauling, etc. Continued volatility in ingredient prices looms as planting acres are expected to shift once again and corn and soybean futures are holding very high. With rising feed costs, stretching every feed dollar becomes increasingly important.

Feed costs alone may add at least $3 per cwt to the costs of production compared to 2006 costs. Income over feed costs data will need to be monitored with care in 2008. Thus, although milk prices will likely remain strong, recent large increases in feed and other cost are expected to make 2008 a financially challenging year.

Florida Dairy Production Background Information

Production challenges

Florida's warm and humid climate is not ideal for dairy cattle that evolved during centuries of selective breeding in the relatively moderate climates of northern Europe. Heat stress has been shown to reduce production by 25% by reducing feed intake and increasing health problems such as mastitis, lameness and reproductive delay. Mastitis has been estimated to cost producers at least $300/cow/year. Udder, feet and reproductive health challenges cause the culling of about 35% of cows each year. This constrains herd replacement dynamics, causing less efficient cows to remain in the herd.

Economic challenges

Florida's dairy producers operate under a difficult economic situation. Despite a geographic difference and a product that's difficult to transport, they increasingly compete in a national and international marketplace. Southeast Milk, Inc. has the difficult task of negotiating consistently profitable milk prices because larger handlers from outside the southeast would like to gain market share and ultimately control a growing market with its high fluid utilization rate and resulting higher price.

Dairy Business Analysis Project (DBAP) has now collected 12 years of financial results on Florida dairy farms. From this DBAP data base, these observations can be made:

- The cost of producing milk has risen. This is important but not surprising news. The average cost of producing milk in 1996 was $18.51, compared to $20.34 in 2005. Revenues have not kept up with rising input costs. For example, the average milk price received by producers in 2005 was $18.26 per cwt. This compares to the average milk price in 1996 of $18.39, virtually the same, ten years later.

- Since revenues have increased slower than costs, it follows that margins have decreased. In fact, the average net farm income per cwt. was $1.22 for years 1995 thru 1999, but $0.73 from 2000-2005, a 33% reduction.

- Reasons for declining profit margins are several but one statistic that stands out from the others is capital investment. Total assets employed in the business on a per cow basis clearly show that investments have risen substantially. In the years 1995-1997, total assets per cow averaged $3,721 compared to $4,357 in years 1998-2001 and $6,086 in 2002-2005.

- Since margins have decreased over time, yet producers have increased the assets of their businesses, the data suggest that assets are being used less efficiently. If this is true, the dairy farms would have had increased difficulty

paying for new assets. Financial data supports this conclusion. Debt per cow averaged $1,381 in years 1995-1997, $1,400 in years 1998-2001 and $1,853 in years 2002-2005. Producers have leveraged their future to provide new assets.

- Asset turnover rate (ATR) is another statistic that provides another method of analysis of the same effect (declining ability of dairy farms to pay for investments in new assets). ATR is total annual revenues divided by total assets. Thus, ATR indicates the ability of a business to efficiently utilize assets to generate revenues. DBAP average ATR in years 1995-1997 was 1.03, .99 in years 1998-2001 and .67 in years 2002-2005.

Note: DBAP does not provide participating dairy farms an opportunity to increase values for real estate. This is done to provide a clearer view of profitability, that is, DBAP profitability comes from productive activities, not from asset value inflation.

These points show clearly that DBAP dairy farms have been adding assets to their businesses since 1995 that have not increased profitability, but rather, have decreased asset efficiency and profit margins.

Environmental challenges

Dairy farms face increased regulation due to social pressure. While cows on pasture invoke warm, fuzzy feelings with many Americans, the increasing size of herds causes the public to be concerned with odors, flies and real or imagined losses of nutrients that influence water quality.

The greatest reason for the environmental issues facing Florida dairy producers is the high concentration of animals on farmland. High producing cows may consume 100 pounds of feed and 50 gallons of water per day. They may excrete 195 pounds of manure and urine. Florida dairy farms average nearly 900 cows and about 50% of them raise young replacement cattle as well. Thus, there is an extremely high volume of nutrients flowing through the dairy system. Even minuscule percentages of these nutrients, if lost, could command attention of regulatory agencies. Further, if cow densities on land become fixed by regulatory action, these new constraints to herd size will negate the opportunity to increase herd size on most farms, dooming them to eventual inefficiency and discontinuation.

The cost of nutrient handling systems that will meet the future requirements of environmental regulatory agencies is unknown and perceived to be a major constraint to dairies as they commit to the future. These costs have two parts; (a) the original investment costs of engineering and construction and (b) operating and maintaining the systems well into the future. These systems, incorporating significant levels of new technology, have been implemented to ensure that dairies efficiently handle nutrients in an environmentally friendly manner. New UF/IFAS research projects are studying the feasibility of using manure nutrients as an energy source in the generation of electricity. The UF/IFAS Extension Service is helping to determine the cost of implementing and operating these new systems so as to aid management decisions for these dairies. Also, the information will be valuable to many others that have yet to develop their best responses to environmental regulation.

Size and location differences among dairies have resulted in significantly differing nutrient handling system expense. Additionally, different types of systems have differing initial investment and operating expenses. Dairy farms that employ such new systems take on a competitive disadvantage since investing in these new systems generally does not generate a positive return.

New environmental regulations for dairy farms of less than 700 will likely be introduced in 2008. There were 101 such dairy farms (46 with less than 200 cows and 55 dairy farms with 201-699 cows). Great concern has been expressed relative to the future of these dairy farms. The cost of complying with these new regulations was estimated by the University of Florida to be between a third and a half million dollars, depending on herd size. It is feared that most of these dairy farms will discontinue without cost sharing opportunities.

Social challenges

The population of Florida continues to grow at a phenomenal rate. This has implications for dairy farms. First, their property is highly valued for development purposes. Second, the demand for milk grows with the population. Third, fluid milk products have limited shelf life, so milk produced in Florida is greatly preferred by processor/handlers. Fourth, higher energy costs have increased the cost of importing milk from distant areas. Lastly, environmental regulatory agencies may become more assertive in 2006 and 2007 with respect to middle and smaller sized dairy farms.

It is recommended that new regulations that may be implemented by environmental agencies be timed coincidentally with opportunities for cost sharing and secondly that the state legislature develop an encouragement for new or expanded dairy operations that will meet requirements of concentrated animal feeding operations. Several states, including Texas and South Dakota, have created enticements while states such as Wisconsin have cost shared herd expansion.

Opportunity

The future for Florida dairying is strong because of the strong market. Florida's growing population ensures a demand for fluid milk products which generate the greatest value in the marketplace. Also, high costs of energy help resist transportation of fluid milk into the Florida market from areas with product surpluses such as the upper mid-west and west. There remains a strong future for those dairy farms that ensure cows a comfortable and safe lifestyle, while maintaining an environmentally friendly operation and a profitable business structure in a changing world.