Trends in the U.S. Dairy Industry

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Ten Year U.S. Milk Supply Trends

Table 1 depicts the ten year milk supply trends in the US.

- Cow numbers are declining about 0.5% per year.
- Milk production per cow is rising about 1.8% a year.
- Milk production is rising about 1.1%.

Table 1: Ten Year U.S. Milk Supply Trends

Year	Milk Cows	Milk per Cow (kg)	Total Kg. Milk Production
1993	9,581,000	7,146	68,469,310,000
1994	9,494,000	7,354	69,819,739,091
1995	9,466,000	7,457	70,586,240,909
1996	9,372,000	7,470	70,004,580,000
1997	9,252,000	7,669	70,950,223,636
1998	9,151,000	7,811	71,481,788,636
1999	9,153,000	8,074	73,902,154,091
2000	9,199,000	8,271	76,088,274,091
2001	9,103,000	8,255	75,149,402,727
2002	9,139,000	8,458	77,299,323,636
2003	9,083,000	8,527	77,453,218,182
2004	9,010,000	8,617	77,637,531,818

Source: USDA-NASS (18)

Ten Year U.S. Milk Demand Trends

The U.S. has 290 million people who currently consume 270 kg of milk in all forms per person per year. Demand for dairy products is growing slightly faster than population growth, mostly due to increasing cheese consumption.

- U.S. population growing 1.1% per year.
- U.S. per capita consumption of dairy products is growing 0.4% per year.

Stable U.S. dairy supply and demand trends mask rapid changes at the farm and retail level in the U.S. dairy industry. The following changes in the business environment are creating challenges to traditional dairy farms causing them to rethink the way that they position themselves for the future.

Changes in the U.S. Milk Marketing Environment

- Technological innovations in dairy processing are creating new products that pierce natural barriers to competition both domestically and internationally.
- Structural changes at the farm level are challenging cooperatives.
- Consolidation of retailers is encouraging consolidation within cooperatives.
- Globalization offers increasing opportunities with foreign partners.

Technological Innovations in Dairy Processing

- Milk protein concentrates and other products made from fracturing milk are increasingly being imported into the U.S. by food processors around trade barriers.
- Ultra-filtration technology used on large domestic farms is lowering transportation and processing costs and allowing milk to move longer distances from farm to cheese plants.

Structural Change at the Farm Level

- U.S. milk production is quickly shifting to new large dairies in the western states.
- U.S. milk production is increasingly coming from herds with greater than 500 cows.

Table 2. Milk Production by Herd Size in Top 5 States

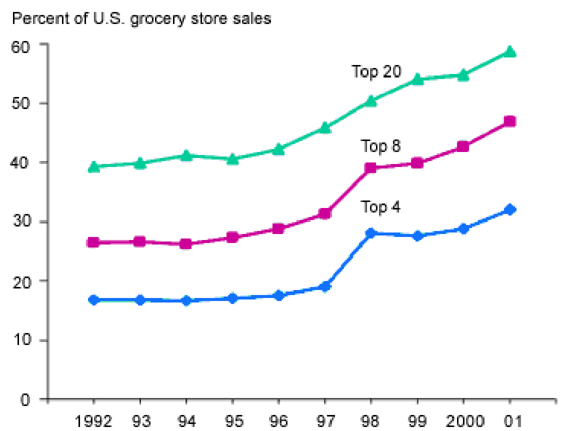
			Percent Milk Production by Herd Size in 2004		
U.S.	**Status**	**Rank**	**<200**	**200 - 499**	**500+**
California	Emerging	1	2	12	86
Wisconsin	Traditional	2	66.5	18	15.5
New York	Traditional	3	51	20	20
Idaho	Emerging	4	6	10	84
Pennsylvania	Traditional	5	76.5	14.5	9
U.S. in 1999			49.5	17.3	32.2
U.S. in 2004			36.6	16	47.4

Source: USDA-NASS (18)

Consolidation of Food Retailers

- Consolidation of the food retailing industry means that smaller dairy cooperatives are selling to fewer, but larger, customers that have less bargaining power.
- In addition, to fill the national distribution channels of large retailers, some smaller regional dairy cooperatives have merged into larger national cooperatives.

Retailers are consolidating
The 20 largest food retailers captured nearly 60 percent of total grocery store sales in 2001



Note: Sales based on North American Industry Classification System (NAICS).
Sources: Monthly Retail Trade Survey, Census Bureau; company annual reports.

Source: USDA-ERS (17)

Trends in Dairy Cooperatives

The number of dairy cooperatives continues to decrease even as their share of the U.S. milk market continues to climb. Consolidation among cooperatives continues. However, as the large cooperatives get larger, many small cooperatives have been organized by cooperative members upset at their loss of position in the larger cooperative. These newly created cooperatives often begin as bargaining or niche cooperatives.

