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Florida Dairy Farm Situation 2002¹

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Dairy farming is an important part of Florida's agricultural industry. Milk and cattle sales from dairies contributed \$384 million directly into Florida's economy in 2000. Many of those dollars are spent locally to pay for labor, utilities and other services. As those dollars roll over in the community, the Florida economy may be impacted by perhaps as much as \$700 million annually. While Florida's population grows quite rapidly, our ability to produce does not meet the public's demand for milk and dairy products. In 1995 alone, 15% of the dairy farms discontinued milk production operations while over 25% of milk and dairy products sales were imported. The trend toward fewer, larger dairy farms continues. The dairy farming industry faces three significant problems: production challenges, environmental challenges and economic challenges.

Production Challenges

Florida's climate is extremely stressful to dairy cattle that evolved during centuries of selective breeding in the relatively moderate climates of northern Europe. Florida's high temperature, humidity and intense solar radiation cause immense problems for our cows. 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 as much as \$300/cow/year. Udder, feet and reproductive health challenges cause the culling of more than 30% of all cows each year. Higher replacement costs prohibit some dairies from culling the less productive animals and this lowers total herd production and profitability.

Florida Dairy Herd Improvement Association (DHIA) 2000 data indicated that 111 dairies produced an average of 17,230 lbs. milk per cow. Those dairies managed 633 cows that averaged 185 days open and had a minimum calving interval of 15.3 months. Average culling rate was 38%. Feed cost per cwt. averaged \$7.64. Florida dairies continue to be larger in herd size but lower in production per cow than national averages.

Environmental Challenges

Dairies face increased regulation due to social pressure. Larger herds attract the attention of neighbors and activists concerned with odors, flies and potential losses of nutrients that might influence water quality. Increasingly, society seems to be suggesting that commercial agriculture occur out of sight. The greatest reason for the environmental issues facing Florida dairy producers is our high concentration of animals on farmland. High

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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 dairies average nearly 700 cows and about 50% of our dairies raise young replacement cattle as well. Thus, there is an extremely high volume of nutrients flowing through the dairy system. Even small percentages of these nutrients, if lost, could command attention from regulatory agencies. Further, if cow densities on land become fixed by regulatory action, new constraints on herd size will forever limit most farms' opportunity to grow, 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 putting the new systems in place and (b) operating and maintaining the systems. These systems, incorporating significant levels of new technology, have been implemented to ensure that dairies efficiently handle nutrients in an environmentally friendly manner.

The Extension Service is helping to determine the cost of implementing and operating these new systems to aid management decisions for dairies. Also, the information will be valuable to dairies that have yet to develop their best responses to environmental regulation. Size and location differences among dairies significantly affect nutrient handling system expense. Additionally, different types of systems have differing initial investment and operating expenses. Dairies that employ the new systems take on a competitive disadvantage since investing in these new systems generally does not generate a positive return.

Economic Challenges

Florida's dairy producers operate under a difficult economic situation. Despite a geographic impediment and a product that's difficult to transport, they increasingly compete in a national and international marketplace. Florida's dairy cooperatives have been unsuccessful in negotiating consistently profitable milk prices because larger

handlers from outside our state would like to gain entry and ultimately control our growing market with its high fluid utilization rate and resulting higher price.

The dairy farm economic situation since 1990 can be characterized as challenging from the standpoint of volatility in milk prices. Dairy Business Analysis Program (DBAP) data has shown that milk prices per cwt. paid to Florida farmers ranged from \$15.51 in 1995 to \$16.68 in 2000, averaging \$17.34 (Table 1). This volatility is difficult for producers to manage since costs of production are much less variable. In DBAP participating dairies realized an average cost of \$17.66 per cwt. from 1995-2000. This is about 25% higher than the national average for the same years.

Florida's large dairies require a large investment: over \$1.5 million on average. But the return to invested capital is generally insufficient. In fact, in the DBAP participating dairies averaged 0% in 1995. During the decade of the 1990s we lost a third of our dairy farms. Several dairy barns were built in 2001, the first major reinvestment seen in the Florida dairy industry in nearly ten years. Prevailing feelings of economic optimism remain cautious, however, as producers await better predictions of the cost of environmental regulation.

Table 1. Summary of six years of DBAP

	Milk Price \$/Cwt.	Total Revenue \$/Cwt	Total Costs \$/Cwt	Net Income \$/Cwt
1995	\$15.51	\$17.03	\$18.51	-\$1.48
1996	\$18.19	\$19.93	\$17.79	\$2.14
1997	\$16.87	\$18.31	\$18.02	\$0.29
1998	\$18.56	\$19.59	\$17.65	\$1.94
1999	\$17.82	\$19.07	\$16.40	\$2.67
2000	\$16.68	\$18.03	\$17.03	\$1.00
Avg.	\$17.34	\$18.75	\$17.66	\$1.13

2002 Economic Outlook

All indicators suggest that 2002 will be another interesting year with much uncertainty. Milk prices have declined significantly from 2001 levels. Milk, cull cow and feed prices for 2002 are uncertain.

Cow Inventory

The number of dairy cows in Florida in December 2001 was 152,000, down 3% from a year earlier. The U.S. herd, in the same period, fell 1% from 7.803 to 7.741 million cows. The national trend in the decrease in herd size has moderated. Due to the shortage and high cost of replacements, culling rates have declined and are expected to continue to decline.

Milk Per Cow

Milk per cow nationally increased slightly during fall and winter 2001-02. During this period, however, productive efficiency has been lower in Florida possibly due to weather and reduced culling.

Milk Volume

The national milk volume produced in January 2002 was 1.8% higher than in January 2001. Weaker demand during the fall months increased inventory. The class III price fell accordingly, but some sources predict improvement of perhaps \$1.50 by August or September, especially if demand follows an overall economic recovery.

Cull Cow Prices

Dairy cull cow prices will be impacted by the national cattle inventory. In the February 2002 USDA report, cattle on feed in the U.S. were 11.6 million head. That was 2% below January 2001 but 1% above 2000. Likewise, Florida cattle slaughtered in December 2001 was 2% below December 2000. Potential increases in feed prices may also impact cull cow prices.

Feed Prices

Feed price indicators from recent USDA reports have been mildly friendly to the corn market with futures moving up by about \$0.05 per bushel due to

drought in Brazil and Argentina, which reduced crop estimates. No great movement is expected until planting data in the US is available. Soybean prices have continued an upward price movement due to the South American dry summer. The reported 148.77 million bushel December "crush number" (the amount of crushed soybeans reported by the USDA, and a measure of the volume of soybean meal made available to feed markets) was above expectations and 4 million greater than the month before. All this combined with a strong bean export helped move the bean futures up about 6 cents. Recent wheat price movements suggest a continued weak market due to the slow export market. It has been 7.6% below last year's pace. Overall, feed prices in Florida should remain favorable but slightly higher than 2001.