

NATIONAL MILK PRODUCERS FEDERATION

DAIRY DATA HIGHLIGHTS

October 2019

State	2019 Production				2019 Production		
	2019	2018	2017	2016	Share of U.S.	Per Cow	Per Capita
	(Million Pounds)	(Million Pounds)	(Million Pounds)	(Million Pounds)	(Percent)	(Pounds)	(Pounds)
Alabama	513	348	156	92	0.0%	46	19
Alaska	17	13	7	4	0.0%	50	5
Arizona	1,545	3,033	4,151	4,789	2.3%	13	69
Arkansas	817	488	153	79	0.0%	47	25
California	20,947	32,245	40,385	40,409	19.0%	1	1,03
Colorado	1,323	1,924	2,816	3,823	1.8%	15	70
Connecticut	515	480	394	408	0.2%	34	114
Delaware	123	146	50	56	0.0%	45	100
Florida	2,525	2,463	2,133	2,503	1.2%	20	12
Georgia	1,440	1,433	1,355	1,330	0.9%	23	177
Hawaii	101	138	25	35	0.0%	48	24
Idaho	2,945	3,121	3,121	3,808	1.4%	14	8,713
Illinois	2,509	3,121	3,121	1,903	1.1%	14	149
Indiana	2,275	2,419	3,416	4,151	2.0%	14	626
Iowa	4,233	3,811	4,151	5,144	2.5%	14	1,608
Kansas	1,245	1,245	1,245	1,245	0.6%	14	1,145
Kentucky	2,285	1,245	1,245	1,245	0.0%	14	238
Louisiana	940	658	235	103	0.1%	40	35
Maine	514	658	587	630	0.1%	14	473
Maryland	1,373	1,351	1,001	968	0.5%	29	159
Massachusetts	461	376	242	215	0.1%	39	32
Michigan	34	5,706	8,233	10,176	5.1%	5	1,095
Minnesota	10,176	9,493	9,102	9,066	4.0%	8	1,75
Mississippi	74	541	223	144	0.1%	41	48
Missouri	3,040	2,258	1,445	1,373	0.6%	25	225
Montana	325	338	289	295	0.1%	35	283
Nebraska	1,345	255	1,153	1,399	0.7%	25	734
Nevada	328	476	604	660	0.3%	32	224
New Hampshire	302	312	294	284	0.1%	37	213
New Jersey	244	244	140	122	0.1%	44	14
New Mexico	1,300	1,300	7,881	7,711	3.6%	9	3,705
New York	11,061	11,061	12,713	14,765	7.0%	3	748
North Carolina	1,521	1,521	855	965	0.5%	28	95
North Dakota	1,373	1,373	384	345	0.2%	35	455
Ohio	5,270	5,270	5,270	5,270	2.5%	11	478
Oklahoma	359	359	359	359	0.3%	31	175
Oregon	2,583	2,583	2,583	2,583	1.2%	18	633
Pennsylvania	10,820	10,820	10,820	10,820	5.1%	5	645
Rhode Island	34	34	20	14	0.0%	49	13
South Carolina	440	440	385	250	0.1%	35	50
South Dakota	2,545	2,545	2,545	2,545	1.2%	19	2,942
Tennessee	350	350	350	350	0.3%	20	105
Texas	8,423	8,423	8,423	8,423	5.1%	7	383
Utah	327	327	327	327	1.0%	21	553
Vermont	327	327	327	327	1.0%	12	3,30



Dairy Data Highlights

October 2019

"Connecting Cows, Cooperatives, Capitol Hill, and Consumers"

The National Milk Producers Federation (NMPF) develops and carries out policies that advance the well-being of dairy producers and the cooperatives they own. For the past 100 years, NMPF has been one of the most recognizable and influential membership organizations in America.

NMPF's cooperative members produce the majority of the U.S. milk supply, making NMPF the voice of more than 30,000 dairy farmers. Last year, NMPF member cooperatives marketed about 124 billion pounds of milk, representing 61% of the total milk marketed in the United States. In addition, many of NMPF's member cooperatives are leading processors of fluid milk, cheese, butter, milk powder, and specialty dairy products.

NMPF is the principal voice on national issues for cooperatives and their dairy farmer members.

TABLE OF CONTENTS

U.S. MILK PRODUCTION & OTHER INDUSTRY STATISTICS

Table 1: U.S. Production of Milk, Milkfat, & Solids-Not-Fat.....	1
Table 2: U.S. Milk Cow Numbers, Dairy Farms, & Herd Size	2
Table 3: Farms & Production by Herd Size	3
Table 4: U.S. Production Per Cow of Milk, Milkfat, & Solids-Not-Fat.....	4

STRUCTURE OF THE DAIRY INDUSTRY BY STATE

Table 5: Annual Milk & Milkfat Per Cow by State.....	5
Table 6: Cow Numbers, Licensed Dairy Operations & Herd Size by State	6
Table 7: Milk Production by State.....	7
Table 8: Importance of the Dairy Sector by State	9

PRODUCER, WHOLESALE, & RETAIL PRICES OF MILK & DAIRY PRODUCTS

Table 9: Farm Level Milk Prices by State.....	10
Table 10: Selected Farm Level Annual Average Milk Prices	11
Table 11: Monthly Seasonality of U.S. All-Milk Price & Production.....	12
Table 12: Annual Wholesale Prices of Dairy Products	13
Table 13: Monthly Prices of Dairy Products on the Chicago Mercantile Exchange.....	13
Table 14: Annual Retail Prices for Selected Dairy Products	14

COSTS OF PRODUCTION INDICATORS

Table 15: Milk Production Costs & Return by Herd Size	15
Table 16: U.S. Milk Production Costs & Returns	17
Table 17: Monthly Milk-Feed Price Ratio	18
Table 18: Monthly DMC/MPP Calculated Feed Cost	18
Table 19: Monthly DMC/MPP Margin	19
Table 20: Average Prices Received for Livestock.....	20
Table 21: Average Prices Received for Crops.....	21
Table 22: Crop Production	21

SCOPE OF FEDERAL MILK MARKETING ORDERS

Table 23: Federal Market Order Statistics by Market	22
Table 24: Measures of Growth in Federal Milk Marketing Orders	23
Table 25: Sales & Butterfat Content of Fluid Milk Products in Federal Milk Marketing Orders.....	24

DAIRY PRODUCT CONSUMPTION & PRODUCTION

Table 26: Annual Commercial Disappearance of Dairy Products, Milk Equivalent, Total Solids Basis	25
Table 27: Per Capita Commercial Disappearance of Dairy Products, Milk Equivalent, Total Solids Basis	25
Table 28: Share of Commercial Disappearance by Product	26
Table 29: Fluid Milk Sales for Beverage Products.....	27
Table 30: Per Capita Fluid Milk Sales: Selected Products	27
Table 31: Fluid Milk Sales for Cream/Other Products	28

Table 32: Cheese Production, Selected Varieties	29
Table 33: Per Capita Cheese Consumption, Selected Varieties.....	29
Table 34: Production of Butter, NFDM, & Other Products.....	30
Table 35: Per Capita Consumption of Butter, Cottage Cheese, NFDM, & Other Products	30
Table 36: Production of Frozen Dairy Products	31
Table 37: Per Capita Consumption of Frozen Dairy Products.....	31
Table 38: Cheese, Butter, & NFDM Production, by State.....	32
Table 39: Plants Processing Dairy Products & Volume Per Plant.....	33
 GOVERNMENT COST OF FARM COMMODITY PROGRAMS	
Table 40: CCC Net Outlays by Commodity.....	34
 U.S. DAIRY TRADE	
Table 41: U.S. Fresh Milk & Cream Exports	35
Table 42: U.S. Butter and Cheese Exports	36
Table 43: U.S. Milk Powder Exports	37
Table 44: U.S. Ice Cream & Yogurt Exports.....	38
Table 45: U.S. Whey & Lactose Exports	39
Table 46: Commercial Exports & Domestic Disappearance, Milk Equivalent, Total Solids Basis	40
Table 47: Dairy Imports, Quota & Non-Quota.....	41
 U.S. ECONOMIC INDICATORS & OTHER STATISTICS	
Table 48: Price Indices: Annual Average, Not Seasonally Adjusted.....	42
Table 49: Minutes of Work Required to Purchase Selected Dairy Products	42
Table 50: Commodity Receipts from Marketings	43
Table 51: Nation's Top Dairy Cooperatives.....	43
Table 52: Number and Net Volume of Products, Supplies, & Services by Cooperatives.....	44
Table 53: International Milk Production Statistics	45
GLOSSARY	46
COMMON CONVERSION FACTORS	47

Table 1: U.S. Production of Milk, Milkfat, & Solids-Not-Fat

Year	Milk Production		Milkfat	Fat Test	Solids-Not-Fat		Per Capita Production
	million lbs	% Change	million lbs	(%)	million lbs	(%)	(pounds)
1925	90,699	1.6%	3,551	3.92%	8,299	9.15%	783
1930	100,158	1.2%	3,929	3.92%	8,994	8.98%	814
1940	109,412	2.5%	4,343	3.97%	9,705	8.87%	829
1950	116,602	0.4%	4,618	3.96%	10,203	8.75%	768
1960	123,109	0.9%	4,628	3.76%	10,600	8.61%	684
1970	117,007	0.8%	4,284	3.66%	10,063	8.60%	574
1980	128,406	4.1%	4,692	3.65%	11,030	8.59%	565
1985	143,012	5.7%	5,244	3.67%	12,299	8.60%	601
1990	147,721	2.7%	5,390	3.65%	12,704	8.60%	592
1995	155,292	1.1%	5,681	3.66%	13,505	8.70%	583
2000	167,393	3.0%	6,170	3.69%	14,596	8.72%	593
2001	165,332	-1.2%	6,078	3.68%	14,427	8.73%	580
2002	170,063	2.9%	6,273	3.69%	14,853	8.73%	591
2003	170,348	0.2%	6,253	3.67%	14,868	8.73%	587
2004	170,832	0.3%	6,269	3.67%	14,942	8.75%	583
2005	176,931	3.6%	6,483	3.66%	15,481	8.75%	599
2006	181,782	2.7%	6,702	3.69%	15,944	8.77%	609
2007	185,654	2.1%	6,831	3.68%	16,292	8.78%	616
2008	189,978	2.3%	6,993	3.68%	16,676	8.78%	625
2009	189,202	-0.4%	6,939	3.67%	16,615	8.78%	617
2010	192,877	1.9%	7,051	3.66%	16,979	8.80%	624
2011	196,255	1.8%	7,278	3.71%	17,317	8.82%	630
2012	200,642	2.2%	7,454	3.72%	17,750	8.85%	639
2013	201,260	0.3%	7,559	3.76%	17,853	8.87%	636
2014	206,048	2.4%	7,702	3.74%	18,273	8.87%	647
2015	208,508	1.2%	7,813	3.75%	18,504	8.87%	649
2016	212,451	1.9%	8,058	3.79%	18,874	8.88%	657
2017	215,527	1.4%	8,279	3.84%	19,200	8.91%	662
2018	217,575	1.0%	8,476	3.90%	19,404	8.92%	661

Sources: USDA/NASS; USDA/ERS; U.S. Census Bureau

Figure 1: Growth In U.S. Milk Production

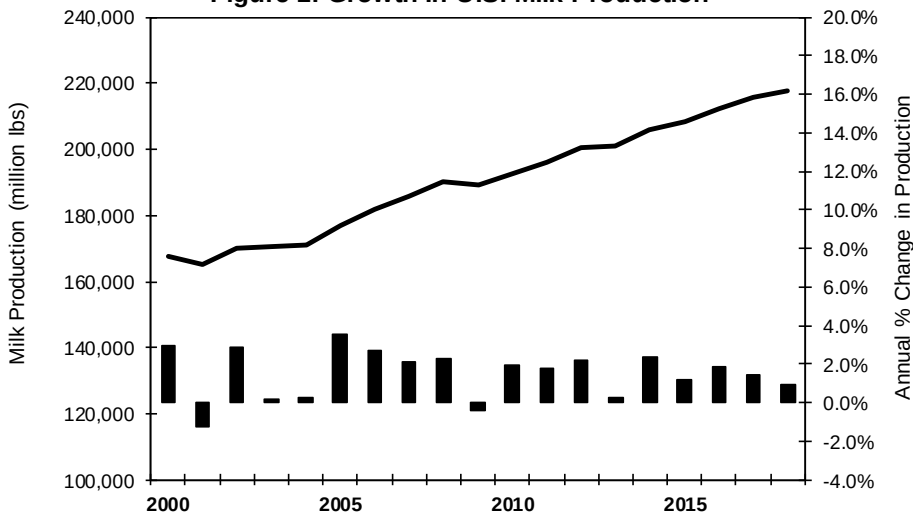


Table 2: U.S. Milk Cow Numbers, Dairy Farms, & Herd Size						
Year	January 1 Inventory			Farm Numbers		Avg. Herd Size*
	Milk Cows	Heifers Kept for Replacement	Total	Dairy		
				Lic'd	All	
	(1,000 head)	(#) (per 100 Cows)	(Thousand)		(Number)	
1950	23,853	5,394 23	5,648		3,648 7	
1955	23,462	5,786 25	4,654		2,936 8	
1960	19,527	5,079 26	3,963		1,792 11	
1965	16,981	4,149 24	3,356		1,108 15	
1970	12,091	3,881 32	2,949		648 19	
1975	11,220	4,087 36	2,521		444 25	
1980	10,758	4,159 39	2,440		334 32	
1985	10,777	4,770 44	2,293		269 40	
1990	10,015	4,171 42	2,146		193 52	
1995	9,482	4,121 43	2,196	112	140 85	
2000	9,183	4,000 44	2,167	83	105 111	
2005	9,004	4,117 46	2,099	65	78 140	
2006	9,104	4,298 47	2,089	62	75 147	
2007	9,145	4,325 47	2,205	59	70 155	
2008	9,257	4,415 48	2,185	57	67 162	
2009	9,333	4,410 47	2,170	55	65 170	
2010	9,087	4,551 50	2,150	53	63 171	
2011	9,156	4,577 50	2,131	51	60 179	
2012	9,236	4,618 50	2,110	49	58 187	
2013	9,221	4,546 49	2,100	47	n/a 196	
2014	9,209	4,539 49	2,082	45	n/a 206	
2015	9,312	4,710 51	2,064	44	n/a 214	
2016	9,312	4,814 52	2,055	42	n/a 223	
2017	9,369	4,754 51	2,042	40	n/a 233	
2018	9,432	4,768 51	2,029	37	n/a 251.74	
2019	9,353	4,702 50				

Sources: USDA / NASS: Cattle; Milk Production; Farms and Land in Farms.
 *Licensed dairy herds beginning in 1995
 Farm: Any establishment with at least \$1,000 in annual sales of agricultural products.
 Dairy: Any farm having one or more milk cows on hand during the year. Discontinued by

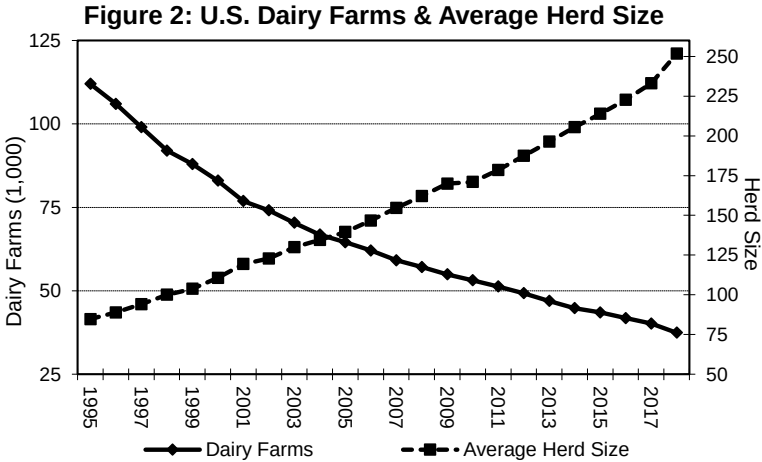


Table 3: Dairy Farms and Milk Production by Herd Size

Year	Number of Cows in Herd							
	1 - 29	30 - 49	50 - 99	100 - 199	200 - 499	500 - 999	1000 - 1999	2000+
<i>Number of Farms¹ by Size Group</i>								
1980	203,181	63,160	49,793	18,046	2/	2/	2/	2/
1985	135,870	57,846	55,155	20,179	2/	2/	2/	2/
1990	81,430	44,592	47,113	20,745	2/	2/	2/	2/
1995	48,150	31,030	39,280	14,290	6,920	3/	3/	3/
2000	30,820	22,210	31,190	12,835	5,340	1,700	690	270
2005	22,490	14,835	23,185	10,055	4,662	1,700	850	523
2010	20,000	10,800	15,800	8,600	3,950	1,670	920	760
2012	18,800	9,700	14,500	7,900	3,800	1,570	950	780
2017 ⁴	11,360	6,010	9,590	6,780	3,240	1,400	960	880
<i>% of U.S. Milk Production by Size Group</i>								
1980	13.5	22.9	30.4	33.2	2/	2/	2/	2/
1985	10.1	20.5	33.1	36.3	2/	2/	2/	2/
1990	6.9	17.3	31.5	44.3	2/	2/	2/	2/
1995	3.1	11.3	26.1	19.8	39.7	3/	3/	3/
2000	1.8	7.7	19.4	17.2	18.0	13.8	11.6	10.5
2005	1.3	5.1	15.2	13.5	15.3	14.3	13.4	21.9
2010	1.1	3.5	10.6	11.3	12.6	12.7	15.5	32.7
2012	1.0	3.2	9.5	10.7	12.6	12.4	15.9	34.7
2017 ⁴	0.8	2.6	7.5	9.5	11.6	12.5	15.7	39.8

Source: USDA / NASS; Milk Production.

1/ Farms are defined as operations with at least one milk cow through 2012, and as licensed dairy herds in 2017.

2/ Included in 100-199; greater detail for herd sizes above 100 cows not available prior to 1993.

3/ Included in 200-499; greater detail for herd sizes above 200 cows not available prior to 1998.

4/ Discontinued by NASS between quinquennial census years after 2012. 2017 estimates by NMPF.

Figure 3A: Percent of U.S. Dairy Farms¹ by Herd Size

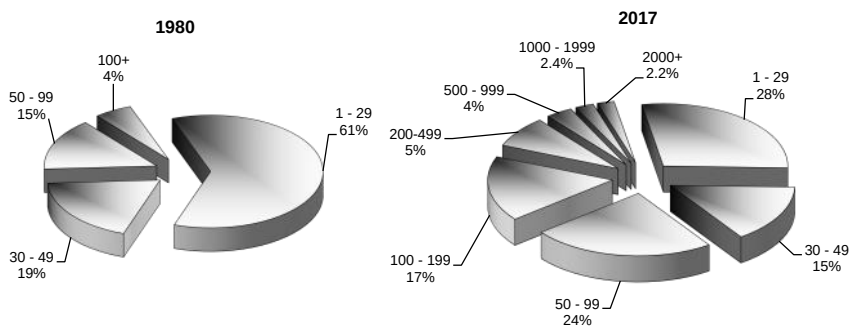


Figure 3B: Percent of U.S. Milk Production by Herd Size

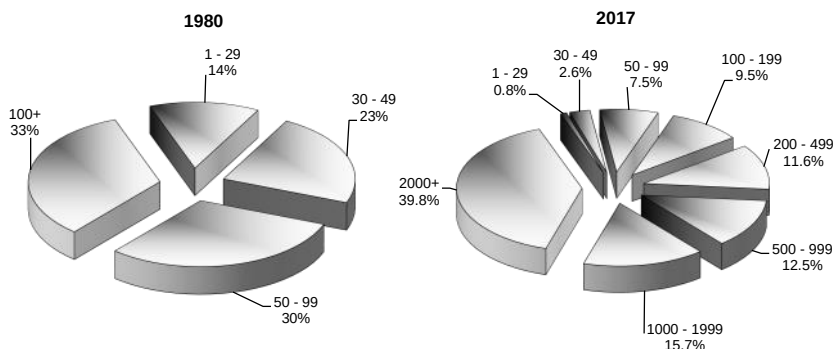
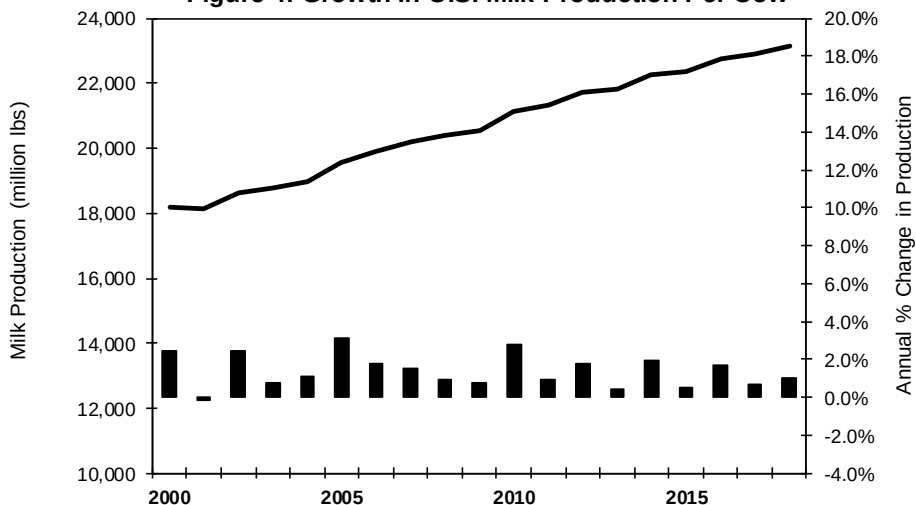


Table 4: U.S. Production Per Cow of Milk, Milkfat, & Solids-Not-Fat

Year	Milk Production Per Cow		Milkfat Production Per Cow		Solids-Not-Fat Production Per Cow	
	Pounds	% Change	Pounds	% Change	Pounds	% Change
1925	4,218	1.2%	165	1.2%	385	1.2%
1930	4,508	-1.6%	177	-1.7%	404	1.0%
1940	4,622	0.7%	183	1.1%	411	2.0%
1950	5,314	0.8%	210	0.5%	467	2.2%
1960	7,029	3.1%	263	2.7%	607	3.9%
1970	9,751	3.4%	357	3.0%	838	3.3%
1980	11,891	3.5%	434	3.4%	1,021	3.4%
1985	13,024	3.9%	478	3.9%	1,120	3.9%
1990	14,782	3.2%	539	2.1%	1,271	3.2%
1995	16,405	1.4%	600	1.4%	1,427	2.5%
2000	18,197	2.4%	670	2.8%	1,587	2.4%
2001	18,162	-0.2%	667	-0.4%	1,585	-0.1%
2002	18,608	2.5%	685	2.7%	1,625	2.5%
2003	18,759	0.8%	688	0.4%	1,637	0.7%
2004	18,960	1.1%	696	1.2%	1,658	1.3%
2005	19,550	3.1%	716	2.9%	1,711	3.1%
2006	19,895	1.8%	734	2.5%	1,745	2.0%
2007	20,204	1.6%	744	1.4%	1,773	1.6%
2008	20,397	1.0%	751	0.9%	1,790	1.0%
2009	20,561	0.8%	755	0.5%	1,806	0.8%
2010	21,142	2.8%	774	2.5%	1,861	3.1%
2011	21,334	0.9%	791	2.2%	1,882	1.1%
2012	21,722	1.8%	808	2.1%	1,922	2.1%
2013	21,819	0.4%	820	1.5%	1,935	0.7%
2014	22,249	2.0%	832	1.5%	1,973	1.9%
2015	22,372	0.6%	839	0.8%	1,985	0.6%
2016	22,761	1.7%	863	2.9%	2,022	1.8%
2017	22,914	0.7%	880	2.0%	2,041	0.9%
2018	23,149	1.0%	900	2.3%	2,064	1.1%