Table 3. Trends in US Dairy Cooperatives

Year	Number of Dairy Coops	Market Share of Cooperatives	Dairy Coop Members
1987	296	76	120,603
1992	265	82	110,440
1997	226	83	87,938
2002	196	86	61,390

Source: Liebrand (4)

Table 6. Top 20 U.S. Dairy Cooperatives, 2004

Dairy Cooperative	Number of Member Farms	Total Milk Marketed (kg)
Dairy Farmers of America	12814	16,318,181,818
California Dairies, Inc	656	6,889,090,909
Land O'Lakes, Inc	3557	5,403,181,818
Northwest Dairy Association	679	3,055,454,545
Family Dairies, USA	3960	3,029,090,909
Dairylea Cooperative, Inc	2357	2,545,454,545
Associated Milk Producers, Inc	4000	2,363,636,364
Manitowoc Milk Producers Coop	2924	2,363,636,364
Foremost Farms, USA	3120	2,165,454,545
Select Milk Producers, Inc	78	1,659,090,909
Michigan Milk Producers Assoc.	1684	1,500,454,545
Southeast Milk, Inc.	310	1,313,181,818
Maryland & Virginia Milk Prod.	1450	1,311,363,636
United Dairymen of Arizona	99	1,227,272,727
Agri-Mark, Inc.	1382	1,078,181,818
Milwaukee Cooperative Milk Prod.	705	786,363,636
Lone Star Milk Producers, Inc.	200	784,090,909
First District Association	1400	722,272,727
Prairie Farms Dairy, Inc.	824	631,818,182
Alto Dairy Coop.	603	624,090,909

Source: Schultz (13)

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USDA Monthly Cost of Milk Production:
selected states costs of production per cwt of milk sold, May 2006

	Idaho	Wisconsin	Pennsylvania	California	Texas	New York	Georgia	Illinois	Kentucky
Operating costs:									
Feed--									
Feed grains	1.56	1.19	0.91	1.09	1.16	0.74	0.45	1.23	1.20
Hay and straw	2.74	1.39	2.00	2.68	1.70	1.40	0.84	1.70	2.04
Complete feed mixes	0.69	0.75	1.37	2.78	2.64	1.65	3.04	1.54	1.40
Liquid whey and milk replacer	0.04	0.26	0.11	0.07	0.01	0.06	0.04	0.07	0.02
Silage	1.38	0.81	1.08	0.88	0.40	1.49	1.17	1.16	1.08
Grazed pasture and cropland	0.51	0.08	0.05	0.06	0.08	0.07	0.12	0.10	0.44
Other feed items 1/	1.06	1.19	4.18	0.71	1.20	1.39	1.51	2.01	1.09
Total, feed costs	7.97	5.68	9.69	8.27	7.18	6.79	7.16	7.82	7.25
Veterinary and medicine	0.67	0.72	0.90	0.46	0.58	0.70	0.58	0.82	0.34
Bedding and litter	0.18	0.20	0.25	0.05	0.03	0.27	0.06	0.12	0.09
Marketing	0.35	0.21	0.25	0.20	0.26	0.70	0.36	0.20	0.20
Custom services	0.32	0.29	0.65	0.44	0.67	0.52	0.96	0.55	0.59
Fuel, lube, and electricity	0.52	0.90	0.95	0.70	0.71	0.84	0.92	0.97	0.71
Repairs	0.55	0.52	0.86	0.38	0.40	0.57	0.62	0.58	0.41
Other operating costs 2/	0.04	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
Interest on operating capital	0.09	0.07	0.11	0.09	0.08	0.08	0.09	0.09	0.08
Total operating costs	10.68	8.60	13.67	10.60	9.93	10.47	10.75	11.16	9.67
Allocated overhead:									
Hired labor	1.47	1.51	0.69	1.21	1.18	1.21	2.05	0.73	0.81
Opportunity cost of unpaid labor	1.71	4.41	7.08	0.98	1.03	5.08	1.76	4.56	5.57
Capital recovery of machinery and equipment	2.86	4.82	4.56	2.20	1.48	3.74	3.29	4.86	3.81
Opportunity cost of land (rental rate)	0.34	0.08	0.07	0.01	0.03	0.05	0.09	0.08	0.34
Taxes and insurance	0.11	0.21	0.18	0.13	0.07	0.20	0.14	0.19	0.16
General farm overhead	0.42	0.62	0.50	0.33	0.43	0.78	0.47	0.43	0.41
Total, allocated overhead	6.91	11.65	13.09	4.85	4.22	11.06	7.79	10.86	11.11
Total costs listed	17.59	20.25	26.76	15.45	14.15	21.53	18.54	22.02	20.78
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Source: Based on USDA's 2000 Agricultural Resource Management Survey of milk producers and updated using current USDA milk production per cow and production input indexes.

R=revised using newly available updated data.

1/ Cotton seed meal, protein supplements, protein by-products, alfalfa cubes or pellets, green chop, corn stalks, and antibiotics and other medicated additives.

2/ Manure disposal fees, permits, and licenses, and odor control costs.