

# WISCONSIN DAIRY DATA

Fact sheet series from the Center for Dairy Profitability

2006-05

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## Fuel Cost on Wisconsin Dairy Farms 1996 - 2005

The cost per gallon of gasoline and diesel fuel has been increasing in recent years. Table 1 shows the yearly average gasoline and diesel fuel prices for the years 1996-2005. This data was obtained from the U.S. Department of Energy, Energy Information Administration. These prices are the average of 52 weekly data collections throughout the Mid West. The 2006 prices are the average of 33 weekly data collections, with the latest being August 14, 2006.

**Table 1**

Year	Gasoline Price /Gallon	% change from previous year	Diesel Price /Gallon	% change from previous year
1996	\$1.18		\$1.22	
1997	\$1.17	-0.8%	\$1.18	-3.3%
1998	\$1.01	-13.7%	\$1.02	-13.6%
1999	\$1.11	9.9%	\$1.10	7.8%
2000	\$1.47	32.4%	\$1.46	32.7%
2001	\$1.42	-3.4%	\$1.40	-4.1%
2002	\$1.34	-5.6%	\$1.31	-6.4%
2003	\$1.52	13.4%	\$1.49	13.7%
2004	\$1.80	18.4%	\$1.77	18.8%
2005	\$2.22	23.3%	\$2.36	33.3%
2006*	\$2.64	18.9%	\$2.70	14.4%

Note: The current price of gasoline (approximately \$2.80 per gallon) and the current price of diesel fuel (approximately \$3.00 per gallon) are higher than the average 2006 price year to date.

\* Based on 33 weeks of data.

The focus of this paper will be on the effects of the increase in energy prices on the cost of production. Data is taken from the Agriculture financial Advisor (AgFA) database and has been collected since 1996. Table 2 shows the number of farms by year and the average number of cows per farm in those years.

**Table 2**

Year	# Farms	# Cows /Farm
1996	924	86
1997	882	95
1998	866	101
1999	814	106
2000	831	106
2001	776	112
2002	672	115
2003	740	127
2004	748	135
2005	617	134

**Table 3**

Year	Fuel Cost/cow	% change from previous year
1996	\$62.25	
1997	\$59.97	-3.7%
1998	\$53.62	-10.6%
1999	\$53.11	-1.0%
2000	\$73.60	38.6%
2001	\$74.76	1.6%
2002	\$64.71	-13.4%
2003	\$75.73	17.0%
2004	\$87.14	15.1%
2005	\$121.18	39.1%
2006	\$141.37*	16.7%*

\* Estimated

We will consider three fuel cost measures. First, fuel cost per cow and the annual percentage change; second, fuel costs per CWT EQ and the annual percentage change, and finally fuel costs as a percent of the milk price.

Table 3 shows that the fuel costs per cow have almost doubled from 1996 through 2005. It also shows, based on average fuel prices until August 14, 2006, fuel cost will likely increase at least another \$20 per cow in 2006 or approximately 17 percent.

**Table 4**

Year	Fuel Cost /CWT EQ	% change from previous year
1996	\$0.26	
1997	\$0.29	11.5%
1998	\$0.23	-20.7%
1999	\$0.21	-8.7%
2000	\$0.29	38.1%
2001	\$0.32	10.3%
2002	\$0.24	-25.0%
2003	\$0.27	12.5%
2004	\$0.34	25.9%
2005	\$0.43	26.5%

Table 4 shows fuel costs per CWT EQ and the percentage change in those costs. The percentage changes in Table are very different than the percentage changes from year to year in Table 3 (fuel costs per cow). This difference is largely due to the increase in milk sold per cow. As milk sold per cow increases, the CWT EQ sold per cow also increases as does the fuel costs per CWT EQ although less than the fuel costs per cow. From 1996 through 2005 the fuel costs per CWT EQ increased by approximately 65 percent. Fuel costs per cow increased by approximately 95 percent.

**Table 5**

Table 5 shows fuel costs per CWT EQ, the per hundredweight average US all milk price and fuel costs per CWT EQ as a percent of the average US all milk price. The percentage varied from a low of 1.46 percent in 1999 to a high of 2.84% in 2005. The second highest percentage was in 2000 (2.35%). This was due to the increase of more than 32% in fuel prices from 1999 to 2000 (see Table 1) and drop in the US average milk price from \$14.36 (in 1999) to \$12.33 (in 2000).

Year	Fuel Cost/CWT EQ	Milk Price	Fuel Cost as % of Milk Price
1996	\$0.26	\$14.88	1.75%
1997	\$0.29	\$13.34	2.17%
1998	\$0.23	\$15.50	1.48%
1999	\$0.21	\$14.36	1.46%
2000	\$0.29	\$12.33	2.35%
2001	\$0.32	\$14.98	2.14%
2002	\$0.24	\$12.09	1.99%
2003	\$0.27	\$12.53	2.15%
2004	\$0.34	\$16.06	2.12%
2005	\$0.43	\$15.14	2.84%

Fuel costs per CWT EQ (Table 4) will probably increase in 2006 because it is unlikely that there will be an increase in milk sold per cow as large as the increase in fuel prices. When combined with the expected \$2.00 plus drop in the US average all milk price from 2005 to 2006 this will cause the fuel cost as a percentage of the milk price to increase sharply in 2006. Fuel costs could be nearly 4 percent of the US average milk price in 2006.