Sources: USDA/NASS; USDA/ERS; U.S. Census Bureau

Figure 4: Growth In U.S. Milk Production Per Cow



**Table 5: Annual Milk & Milkfat
Per Cow by State**

State	Annual Milk Per Cow				Milkfat Per Cow	Rank of 2018 Milk
	1990	2000	2010	2018	2018	Per Cow
	(Pounds)					
Alabama	12,214	13,920	14,182	14,600	566	45
Alaska	14,000	14,500	11,833	9,333	367	50
Arizona	17,500	21,820	23,452	23,933	876	9
Arkansas	11,841	12,436	12,750	12,333	467	49
California	18,456	21,130	23,025	23,306	909	14
Colorado	17,182	21,618	23,664	25,892	968	2
Connecticut	15,606	17,778	19,158	22,474	890	19
Delaware	13,667	14,747	16,981	19,063	732	35
Florida	14,033	15,688	18,711	19,842	730	33
Georgia	12,973	16,284	17,658	21,537	784	23
Hawaii	13,604	14,358	13,316	17,000	588	42
Idaho	16,475	20,816	22,647	24,875	985	4
Illinois	14,707	17,450	18,400	20,867	812	27
Indiana	14,590	16,568	20,094	22,614	855	18
Iowa	15,118	18,298	20,676	23,945	943	8
Kansas	12,576	16,923	20,983	23,321	900	13
Kentucky	10,947	12,841	14,769	18,345	695	37
Louisiana	11,605	12,034	11,750	13,818	558	48
Maine	14,619	17,128	18,344	20,600	797	29
Maryland	13,461	16,083	18,537	20,556	785	31
Massachusetts	14,871	17,091	17,286	18,364	731	36
Michigan	15,394	19,017	23,277	26,340	1006	1
Minnesota	14,127	17,777	19,366	21,784	867	22
Mississippi	12,081	15,028	13,118	14,333	579	47
Missouri	13,632	14,662	14,596	14,386	573	46
Montana	13,542	17,789	20,643	22,833	868	17
Nebraska	13,866	16,513	19,797	24,000	926	7
Nevada	16,400	19,000	23,714	22,938	906	16
New Hampshire	15,100	17,333	19,600	20,750	811	28
New Jersey	13,538	15,250	17,500	18,333	697	38
New Mexico	18,815	20,944	24,551	25,106	929	3
New York	14,658	17,378	20,807	23,888	922	11
North Carolina	15,220	16,746	19,682	21,295	803	25
North Dakota	12,624	14,292	18,286	22,267	875	21
Ohio	13,767	17,027	19,446	21,359	831	24
Oklahoma	12,327	14,440	17,125	18,125	692	39
Oregon	16,273	18,222	20,331	20,577	835	30
Pennsylvania	14,726	18,081	19,847	20,549	783	32
Rhode Island	14,250	15,667	17,727	16,714	674	43
South Carolina	12,771	16,087	17,875	17,286	666	40
South Dakota	12,257	15,516	20,478	22,355	932	20
Tennessee	11,825	14,789	16,346	17,135	649	41
Texas	14,350	16,503	21,375	23,933	984	9
Utah	15,838	17,573	21,898	23,220	899	15
Vermont	14,528	17,199	18,537	21,102	823	26
Virginia	14,213	15,833	18,095	19,699	745	34
Washington	18,532	22,644	23,514	24,318	987	5
West Virginia	11,250	15,588	15,700	15,857	606	44
Wisconsin	13,973	17,306	20,630	24,002	934	6
Wyoming	12,337	13,571	20,067	23,700	863	12
United States	14,782	18,197	21,142	23,149	900	

Source: USDA/NASS: *Milk Production, Disposition, and Income*

**Table 6: Cow Numbers, Licensed Dairy Herds
& Herd Size by State**

State	Cows (1000 Head)		Licensed Dairy Herds		Avg. Herd Size		Rank of 2018 Avg. Herd Size
	2008	2018	2008	2018	2008	2018	
Alabama	12	5	65	30	185	167	30
Alaska	0.6	0.3	5	1	120	300	18
Arizona	186	208	120	100	1,550	2,080	2
Arkansas	15	6	150	50	100	120	40
California	1,844	1,734	1,905	1,335	968	1,299	6
Colorado	128	176	140	120	914	1,467	4
Connecticut	19	19	150	110	127	173	29
Delaware	7	5	55	25	118	192	25
Florida	120	120	140	95	857	1,263	8
Georgia	76	82	270	160	281	513	16
Hawaii	2	2	2	2	850	1,000	9
Idaho	549	609	635	480	865	1,269	7
Illinois	102	90	960	600	106	150	32
Indiana	167	184	1,670	965	100	191	26
Iowa	213	220	2,020	1,120	105	196	24
Kansas	117	159	425	280	275	568	12
Kentucky	89	55	1,060	540	84	102	45
Louisiana	26	11	200	90	130	122	39
Maine	33	30	330	230	100	130	38
Maryland	56	45	570	380	98	118	43
Massachusetts	15	11	180	130	83	85	48
Michigan	350	424	2,390	1,520	146	279	20
Minnesota	464	453	4,865	2,980	95	152	31
Mississippi	20	9	160	65	125	138	37
Missouri	110	83	1,760	920	63	90	47
Montana	17	12	80	60	213	200	23
Nebraska	58	60	320	155	181	387	17
Nevada	28	32	25	20	1,120	1,600	3
New Hampshire	15	12	130	100	115	120	40
New Jersey	10	6	110	50	91	120	40
New Mexico	338	330	160	140	2,113	2,357	1
New York	626	623	5,620	4,190	111	149	34
North Carolina	47	44	300	180	157	244	22
North Dakota	26	15	255	80	102	188	27
Ohio	280	259	3,360	2,200	83	118	44
Oklahoma	64	40	310	150	206	267	21
Oregon	114	123	300	220	380	559	14
Pennsylvania	549	519	7,670	6,200	72	84	49
Rhode Island	1.1	0.7	20	10	55	70	50
South Carolina	18	14	80	50	225	280	19
South Dakota	90	121	490	215	184	563	13
Tennessee	59	37	550	250	107	148	35
Texas	418	537	670	400	624	1,343	5
Utah	85	100	260	180	327	556	15
Vermont	140	127	1,100	730	127	174	28
Virginia	98	83	725	565	135	147	36
Washington	244	277	500	410	488	676	10
West Virginia	12	7	110	75	109	93	46
Wisconsin	1,252	1,274	13,730	8,500	91	150	33
Wyoming	7	6	25	10	280	600	11
United States	9,314	9,399	57,127	37,468	163	251	

Source: USDA/NASS: *Milk Production*

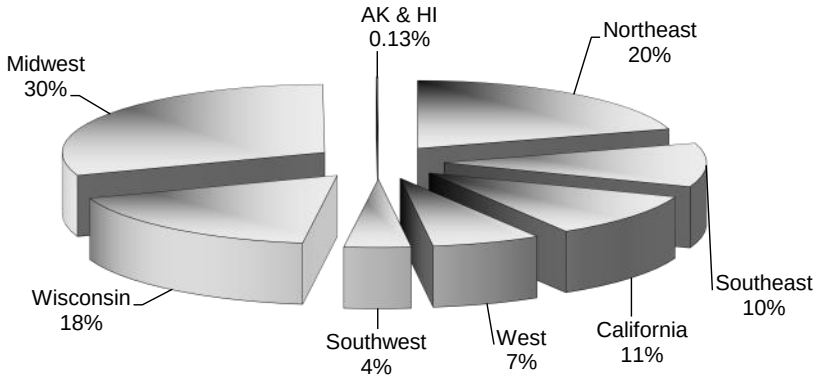
Table 7: Milk Production by State

State					2018 Production		
	1990	2000	2010	2018	Share of U.S.	Rank	Per Capita
	(Million Pounds)				(Percent)		(Pounds)
Alabama	513	348	156	73	0.03%	47	15
Alaska	17	13	7	3	0.001%	50	4
Arizona	1,645	3,033	4,151	4,978	2.3%	13	694
Arkansas	817	485	153	74	0.03%	46	25
California	20,947	32,245	40,385	40,413	18.6%	1	1,022
Colorado	1,323	1,924	2,816	4,557	2.1%	14	800
Connecticut	515	480	364	427	0.2%	34	120
Delaware	123	146	90	92	0.04%	45	95
Florida	2,526	2,463	2,133	2,381	1.1%	20	112
Georgia	1,440	1,433	1,395	1,766	0.8%	23	168
Hawaii	151	116	25	34	0.02%	48	24
Idaho	2,949	7,223	12,773	15,149	7.0%	3	8,636
Illinois	2,559	2,094	1,840	1,878	0.9%	22	147
Indiana	2,276	2,419	3,416	4,161	1.9%	15	622
Iowa	4,233	3,934	4,342	5,268	2.4%	12	1,669
Kansas	1,245	1,540	2,497	3,708	1.7%	16	1,274
Kentucky	2,255	1,695	1,152	1,009	0.5%	27	226
Louisiana	940	698	235	152	0.1%	40	33
Maine	614	668	587	618	0.3%	33	462
Maryland	1,373	1,351	1,001	925	0.4%	29	153
Massachusetts	461	376	242	202	0.1%	39	29
Michigan	5,234	5,705	8,333	11,168	5.1%	6	1,117
Minnesota	10,030	9,493	9,102	9,868	4.5%	8	1,759
Mississippi	749	541	223	129	0.1%	42	43
Missouri	3,040	2,258	1,445	1,194	0.5%	26	195
Montana	325	338	289	274	0.1%	36	258
Nebraska	1,345	1,255	1,168	1,440	0.7%	25	746
Nevada	328	476	664	734	0.3%	30	242
New Hampshire	302	312	294	249	0.1%	37	184
New Jersey	352	244	140	110	0.1%	44	12
New Mexico	1,524	5,236	7,881	8,285	3.8%	9	3,954
New York	11,067	11,921	12,713	14,882	6.8%	4	762
North Carolina	1,522	1,189	866	937	0.4%	28	90
North Dakota	1,073	686	384	334	0.2%	35	439
Ohio	4,667	4,461	5,270	5,532	2.5%	11	473
Oklahoma	1,245	1,314	959	725	0.3%	31	184
Oregon	1,611	1,640	2,399	2,531	1.2%	19	604
Pennsylvania	10,014	11,156	10,737	10,665	4.9%	7	833
Rhode Island	34	28	20	12	0.01%	49	11
South Carolina	447	370	286	242	0.1%	38	48
South Dakota	1,716	1,474	1,884	2,705	1.2%	17	3,066
Tennessee	2,022	1,405	850	634	0.3%	32	94
Texas	5,539	5,743	8,828	12,852	5.9%	5	448
Utah	1,267	1,687	1,927	2,322	1.1%	21	735
Vermont	2,368	2,683	2,521	2,680	1.2%	18	4,279
Virginia	2,004	1,900	1,719	1,635	0.8%	24	192
Washington	4,392	5,593	5,902	6,736	3.1%	10	894
West Virginia	270	265	157	111	0.1%	43	61
Wisconsin	24,187	23,259	26,035	30,579	14.1%	2	5,260
Wyoming	125	76	120	142	0.1%	41	246
United States	147,721	167,393	192,877	217,575	100.0%		666

Sources: USDA/NASS: *Milk Production Disposition and Income* ; Bureau of Census.

Figure 5: Regional Milk Production

U.S. Milk Production, 1980



U.S. Milk Production, 2018

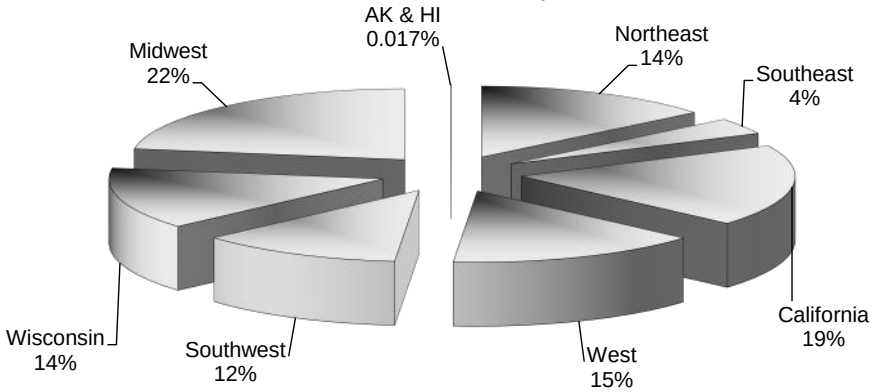


Table 8: Importance of the Dairy Sector by State, 2018

	Farm Receipts		Dairy			
State	Total	Dairy	Share of Total	Rank of Dairy	First in income	Receipts
	(Thousand Dollars)		(Percent)		(Thousand \$)	
California	\$49,915,493	\$6,372,437	12.8%	4	Fruits and nuts	\$21,722,533
Wisconsin	\$10,894,801	\$5,002,800	45.9%	1	Dairy products	\$5,002,800
New York	\$5,024,868	\$2,475,775	49.3%	1	Dairy products	\$2,475,775
Idaho	\$7,390,922	\$2,373,055	32.1%	1	Dairy products	\$2,373,055
Texas	\$21,816,059	\$2,167,256	9.9%	4	Cattle and calves	\$8,624,064
Pennsylvania	\$6,791,840	\$1,779,960	26.2%	1	Dairy products	\$1,779,960
Michigan	\$7,563,792	\$1,658,668	21.9%	1	Dairy products	\$1,658,668
Minnesota	\$17,256,128	\$1,611,885	9.3%	5	Feed crops	\$4,459,202
New Mexico	\$2,919,467	\$1,208,634	41.4%	1	Dairy products	\$1,208,634
Washington	\$9,401,062	\$1,128,624	12.0%	3	Fruits and nuts	\$3,391,946
Ohio	\$8,927,636	\$902,492	10.1%	4	Oil crops	\$2,478,465
Iowa	\$27,668,804	\$866,415	3.1%	6	Feed crops	\$8,066,259
Arizona	\$4,298,441	\$769,265	17.9%	3	Vegetables	\$1,141,318
Colorado	\$7,073,724	\$757,345	10.7%	3	Cattle and calves	\$3,460,198
Indiana	\$10,711,219	\$649,038	6.1%	5	Feed crops	\$3,316,288
Kansas	\$15,950,206	\$565,029	3.5%	5	Cattle and calves	\$8,285,905
Florida	\$7,186,838	\$472,625	6.6%	5	Miscellaneous crops	\$3,133,734
Oregon	\$4,897,438	\$469,370	9.6%	4	Miscellaneous crops	\$2,206,334
South Dakota	\$9,113,589	\$466,581	5.1%	5	Cattle and calves	\$2,726,006
Vermont	\$740,483	\$455,544	61.5%	1	Dairy products	\$455,544
Utah	\$1,685,829	\$371,588	22.0%	3	Cattle and calves	\$449,991
Illinois	\$16,794,856	\$307,890	1.8%	6	Feed crops	\$7,602,564
Georgia	\$9,128,015	\$300,618	3.3%	7	Poultry and eggs	\$5,240,664
Virginia	\$3,529,839	\$284,375	8.1%	4	Poultry and eggs	\$1,272,999
Nebraska	\$21,317,654	\$232,146	1.1%	7	Cattle and calves	\$10,583,711
Missouri	\$10,098,948	\$198,237	2.0%	9	Oil crops	\$2,582,662
Kentucky	\$5,904,131	\$175,350	3.0%	8	Poultry and eggs	\$1,279,259
North Carolina	\$11,139,382	\$161,063	1.4%	11	Poultry and eggs	\$4,983,973
Maryland	\$2,244,723	\$148,554	6.6%	5	Poultry and eggs	\$1,044,888
Oklahoma	\$6,735,548	\$127,804	1.9%	9	Cattle and calves	\$3,308,434
Nevada	\$659,878	\$119,392	18.1%	3	Cattle and calves	\$326,304
Maine	\$667,332	\$111,134	16.7%	3	Miscellaneous crops	\$204,227
Tennessee	\$3,541,672	\$109,446	3.1%	8	Oil crops	\$729,295
Connecticut	\$598,147	\$72,504	12.1%	2	Miscellaneous crops	\$418,071
North Dakota	\$7,965,911	\$53,460	0.7%	8	Oil crops	\$2,698,948
Montana	\$3,493,827	\$43,200	1.2%	8	Cattle and calves	\$1,365,683
New Hampshire	\$229,061	\$41,990	18.3%	3	Miscellaneous crops	\$105,190
South Carolina	\$2,520,633	\$41,586	1.6%	10	Poultry and eggs	\$1,153,475
Massachusetts	\$434,321	\$34,800	8.0%	4	Miscellaneous crops	\$282,461
Louisiana	\$3,141,160	\$25,628	0.8%	10	Poultry and eggs	\$596,816
Wyoming	\$1,547,265	\$22,934	1.5%	7	Cattle and calves	\$942,966
Mississippi	\$5,727,702	\$21,717	0.4%	12	Poultry and eggs	\$2,867,248
West Virginia	\$684,415	\$17,876	2.6%	6	Poultry and eggs	\$281,800
New Jersey	\$1,107,925	\$17,496	1.6%	8	Miscellaneous crops	\$656,688
Delaware	\$1,409,465	\$14,571	1.0%	7	Poultry and eggs	\$1,105,682
Arkansas	\$9,167,431	\$12,240	0.1%	12	Poultry and eggs	\$4,929,430
Alabama	\$5,773,944	\$11,952	0.2%	11	Poultry and eggs	\$3,854,186
Hawaii	\$592,959	\$9,464	1.6%	6	Miscellaneous crops	\$381,075
Rhode Island	\$76,207	\$1,995	2.6%	4	Miscellaneous crops	\$44,094
Alaska	\$37,872	\$506	1.3%	6	Miscellaneous crops	\$26,504
United States	\$373,498,863	\$35,244,314	9.4%	6	Cattle & calves	\$67,105,197

Source: USDA/ERS: *Farm Business Economics Report*

Table 9: Farm Level Milk Prices By State								
State	1980	1990	2000	2005	2010	2018	% Change From 2017	2018 Cash Receipts
	(Dollars Per Hundredweight)						(Percent)	\$1,000
Alabama	\$14.40	\$15.90	\$14.20	\$16.90	\$19.50	\$16.60	-11%	\$11,952
Alaska	\$17.50	\$20.30	\$20.30	\$20.40	\$24.40	\$22.00	0%	\$506
Arizona	\$13.40	\$14.10	\$11.90	\$14.90	\$15.90	\$15.50	-7%	\$769,265
Arkansas	\$13.50	\$15.00	\$13.60	\$15.40	\$17.10	\$17.00	-9%	\$12,240
California	\$12.88	\$12.02	\$11.50	\$13.92	\$14.69	\$15.78	-4%	\$6,372,437
Colorado	\$14.00	\$14.50	\$11.80	\$14.90	\$16.40	\$16.70	-8%	\$757,345
Connecticut	\$13.60	\$14.70	\$14.10	\$16.50	\$18.00	\$17.10	-8%	\$72,504
Delaware	\$13.60	\$14.90	\$13.50	\$16.20	\$18.40	\$16.10	-9%	\$14,571
Florida	\$15.80	\$16.70	\$15.60	\$18.60	\$20.70	\$19.90	-7%	\$472,625
Georgia	\$14.00	\$15.80	\$12.90	\$16.00	\$18.40	\$17.10	-10%	\$300,618
Hawaii	\$18.12	\$20.70	\$24.50	\$27.00	\$35.00	\$28.00	-2%	\$9,464
Idaho	\$12.20	\$12.20	\$10.60	\$14.00	\$14.90	\$15.70	-9%	\$2,373,055
Illinois	\$12.90	\$12.90	\$12.30	\$15.20	\$17.10	\$16.50	-10%	\$307,890
Indiana	\$13.00	\$14.10	\$12.90	\$16.00	\$17.30	\$15.70	-11%	\$649,038
Iowa	\$12.60	\$13.30	\$11.70	\$15.30	\$16.50	\$16.50	-9%	\$866,415
Kansas	\$13.10	\$13.30	\$11.60	\$14.50	\$17.30	\$15.30	-9%	\$565,029
Kentucky	\$12.80	\$14.30	\$13.80	\$16.20	\$17.90	\$17.50	-7%	\$175,350
Louisiana	\$14.10	\$15.40	\$13.90	\$15.70	\$18.00	\$17.20	-8%	\$25,628
Maine	\$13.90	\$15.20	\$14.10	\$16.80	\$18.60	\$18.10	-7%	\$111,134
Maryland	\$13.60	\$14.90	\$13.50	\$16.20	\$18.40	\$16.20	-9%	\$148,554
Massachusetts	\$13.70	\$14.80	\$14.10	\$16.50	\$18.00	\$17.40	-7%	\$34,800
Michigan	\$13.20	\$14.10	\$12.90	\$15.40	\$17.00	\$14.90	-9%	\$1,658,668
Minnesota	\$12.40	\$13.22	\$12.00	\$15.40	\$16.10	\$16.50	-7%	\$1,611,885
Mississippi	\$13.80	\$15.10	\$13.90	\$15.90	\$18.40	\$17.10	-10%	\$21,717
Missouri	\$12.60	\$13.60	\$12.10	\$15.50	\$16.60	\$16.90	-10%	\$198,237
Montana	\$12.80	\$13.70	\$12.80	\$15.30	\$16.90	\$16.00	-9%	\$43,200
Nebraska	\$12.70	\$13.10	\$11.70	\$15.40	\$17.30	\$16.20	-11%	\$232,146
Nevada	\$12.70	\$13.20	\$11.00	\$14.50	\$16.90	\$16.40	-8%	\$119,392
New Hampshire	\$13.60	\$14.80	\$14.00	\$16.30	\$17.80	\$17.00	-8%	\$41,990
New Jersey	\$13.38	\$15.30	\$13.20	\$15.50	\$16.80	\$16.20	-11%	\$17,496
New Mexico	\$14.10	\$13.40	\$12.40	\$14.30	\$15.80	\$14.70	-10%	\$1,208,634
New York	\$13.00	\$14.60	\$13.10	\$15.90	\$17.40	\$16.70	-8%	\$2,475,775
North Carolina	\$14.00	\$15.80	\$14.90	\$16.40	\$19.30	\$17.30	-8%	\$161,063
North Dakota	\$11.80	\$12.50	\$11.30	\$15.00	\$15.90	\$16.20	-8%	\$53,460
Ohio	\$13.00	\$13.90	\$12.60	\$15.80	\$17.80	\$16.40	-11%	\$902,492
Oklahoma	\$13.60	\$14.30	\$13.60	\$16.30	\$18.00	\$17.80	-7%	\$127,804
Oregon	\$13.10	\$13.20	\$12.80	\$15.70	\$17.30	\$18.70	-6%	\$469,370
Pennsylvania	\$13.60	\$15.00	\$13.70	\$16.90	\$18.30	\$16.80	-10%	\$1,779,960
Rhode Island	\$13.70	\$14.80	\$14.20	\$16.80	\$18.00	\$17.20	-7%	\$1,995
South Carolina	\$14.50	\$16.10	\$14.10	\$16.60	\$19.90	\$17.40	-9%	\$41,586
South Dakota	\$12.40	\$13.00	\$12.80	\$15.30	\$16.50	\$17.30	-8%	\$466,581
Tennessee	\$13.30	\$14.70	\$13.80	\$16.00	\$17.90	\$17.40	-8%	\$109,446
Texas	\$13.90	\$14.70	\$13.40	\$15.30	\$17.10	\$16.90	-8%	\$2,167,256
Utah	\$12.50	\$12.90	\$11.20	\$14.80	\$16.20	\$16.10	-9%	\$371,588
Vermont	\$13.40	\$14.40	\$13.80	\$16.00	\$17.70	\$17.10	-8%	\$455,544
Virginia	\$13.30	\$15.00	\$14.80	\$16.50	\$19.40	\$17.50	-10%	\$284,375
Washington	\$12.70	\$13.30	\$12.80	\$14.90	\$16.10	\$16.80	-8%	\$1,128,624
West Virginia	\$13.00	\$14.30	\$13.30	\$15.60	\$16.90	\$16.40	-9%	\$17,876
Wisconsin	\$12.67	\$13.47	\$11.70	\$15.60	\$16.10	\$16.50	-9%	\$5,002,800
Wyoming	\$12.70	\$12.80	\$11.00	\$14.80	\$16.50	\$16.30	-9%	\$22,934
United States	\$13.05	\$13.74	\$12.40	\$15.19	\$16.35	\$16.28	-8%	\$35,244,314

Source: USDA/NASS: *Milk Production, Disposition, and Income*

Table 10: Selected Farm Level Annual Average Milk Prices

Year	Class III Price @ 3.5%	Class IV Price @ 3.5%	Manufacturing Grade Milk	All-Milk Wholesale	% Change In All-Milk Price
(Dollars Per Hundredweight)					
1965	\$3.27	n/a	\$3.34	\$4.23	1.9%
1970	\$4.66	n/a	\$4.70	\$5.71	4.0%
1975	\$7.62	n/a	\$7.63	\$8.75	4.9%
1980	\$11.88	n/a	\$12.01	\$13.05	8.4%
1985	\$11.50	n/a	\$11.72	\$12.76	-2.2%
1990	\$12.21	n/a	\$12.34	\$13.74	1.3%
1995	\$11.83	n/a	\$11.79	\$12.78	-1.8%
2000	\$9.74	\$11.83	\$10.52	\$12.40	-13.8%
2001	\$13.10	\$13.76	\$13.44	\$15.04	21.3%
2002	\$10.42	\$10.81	\$10.89	\$12.18	-19.0%
2003	\$11.42	\$10.00	\$11.72	\$12.55	3.0%
2004	\$15.39	\$13.20	\$15.45	\$16.13	28.5%
2005	\$14.05	\$12.88	\$14.42	\$15.19	-5.8%
2006	\$11.89	\$11.06	\$12.19	\$12.96	-14.7%
2007	\$18.04	\$18.36	\$18.31	\$19.21	48.2%
2008	\$17.44	\$14.65	\$17.91	\$18.45	-4.0%
2009	\$11.36	\$10.89	\$12.03	\$12.93	-29.9%
2010	\$14.41	\$15.09	\$14.56	\$16.35	26.5%
2011	\$18.37	\$19.04	n/a	\$20.24	23.8%
2012	\$17.44	\$16.01	n/a	\$18.56	-8.3%
2013	\$17.99	\$19.05	n/a	\$20.11	8.4%
2014	\$22.34	\$22.09	n/a	\$24.07	19.7%
2015	\$15.80	\$14.34	n/a	\$17.21	-28.5%
2016	\$14.87	\$13.77	n/a	\$16.34	-5.1%
2017	\$16.17	\$15.16	n/a	\$17.69	8.3%
2018	\$14.62	\$14.24	n/a	\$16.28	-8.0%

Source: USDA/AMS; USDA/NASS: *Milk Production, Disposition, and Income*

Note: Class III and Class IV price at 3.5% bf.; all others at test.

NASS discontinued reporting manufacturing grade and fluid grade milk prices in 2011.

Figure 6: All-Milk Price and Class III Price

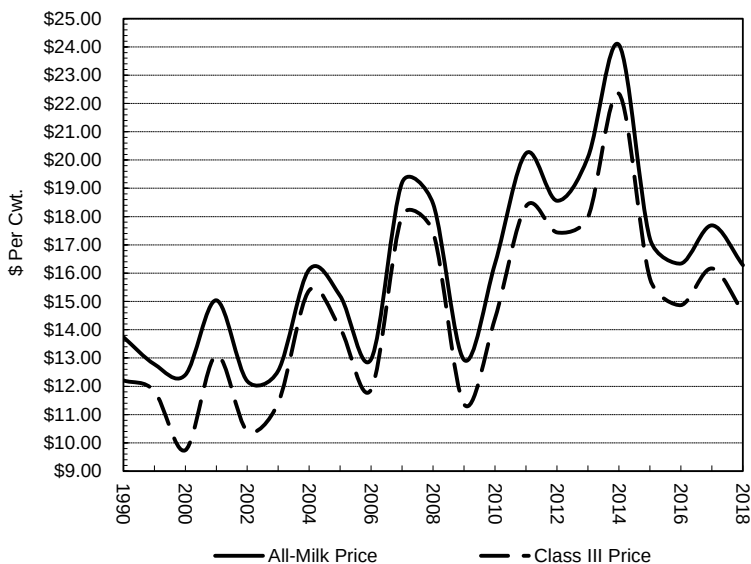


Table 11: Monthly Seasonality of U.S. All-Milk Price & Production

Month	2011	2012	2013	2014	2015	2016	2017	2018
U.S. All-Milk Price, Dollars Per Cwt @ Average Test								
Jan	\$16.70	\$18.90	\$20.00	\$23.50	\$17.50	\$16.10	\$18.90	\$16.20
Feb	\$19.10	\$17.60	\$19.50	\$24.80	\$16.90	\$15.70	\$18.40	\$15.30
Mar	\$20.40	\$17.20	\$19.10	\$25.10	\$16.60	\$15.30	\$17.30	\$15.70
Apr	\$19.60	\$16.80	\$19.50	\$25.30	\$16.60	\$15.10	\$16.50	\$15.70
May	\$19.60	\$16.20	\$19.70	\$24.20	\$16.80	\$14.50	\$16.70	\$16.20
Jun	\$21.10	\$16.20	\$19.50	\$23.20	\$16.90	\$14.80	\$17.30	\$16.30
Jul	\$21.80	\$16.90	\$19.10	\$23.30	\$16.60	\$16.10	\$17.20	\$15.50
Aug	\$22.10	\$18.20	\$19.60	\$24.20	\$16.80	\$17.20	\$18.10	\$16.10
Sep	\$21.10	\$19.70	\$20.10	\$25.70	\$17.60	\$17.40	\$17.90	\$16.90
Oct	\$20.00	\$21.60	\$20.90	\$24.90	\$17.70	\$16.70	\$18.10	\$17.50
Nov	\$20.50	\$22.10	\$21.60	\$23.00	\$18.30	\$17.80	\$18.20	\$17.10
Dec	\$19.70	\$20.80	\$22.00	\$20.40	\$17.30	\$18.90	\$17.20	\$16.60
U.S. Milk Production, Million Pounds								
Jan	16,396	17,048	17,119	17,276	17,682	17,671	18,140	18,437
Feb	15,075	16,342	15,762	15,897	16,169	16,900	16,698	16,973
Mar	16,990	17,746	17,681	17,832	18,077	18,404	18,758	18,989
Apr	16,657	17,257	17,260	17,484	17,795	17,956	18,357	18,412
May	17,279	17,631	17,829	18,104	18,434	18,614	18,958	19,131
Jun	16,514	16,712	16,948	17,329	17,510	17,774	18,073	18,288
Jul	16,478	16,610	16,794	17,434	17,659	17,903	18,270	18,329
Aug	16,425	16,431	16,796	17,223	17,391	17,693	18,037	18,245
Sep	15,780	15,713	15,839	16,511	16,595	16,985	17,131	17,395
Oct	16,272	16,277	16,462	17,066	17,106	17,554	17,765	17,873
Nov	15,820	16,015	15,998	16,555	16,667	17,139	17,265	17,348
Dec	16,569	16,860	16,772	17,337	17,423	17,858	18,075	18,155

Source: USDA/NASS: *Prices Received and Milk Production*

Figure 7: Seasonality of Milk Supply & Price, 2018

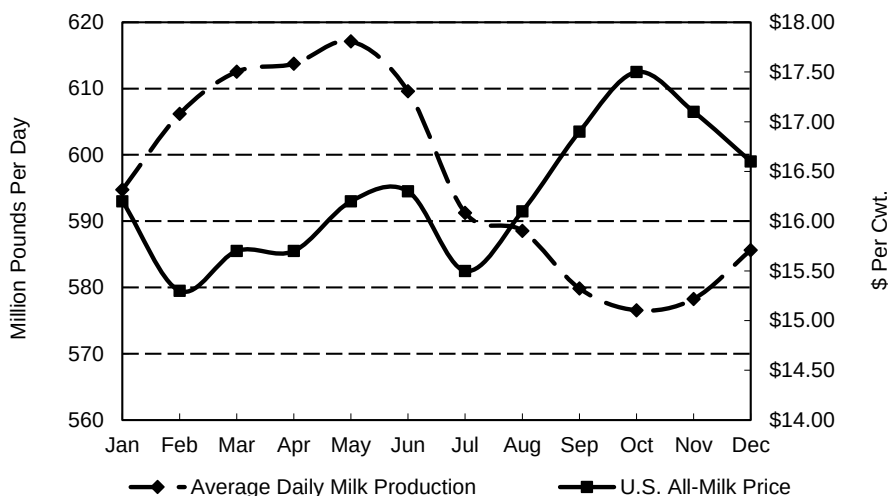


Table 12: Annual Wholesale Prices of Dairy Products

Year	CME Grade AA Butter 1/	NCE/CME 2/ Cheddar Cheese		Nonfat Dry Milk	
		Barrels	40# Blocks	West (Low/Med)	Central 3/ (Low/Med)
	(Annual Average, Cents Per Pound)				
1975	79.4	82.6	86.6	n/a	62.9
1980	139.3	127.0	133.0	n/a	88.6
1985	141.1	117.8	121.8	n/a	84.1
1990	102.1	127.9	131.5	n/a	100.6
1995	75.6	126.3	130.4	105.5	108.6
2000	117.7	111.1	114.7	100.6	101.5
2005	154.8	144.8	149.3	94.9	98.5
2006	123.6	121.9	123.9	89.2	100.1
2007	136.8	174.1	175.8	176.2	180.4
2008	146.3	183.6	185.6	124.6	130.0
2009	124.3	125.2	129.6	94.8	99.3
2010	172.8	147.5	149.6	119.1	125.0
2011	196.2	178.7	180.6	150.9	155.3
2012	160.3	166.0	169.8	134.2	137.9
2013	155.6	171.7	176.4	172.4	174.1
2014	216.4	207.5	210.9	171.9	174.1
2015	208.9	157.6	161.0	90.3	94.3
2016	208.2	155.6	158.0	84.2	85.4
2017	232.8	153.4	161.1	87.1	87.6
2018	225.0	142.0	154.6	80.5	80.9

Source: USDA / AMS: *Dairy Market Statistics*

1/ Grade A butter price is reported before 1998. Grade A butter trading ended July 1, 1998.

2/ Cheese prices: National Cheese Exchange through April 1997, then CME.

3/ Central (low/medium) June 1998 - 2001; Central/East (low/medium) 2002 - 2017;

CME Grade A beginning 2004.

Table 13: Monthly Prices of Dairy Products on Chicago Mercantile Exchange

Month	Grade AA Butter			40-lb. Block Cheddar		
	2017	2018	Diff. From Prev. Yr.	2017	2018	Diff. From Prev. Yr.
(Monthly Average, Cents per Pound)						
Jan	223.9	215.9	-3.6%	168.7	149.4	-11.4%
Feb	215.3	212.1	-1.5%	162.0	151.6	-6.4%
Mar	213.9	220.1	2.9%	143.4	156.1	8.9%
Apr	209.9	231.5	10.3%	149.8	160.6	7.3%
May	226.8	237.5	4.7%	162.6	164.0	0.8%
Jun	256.9	232.7	-9.4%	160.2	156.2	-2.5%
Jul	262.0	223.6	-14.6%	165.9	153.6	-7.4%
Aug	264.7	230.1	-13.1%	168.5	163.4	-3.0%
Sep	243.7	225.5	-7.5%	163.7	164.4	0.4%
Oct	232.9	226.0	-3.0%	173.1	158.7	-8.3%
Nov	222.4	224.8	1.1%	165.9	139.5	-15.9%
Dec	220.8	220.7	0.0%	149.0	137.6	-7.6%

Source: USDA / AMS: *Dairy Market Statistics*

Table 14: Annual Retail Prices for Selected Dairy Products					
Year	Whole Milk	Cheddar Cheese	Butter 1/	Ice Cream	Farm Price as pct. of Retail 2/
	(\$ per gal.)	(\$ per pound)		(\$ per 1/2 gal.)	(Percent)
1945		\$0.36	\$0.51		
1950		\$0.52	\$0.73		
1955		\$0.58	\$0.71		
1960		\$0.69	\$0.75	\$0.87	
1965		\$0.75	\$0.75	\$0.79	
1970		\$1.01	\$0.87	\$0.85	
1975		\$1.54	\$1.03	\$1.22	
1980		\$2.23	\$1.88	\$1.82	52%
1985		\$3.09	\$2.12	\$2.30	44%
1990		n/a	\$1.99	\$2.60	39%
1995		\$3.39	\$1.61	\$2.65	33%
2000	\$2.78	\$3.83	\$2.52	\$3.45	30%
2005	\$3.19	\$4.38	\$3.28	\$3.74	31%
2006	\$3.08	\$4.25	\$2.92	\$3.75	27%
2007	\$3.51	\$4.23	\$3.04	\$3.95	38%
2008	\$3.80	\$4.73	\$3.18	\$4.21	33%
2009	\$3.11	\$4.67	\$2.84	\$4.32	25%
2010	\$3.26	\$4.71	\$3.13	\$4.47	32%
2011	\$3.57	\$5.42	\$3.60	\$4.93	35%
2012	\$3.49	\$5.63	n/a	\$5.04	31%
2013	\$3.46	\$5.56	n/a	\$4.99	34%
2014	\$3.69	\$5.54	n/a	\$4.89	39%
2015	\$3.42	\$5.38	n/a	\$4.74	28%
2016	\$3.20	\$5.23	n/a	\$4.76	27%
2017	\$3.23	\$4.89	n/a	\$4.69	30%
2018	\$2.90	\$5.14	\$4.07	\$4.74	27%

Source: Bureau of Labor Statistics, Department of Labor. 1/ 2018: April - December
2/ Source: USDA / ERS Agricultural Outlook; all dairy. Beginning 2011, NMPF estimate.

Figure 8: Farm Value of Milk as Percent of
Retail Value

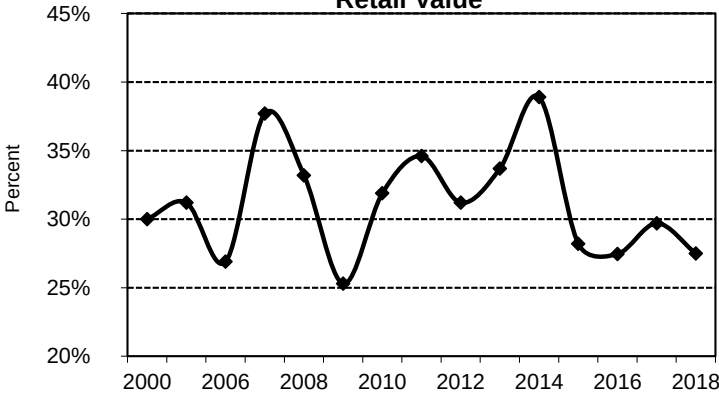


Table 15: Milk Production Costs & Returns By Herd Size, 2018 1/

Size of Operation

	1-99 cows	100-199 cows	200-499 cows	500-999 cows	1,000- 1,999 cows	2,000 or more cows
(Dollars Per Hundredweight)						
<i>Cash Receipts</i>						
Milk sold	\$18.44	\$17.30	\$17.63	\$17.28	\$16.46	\$15.95
Cattle	\$1.36	\$1.13	\$1.29	\$1.33	\$1.35	\$1.13
Other income 2/	\$0.60	\$0.54	\$0.48	\$0.45	\$0.48	\$0.50
Total Receipts	\$20.39	\$18.97	\$19.40	\$19.06	\$18.29	\$17.58
<i>Feed</i>						
Purchased feed	\$5.13	\$5.17	\$6.03	\$6.70	\$7.27	\$7.65
Homegrown harvested feed	\$6.36	\$5.53	\$3.81	\$2.62	\$2.09	\$1.89
Grazed feed	\$0.36	\$0.15	\$0.11	\$0.04	\$0.01	\$0.01
Total Feed	\$11.85	\$10.85	\$9.95	\$9.36	\$9.37	\$9.55
<i>Other Operating Costs</i>						
Veterinary and Medicine	\$0.83	\$0.86	\$0.88	\$0.82	\$0.72	\$0.68
Bedding and litter	\$0.33	\$0.31	\$0.27	\$0.25	\$0.18	\$0.10
Marketing	\$0.28	\$0.23	\$0.15	\$0.17	\$0.15	\$0.18
Custom services	\$0.77	\$0.71	\$0.76	\$0.59	\$0.65	\$0.61
Fuel, lube, and electricity	\$1.08	\$0.96	\$0.77	\$0.63	\$0.56	\$0.41
Repairs	\$1.13	\$0.92	\$0.82	\$0.65	\$0.53	\$0.42
Other operating costs 3/	\$0.04	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00
Interest on operating capital	\$0.17	\$0.15	\$0.14	\$0.13	\$0.13	\$0.12
Total Operating Costs	\$16.47	\$15.00	\$13.74	\$12.60	\$12.29	\$12.07
<i>Allocated overhead:</i>						
Hired labor	\$0.68	\$1.45	\$2.31	\$2.40	\$2.50	\$1.97
Opportunity cost of unpaid labor	\$10.27	\$4.15	\$1.58	\$0.72	\$0.31	\$0.11
Capital recovery of machinery and equipment 4/	\$4.83	\$4.47	\$4.34	\$4.02	\$3.79	\$3.56
Opportunity cost of land (rental rate)	\$0.12	\$0.06	\$0.03	\$0.01	\$0.01	\$0.01
Taxes and insurance	\$0.29	\$0.28	\$0.26	\$0.16	\$0.16	\$0.12
General farm overhead	\$1.05	\$0.74	\$0.67	\$0.56	\$0.52	\$0.33
Total Allocated Overhead	\$17.25	\$11.15	\$9.19	\$7.87	\$7.29	\$6.10
Total Costs Listed	\$33.71	\$26.15	\$22.93	\$20.47	\$19.58	\$18.17
Cash Receipts Less Total Costs Listed	-\$13.32	-\$7.18	-\$3.53	-\$1.41	-\$1.29	-\$0.59
Cash Receipts Less Operating Costs	\$3.92	\$3.97	\$5.66	\$6.46	\$6.00	\$5.51

Source: USDA / ERS.

Supporting information:

Milk cows (head per farm)	57	136	303	686	1,339	3,673
Output per cow (pounds)	17,251	19,441	21,808	23,660	22,747	22,747
Milking frequency more than twice per day (percent of farms)	1.57	8.23	36.34	51.25	60.47	60.71
Organic milk sold (percent of sales)	12.0%	5.1%	5.5%	1.8%	0.1%	0.8%

1/ Developed from survey base year, 2016.

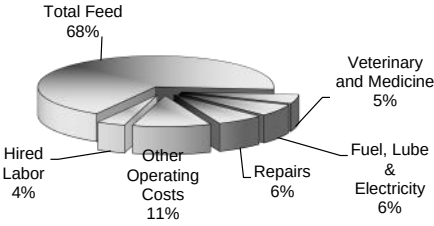
2/ Income from renting or leasing dairy stock to other operations; renting space to other dairy operations; co-op patronage dividends associated with the dairy; assessment rebates, refunds, and other dairy-related resources; and the fertilizer value of manure production.

3/ Costs for third party organic certification

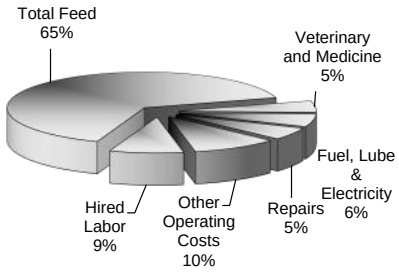
4/ Machinery and equipment, housing, manure handling, feed storage structures, and the dairy breeding herd.

Figure 9: Share of Cash Expenses by Size of Operation, 2018

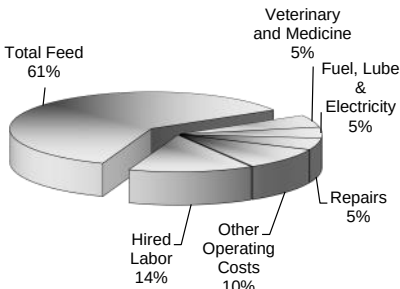
1-99 cows



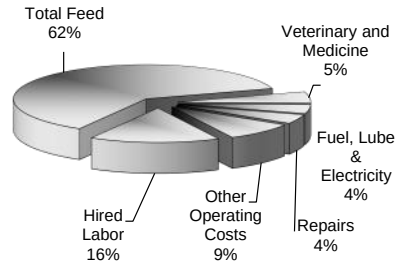
100-199 cows



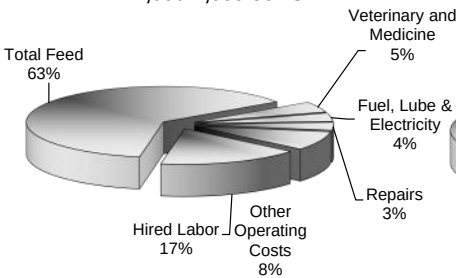
200-499 cows



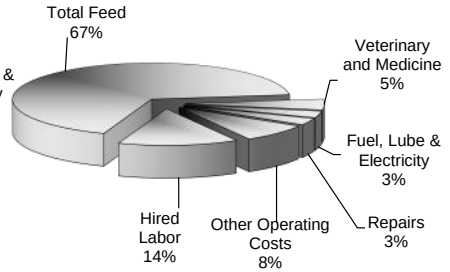
500-999 cows



1,000-1,999 cows



2,000 cows or more cows



Source: USDA / ERS. Does not show allocated overhead costs, except hired labor.

Table 16: U.S. Milk Production Costs & Returns

	2013	2014	2015	2016	2017	2018
	(Dollars Per Hundredweight)					
<i>Cash Receipts</i>						
Milk	\$19.88	\$23.76	\$17.02	\$16.80	\$18.32	\$16.82
Cattle	\$1.60	\$2.10	\$2.00	\$1.47	\$1.37	\$1.24
Other income 1/	\$0.90	\$0.91	\$0.84	\$0.54	\$0.50	\$0.50
Total Receipts	\$22.38	\$26.77	\$19.86	\$18.81	\$20.19	\$18.56
<i>Feed</i>						
Purchased feed	\$9.74	\$6.74	\$6.11	\$6.68	\$6.49	\$6.76
Homegrown harvested feed	\$6.56	\$6.30	\$5.46	\$2.60	\$2.69	\$3.06
Grazed feed	\$0.10	\$0.09	\$0.11	\$0.07	\$0.07	\$0.08
Total Feed	\$16.40	\$13.13	\$11.68	\$9.35	\$9.25	\$9.90
<i>Other Operating Costs</i>						
Veterinary and Medicine	\$0.80	\$0.84	\$0.88	\$0.77	\$0.75	\$0.76
Bedding and litter	\$0.24	\$0.25	\$0.26	\$0.20	\$0.19	\$0.20
Marketing	\$0.23	\$0.24	\$0.26	\$0.18	\$0.18	\$0.18
Custom services	\$0.56	\$0.58	\$0.61	\$0.67	\$0.65	\$0.66
Fuel, lube, and electricity	\$0.82	\$0.82	\$0.53	\$0.52	\$0.59	\$0.64
Repairs	\$0.60	\$0.62	\$0.62	\$0.61	\$0.62	\$0.64
Other operating costs 2/	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Interest on operating capital	\$0.01	\$0.00	\$0.01	\$0.03	\$0.06	\$0.13
Total Operating Costs	\$19.66	\$16.49	\$14.85	\$12.33	\$12.29	\$13.11
<i>Allocated overhead:</i>						
Hired labor	\$1.58	\$1.61	\$1.69	\$1.83	\$1.87	\$1.99
Opportunity cost of unpaid labor	\$2.22	\$2.25	\$2.28	\$1.71	\$1.45	\$1.82
Capital recovery of machinery and equipment 3/	\$3.57	\$3.68	\$3.73	\$3.77	\$3.89	\$3.98
Opportunity cost of land (rental rate)	\$0.02	\$0.02	\$0.03	\$0.02	\$0.02	\$0.03
Taxes and insurance	\$0.19	\$0.19	\$0.20	\$0.18	\$0.18	\$0.18
General farm overhead	\$0.61	\$0.63	\$0.63	\$0.53	\$0.54	\$0.55
Total Allocated Overhead	\$8.19	\$8.38	\$8.56	\$8.04	\$7.95	\$8.55
Total Costs Listed	\$27.85	\$24.87	\$23.41	\$20.37	\$20.24	\$21.66
Cash Receipts Less Total Costs Listed	-\$5.47	\$1.90	-\$3.55	-\$1.56	-\$0.05	-\$3.10
Cash Receipts Less Operating Costs	\$2.72	\$10.28	\$5.01	\$6.48	\$7.90	\$5.45
Source: USDA / ERS.						
<i>Supporting information:</i>						
Milk cows (head per farm)	183	183	183	245	245	245
Output per cow (pounds)	20,724	20,724	20,724	21,698	21,698	21,698
Milking frequency more than twice per day (percent of farms)	9.73	9.73	9.73	11.54	11.54	11.54
Milk cows receiving bST (percent of cows)	8.79	8.79	8.79	n/a	n/a	n/a
Organic milk sold (percent of sales)	2.77	2.77	2.77	2.88	2.88	2.88

1/ Income from renting or leasing dairy stock to other operations; renting space to other dairy operations; co-op patronage dividends associated with the dairy; assessment rebates, refunds, and other dairy-related resources; and the fertilizer value of manure production.

2/ Costs for third party organic certification

3/ Machinery and equipment, housing, manure handling, feed storage structures, and the dairy breeding herd.

Table 17: Monthly Milk-Feed Price Ratio 1/

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average
2000	3.07	2.94	2.88	2.84	2.72	2.97	3.31	3.37	3.36	3.12	3.05	3.04	3.05
2001	3.03	3.06	3.22	3.29	3.47	3.74	3.62	3.64	3.75	3.55	3.29	2.99	3.39
2002	3.07	3.00	2.87	2.81	2.64	2.55	2.36	2.27	2.30	2.46	2.44	2.45	2.60
2003	2.42	2.33	2.27	2.25	2.18	2.19	2.59	2.89	3.11	3.23	3.05	2.85	2.61
2004	2.70	2.60	2.81	3.11	3.16	3.12	2.96	2.93	3.24	3.29	3.57	3.67	3.10
2005	3.49	3.48	3.33	3.18	2.96	2.94	2.98	3.08	3.27	3.39	3.46	3.29	3.24
2006	3.16	2.93	2.70	2.46	2.35	2.38	2.35	2.48	2.61	2.51	2.44	2.43	2.57
2007	2.45	2.33	2.39	2.50	2.56	2.88	3.17	3.19	3.19	3.10	3.05	2.85	2.80
2008	2.65	2.24	2.07	1.95	1.83	1.87	1.90	1.81	1.90	2.02	2.01	1.92	2.01
2009	1.60	1.51	1.55	1.58	1.49	1.47	1.59	1.80	2.00	2.11	2.26	2.42	1.78
2010	2.33	2.34	2.18	2.19	2.18	2.26	2.30	2.36	2.36	2.40	2.23	1.98	2.26
2011	2.00	2.00	2.10	1.80	1.70	1.90	1.90	1.80	1.80	1.80	1.90	1.80	1.90
2012	1.71	1.55	1.48	1.41	1.34	1.37	1.33	1.37	1.59	1.74	1.74	1.65	1.52
2013	1.58	1.52	1.48	1.54	1.54	1.52	1.53	1.69	1.88	2.12	2.27	2.30	1.75
2014	2.46	2.58	2.54	2.42	2.23	2.19	2.36	2.63	2.96	2.92	2.75	2.40	2.54
2015	2.10	2.06	2.01	2.00	1.99	2.06	2.00	2.11	2.25	2.30	2.46	2.29	2.14
2016	2.18	2.18	2.12	1.99	1.90	1.92	2.16	2.44	2.49	2.38	2.59	2.73	2.26
2017	2.71	2.61	2.40	2.22	2.20	2.31	2.27	2.51	2.46	2.47	2.54	2.38	2.42
2018	2.20	2.03	1.98	1.90	1.90	1.98	1.93	2.06	2.13	2.22	2.20	2.06	2.05

Source: USDA / NASS, *Agricultural Prices*; 1/ Pounds of feed equal in value to 1 pound of whole milk

Table 18: Monthly DMC/MPP Calculated Feed Cost (\$ per cwt.) 2/

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average
2000	4.29	4.43	4.53	4.60	4.86	4.52	4.10	3.95	4.19	4.35	4.52	4.78	4.43
2001	4.72	4.60	4.55	4.63	4.66	4.58	4.79	4.79	4.79	4.64	4.63	4.70	4.67
2002	4.66	4.57	4.63	4.65	4.76	4.75	5.03	5.31	5.40	5.14	5.03	5.03	4.91
2003	5.08	5.13	5.11	5.17	5.37	5.30	4.99	4.96	5.20	5.15	5.33	5.37	5.18
2004	5.58	5.86	6.34	6.66	6.77	6.49	6.13	5.38	4.99	4.81	4.63	4.64	5.69
2005	4.80	4.61	4.90	5.00	5.15	5.24	5.29	5.03	4.78	4.61	4.49	4.80	4.89
2006	4.80	4.81	4.87	5.03	5.18	5.13	5.06	4.91	5.12	5.59	6.00	6.08	5.21
2007	6.21	6.80	6.85	6.77	7.15	7.35	7.06	6.95	7.24	7.31	7.62	8.21	7.12
2008	8.57	9.30	9.45	9.94	10.47	11.12	11.11	10.71	10.36	8.95	8.80	8.46	9.77
2009	8.96	8.27	8.17	8.32	8.87	9.05	8.19	8.04	7.77	7.76	7.82	7.81	8.25
2010	7.76	7.49	7.40	7.33	7.49	7.55	7.75	7.97	8.34	8.62	9.00	9.42	8.01
2011	9.67	10.46	10.42	11.50	11.91	11.93	12.05	12.64	12.03	11.16	11.05	11.03	11.32
2012	11.44	11.82	12.24	12.58	12.80	12.75	14.23	15.12	14.10	13.77	13.89	13.72	13.21
2013	13.61	13.78	13.86	13.50	13.90	14.12	14.11	12.81	12.13	10.87	10.58	10.94	12.85
2014	10.81	11.01	11.10	11.65	11.94	11.55	10.62	10.36	10.30	9.28	9.61	9.74	10.66
2015	9.26	9.14	9.07	9.02	8.87	8.74	9.15	8.76	8.55	8.48	8.19	8.10	8.78
2016	8.00	7.79	7.83	8.17	8.73	9.05	8.51	7.84	7.82	7.76	7.62	7.70	8.07
2017	7.84	7.92	7.95	7.95	8.09	7.97	8.22	7.73	7.81	7.90	7.71	7.84	7.91
2018	7.98	8.42	8.83	9.18	9.42	8.93	8.68	8.47	8.44	8.44	8.34	8.55	8.64

Source: USDA / NASS and USDA / AMS; 2/ Feed cost formula as defined in the 2014 and 2018 farm bills.

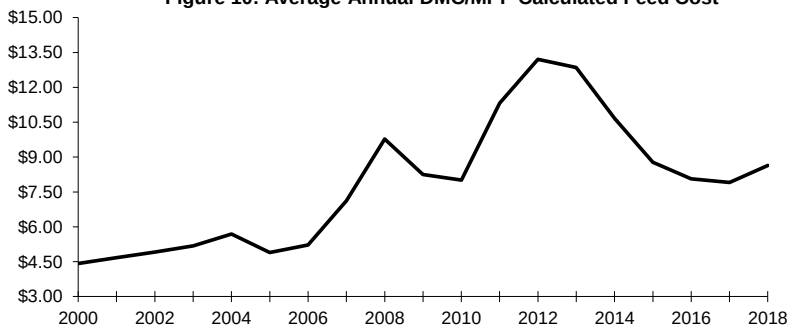
Figure 10: Average Annual DMC/MPP Calculated Feed Cost

Table 19: Monthly DMC/MPP Margin (\$ per cwt.) 1/

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average
2000	7.71	7.37	7.27	7.30	7.14	7.78	8.50	8.55	8.71	8.15	7.98	8.22	7.89
2001	8.28	8.50	9.35	9.97	10.84	11.62	11.41	11.71	12.31	10.96	9.77	8.80	10.29
2002	8.94	8.53	7.97	7.85	7.34	6.75	6.07	5.99	6.20	6.96	6.87	6.87	7.20
2003	6.72	6.17	5.89	5.83	5.63	5.70	7.11	8.34	9.30	9.85	9.07	8.43	7.34
2004	7.62	7.74	9.16	11.44	12.53	11.71	9.97	9.52	10.51	10.79	11.57	11.76	10.36
2005	11.30	10.79	10.60	10.20	9.55	9.16	9.51	9.77	10.52	10.89	10.61	10.00	10.24
2006	9.60	8.69	7.73	6.97	6.72	6.77	6.64	7.09	7.88	7.91	7.90	8.12	7.67
2007	8.29	8.10	8.75	9.73	10.85	12.85	14.54	14.65	14.56	14.09	14.28	13.29	12.00
2008	11.93	9.80	8.65	8.16	7.93	8.18	8.29	7.69	7.84	8.85	8.30	7.04	8.55
2009	4.34	3.33	3.53	3.58	2.73	2.25	3.11	4.06	5.23	6.54	7.58	8.69	4.58
2010	8.34	8.31	7.40	7.27	7.51	7.85	8.15	8.73	9.36	9.88	8.90	7.28	8.25
2011	7.03	8.64	9.98	8.10	7.69	9.17	9.75	9.46	9.07	8.84	9.45	8.67	8.82
2012	7.46	5.78	4.96	4.22	3.40	3.45	2.67	3.08	5.60	7.83	8.21	7.08	5.31
2013	6.39	5.72	5.24	6.00	5.80	5.38	4.99	6.79	7.97	10.03	11.02	11.06	7.20
2014	12.69	13.79	14.10	13.65	12.26	11.65	12.68	13.74	15.40	15.62	13.39	10.66	13.30
2015	8.34	7.66	7.53	7.48	7.83	8.16	7.45	7.94	8.95	9.22	10.01	9.10	8.30
2016	8.10	7.91	7.47	6.83	5.77	5.75	7.59	9.26	9.48	8.84	9.98	11.10	8.18
2017	11.06	10.58	9.35	8.55	8.61	9.33	9.08	10.27	9.99	10.00	10.39	9.36	9.71
2018	8.12	6.88	6.77	6.62	6.78	7.37	6.72	7.43	8.26	8.96	8.66	7.85	7.53

Source: USDA / NASS and USDA / AMS; 1/ Margin as defined in the 2014 and 2018 farm bills.

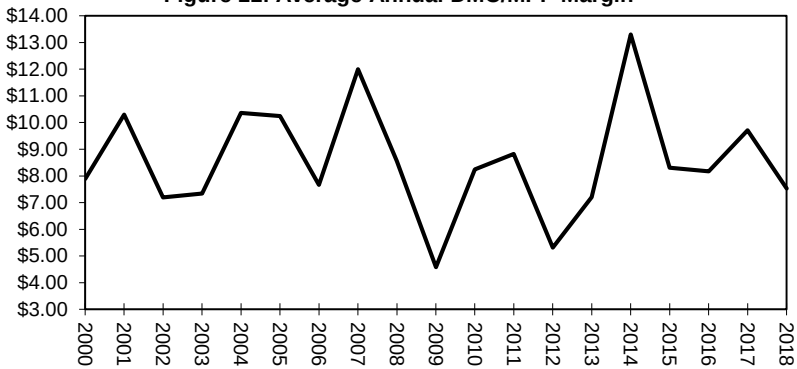
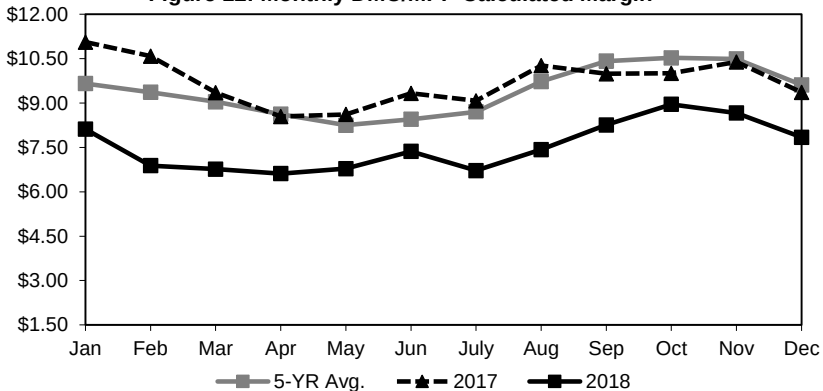
Figure 11: Average Annual DMC/MPP Margin**Figure 12: Monthly DMC/MPP Calculated Margin**

Table 20: Average Prices Received for Livestock

Marketing Year	Beef & Dairy Cows	Steers & Heifers 1/	All Cattle 1/	All Calves	Replacement Milk Cows
	<i>(Dollars Per Cwt.)</i>				<i>(\$ Per Head)</i>
1975	\$19.80	\$36.30	\$32.30	\$27.20	\$412
1980	\$45.70	\$66.90	\$62.40	\$76.80	\$1,190
1985	\$36.50	\$57.70	\$53.70	\$62.10	\$860
1990	\$51.50	\$78.80	\$74.60	\$95.60	\$1,160
1995	\$35.70	\$65.10	\$61.80	\$73.10	\$1,130
2000	\$37.90	\$72.30	\$68.60	\$104.00	\$1,340
2001	\$40.90	\$75.10	\$71.30	\$106.00	\$1,500
2002	\$37.30	\$70.10	\$66.50	\$96.40	\$1,600
2003	\$42.90	\$84.20	\$79.70	\$102.00	\$1,340
2004	\$50.30	\$90.20	\$85.80	\$119.00	\$1,580
2005	\$51.70	\$94.30	\$89.70	\$135.00	\$1,770
2006	\$46.60	\$92.30	\$87.20	\$133.00	\$1,730
2007	\$47.90	\$95.40	\$89.90	\$119.00	\$1,830
2008	\$50.60	\$94.50	\$89.10	\$110.00	\$1,950
2009	\$44.80	\$85.40	\$80.30	\$105.00	\$1,390
2010	\$54.80	\$97.70	\$92.20	\$117.00	\$1,330
2011	\$71.20	\$117.00	\$113.00	\$142.00	\$1,420
2012	\$81.70	\$123.00	\$121.00	\$172.00	\$1,430
2013	\$82.30	\$126.00	\$125.00	\$181.00	\$1,380
2014	\$107.00	\$153.00	\$152.00	\$261.00	\$1,830
2015	\$103.00	\$148.00	\$147.00	\$247.00	\$1,990
2016	\$74.30	\$121.00	\$119.00	\$158.00	\$1,760
2017	\$69.10	\$122.00	\$120.00	\$168.00	\$1,620
2018	\$62.60	\$117.00	\$115.00	\$170.00	\$1,360

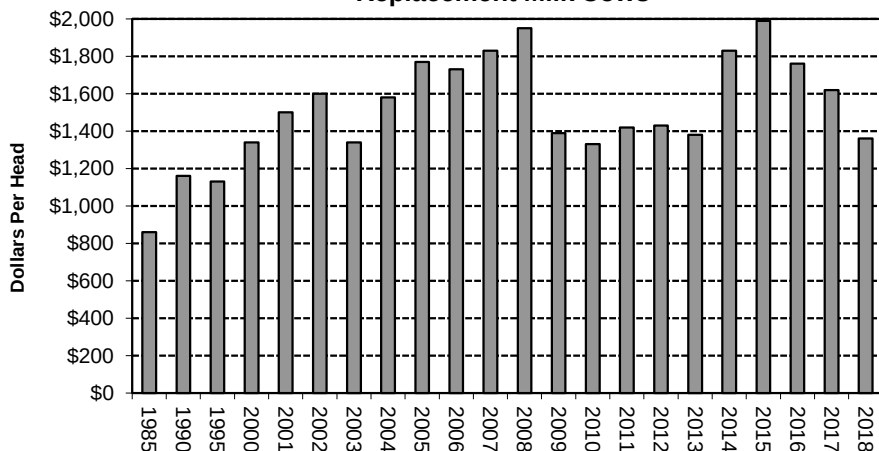
Source: USDA / NASS, *Agricultural Prices*. 1/ At least 500 pounds**Figure 13: U.S. Average Price Received for Replacement Milk Cows**

Table 21: Average Prices Received for Crops

Marketing Year 1/	Corn (bu)	Oats (bu)	Barley (bu)	Soybeans (bu)	Soybean Meal (ton)	Alfalfa Hay 2/ (dry ton)
<i>(Dollars Per Unit)</i>						
1975	\$2.54	\$1.45	\$2.42	\$4.92	n/a	\$52.10
1980	\$3.11	\$1.72	\$2.79	\$7.60	n/a	\$71.00
1985	\$2.23	\$1.23	\$1.98	\$5.05	n/a	\$67.60
1990	\$2.28	\$1.14	\$2.14	\$5.74	n/a	\$86.60
1995	\$3.24	\$1.67	\$2.89	\$6.72	n/a	\$87.20
2000	\$1.85	\$1.10	\$2.11	\$4.54	\$174.62	\$88.90
2005	\$2.00	\$1.63	\$2.53	\$5.66	\$188.17	\$104.00
2006	\$3.04	\$1.87	\$2.85	\$6.43	\$175.60	\$113.00
2007	\$4.20	\$2.63	\$4.02	\$10.10	\$230.40	\$137.00
2008	\$4.06	\$3.15	\$5.37	\$9.97	\$331.09	\$165.00
2009	\$3.55	\$2.02	\$4.66	\$9.59	\$347.74	\$113.00
2010	\$5.18	\$2.52	\$3.86	\$11.30	\$313.47	\$123.00
2011	\$6.22	\$3.49	\$5.35	\$12.50	\$335.07	\$196.00
2012	\$6.89	\$3.89	\$6.43	\$14.40	\$439.77	\$211.00
2013	\$4.46	\$3.75	\$6.06	\$13.00	\$466.54	\$199.00
2014	\$3.70	\$3.21	\$5.30	\$10.10	\$478.26	\$196.00
2015	\$3.61	\$2.12	\$5.52	\$8.95	\$341.20	\$158.00
2016	\$3.36	\$2.06	\$4.96	\$9.47	\$328.64	\$136.00
2017	\$3.36	\$2.59	\$4.47	\$9.33	\$315.00	\$154.00
2018	\$3.55	\$2.66	\$4.62	\$8.60	\$344.71	\$180.00

Source: USDA / NASS: Agricultural Prices. Prices are season averages for crop year. 1/
Marketing years beginning: June (barley and oats); September (soybeans, corn, and May (hay). 2/
Prior to 1990, all hay. Soybean meal prices are calendar year averages of high protein soybean
meal at the Decatur-Central Illinois market as reported bu USDA/AMS. Unavailable prior to 2000.

Table 22: Crop Production

Year	Corn	Soybeans	All Wheat	Oats	Barley	Sorghum
<i>(Million Bushels)</i>						
1975	5,841	1,548	2,127	639	379	754
1980	6,639	1,798	2,381	459	361	579
1985	8,875	2,099	2,424	518	590	1,120
1990	7,934	1,926	2,730	358	422	573
1995	7,400	2,174	2,183	161	359	459
2000	9,915	2,758	2,228	149	318	471
2005	11,112	3,068	2,103	115	212	393
2006	10,531	3,197	1,808	94	180	277
2007	13,038	2,677	2,051	90	210	497
2008	12,043	2,967	2,512	90	239	476
2009	13,067	3,361	2,209	91	227	382
2010	12,425	3,331	2,163	82	180	345
2011	12,314	3,097	1,993	50	155	213
2012	10,755	3,042	2,252	61	219	248
2013	13,831	3,357	2,135	65	217	392
2014	14,217	3,928	2,026	70	182	433
2015	13,602	3,927	2,062	89	218	597
2016	15,148	4,296	2,309	65	200	480
2017	14,609	4,412	1,741	50	143	362
2018	14,420	4,544	1,884	56	153	365

Source: USDA / NASS: Crop Production Annual.

11 Federal Milk Marketing Order Areas

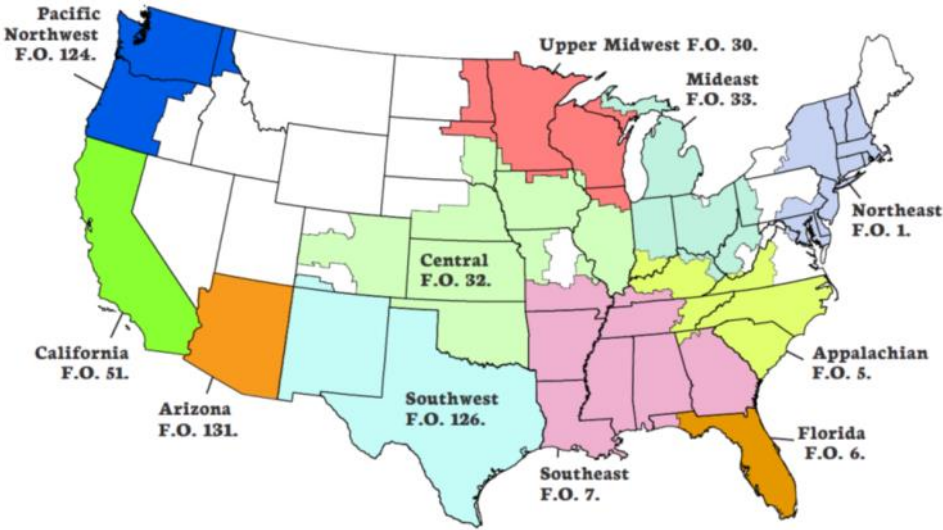


Table 23: Federal Market Order Statistics by Market, 2018

Federal Order	Order Number	Producer Deliveries	Utilization				Uniform Price at 3.5¢ bf
			Class I	Class II	Class III	Class IV	
		(Million #)	(Percent)				
Northeast (Boston)	1	27,109	32%	24%	27%	17%	\$16.09
Appalachian (Charlotte)	5	5,734	69%	14%	6%	11%	\$17.29
Florida (Tampa)	6	2,565	84%	13%	1%	2%	\$19.37
Southeast (Atlanta)	7	5,204	71%	16%	6%	7%	\$17.71
Upper Midwest (Chicago)	30	33,323	9%	4%	82%	4%	\$14.75
Central (Kansas City)	32	16,604	29%	11%	42%	19%	\$14.87
Midwest (Cleveland)	33	19,603	33%	19%	32%	16%	\$15.21
California 1/	51	4,117	23%	5%	66%	6%	\$15.18
Pacific Northwest (Seattle)	124	8,558	22%	6%	38%	35%	\$14.86
Southwest (Dallas)	126	13,727	31%	9%	42%	19%	\$15.77
Arizona (Phoenix)	131	5,133	25%	9%	27%	40%	\$15.09
All Markets Average or Total		141,678	29%	13%	43%	15%	\$15.51

Source: USDA / AMS

1/ Effective November 1, 2018

Table 24: Measures of Growth in Federal Milk Marketing Orders

Year	Number of			FMMO Deliveries (Billion Pounds)			Price at 3.5% BF (\$ Per Cwt.)		
	Markets	Handlers	Producers	Producers Deliveries	% of U.S. Production	Used in Class I Utilization	Class I	Blend	
1950	39	1,101	156,584	18.7	25.2%	11.0	58.9%	\$4.51	\$3.93
1955	63	1,483	188,611	28.9	31.8%	18.0	62.3%	\$4.67	\$4.08
1960	80	2,259	189,816	44.8	43.1%	28.8	64.2%	\$4.88	\$4.47
1965	73	1,891	158,077	54.4	48.3%	34.6	63.5%	\$4.93	\$4.31
1970	62	1,588	143,411	65.1	59.2%	40.1	61.5%	\$6.74	\$5.95
1975	56	1,315	123,855	69.2	67.4%	40.1	57.9%	\$9.36	\$8.64
1980	47	1,091	117,490	84.0	67.4%	41.0	48.9%	\$13.77	\$12.86
1985	44	884	116,765	97.8	70.2%	42.2	43.2%	\$13.88	\$12.61
1990	42	753	100,397	102.4	70.5%	43.8	42.8%	\$15.55	\$13.78
1995	33	571	88,717	108.5	71.1%	45.0	41.5%	\$14.19	\$12.79
2000	11	346	69,590	116.9	69.8%	46.0	39.3%	\$14.24	\$12.11
2001	11	350	66,423	120.2	72.7%	45.9	38.2%	\$16.96	\$14.90
2002	11	338	63,856	125.5	73.8%	46.0	36.7%	\$13.69	\$11.91
2003	11	331	58,110	110.6	64.9%	45.8	41.5%	\$14.10	\$12.12
2004	10	306	52,341	103.0	60.3%	44.9	43.6%	\$17.56	\$15.74
2005	10	302	53,036	114.7	64.8%	44.6	38.9%	\$17.13	\$15.07
2006	10	314	52,725	120.6	66.4%	45.3	37.6%	\$14.59	\$12.86
2007	10	312	49,782	114.4	61.6%	45.2	39.5%	\$20.81	\$19.19
2008	10	333	47,859	115.9	61.0%	45.0	38.8%	\$20.78	\$18.24
2009	10	251	46,677	123.4	65.2%	45.3	36.7%	\$14.40	\$12.44
2010	10	251	45,918	126.9	65.8%	45.0	35.4%	\$18.25	\$16.07
2011	10	241	43,654	126.9	64.7%	44.4	35.0%	\$21.97	\$19.87
2012	10	237	40,750	122.4	61.0%	43.5	35.5%	\$20.39	\$18.05
2013	10	225	40,048	132.1	65.6%	42.7	32.4%	\$21.80	\$19.44
2014	10	223	38,391	129.4	62.8%	41.4	32.0%	\$26.14	\$23.54
2015	10	214	36,118	126.1	60.5%	41.2	32.7%	\$19.21	\$16.70
2016	10	216	34,693	133.8	63.0%	41.1	30.7%	\$17.70	\$15.38
2017	10	217	32,988	135.5	62.9%	40.6	30.0%	\$19.31	\$16.96
2018 1/	11	233	32,061	141.7	65.1%	40.9	28.9%	\$17.70	\$15.51

Source: USDA / AMS, Dairy Market Statistics.

1/ Includes California order, effective November 1, 2018

**Table 25: Sales & Butterfat Content of Fluid Milk Products
in Federal Milk Marketing Orders 1/**

Year	Whole Milk Items		Skim, Low & Reduced Fat Items		All Fluid Beverage
	% of Total Fluid Sales	Average bf test	% of Total Fluid Sales	Average bf test	Average bf test
	(Percent)				
1960	89.3%	3.57%	7.7%	1.12%	3.38%
1965	86.4%	3.52%	11.1%	1.36%	3.28%
1970	77.0%	3.46%	21.1%	1.54%	3.05%
1975	68.8%	3.37%	29.2%	1.46%	2.75%
1980	59.4%	3.32%	38.5%	1.49%	2.60%
1985	50.4%	3.31%	44.9%	1.53%	2.47%
1990	37.6%	3.27%	57.0%	1.44%	2.13%
1995	33.4%	3.27%	62.9%	1.33%	2.00%
2000	33.6%	3.27%	62.0%	1.27%	1.98%
2001	32.8%	3.28%	62.3%	1.28%	1.98%
2002	33.2%	3.27%	61.8%	1.28%	1.98%
2003	32.9%	3.27%	61.4%	1.28%	1.99%
2004	31.9%	3.27%	62.0%	1.28%	1.97%
2005	30.6%	3.27%	63.1%	1.27%	1.94%
2006	29.5%	3.30%	64.2%	1.28%	1.93%
2007	30.0%	3.27%	68.6%	1.26%	1.88%
2008	28.7%	3.27%	69.9%	1.26%	1.85%
2009	28.3%	3.27%	71.7%	1.27%	1.84%
2010	27.3%	3.27%	72.7%	1.23%	1.81%
2011	27.1%	3.28%	72.9%	1.23%	1.80%
2012	27.1%	3.28%	72.9%	1.22%	1.79%
2013	27.8%	3.29%	72.2%	1.26%	1.82%
2014	28.6%	3.29%	71.4%	1.28%	1.85%
2015	30.7%	3.25%	69.3%	1.34%	1.95%
2016	32.6%	3.25%	67.4%	1.36%	2.00%
2017	34.2%	3.25%	65.8%	1.37%	2.05%
2018	35.6%	3.25%	64.4%	1.39%	2.08%

Source: USDA/AMS, Federal Milk Order Market Statistics, NMPF Calculations

1/ Fluid milk products: plain and flavored whole, lowfat and skim milk, buttermilk and drinkable yogurt, including organic products. 2/ Beginning 2015, estimated U.S. sales

Figure 14: Average Butterfat Test of Fluid Milk Products in FMMO's

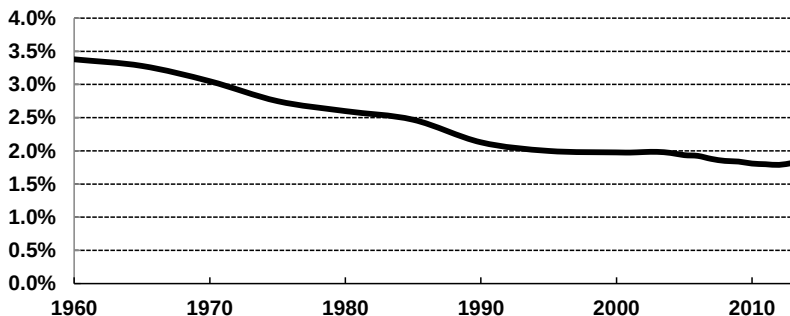


Table 26: Annual Commercial Disappearance of Dairy Products, Milk Equivalent, Total Solids Basis

<i>Year</i>	<i>Fluid Milk</i>	<i>Butter</i>	<i>Cheese 1/</i>	<i>Frozen Products</i>	<i>Non-Fat Dry Milk 2/</i>	<i>Other Products</i>	<i>Total Milk</i>
<i>(Million Pounds)</i>							
1970	48,329	7,944	11,816	7,843	6,686	25,863	108,481
1975	47,870	8,409	15,416	8,344	4,741	27,092	111,872
1980	46,908	7,772	19,353	8,190	3,666	32,208	118,097
1985	47,149	8,121	23,980	9,076	2,959	36,800	128,084
1990	46,378	8,092	30,366	9,109	4,748	43,505	142,199
1995	45,304	7,853	31,859	9,853	7,748	51,326	153,943
2000	48,700	8,352	37,276	10,468	6,507	54,819	166,122
2005	47,402	8,948	41,472	10,039	13,058	62,525	183,445
2006	47,686	9,326	42,959	10,292	12,147	64,614	187,024
2007	47,563	9,890	44,211	10,178	11,684	66,562	190,088
2008	47,501	11,138	44,366	10,044	14,255	66,719	194,023
2009	47,785	10,205	44,732	9,906	13,977	65,727	192,332
2010	47,129	10,641	46,220	10,064	15,762	66,695	196,510
2011	46,203	11,740	47,226	9,747	16,463	68,671	200,050
2012	45,461	11,940	48,125	9,975	18,175	70,277	203,953
2013	44,287	12,432	48,934	9,688	18,350	72,046	205,737
2014	43,287	12,272	50,746	9,510	18,902	74,283	209,000
2015	42,761	11,955	51,863	9,893	19,743	76,902	213,118
2016	42,519	12,154	53,548	9,896	19,383	80,220	217,721
2017	41,579	12,233	55,041	9,958	19,273	80,681	218,764
2018	40,698	12,530	56,411	9,314	20,149	83,857	222,960

Source: NMPF and USDA / ERS: *Livestock, Dairy, and Poultry Situation and Outlook*

Includes commercial exports; 1/ Excludes whey values; 2/ Includes skim milk powder

Table 27: Per Capita Commercial Disappearance of Dairy Products

<i>Year</i>	<i>Fluid Milk</i>		<i>Cheese 1/</i>		<i>Total Products</i>	
	<i>(ME Lbs.)</i>	<i>% Change</i>	<i>(ME Lbs.)</i>	<i>% Change</i>	<i>(ME Lbs.)</i>	<i>% Change</i>
1970	236.9	0.8%	58.2	-6.9%	531.8	8.8%
1975	222.2	0.1%	72.2	-1.5%	519.2	-0.4%
1980	206.4	-2.3%	88.0	1.8%	519.7	-1.7%
1985	198.2	0.9%	112.8	4.7%	538.3	1.6%
1990	185.8	-2.1%	120.3	3.1%	569.7	0.0%
1995	170.1	-2.0%	118.8	1.1%	561.1	-2.2%
2000	172.6	0.0%	130.7	2.0%	565.5	0.9%
2005	160.4	-1.2%	138.5	1.2%	575.5	2.1%
2006	159.8	-0.4%	141.8	2.4%	571.0	-0.8%
2007	157.9	-1.2%	143.7	1.3%	572.1	0.2%
2008	156.2	-1.1%	141.8	-1.3%	571.5	-0.1%
2009	155.8	-0.3%	142.6	0.5%	574.1	0.4%
2010	152.4	-2.2%	144.1	1.1%	558.1	-2.8%
2011	148.3	-2.7%	144.7	0.4%	559.6	0.3%
2012	144.8	-2.3%	145.5	0.5%	566.7	1.3%
2013	140.0	-3.3%	145.4	-0.1%	553.4	-2.3%
2014	135.9	-3.0%	148.5	2.1%	558.2	0.9%
2015	133.2	-2.0%	152.5	2.7%	574.0	2.8%
2016	131.5	-1.3%	157.5	3.3%	580.7	1.2%
2017	127.7	-2.9%	159.4	1.2%	575.7	-0.9%
2018	123.6	-3.2%	161.7	1.4%	573.2	-0.4%

Source: NMPF and USDA / ERS: *Livestock, Dairy, and Poultry Situation and Outlook*

Excludes commercial exports beginning 1995. 1/ Excludes whey values

Table 28: Share of Commercial Disappearance by Product

<i>Year</i>	<i>Fluid Milk</i>	<i>Butter</i>	<i>Cheese 1/</i>	<i>Frozen Products</i>	<i>Nonfat Dry Milk 2/</i>	<i>Other Products</i>
1970	44.6%	7.3%	10.9%	7.2%	6.2%	23.8%
1975	42.8%	7.5%	13.8%	7.5%	4.2%	24.2%
1980	39.7%	6.6%	16.4%	6.9%	3.1%	27.3%
1985	36.8%	6.3%	18.7%	7.1%	2.3%	28.7%
1990	32.6%	5.7%	21.4%	6.4%	3.3%	30.6%
1995	29.4%	5.1%	20.7%	6.4%	5.0%	33.3%
2000	29.3%	5.0%	22.4%	6.3%	3.9%	33.0%
2001	29.0%	4.9%	22.9%	6.2%	4.7%	32.2%
2002	28.9%	5.0%	23.2%	6.1%	4.1%	32.8%
2003	28.1%	5.0%	22.9%	6.2%	4.5%	33.3%
2004	27.0%	5.0%	23.1%	5.6%	6.1%	33.1%
2005	25.8%	4.9%	22.6%	5.5%	7.1%	34.1%
2006	25.5%	5.0%	23.0%	5.5%	6.5%	34.5%
2007	25.0%	5.2%	23.3%	5.4%	6.1%	35.0%
2008	24.5%	5.7%	22.9%	5.2%	7.3%	34.4%
2009	24.8%	5.3%	23.3%	5.2%	7.3%	34.2%
2010	24.0%	5.4%	23.5%	5.1%	8.0%	33.9%
2011	23.1%	5.9%	23.6%	4.9%	8.2%	34.3%
2012	22.3%	5.9%	23.6%	4.9%	8.9%	34.5%
2013	21.5%	6.0%	23.8%	4.7%	8.9%	35.0%
2014	20.7%	5.9%	24.3%	4.6%	9.0%	35.5%
2015	20.1%	5.6%	24.3%	4.6%	9.3%	36.1%
2016	19.5%	5.6%	24.6%	4.5%	8.9%	36.8%
2017	19.0%	5.6%	25.2%	4.6%	8.8%	36.9%
2018	18.3%	5.6%	25.3%	4.2%	9.0%	37.6%

Source: NMPF; Shares are based on a milk equivalent, total solids basis.

Includes commercial exports; 1/ Excludes whey values; 2/ Includes skim milk powder

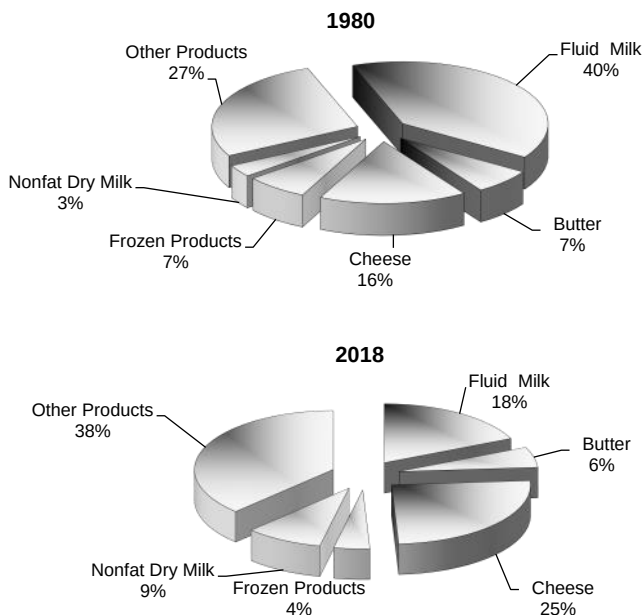
Figure 15: Share of Commercial Disappearance by Product

Table 29: Fluid Milk Sales for Beverage Products

Year	Plain Whole	Flavored Whole	Plain Lowfat	Plain Skim	Flavored Lowfat/Skim	Buttermilk	Total Beverage Milk
<i>Million Pounds</i>							
1970	41,363	1,144	6,082	2,368	611	1,130	52,698
1975	36,188	1,366	11,468	2,480	719	1,011	53,308
1980	31,253	1,075	15,918	2,636	1,197	927	53,101
1985	27,760	882	19,812	3,009	1,430	1,046	54,060
1990	21,333	691	24,509	5,702	1,657	879	54,894
1995	18,662	704	24,202	8,359	1,914	739	54,692
2000	18,822	948	23,778	8,391	2,758	622	55,531
2005	17,108	763	24,412	8,086	3,690	520	54,878
2006	16,705	725	24,717	8,178	3,787	514	54,969
2007	16,104	684	25,146	8,287	3,762	521	54,779
2008	15,505	609	25,582	8,335	3,799	482	54,575
2009	15,289	595	26,094	8,271	3,919	453	54,850
2010	14,569	572	26,728	8,438	4,032	453	55,003
2011	14,173	539	26,723	8,264	3,953	470	54,296
2012	13,963	540	26,583	7,789	3,920	474	53,443
2013	13,914	586	26,094	7,137	3,890	493	52,286
2014	13,978	555	25,392	6,359	3,823	485	50,773
2015	14,578	594	24,628	5,683	3,876	512	50,041
2016	15,374	635	23,974	5,054	3,976	510	49,713
2017	15,758	679	23,022	4,453	4,044	499	48,650
2018	16,040	732	22,256	4,007	3,921	475	47,672

Source: USDA / ERS: *Livestock, Dairy, and Poultry Situation & Outlook*

Total includes miscellaneous fluid milk products, beginning 2003.

Table 30: Per Capita Fluid Milk Sales: Selected Products

Year	Whole Milk		Lowfat/Skim Milk		Total Beverage Milk	
	(Pounds)	(Gallons)	(Pounds)	(Gallons)	(Pounds)	(Gallons)
1970	208.4	24.2	44.4	5.1	258.3	29.9
1975	174.3	20.2	68.1	7.9	247.1	28.6
1980	142.3	16.5	86.9	10.1	233.3	27.0
1985	120.4	14.0	101.9	11.8	226.7	26.3
1990	88.2	10.2	127.7	14.8	219.4	25.4
1995	72.7	8.4	129.5	15.0	205.0	23.8
2000	70.1	8.1	123.8	14.3	196.4	22.8
2005	60.5	7.0	122.5	14.2	185.7	21.5
2006	58.4	6.8	122.9	14.2	184.2	21.4
2007	55.7	6.5	123.5	14.3	181.8	21.1
2008	53.0	6.1	124.0	14.4	179.5	20.8
2009	51.8	6.0	124.8	14.5	178.8	20.7
2010	48.9	5.7	126.7	14.7	177.8	20.6
2011	47.2	5.5	124.9	14.5	174.2	20.2
2012	46.2	5.4	122.0	14.1	170.2	19.7
2013	45.9	5.3	117.4	13.6	165.3	19.2
2014	45.6	5.3	111.6	12.9	159.4	18.5
2015	47.3	5.5	106.5	12.3	155.9	18.1
2016	49.5	5.7	102.0	11.8	153.7	17.8
2017	50.5	5.9	96.8	11.2	149.4	17.3
2018	50.9	5.9	91.7	10.6	144.8	16.8

Table 31: Fluid Milk Sales for Cream/Other Products

Year	Half & Half	Light Cream	Heavy Cream	Sour Cream/Dip	Eggnog	Yogurt	Total Cream & Beverage	Per Capita (Pounds)
(Million Pounds)								
1970	591	76	111	222	61	169	53,928	264.4
1975	514	87	119	350	76	425	54,803	254.3
1980	551	55	159	408	95	570	54,844	241.4
1985	714	85	243	544	121	940	56,586	237.8
1990	739	88	324	625	123	974	57,644	230.9
1995	831	95	402	767	112	1,636	58,423	219.4
1996	876	105	450	762	103	1,582	58,906	218.7
1997	883	119	504	794	102	1,568	58,752	215.5
1998	895	134	515	817	102	1,636	58,615	212.5
1999	960	168	555	841	109	1,712	59,252	212.3
2000	1,008		743	914	127	1,835	60,031	212.8
2001	1,146		797	990	124	2,003	59,994	210.5
2002		1,860		1,031	150	2,312	60,433	210.1
2003		2,151		935	153	2,510	60,592	208.9
2004		2,313		987	147	2,708	60,702	207.3
2005		2,352		1,034	148	3,064	61,476	208.0
2006		2,459		1,121	152	3,309	62,010	207.8
2007		2,475		1,135	143	3,489	62,020	205.9
2008		2,530		1,151	144	3,573	61,973	203.8
2009		2,660		1,195	143	3,830	62,677	204.3
2010		2,755		1,228	142	4,163	63,289	204.6
2011		2,835		1,255	142	4,257	62,785	201.5
2012		2,910		1,281	135	4,409	62,179	198.0
2013		2,900		1,281	133	4,726	61,328	193.9
2014		2,965		1,303	133	4,735	59,908	188.0
2015		3,025		1,326	126	4,621	59,141	184.2
2016		3,155		1,374	135	4,444	58,820	181.9
2017		3,190		1,387	147	4,471	57,846	177.6
2018		3,175		1,403	146	4,383	56,779	172.4

Source: USDA / ERS: *Livestock, Dairy, and Poultry Situation and Outlook* and *NMPF*

Note: Light and heavy cream no longer separated, beginning 2000. Cream and half and half no longer separated, beginning 2002. Total includes miscellaneous fluid milk products, beginning 2003.

Figure 16: Per Capita Sales of Fluid Milk

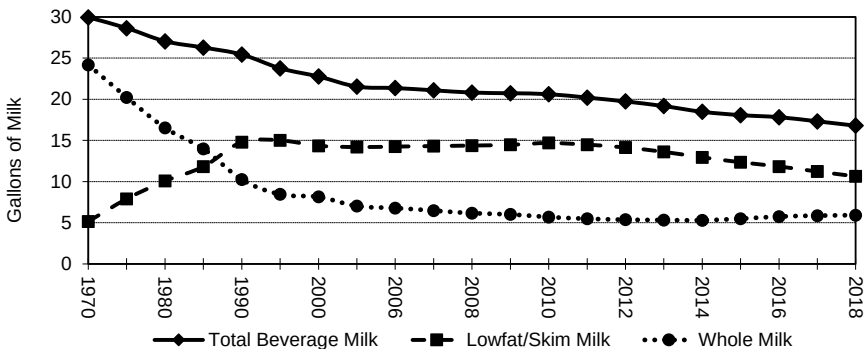


Table 32: Cheese Production, Selected Varieties									
Year	American		Total	Italian		Total	Swiss	All Other	Total Cheese
	Cheddar	Other		Mozzarella	Other				
(Million Pounds)									
1970	1,182	241	1,423	n/a	n/a	394	144	240	2,201
1975	1,205	450	1,655	458	214	672	174	311	2,811
1980	1,751	625	2,376	689	294	983	219	407	3,984
1985	2,292	564	2,855	1,104	387	1,491	223	512	5,081
1990	2,380	514	2,894	1,730	477	2,207	261	697	6,059
1995	2,415	716	3,131	2,125	550	2,674	222	889	6,917
2000	2,819	823	3,642	2,635	654	3,289	220	1,107	8,258
2001	2,747	797	3,544	2,768	658	3,426	246	1,045	8,261
2002	2,822	869	3,691	2,783	687	3,470	254	1,132	8,547
2003	2,701	921	3,622	2,807	717	3,524	265	1,147	8,557
2004	3,004	734	3,739	2,917	745	3,662	281	1,191	8,873
2005	3,046	762	3,808	3,019	784	3,803	300	1,238	9,149
2006	3,124	789	3,913	3,144	828	3,973	314	1,325	9,525
2007	3,057	821	3,877	3,330	869	4,199	314	1,387	9,777
2008	3,186	922	4,109	3,223	898	4,121	294	1,389	9,913
2009	3,205	997	4,203	3,268	913	4,181	322	1,369	10,074
2010	3,235	1,054	4,289	3,479	936	4,416	336	1,402	10,443
2011	3,096	1,130	4,227	3,574	1,011	4,585	329	1,454	10,595
2012	3,143	1,212	4,355	3,615	1,018	4,633	321	1,578	10,886
2013	3,190	1,230	4,420	3,700	1,035	4,735	294	1,652	11,102
2014	3,317	1,271	4,588	3,925	1,025	4,950	298	1,676	11,512
2015	3,393	1,301	4,694	3,989	1,093	5,082	312	1,743	11,831
2016	3,434	1,334	4,769	4,118	1,187	5,304	312	1,796	12,182
2017	3,721	1,351	5,072	4,167	1,228	5,395	317	1,856	12,640
2018	3,803	1,451	5,254	4,351	1,205	5,557	332	1,882	13,025

Source: USDA / NASS: Dairy Products

Table 33: Per Capita Cheese Consumption, Selected Varieties									
Year	American		Italian		Swiss	All Others	Total Cheese	Consumed As:	
	Cheddar	Total	Mozzarella	Total				Processed	Natural
	(Pounds)								
1970	5.79	7.00	1.19	2.05	0.88	1.44	11.37	4.42	6.95
1975	6.04	8.15	2.11	3.23	1.09	1.80	14.27	5.18	9.10
1980	6.84	9.62	3.01	4.42	1.32	2.16	17.52	5.52	12.01
1985	9.77	12.19	4.60	6.41	1.28	2.66	22.54	6.06	16.48
1990	9.05	11.13	6.88	8.92	1.35	3.21	24.61	6.81	17.80
1995	9.04	11.69	7.89	10.03	1.09	4.13	26.94	7.01	19.93
2000	9.88	12.70	9.06	11.42	1.02	4.68	29.82	6.47	23.35
2001	9.89	12.81	9.36	11.70	1.12	4.43	30.07	6.10	23.97
2002	9.77	12.85	9.40	11.84	1.09	4.75	30.53	6.42	24.12
2003	9.37	12.55	9.45	12.00	1.13	4.83	30.51	6.54	23.97
2004	10.20	12.87	9.68	12.29	1.20	4.89	31.24	5.96	25.28
2005	10.16	12.66	9.93	12.66	1.24	5.04	31.60	5.97	25.63
2006	10.43	13.07	10.11	12.93	1.23	5.20	32.43	6.06	26.37
2007	10.11	12.79	10.66	13.58	1.24	5.33	32.94	5.88	27.06
2008	10.22	13.13	10.10	13.06	1.10	5.10	32.39	5.62	26.77
2009	10.24	13.36	10.08	13.03	1.16	4.93	32.48	5.49	26.99
2010	10.06	13.30	10.58	13.54	1.18	4.90	32.92	5.20	27.72
2011	9.59	13.04	10.83	13.98	1.14	5.08	33.24	5.29	27.94
2012	9.59	13.26	10.69	13.80	1.09	5.37	33.52	5.23	28.27
2013	9.65	13.35	10.74	13.83	1.00	5.50	33.68	5.06	28.60
2014	9.86	13.66	11.17	14.20	1.02	5.54	34.42	5.90	28.49
2015	10.18	14.04	11.28	14.48	1.05	5.82	35.39	5.86	29.52
2016	10.40	14.36	11.74	15.23	1.06	6.06	36.70	5.61	31.09
2017	11.09	15.08	11.61	15.11	1.04	6.00	37.24	5.73	31.51
2018	11.20	15.38	12.15	15.64	1.08	6.05	38.15	5.72	32.43

Source: USDA / ERS: Livestock, Dairy, and Poultry Situation and Outlook Tables and NMPF

Table 34: Production of Butter, NFDM, & Other Products

Year	Butter	NFDM & SMP	Dry Whole Milk	Dry Buttermilk	Milk Protein Concentrate	Dry Whey	Whey Protein Concentrate	Cottage Cheese 1/
(Million Pounds)								
1970	1,137	1,444	68.9	59.5	n/a	621	n/a	726
1975	984	1,001	63.1	42.8	n/a	596	n/a	701
1980	1,145	1,161	82.7	43.9	n/a	690	n/a	667
1985	1,248	1,390	118.9	51.5	n/a	987	105	599
1990	1,302	879	175.1	55.9	n/a	1,143	168	493
1995	1,264	1,233	171.3	54.8	n/a	1,147	294	459
2000	1,256	1,452	111.4	56.2	n/a	1,188	334	461
2005	1,347	1,533	32.4	66.5	n/a	1,041	384	469
2006	1,448	1,514	30.5	66.9	n/a	1,110	428	459
2007	1,533	1,499	31.7	81.4	n/a	1,134	394	458
2008	1,644	1,893	50.1	72.5	74.9	1,082	443	428
2009	1,572	1,733	59.6	74.5	92.9	1,001	415	432
2010	1,564	1,816	71.1	82.0	88.6	1,013	428	433
2011	1,810	1,945	65.8	100.1	94.5	1,010	431	424
2012	1,860	2,145	58.1	109.1	102.3	999	459	424
2013	1,863	2,109	72.1	119.3	101.7	953	498	389
2014	1,855	2,308	103.1	111.1	126.0	870	540	381
2015	1,850	2,269	108.5	98.4	157.3	978	493	401
2016	1,839	2,312	98.2	109.6	125.7	955	468	406
2017	1,847	2,365	122.4	112.9	139.0	1,035	489	390
2018	1,891	2,340	143.7	118.1	145.6	999	514	402

Source: USDA / ERS: *Dairy Products*. 1/ Cottage cheese curd production.**Table 35: Per Capita Consumption of Butter, Cottage Cheese, NFDM, & Other Products**

Year	Butter	NFDM	Dry Whole Milk	Dry Buttermilk	Dry Whey & WPC	Cottage Cheese
(Pounds)						
1970	5.3	5.3	0.2	0.2	0.9	5.2
1975	4.7	3.3	0.1	0.2	2.2	4.6
1980	4.5	3.0	0.3	0.2	2.7	4.4
1985	4.9	2.3	0.4	0.2	3.5	4.0
1990	4.3	2.9	0.6	0.2	3.7	3.3
1995	4.6	3.4	0.4	0.2	4.2	2.7
2000	4.5	2.7	0.3	0.2	3.8	2.6
2005	4.5	4.2	0.2	0.2	2.9	2.7
2006	4.7	3.2	0.1	0.2	2.9	2.6
2007	4.7	2.9	0.2	0.2	2.2	2.6
2008	5.0	3.0	0.1	0.3	3.0	2.3
2009	5.0	4.0	0.3	0.2	2.5	2.4
2010	4.9	3.2	0.2	0.3	1.9	2.3
2011	5.4	3.0	0.2	0.3	2.0	2.3
2012	5.5	3.6	0.2	0.3	2.2	2.3
2013	5.5	2.9	0.2	0.4	2.2	2.1
2014	5.5	3.1	0.2	0.3	2.2	2.1
2015	5.6	3.3	0.3	0.3	2.7	2.1
2016	5.7	3.0	0.3	0.3	2.4	2.2
2017	5.7	2.8	0.3	0.3	2.2	2.1
2018	5.8	2.4	0.4	0.4	2.4	2.1

Source: USDA / ERS: *Livestock, Dairy, and Poultry Situation and Outlook* and NMFP

Table 36: Production of Frozen Dairy Products							
Year	Ice Cream (Regular)	Lowfat Ice Cream	Nonfat Ice Cream	Sherbet	Frozen Yogurt	Other 1/	Total Frozen Dairy
<i>Million Gallons</i>							
1970	762	287	n/a	48.9	n/a	6.7	1,104
1975	837	299	n/a	48.5	n/a	11.1	1,195
1980	830	293	n/a	45.2	n/a	10.3	1,179
1985	901	301	n/a	48.2	n/a	51.4	1,302
1990	824	352	n/a	50.3	117.6	32.4	1,376
1995	862	357	43.9	53.5	152.1	19.1	1,488
2000	980	373	30.7	51.9	94.5	11.6	1,542
2001	970	380	22.4	52.6	71.2	10.5	1,507
2002	1,005	339	21.1	57.0	70.8	8.7	1,501
2003	993	398	20.4	54.1	70.4	7.2	1,543
2004	920	387	22.7	54.9	64.5	8.1	1,457
2005	960	360	20.8	56.4	66.1	7.8	1,471
2006	982	377	16.2	59.2	66.0	11.4	1,511
2007	956	382	14.4	62.7	74.7	12.3	1,502
2008	931	384	15.4	57.7	78.6	14.3	1,481
2009	918	400	16.8	53.3	46.0	15.2	1,449
2010	929	415	16.0	49.3	50.1	12.2	1,472
2011	888	415	17.2	45.4	62.7	12.3	1,441
2012	894	457	17.2	43.6	57.6	12.3	1,482
2013	897	401	14.2	46.1	74.5	12.2	1,445
2014	866	412	18.3	48.4	66.5	12.9	1,423
2015	897	439	13.6	44.7	74.2	14.2	1,482
2016	907	436	12.4	44.3	66.8	14.6	1,481
2017	871	461	11.4	43.0	62.9	22.6	1,472
2018	840	451	11.3	40.2	50.2	21.8	1,415

Source: USDA / NASS: *Dairy Products* . 1/ Excludes mellorine-based frozen desserts. Includes frozen yogurt prior to 1989 and nonfat ice cream prior to 1995.

Table 37: Per Capita Consumption of Frozen Dairy Products,							
Year	Regular Ice Cream		Reduced Fat Ice Cream		Sherbet		Other
	Lbs.	Change	Lbs.	Change	Lbs.	Change	Lbs.
1970	17.6	-0.6%	7.8	0.0%	1.6	0.0%	1.4
1975	18.2	4.6%	7.7	0.0%	1.3	-10.1%	1.8
1980	17.1	1.1%	7.1	-2.7%	1.2	-1.0%	1.3
1985	17.8	-0.1%	6.9	-1.4%	1.2	0.6%	2.7
1990	15.5	-2.0%	6.3	-24.6%	1.2	-5.6%	5.0
1995	15.0	-2.8%	7.0	10.4%	1.2	-1.9%	5.7
2000	16.1	-0.5%	6.6	-5.2%	1.1	-5.8%	3.7
2001	15.8	-2.0%	6.5	-1.4%	1.1	0.3%	3.1
2002	16.2	2.7%	5.8	-11.5%	1.2	7.3%	3.1
2003	15.9	-1.8%	6.7	15.7%	1.1	-5.9%	2.9
2004	14.6	-8.1%	6.5	-2.9%	1.1	0.6%	2.9
2005	15.1	3.3%	6.0	-7.9%	1.1	1.6%	2.9
2006	15.3	1.4%	6.1	2.1%	1.2	4.4%	3.0
2007	14.8	-3.6%	6.1	-0.1%	1.2	4.8%	3.1
2008	14.2	-3.6%	6.1	-0.2%	1.1	-8.9%	3.1
2009	13.9	-2.2%	6.3	3.4%	1.0	-8.6%	2.5
2010	14.0	0.2%	6.5	2.6%	1.0	-8.0%	2.6
2011	13.2	-5.3%	6.4	-0.7%	0.9	-7.8%	2.8
2012	13.2	-0.3%	7.0	8.6%	0.8	-4.5%	2.8
2013	13.0	-0.9%	6.0	-13.6%	0.9	4.7%	3.0
2014	12.5	-4.4%	6.2	2.7%	0.9	3.7%	2.9
2015	12.9	3.1%	6.5	4.8%	0.8	-9.2%	3.1
2016	12.9	0.5%	6.4	-1.6%	0.8	-0.9%	2.8
2017	12.3	-4.7%	6.7	4.6%	0.8	-3.3%	2.9
2018	11.8	-4.4%	6.5	-3.1%	0.7	-6.9%	2.7

Source: USDA / ERS: *Livestock, Dairy, and Poultry Situation and Outlook* and NMFP

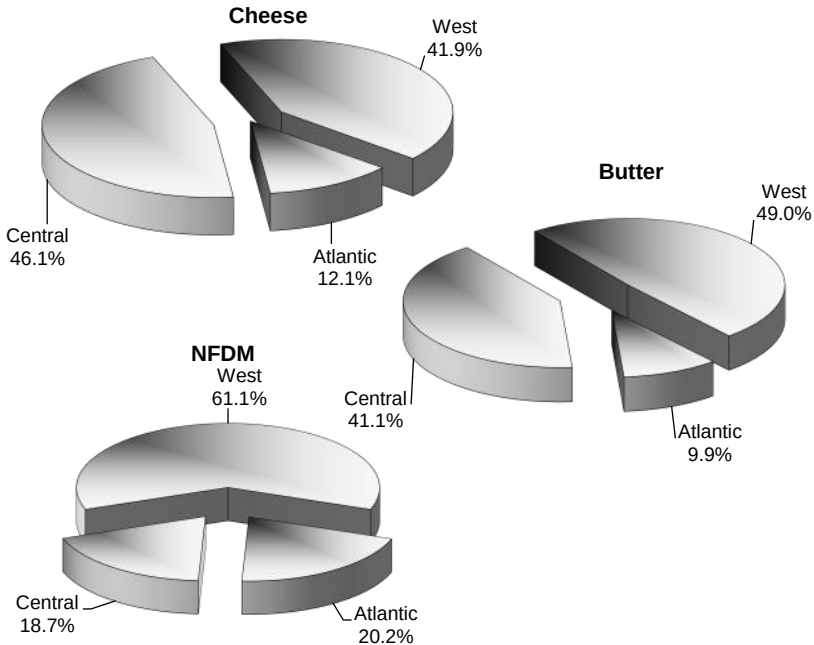
Table 38: Cheese, Butter, & NFDM Production, by State, 2018								
Cheese			Butter			Nonfat Dry Milk (food) 1/		
State	Mil. lbs.	Share	State	Mil. lbs.	Share	State	Mil. lbs.	Share
WI	3,423	26.3%	CA	579	30.6%	CA	587	33.1%
CA	2,543	19.5%	PA	86	4.6%	PA	181	10.2%
ID	991	7.6%	NY	25	1.3%			
NM	896	6.9%						
NY	802	6.2%						
MN	741	5.7%						
PA	434	3.3%						
IA	296	2.3%						
SD	293	2.3%						
OH	239	1.8%						
OR	210	1.6%						
VT	147	1.1%						
IL	82	0.6%						
NJ	59	0.5%						
Reported States	11,157	85.7%	Reported States	689	36.5%	Reported States	768	43.3%
Other States	1,867	14.3%	Other States	1,202	63.5%	Other States	1,005	56.7%
Total	13,025	100.0%	Total	1,891	100.0%	Total	1,774	100.0%

Source: USDA / NASS: Dairy Products

Note: Some states with large production are not reported to avoid violating confidentiality.

1/ Does not include 566.5 million lbs. of protein-standardized skim milk powders or 14.1 million lb. of dry skim milk produced for animal feed uses.

Figure 17: Production Share of Manufactured Products by Region, 2018



**Table 39: Plants Processing Dairy Products
& Volume Per Plant, Selected Years**

Product	Processing Plants				Average Output Per Plant			
	1985	1995	2005	2018	1985	1995	2005	2018
	<i>(Number of Plants)</i>				<i>(Thousand Pounds)</i>			
Butter	198	109	69	98	6,302	11,601	19,527	19,296
Total Cheese	669	432	409	553	7,595	16,011	22,370	23,553
American Cheese	432	233	187	266	6,609	13,439	20,364	19,751
Cheddar	379	207	167	244	6,047	11,668	18,239	15,584
Italian Cheese	189	158	150	209	7,891	16,927	25,354	26,588
Mozzarella	156	132	118	133	7,078	16,097	25,585	32,717
Swiss Cheese	62	44	47	63	3,595	5,039	6,386	5,275
Cottage Cheese /1	218	124	82	54	2,747	3,701	5,715	7,451
Yogurt /2	n/a	116	96	162	n/a	14,189	31,858	27,087
Evap/Cond. Milk /3	15	8	13	7	42,353	59,582	40,559	58,943
Ice Cream /4	865	473	356	400	1,042	1,823	2,522	1,796
Nonfat Dry Milk /5	97	59	49	56	14,330	20,898	24,700	31,670
Skim Milk Powder /6	n/a	n/a	12	19	n/a	n/a	26,894	29,816
Whole Milk Powder /7	17	21	10	13	6,992	8,158	3,244	11,050
Milk protein concentrate /8	n/a	n/a	n/a	14	n/a	n/a	n/a	10,402
Dry Whey /9	52	50	36	30	15,613	20,595	26,627	32,722
Whey protein conc. /10	22	26	37	48	3,775	10,011	9,283	10,582
Whey protein isolate /11	n/a	n/a	8	17	n/a	n/a	3,449	7,149
Lactose	23	27	28	33	5,355	13,530	25,499	35,100
Total Fluid Plants /12	1,000	650	400	459	53,939	83,970	134,750	103,860

Source: USDA/NASS, *Dairy Products* Annual Summary; FDA *Interstate Milk Shippers List*.

/1 Cottage cheese, curd

/2 Yogurt, plain and flavored (non-frozen)

/3 Canned evaporated and condensed whole milk.

/4 Thousand Gallons, Hard regular ice cream.

/5 Nonfat dry milk for food use, excludes protein-standardized skim milk powders.

/6 Dry skim powders

/7 Dry whole milk

/8 40% or more protein by weight

/9 Dry whey, human consumption

/10 Whey, protein concentrate, human consumption

/11 90% or more protein

/12 Estimates by Milk Industry Foundation (1985), NMPF (1995 & 2005), and USDA/ERS (2018).

Table 40: CCC Net Outlays by Commodity, Fiscal Year

Commodity Program	1985	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
(Million Dollars)														
Corn	4,403	2,435	2,090	10,136	6,243	1,965	1,863	1,571	2,045	2,021	n/a	n/a	n/a	n/a
Grain Sorghum	463	349	153	979	376	182	196	144	191	191	n/a	n/a	n/a	n/a
Barley	336	(94)	129	397	189	79	81	65	85	79	n/a	n/a	n/a	n/a
Oats	2	(5)	19	61	3	2	4	3	4	3	n/a	n/a	n/a	n/a
Corn/Oats	7	8	1	6	2	(2)	2	0	0	0	n/a	n/a	n/a	n/a
Total Feed Grains	5,211	2,693	2,392	11,579	6,813	2,226	2,146	1,783	2,325	2,352	247	3,827	4,593	3,460
Wheat	4,691	796	803	5,321	1,232	1,280	1,378	905	1,254	1,089	143	761	1,106	1,957
Rice	990	667	814	1,774	473	535	364	396	374	350	18	404	542	828
Upland Cotton	1,553	(79)	99	3,809	4,245	1,668	678	523	671	607	1,013	700	(1)	295
Tobacco	455	(307)	(298)	657	(411)	21	25	62	1	(199)	(225)	(205)	0	0
Dairy	2,085	505	4	684	40	355	30	403	370	6	(66)	(37)	0	245
Soybeans	711	5	77	2,840	1,140	550	521	431	565	625	30	327	1,125	225
Peanuts	12	1	120	35	408	103	77	71	75	46	74	320	545	676
Sugar	184	15	(3)	465	(86)	0	0	0	11	1	0	0	83	0
Honey	81	47	(9)	7	8	0	0	0	0	(3)	0	1	(4)	1
Wool & Mohair	109	104	108	(2)	7	8	3	0	0	1	n/a	0	0	0
Export Programs	134	(34)	1,361	216	(1,443)	405	551	454	466	221	230	243	243	231
Conservation Programs	0	0	0	1,774	1,851	1,919	1,920	1,925	2,159	1,737	1,741	1,826	1,886	1,955
Other	(314)	808	557	2,310	5,829	960	1,219	975	1,866	5,395	3,764	1,495	522	863
Grand Total:	17,683	6,471	6,030	32,265	20,187	10,015	8,912	7,928	10,137	12,228	6,969	9,662	10,854	10,858

Source: USDA/ERS, Agricultural Outlook Tables

Figure 18: Dairy's Share Of Total CCC Outlays

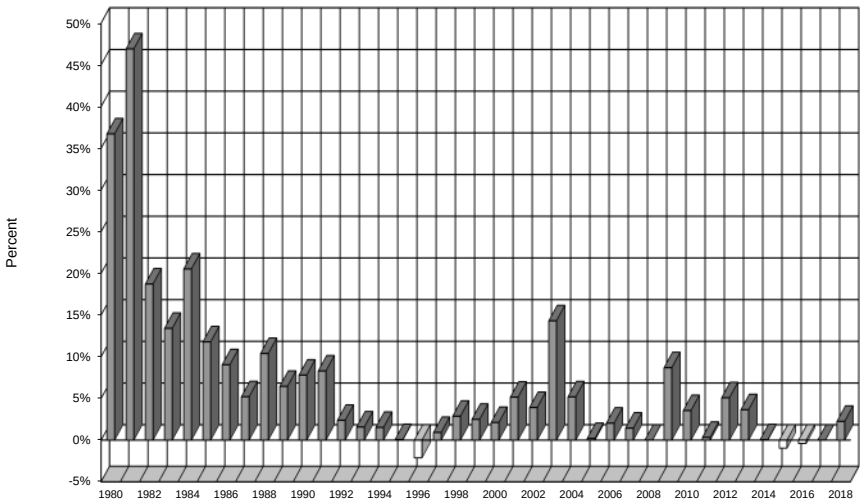
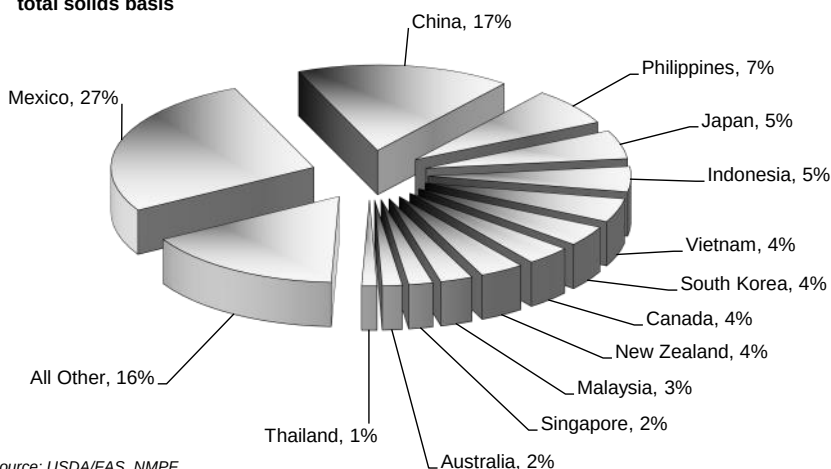


Figure 19: Share of U.S. Dairy Exports by Destination, 2018

Share, all products
Milk Equivalent,
total solids basis



Source: USDA/FAS, NMPP

Table 41: U.S. Fresh Milk & Cream Exports

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
FRESH MILK & CREAM (HTS 0401)							
North America	70,942	61,260	78,334	63,586	62,960	53.0%	\$46,626
Mexico	35,041	29,108	37,767	39,479	39,381	33.2%	\$25,534
Canada	35,900	32,153	40,567	24,107	23,578	19.8%	\$21,092
Caribbean	4,971	20,915	11,177	5,334	9,664	8.1%	\$10,542
Dominican Republic	1,267	17,308	7,823	2,423	6,590	5.5%	\$6,218
Bahamas	1,279	1,354	1,329	1,241	1,427	1.2%	\$1,836
Central America	421	345	225	445	273	0.2%	\$509
South America	1,657	348	1,441	4,068	321	0.3%	\$698
European Union-28	56	17	11	62	69	0.1%	\$139
Other Europe	0	0	2	0	0	0.0%	\$0
Russia/Central Asia	0	0	0	0	0	0.0%	\$0
Middle East	216	198	117	475	1,003	0.8%	\$3,918
United Arab Emirates	33	33	72	466	944	0.8%	\$3,794
North Africa	0	0	0	189	0	0.0%	\$0
Subsaharan Africa	60	24	11	33	1	0.0%	\$3
South Asia	4	7	7	162	86	0.1%	\$189
Southeast Asia	4,546	2,656	3,727	2,024	2,366	2.0%	\$6,598
East Asia	17,484	22,241	25,571	32,125	41,645	35.1%	\$37,244
Taiwan	9,633	17,131	23,032	29,680	38,851	32.7%	\$32,600
Hong Kong	3,006	3,656	2,096	1,977	1,928	1.6%	\$2,799
Oceania	475	203	299	296	262	0.2%	\$428
Other	51	228	428	163	145	0.1%	\$669
World	100,882	108,443	121,351	108,962	118,797	100.0%	\$107,560

Source: USDA/FAS

Table 42: U.S. Butter & Cheese Exports

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
BUTTER (HTS 0405)							
North America	9,238	8,814	18,297	15,375	30,005	66.5%	\$103,334
Mexico	6,416	5,131	9,410	4,266	16,126	35.7%	\$32,757
Canada	2,822	3,683	8,886	11,109	13,878	30.7%	\$70,577
Caribbean	1,405	833	949	1,362	2,463	5.5%	\$6,784
Dominican Republic	575	163	223	380	1,431	3.2%	\$2,600
Central America	1,041	964	691	840	2,560	5.7%	\$11,253
Honduras	52	41	81	29	1,244	2.8%	\$6,270
South America	521	720	319	1,521	594	1.3%	\$1,997
European Union-28	2,333	31	159	1,295	2,153	4.8%	\$10,404
Denmark	237	0	1	437	1,582	3.5%	\$7,795
Other Europe	1	0	4	1	3	0.0%	\$15
Russia/Central Asia	1,837	0	0	0	0	0.0%	\$0
Middle East	30,538	8,723	2,208	2,903	3,372	7.5%	\$17,051
Saudi Arabia	14,978	7,511	1,830	1,821	2,343	5.2%	\$12,350
North Africa	13,421	339	404	2,062	477	1.1%	\$2,471
Subsaharan Africa	1,719	125	1	9	13	0.0%	\$49
South Asia	10	11	9	46	89	0.2%	\$206
Southeast Asia	2,662	214	66	261	354	0.8%	\$1,643
East Asia	6,623	2,337	1,719	3,034	2,835	6.3%	\$13,612
South Korea	1,920	1,433	706	1,710	1,088	2.4%	\$5,563
Taiwan	627	432	495	638	836	1.9%	\$3,929
Japan	1,210	190	15	210	794	1.8%	\$3,660
Oceania	518	71	70	156	95	0.2%	\$455
Other	68	33	152	135	140	0.3%	\$394
World	71,934	23,215	25,047	28,999	45,152	100.0%	\$169,665

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
CHEESE (HTS 0406)							
North America	96,582	104,173	103,271	108,208	104,622	30.0%	\$438,982
Mexico	82,534	91,055	89,982	96,420	96,895	27.8%	\$387,478
Canada	14,047	13,118	13,289	11,789	7,727	2.2%	\$51,504
Caribbean	12,107	12,312	13,920	15,043	16,604	4.8%	\$77,602
Central America	17,534	16,308	17,961	20,645	24,111	6.9%	\$106,384
Guatemala	3,727	4,278	5,661	6,262	7,948	2.3%	\$32,766
South America	13,856	14,010	15,120	15,767	18,274	5.2%	\$75,773
Chile	7,482	8,253	8,652	9,092	10,855	3.1%	\$41,878
European Union-28	5,482	1,839	1,475	987	1,342	0.4%	\$5,715
Other Europe	82	36	18	27	37	0.0%	\$137
Russia/Central Asia	75	47	40	47	11	0.0%	\$90
Middle East	25,618	19,207	14,677	19,118	21,331	6.1%	\$84,931
Saudi Arabia	15,678	10,377	6,712	7,988	8,879	2.5%	\$33,083
North Africa	10,287	2,208	1,548	1,758	2,758	0.8%	\$10,496
Subsaharan Africa	105	119	123	202	256	0.1%	\$974
South Asia	181	78	110	137	107	0.0%	\$411
Southeast Asia	17,513	12,479	10,806	16,539	19,061	5.5%	\$78,960
East Asia	148,747	114,540	89,182	108,668	112,239	32.2%	\$474,754
South Korea	70,963	56,507	42,389	52,122	56,034	16.1%	\$220,320
Japan	55,940	34,673	27,799	32,385	33,236	9.5%	\$149,473
China	11,914	12,293	9,759	14,020	12,684	3.6%	\$56,831
Taiwan	7,881	7,868	7,372	8,022	8,472	2.4%	\$38,202
Oceania	19,501	19,018	17,473	32,546	27,263	7.8%	\$101,192
Australia	17,926	17,275	15,499	30,145	24,648	7.1%	\$89,769
Other	532	512	490	574	638	0.2%	\$3,780
World	368,200	316,885	286,228	340,267	348,653	100.0%	\$1,460,181

Source: USDA/FAS

Table 43: U.S. Milk Powder Exports

Importing Region/Country	Volume					Share	Value
	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
NONFAT DRY MILK/SKIM MILK POWDER, less than 1.5% fat (HTS 0402.10)							
North America	208,884	254,919	277,803	279,792	351,090	49.3%	\$666,428
Mexico	203,331	252,065	273,992	276,309	346,686	48.7%	\$657,625
Caribbean	9,928	6,731	7,058	6,892	6,462	0.9%	\$12,703
Central America	5,320	7,534	4,165	9,534	16,009	2.2%	\$29,717
South America	19,204	34,626	35,842	39,214	37,337	5.2%	\$70,410
Peru	8,883	17,082	10,033	15,676	14,068	2.0%	\$26,398
Chile	3,633	6,670	7,394	11,119	11,042	1.6%	\$20,272
Colombia	5,431	7,137	11,669	8,854	10,716	1.5%	\$20,819
European Union-28	265	28	152	1,139	995	0.1%	\$2,018
Other Europe	3	0	0	0	7	0.0%	\$25
Russia/Central Asia	737	165	0	45	133	0.0%	\$242
Middle East	7,440	3,969	4,049	6,531	5,937	0.8%	\$11,902
North Africa	27,358	8,081	8,663	8,236	4,802	0.7%	\$9,251
Subsaharan Africa	1,145	3,064	2,710	3,048	3,366	0.5%	\$4,920
South Asia	11,551	28,747	28,819	28,244	24,196	3.4%	\$44,007
Pakistan	5,161	23,407	22,601	23,131	17,904	2.5%	\$32,508
Southeast Asia	190,716	170,114	196,154	163,629	215,329	30.2%	\$397,187
Philippines	70,757	63,998	82,048	73,328	85,293	12.0%	\$154,380
Indonesia	44,830	37,192	53,860	31,977	55,684	7.8%	\$104,055
Vietnam	34,654	33,267	27,869	21,800	35,506	5.0%	\$67,250
Malaysia	28,421	24,298	25,485	27,717	31,252	4.4%	\$57,531
East Asia	61,223	39,087	28,379	56,453	37,942	5.3%	\$72,713
China	47,499	28,908	18,278	34,774	21,131	3.0%	\$40,450
Oceania	813	1,251	100	2,878	8,287	1.2%	\$14,354
Other	132	136	154	209	129	0.0%	\$277
World	544,716	558,450	594,046	605,844	712,018	100.0%	\$1,336,158

Importing Region/Country	Volume					Share	Value
	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
WHOLE MILK POWDER, more than 1.5% fat (HTS 0402.21 & 0402.29)							
North America	8,304	6,011	13,358	8,143	8,876	18.5%	\$22,080
Mexico	7,031	4,676	10,598	5,787	7,236	15.1%	\$17,781
Canada	1,273	1,336	2,761	2,356	1,640	3.4%	\$4,299
Caribbean	425	846	252	561	951	2.0%	\$2,808
Dominican Republic	346	697	17	248	755	1.6%	\$2,345
Central America	1,721	891	937	439	1,199	2.5%	\$2,531
South America	4,186	4,008	11,157	2,075	3,991	8.3%	\$11,189
Colombia	2,649	3,044	10,665	1,733	2,837	5.9%	\$8,143
European Union-28	66	23	81	119	99	0.2%	\$331
Other Europe	2	0	2	0	0	0.0%	\$0
Russia/Central Asia	0	0	0	0	58	0.1%	\$92
Middle East	761	1,111	450	72	510	1.1%	\$1,563
North Africa	3,819	146	490	234	365	0.8%	\$569
Subsaharan Africa	348	5	0	14	0	0.0%	\$3
South Asia	835	369	0	11	73	0.2%	\$198
Southeast Asia	23,618	16,164	1,042	5,239	19,741	41.1%	\$49,434
Vietnam	17,866	14,077	543	4,715	11,777	24.5%	\$30,601
Singapore	558	1,440	2	28	5,958	12.4%	\$13,350
Malaysia	2,826	454	396	423	838	1.7%	\$2,003
Indonesia	1	5	97	0	804	1.7%	\$2,263
East Asia	8,622	3,737	3,421	9,873	10,811	22.5%	\$29,677
China	4,870	1,206	2,300	9,281	10,321	21.5%	\$28,307
Oceania	1,768	76	166	453	1,286	2.7%	\$4,533
Australia	1,754	66	150	435	708	1.5%	\$2,410
Other	5	0	0	7	18	0.0%	\$55
World	54,479	33,387	31,357	27,239	47,979	100.0%	\$125,061

Source: USDA/FAS

Table 44: U.S. Ice Cream & Yogurt Exports

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
ICE CREAM (HTS 2105)							
North America	30,615	28,347	25,132	23,913	24,700	33.0%	\$72,163
Mexico	25,725	24,773	22,318	19,804	18,073	24.2%	\$50,803
Canada	4,890	3,574	2,814	4,109	6,627	8.9%	\$21,360
Caribbean	5,487	5,522	5,578	6,762	7,102	9.5%	\$21,356
Trinidad and Tobago	1,298	1,513	1,258	1,727	1,796	2.4%	\$5,492
Bahamas	1,215	1,010	1,404	1,421	1,311	1.8%	\$3,774
Central America	895	989	1,274	1,299	1,043	1.4%	\$3,201
South America	2,312	3,132	2,563	3,067	3,471	4.6%	\$11,429
Brazil	294	937	1,084	791	1,630	2.2%	\$5,953
Chile	1,292	1,472	933	1,444	1,298	1.7%	\$3,379
European Union-28	1,434	2,003	2,147	2,986	6,931	9.3%	\$26,413
United Kingdom	305	641	515	866	4,993	6.7%	\$21,290
Other Europe	9	19	12	11	3	0.0%	\$16
Russia/Central Asia	74	46	120	113	164	0.2%	\$439
Middle East	13,155	14,537	13,305	13,296	12,847	17.2%	\$48,113
Saudi Arabia	5,931	6,277	6,535	6,114	6,267	8.4%	\$23,442
United Arab Emirates	4,195	4,800	4,200	3,917	3,449	4.6%	\$12,726
North Africa	193	147	113	146	158	0.2%	\$602
Subsaharan Africa	467	645	768	416	992	1.3%	\$2,377
South Asia	54	47	67	60	292	0.4%	\$1,080
Southeast Asia	4,280	4,564	4,821	4,732	4,726	6.3%	\$17,316
Malaysia	1,486	1,671	1,790	1,781	1,627	2.2%	\$6,473
East Asia	4,414	4,369	4,434	4,561	3,909	5.2%	\$12,544
South Korea	1,352	1,139	1,228	1,482	1,389	1.9%	\$4,660
China	1,639	1,894	2,054	1,032	1,312	1.8%	\$3,788
Oceania	4,471	4,886	4,869	5,936	7,814	10.4%	\$27,989
Australia	3,975	4,399	4,224	5,248	7,080	9.5%	\$25,797
Other	340	416	712	701	632	0.8%	\$1,898
World	68,198	69,668	65,914	67,997	74,781	100.0%	\$246,934

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
YOGURT (HTS 0403.10)							
North America	3,630	2,843	3,327	5,763	5,230	32.8%	\$14,523
Mexico	2,811	1,982	2,590	4,968	4,519	28.3%	\$12,034
Canada	819	860	737	796	711	4.5%	\$2,489
Caribbean	5,010	5,438	5,290	4,715	4,705	29.5%	\$13,604
Trinidad and Tobago	1,331	1,421	1,309	1,220	1,164	7.3%	\$3,472
Dominican Republic	1,021	998	926	608	682	4.3%	\$1,877
Windward and Leeward Is	620	728	750	709	682	4.3%	\$1,934
Netherlands Antilles	488	581	617	507	582	3.7%	\$1,793
Central America	946	1,422	1,601	1,227	987	6.2%	\$3,070
Panama	521	745	613	705	529	3.3%	\$1,641
South America	880	794	570	477	504	3.2%	\$1,051
European Union-28	354	229	185	189	166	1.0%	\$491
Other Europe	0	0	7	0	40	0.3%	\$85
Russia/Central Asia	59	44	30	0	0	0.0%	\$0
Middle East	407	701	552	643	420	2.6%	\$1,181
North Africa	0	0	0	0	1	0.0%	\$4
Subsaharan Africa	14	24	1	7	21	0.1%	\$61
South Asia	15	25	18	41	141	0.9%	\$298
Southeast Asia	418	488	299	334	334	2.1%	\$858
East Asia	994	1,474	1,203	1,442	1,921	12.0%	\$5,044
Taiwan	268	274	373	555	954	6.0%	\$2,572
Oceania	1,993	1,149	1,214	1,156	1,046	6.6%	\$2,192
Australia	1,952	1,147	1,211	1,154	1,045	6.6%	\$2,187
Other	754	407	360	357	439	2.7%	\$970
World	15,472	15,037	14,655	16,353	15,954	100.0%	\$43,434

Source: USDA/FAS

Table 45: U.S. Whey & Lactose Exports

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
WHEY (HTS 0404.10 & 3502.20)							
North America	106,012	87,191	84,777	92,431	87,597	16.0%	\$155,587
Mexico	62,570	43,755	41,457	49,204	53,680	9.8%	\$61,718
Canada	43,442	43,436	43,320	43,227	33,917	6.2%	\$93,869
Caribbean	3,138	2,365	1,658	1,766	2,334	0.4%	\$4,045
Central America	8,951	9,255	8,289	9,290	11,270	2.1%	\$10,805
South America	13,366	12,810	10,510	14,140	15,158	2.8%	\$32,350
European Union-28	5,775	6,067	7,546	7,392	8,794	1.6%	\$61,481
Other Europe	1,942	2,660	2,482	2,780	259	0.0%	\$1,562
Russia/Central Asia	194	80	108	193	257	0.0%	\$1,580
Middle East	1,122	1,075	861	1,003	893	0.2%	\$3,379
North Africa	3,447	2,579	3,263	2,122	7,341	1.3%	\$11,270
Subsaharan Africa	2,942	2,112	2,653	3,140	4,542	0.8%	\$8,687
South Asia	1,692	1,485	2,327	4,497	6,856	1.3%	\$31,518
Southeast Asia	97,176	90,788	100,342	86,017	110,091	20.1%	\$122,678
Philippines	26,125	28,477	26,166	32,388	36,713	6.7%	\$34,097
Vietnam	20,858	14,347	23,148	12,042	22,157	4.1%	\$21,936
Indonesia	17,327	19,647	20,376	14,459	18,241	3.3%	\$21,721
Malaysia	15,383	13,590	13,703	7,197	12,043	2.2%	\$13,216
East Asia	236,722	212,949	254,333	294,619	267,347	48.9%	\$331,497
China	190,502	166,251	213,489	248,082	204,077	37.3%	\$234,553
Japan	22,988	23,516	20,290	26,585	33,596	6.1%	\$58,789
South Korea	16,375	16,148	13,105	11,290	15,888	2.9%	\$21,732
Oceania	12,425	8,794	24,361	28,534	24,040	4.4%	\$37,747
New Zealand	1,396	3,720	17,861	22,105	19,455	3.6%	\$21,359
Other	24	13	26	49	16	0.0%	\$99
World	494,927	440,220	503,534	547,976	546,793	100.0%	\$814,285

Importing	Volume					Share	Value
Region/Country	2014	2015	2016	2017	2018	2018	2018
	(Metric Tons)					(Percent)	\$1,000
LACTOSE (HTS 1702.11 & 1702.19)							
North America	31,567	37,265	39,109	47,747	52,963	13.5%	\$42,793
Mexico	27,611	32,678	34,127	42,708	43,346	7.9%	\$31,105
Caribbean	403	510	618	579	474	0.1%	\$475
Central America	387	385	580	749	793	0.2%	\$814
South America	17,283	16,350	18,615	17,725	15,131	3.9%	\$14,269
European Union-28	4,679	3,779	7,141	6,709	6,217	1.6%	\$13,429
Other Europe	72	0	0	75	2	0.0%	\$3
Russia/Central Asia	618	336	275	240	40	0.0%	\$24
Middle East	1,626	761	1,226	708	634	0.2%	\$1,347
North Africa	1,152	244	630	1,254	329	0.1%	\$578
Subsaharan Africa	4,900	7,673	8,021	6,423	5,315	1.4%	\$4,489
South Asia	7,547	10,010	16,142	25,810	22,530	5.7%	\$18,947
India	6,140	9,294	12,945	17,863	17,207	3.1%	\$15,114
Southeast Asia	76,023	77,950	83,397	71,977	76,212	19.4%	\$57,206
Singapore	17,310	20,261	15,589	17,642	18,202	3.3%	\$14,600
Vietnam	14,483	16,227	25,447	15,382	17,745	4.5%	\$11,599
Indonesia	16,189	15,515	20,634	15,646	15,694	2.9%	\$12,464
Philippines	10,247	11,011	10,314	9,252	12,468	2.3%	\$8,571
East Asia	128,057	129,185	131,349	130,124	161,367	41.1%	\$119,266
China	69,748	70,887	61,889	67,869	95,384	17.4%	\$70,343
Japan	42,007	40,670	46,677	45,875	45,909	8.4%	\$32,749
South Korea	12,887	14,113	19,662	13,366	16,710	3.1%	\$13,168
Oceania	68,338	75,184	54,655	51,181	50,375	12.8%	\$39,809
New Zealand	53,399	54,626	46,985	31,644	40,317	7.4%	\$30,731
Other	1	0	0	0	0	0.0%	\$0
World	342,652	359,633	361,757	361,300	392,382	100.0%	\$313,446

Source: USDA/FAS

Table 46: Commercial Exports & Domestic Disappearance, Milk Equivalent, Total Solids Basis							
Year	Commercial Exports		Domestic Disappearance		Commercial Disappearance		
	Total	Per Capita /1	Total	Per Capita /2	Total	Per Capita /3	Export %
	(Million lbs)	(Pounds)	(Million lbs)	(Pounds)	(Million lbs)	(Pounds)	(Percent)
1985	571	2.4	127,100	534.2	127,671	536.6	0.4%
1986	648	2.7	130,205	542.2	130,854	544.9	0.5%
1987	2,520	10.4	131,601	543.2	134,121	553.6	1.9%
1988	3,910	16.0	135,379	553.7	139,289	569.7	2.8%
1989	3,870	15.7	137,654	557.7	141,524	573.4	2.7%
1990	1,290	5.2	141,579	567.2	142,869	572.3	0.9%
1991	2,010	7.9	141,634	559.9	143,644	567.8	1.4%
1992	2,370	9.2	144,283	562.5	146,653	571.7	1.6%
1993	3,090	11.9	143,898	553.6	146,988	565.5	2.1%
1994	2,780	10.6	148,234	563.4	151,014	573.9	1.8%
1995	4,544	17.1	149,399	561.1	153,943	578.1	3.0%
1996	4,910	18.2	150,562	558.9	155,472	577.1	3.2%
1997	4,900	18.0	150,566	552.2	155,466	570.2	3.2%
1998	4,768	17.3	153,449	556.3	158,217	573.6	3.0%
1999	4,904	17.6	156,459	560.7	161,363	578.3	3.0%
2000	6,545	23.2	159,577	565.5	166,122	588.7	3.9%
2001	7,569	26.6	158,949	557.8	166,517	584.3	4.5%
2002	6,781	23.6	160,936	559.5	167,717	583.1	4.0%
2003	6,946	23.9	163,808	564.6	170,754	588.6	4.1%
2004	10,905	37.2	165,028	563.6	175,933	600.9	6.2%
2005	13,388	45.3	170,056	575.5	183,445	620.8	7.3%
2006	16,637	55.8	170,387	571.0	187,024	626.8	8.9%
2007	17,752	58.9	172,336	572.1	190,088	631.0	9.3%
2008	20,226	66.5	173,797	571.5	194,023	638.0	10.4%
2009	16,217	52.9	176,115	574.1	192,332	627.0	8.4%
2010	23,872	77.2	172,638	558.1	196,510	635.3	12.1%
2011	25,640	82.3	174,409	559.6	200,050	641.9	12.8%
2012	26,006	82.8	177,946	566.7	203,953	649.5	12.8%
2013	30,726	97.2	175,011	553.4	205,737	650.6	14.9%
2014	31,130	97.7	177,870	558.2	209,000	655.9	14.9%
2015	28,827	89.8	184,291	574.0	213,118	663.8	13.5%
2016	29,927	92.5	187,794	580.7	217,721	673.2	13.7%
2017	31,262	96.0	187,502	575.7	218,764	671.6	14.3%
2018	34,242	104.0	188,718	573.2	222,960	677.2	15.4%

Source: USDA/Economic Research Service, U.S. Census Bureau, and NMPF. /1 Total exports per U.S. resident.
/2 Per capita consumption by U.S. resident population. /3 Total commercial disappearance per U.S. resident.

Figure 20: Commercial Exports

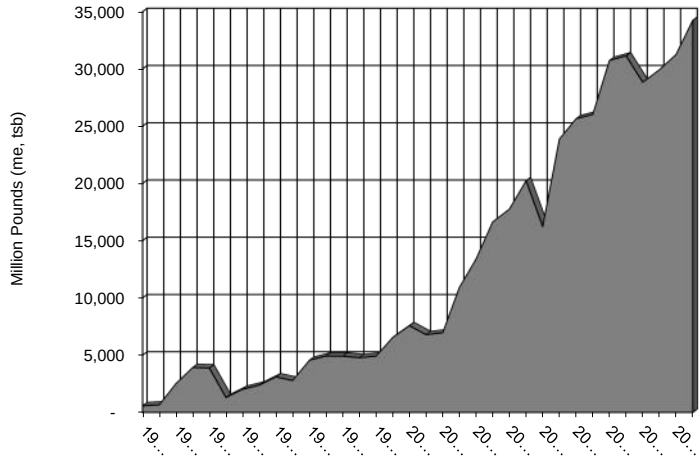


Table 47: Dairy Imports, Quota & Non-Quota

Product	TRQ status 1/	2014	2015	2016	2017	2018
(Thousand Pounds)						
<u>Cheese Subject to TRQ</u>						
Cheddar	In quota	18,274	24,686	26,568	19,979	15,661
	Out of quota	4,831	7,840	13,588	3,329	9,195
Other American-type	In quota	21	3,701	1,422	853	180
	Out of quota	430	0	0	4	15
Italian	In quota	18,344	19,803	25,408	22,362	20,875
	Out of quota	13,252	19,980	15,306	4,813	17,279
Swiss/Emmentaler	In quota	50,250	54,151	50,875	51,810	48,851
	Out of quota	128	115	105	49	394
Edam/Gouda	In quota	13,796	14,507	14,705	14,823	14,851
	Out of quota	366	471	1,374	508	1,889
Gruyere Processed	In quota	6,253	6,759	6,393	6,058	6,646
	Out of quota	66	32	143	49	325
Blue-Veined	In quota	6,127	6,287	6,364	6,358	6,202
	Out of quota	2,335	2,065	1,320	335	1,611
Other	In quota	88,936	96,746	102,330	81,150	81,888
	Out of quota	8,360	11,509	20,568	4,452	13,709
Total	In quota	202,002	226,641	234,065	203,393	195,155
	Out of quota	29,769	42,013	52,403	13,539	44,416
<u>Non-TRQ Cheese 2/</u>						
Goya		1,371	17,183	24,859	13,682	3,337
Pecorino		19,003	19,759	26,041	21,748	21,017
Other		100,796	109,451	105,814	118,616	107,444
Total		121,170	146,393	156,714	154,046	131,798
All Cheese 3/		363,273	436,004	452,578	402,125	388,479
<u>Other Dairy (TRQ)</u>						
Milk and Cream	In quota	597	1,147	2,171	2,241	2,241
	Out of quota	8,473	9,924	12,438	13,458	16,085
Evap and Cond Milk	In quota	12,291	11,432	11,641	11,791	11,878
	Out of quota	49,332	52,540	55,896	61,238	67,678
Butter	In quota	14,904	15,114	14,937	15,075	15,230
	Out of quota	7,665	21,633	37,214	17,465	59,723
Butter Substitutes	In quota	12,988	13,106	13,319	13,117	12,364
	Out of quota	165	785	11,023	266	835
Nonfat Dry Milk	In quota	616	792	667	811	794
	Out of quota	399	264	477	714	630
Ice Cream	In quota	2,650	4,649	4,402	8,896	8,990
	Out of quota	583	310	824	2,220	5,126
Chocolate Preparations 4/	In quota	32,576	36,319	36,909	35,621	32,655
	Out of quota	23,169	24,454	36,465	41,038	3,393
Other TRQ Products 4/	In quota	25,296	17,979	49,796	57,034	23,816
	Out of quota	96,501	111,661	126,439	59,861	74,390
<u>Other Dairy (Non-TRQ)</u>						
Casein and Caseinates		170,822	162,119	150,780	146,792	125,867
Milk Protein Concentrate		106,597	126,949	122,273	108,944	103,849
Whey		61,631	60,499	73,638	47,620	130,822
Lactose		12,431	12,663	8,346	8,569	5,961
Butter Substitutes		1,483	2,658	953	695	664
Chocolate Preparations 4/		39,899	41,934	44,967	50,107	38,020
Other Food Preparations 4/		362,189	363,487	421,335	405,439	412,815

Source: USDA/FAS; U.S. Bureau of the Census; NMFP.

1/ TRQ: Tariff Rate Quota. "Out of quota" includes all corresponding quota-type products entering the U.S. on an out-of-quota duty-paid basis. 2/ Includes non-cow's milk cheeses. 3/ All cheese, including TRQ and non-TRQ cheese. Totals will not add because in-quota TRQ cheese volumes are determined by Customs and Border Protection using different data. 4/ Includes products whose composition consists only partly of dairy components.

Table 48: Price Indices: Annual Average, Not Seasonally Adjusted									
Year	Consumer Price Indices			Indices of Prices Paid and Received by Farmers					
	All Items	Food & Beverages	Dairy Products	Prices Received			Prices Paid		
				All Farm Products	Livestock & Products	Dairy Products	Production Items	Wages, etc (PPITW)	Feed
	(1982-1984 = 100)			(1910-1914 = 100)					
1950	24.1	25.4	29.0	258	340	249	246	256	210
1955	26.8	27.8	32.1	232	246	247	251	276	211
1960	29.6	30.0	35.4	239	296	259	265	300	194
1965	31.5	32.2	36.0	248	315	260	276	321	207
1970	38.8	40.1	44.7	280	405	350	314	390	216
1975	53.8	60.2	62.6	466	567	537	532	613	406
1980	82.4	86.7	90.9	624	878	798	822	978	479
1985	107.6	105.6	103.2	579	802	779	878	1,131	464
1990	130.7	132.1	126.5	660	1,088	837	958	1,310	501
1995	152.4	148.4	132.8	646	868	783	1,051	1,454	502
2000	172.2	167.8	160.7	611	955	757	1,117	1,588	497
2005	195.3	190.7	182.4	726	1,201	931	1,361	1,891	571
2006	201.6	195.2	181.4	730	1,180	793	1,434	1,999	607
2007	207.3	202.9	194.8	862	1,204	1,177	1,552	2,138	725
2008	215.3	214.1	210.4	947	1,195	1,128	1,839	2,434	945
2009	214.5	218.0	197.0	832	1,075	790	1,766	2,364	909
2010	218.1	219.6	199.2	850	1,256	1,000	1,825	2,434	879
2011	224.9	227.8	212.7	1,032	1,540	1,239	2,082	2,706	1,102
2012	229.6	233.7	217.2	1,083	1,633	1,140	2,193	2,824	1,270
2013	233.0	237.0	217.5	1,104	1,669	1,230	2,237	2,877	1,295
2014	236.7	242.5	225.3	1,113	2,049	1,469	2,376	3,031	1,266
2015	237.0	246.8	222.4	1,024	1,872	1,050	2,331	2,996	1,168
2016	240.0	247.6	217.3	935	1,530	1,000	2,179	2,866	1,118
2017	245.1	249.8	217.5	963	1,571	1,082	2,176	2,886	1,045
2018	251.1	253.4	216.5	938	1,497	997	2,214	2,954	1,100

Source: Bureau of Labor Statistics and USDA/NASS, *Agricultural Prices*

Table 49: Minutes of Work Required to Purchase Selected Dairy Products					
Year	Average Hourly Earnings	Minutes Worked to Earn Money to Purchase			
		Whole Milk	Butter	Cheese	Ice Cream
	(\$/hour)	(1/2 Gal*)	(1 Pound)		(1/2 Gal)
1960	\$2.09	14.1	21.5	19.7	24.9
1965	\$2.63	10.8	17.1	17.1	18.1
1970	\$3.40	10.1	15.3	17.8	14.9
1975	\$4.73	10.1	13.0	19.4	15.5
1980	\$6.84	9.3	16.5	19.6	16.3
1985	\$8.73	7.8	14.5	17.4	15.8
1990	\$10.19	8.3	11.7	n/a	15.3
1995	\$11.65	7.5	8.2	17.3	13.6
2000	\$14.02	11.9	10.8	16.4	14.8
2005	\$16.12	11.9	12.2	16.3	13.9
2006	\$16.74	11.0	10.5	15.2	13.4
2007	\$17.41	12.1	10.5	14.6	13.6
2008	\$18.07	12.6	10.6	15.7	14.0
2009	\$18.61	10.0	9.2	15.1	13.9
2010	\$19.06	10.3	9.9	14.8	14.1
2011	\$19.44	11.0	11.1	16.7	15.2
2012	\$19.73	10.6	n/a	17.1	15.3
2013	\$20.14	10.3	n/a	16.6	14.9
2014	\$20.60	10.7	n/a	16.1	14.2
2015	\$21.03	9.8	n/a	15.3	13.5
2016	\$21.55	8.9	n/a	14.6	13.3
2017	\$22.05	8.8	n/a	13.3	12.8
2018	\$22.71	7.7	10.8	13.6	12.5

Source: Bureau of Labor Statistics. Average hourly earnings for private production and nonsupervisory workers. *Per gallon beginning 1996.

Table 50: Commodity Receipts from Marketings

<i>Commodity</i>	<i>1980</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>2018</i>
<i>(Billion Dollars)</i>					
<i>Livestock Products</i>					
Cattle & Calves	31.8	39.2	40.8	51.2	67.1
Dairy Products	16.4	20.2	20.6	31.4	35.2
Hogs	8.9	11.5	11.8	17.9	21.1
Poultry and Eggs	9.2	15.3	21.9	34.7	46.3
Sheep/Other Livestock	1.7	3.0	4.6	5.1	6.5
Total Livestock:	68.0	89.1	99.6	140.3	176.5
<i>Crops</i>					
Feed Crops	18.3	18.7	20.5	55.1	49.1
Oil Crops	15.5	12.3	13.5	36.5	41.7
Vegetables	7.3	11.3	15.8	17.4	17.0
Food Grains	10.4	7.5	6.5	14.3	11.5
Fruits and Nuts	6.6	9.4	12.3	21.6	31.0
Cotton	4.4	5.5	2.9	7.5	7.2
Tobacco	2.7	2.7	2.3	1.2	1.2
Other Crops	6.6	12.9	18.6	24.4	12.8
Total Crops:	71.7	80.2	92.5	178.2	197.0
<i>Commodity Receipts:</i>	<i>139.7</i>	<i>169.3</i>	<i>192.1</i>	<i>318.4</i>	<i>373.5</i>
<i>Direct Government Payments:</i>	<i>1.3</i>	<i>9.3</i>	<i>23.2</i>	<i>12.4</i>	<i>8.7</i>
TOTAL RECEIPTS	141.0	178.6	215.3	330.8	382.2

Source: USDA / ERS: Agricultural Outlook Tables, Cash Receipts data.

Table 51: Nation's Top Dairy Cooperatives, 2018

<i>Rank</i>	<i>Dairy Cooperative</i>	<i>Headquarters</i>	<i>Milk Volume (Billion lbs)</i>	<i>Member farms</i>
1	Dairy Farmers of America Inc.*	Kansas City, KS	52.7	8,019
2	California Dairies Inc.*	Visalia, CA	16.0	367
3	Land O' Lakes Inc.*	St. Paul, MN	13.0	1,851
4	Edge Dairy Farmer Cooperative	Green Bay, WI	10.6	800
5	FarmFirst Dairy Cooperative*	Madison, WI	9.6	3,328
6	Northwest Dairy Association*	Seattle, WA	8.9	402
7	Select Milk Producers Inc.*	Artesia, NM	7.8	99
8	Foremost Farms USA*	Baraboo, WI	6.2	1,180
9	Associated Milk Producers Inc.*	New Ulm, MN	5.7	1,800
10	Michigan Milk Producers Association*	Novi, MI	4.8	949
11	United Dairymen of Arizona*	Tempe, AZ	4.3	50
12	Agri-Mark Inc.*	Andover, MA	3.2	926
13	Maryland & Virginia Milk Producers Coop. Assn.*	Reston, VA	2.9	1,165
14	Prairie Farms Dairy Inc.*	Carlinville, IL	2.7	882
15	Southeast Milk Inc.*	Bellevue, FL	2.5	148
16	Upstate Niagara Cooperative Inc.*	Buffalo, NY	2.3	327
17	First District Association*	Litchfield, MN	1.9	546
18†	Lone Star Milk Producers*	Wichita Falls, TX	1.6	117
18†	Organic Valley/CROPP	La Farge, WI	1.6	1,655
20	National Farmers Organization Inc.	Ames, IA	1.3	1,325
21	St. Albans Cooperative Creamery Inc.*	St. Albans, VT	1.3	346
22	Bongards' Creameries*	Bongards, MN	1.2	237
23	Cayuga Marketing	Auburn, NY	1.2	31
24	Tillamook County Creamery Association*	Tillamook, OR	1.1	82
25	Zia Milk Producers*	Roswell, NM	1.0	16

Source: Used by permission from *Hoard's Dairyman*. *NMPF member cooperative. †Tie

**Table 52: Number & Net Volume of Products,
Supplies, and Services by Cooperatives, Selected Years**

<i>Item</i>	1985		1995		2005		2017	
	<i>Coops Handling</i>	<i>Net Volume</i>	<i>Coops Handling</i>	<i>Net Volume</i>	<i>Coops Handling</i>	<i>Net Volume</i>	<i>Coops Handling</i>	<i>Net Volume</i>
	<i>(Number)</i>	<i>(Million\$)</i>	<i>(Number)</i>	<i>(Million\$)</i>	<i>(Number)</i>	<i>(Million\$)</i>	<i>(Number)</i>	<i>(Million\$)</i>
Products Marketed:								
Cotton	459	1,647	16	2,799	14	3,411	14	2,500
Dairy	394	15,365	241	21,784	193	28,163	106	42,338
Fruits & Vegetables	370	5,058	283	9,272	188	7,256	116	8,256
Grain & Oilseed Products	2,139	15,291	1,104	19,864	683	22,977	421	47,169
Livestock & Poultry	432	4,305	109	8,065	73	3,437	84	4,686
Rice	58	751	19	900	15	856	9	1,523
Sugar	44	1,505	51	1,869	47	3,357	24	5,478
Other	348	1,196	262	4,796	199	4,693	236	7,858
Total Farm Products	3,925	46,037	2,085	69,349	1,412	74,150	1,010	119,807
Supplies Sold:								
Crop Protectants	3,204	1,451	n/a	2,628	n/a	2,952	n/a	10,821
Feed	3,099	3,121	n/a	5,017	n/a	5,381	n/a	11,005
Fertilizer	3,237	3,342	n/a	4,692	n/a	5,370	n/a	12,051
Petroleum	2,579	5,800	n/a	5,211	n/a	9,799	n/a	26,292
Seed	3,120	510	n/a	583	n/a	1,252	n/a	5,680
Other Supplies	7,952	2,417	n/a	3,083	n/a	3,672	n/a	5,905
Total Farm Supplies	4,228	16,641	1,447	21,213	1,128	28,426	777	71,754
Services Provided:								
Trucking, Cotton Ginning Storage, Grinding, Locker Plants, Miscellaneous								
Total Farm Services	3,883	1,613	474	3,284	356	3,929	84	4,179
Total Business	5,625	64,291	4,006	93,847	2,896	106,506	1,871	195,740

Source: USDA / Rural Business-Cooperative Service, *Farmer Cooperative Statistics*

"Other" includes total cooperatives handling beans & peas, nuts, tobacco, wool and other misc.

Number of cooperatives may not add due to overlap.

Table 53: International Milk Production Statistics, 2018

Country	Cow Numbers <i>(1,000 Head)</i>	Production Per Cow <i>(Pounds)</i>	Cows Milk Production <i>(Million lbs)</i>	Other Milk Production 1/ <i>(Million lbs)</i>	Total Milk Production <i>(Million lbs)</i>	Share of Total <i>(Percent)</i>
North America						
Canada	965	22,709	21,914		21,914	1.2%
Mexico	6,550	4,163	27,267	373	27,639	1.5%
United States	9,399	23,149	217,575		217,575	11.4%
South America						
Argentina	1,640	14,568	23,891		23,891	1.3%
Brazil	16,215	3,081	49,955	6,620	56,575	3.0%
Europe						
European Union	23,311	14,619	340,780	10,318	351,097	18.5%
Former Soviet Union						
Belarus	1,500	10,795	16,193	66	16,259	0.9%
Russia	7,000	9,905	69,335		69,335	3.6%
Ukraine	2,078	10,684	22,201	507	22,708	1.2%
East Asia						
China	6,200	10,934	67,792	3,307	71,099	3.7%
Japan	731	21,805	15,939		15,939	0.8%
South Korea	205	21,992	4,508		4,508	0.2%
Taiwan	62	13,690	849	33	882	0.0%
South Asia						
India	58,500	2,864	167,551	200,621	368,172	19.4%
Southeast Asia						
Philippines	12	2,939	35	15	51	0.0%
Oceania						
Australia	1,525	13,440	20,496		20,496	1.1%
New Zealand	4,993	9,719	48,528		48,528	2.6%
Total of Above	140,886	7,913	1,114,810	221,860	1,336,670	70.3%
Total, All Countries 2/	290,029	5,370	1,557,331	344,715	1,902,047	100.0%

Source: USDA / FAS and UN / FAO.

1/ Other milk production includes buffalo, camels, goats and sheeps milk.

2/ 2017 data

GLOSSARY

American Cheese:

Principally cheddar cheese but includes other varieties such as Colby or Jack. The term does not include Swiss, Muenster, Blue, Italian cheese varieties, and other distinctive types.

Disappearance:

Commercial consumption calculated as production plus imports less the net change in stocks and non-commercial use. Domestic commercial disappearance is total commercial disappearance less commercial exports. May include farm use, waste, shrinkage, some inventory variation, and products used for other than human consumption.

Milk Equivalent:

The amount of farm milk represented by a quantity of dairy products. Most often used to aggregate stocks, trade, or removals of various dairy products on a common basis, such as milkfat, skim solids, or total solids.

Milk Sold to Plants and Dealers:

A term long used by USDA to mean milk production less that portion utilized on the farm or marketed directly by farmers to consumers.

DMC (Dairy Margin Coverage program) Margin:

As defined in the 2018 Farm Bill, the income over feed cost margin is equal to the national monthly all-milk price (reported monthly by USDA NASS) minus average feed costs, computed from a formula using national benchmark prices of corn, soybean meal, and alfalfa hay. Formerly the MPP (Margin Protection Program for Dairy) Margin.

DMC (Dairy Margin Coverage program) Feed Cost:

As defined in the 2018 Farm Bill, the feed cost to be used in calculating premiums is the national average feed cost. It includes the U.S. average corn price/bushel, Central Illinois soybean meal price/ton, and the U.S. average alfalfa hay price/ton. Formerly the MPP (Margin Protection Program for Dairy) Feed Cost.

National Average Cost of Feed Calculation:

$$= 1.0729 \times \text{U.S. average corn price/bushel}$$
$$+ 0.00735 \times \text{Central Illinois soybean meal price/ton}$$
$$+ 0.0137 \times \text{Average of U.S. average alfalfa hay price/ton and 5-state average of premium and supreme alfalfa hay}$$

COMMON CONVERSION FACTORS

Measures of Milk:

1 gallon = 8.62 pounds

1 quart = 2.15 pounds

1 pint = 1.08 pounds

1 liter = 2.28 pounds

100 lbs. = 11.6 gallons

100 lbs. = 46.4 quarts

100 lbs. = 92.8 pints

100 lbs. = 43.9 liters

Metric System:

<u>Weight</u>	<u>Volume</u>
1 kilogram = 2.2046 pounds	1 liter = 1.057 quarts
1 pound = 0.4536 kilogram	1 quart = 0.9464 liter
1 gram = 0.03527 ounce	1 liter = 2.113 pints
1 ounce = 28.35 grams	1 pint = 0.4732 liter
1 metric ton = 2,204.6 lbs	1 liter = 0.2642 gallons
	1 gallon = 3.785 liters

Feed Grains:

<u>Commodity</u>	<u>Unit</u>	<u>Lbs./ unit</u>	<u>Unit/ MT</u>
Wheat	bushel	60	36.744
Soybeans	bushel	60	36.744
Corn	bushel	56	39.368
Sorghum	bushel	56	39.368
Flaxseed	bushel	56	39.368
Rye	bushel	56	39.368
Barley	bushel	48	45.929
Oats	bushel	32	68.895
Rice	cwt.	100	22.046

Notes:



2107 Wilson Boulevard, Suite 600
Arlington, VA 22201
Phone: (703) 243-6111
Fax: (703) 841-9328
www.nmpf.org

