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# U.S. LIVESTOCK AND DAIRY

## **U.S. Beef**

The cattle industry is experiencing difficult financial times, as rapidly rising input costs are not compensated by higher receipt levels. Feed and non-feed costs are expected to moderate this year, but they will stay above levels seen earlier this decade. Despite decreases in per capita beef supplies, short-term economic weakness will constrain cattle prices below profitable levels until 2010.

Cow-calf producers have responded to economic losses by reducing inventory. Feedlots are also struggling financially. Fewer available calves will cause feeder animal prices to rise, but until the economic situation of feedlots improves, price bids for calves will be tempered. Beef cow numbers drop to 13% below the 1996 peak and should return the industry to historical profitability levels in a few years.

A weakening U.S. dollar and the recovery of market access lost from BSE-related disruptions nearly resulted in the U.S. becoming a net exporter of beef in 2008. As beef prices rise in the next few years and the dollar shows little further depreciation, it will be difficult to improve upon the current beef net trade situation. Uncertainty over implementation of COOL regulations is a factor in reducing cattle imports.

## U.S. Beef Supply and Utilization

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Million Head)										
Beef Cows (Jan. 1)	32.6	31.9	31.3	30.9	30.8	30.7	30.6	30.8	31.0	31.1	31.1
Dairy Cows (Jan. 1)	9.2	9.2	9.1	9.0	8.9	8.9	8.9	8.9	8.9	8.9	8.9
Cattle and Calves (Jan. 1)	96.7	96.0	95.3	94.0	93.3	93.1	93.0	93.3	93.5	93.6	93.6
Calf Crop	37.2	36.6	36.0	35.8	35.7	35.7	35.9	36.2	36.4	36.6	36.6
Calf Death Loss	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2
Calf Slaughter	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Beef Cow Slaughter	3.7	3.4	3.1	2.8	2.8	2.8	2.6	2.6	2.8	2.8	2.9
Dairy Cow Slaughter	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Bull Slaughter	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Steer and Heifer Slaughter	27.6	27.3	27.7	27.4	26.9	26.8	26.9	27.2	27.4	27.6	27.9
Total Slaughter	35.5	35.1	35.2	34.5	34.1	33.9	33.7	34.0	34.4	34.7	35.1
Cattle Imports	2.3	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1
Cattle Exports	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4
Cattle Death Loss	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Residual	0.1	0.3	0.5	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Cattle and Calves (Dec. 31)	96.0	95.3	94.0	93.3	93.1	93.0	93.3	93.5	93.6	93.6	93.1
Cattle on Feed (Jan. 1)	14.3	13.3	13.8	13.8	13.5	13.5	13.5	13.6	13.8	14.0	14.1
<b>Supply</b>	(Million Pounds)										
Beginning Stocks	630	605	570	556	578	570	576	581	590	607	630
Imports	2,482	2,795	3,023	3,149	3,282	3,453	3,570	3,517	3,429	3,370	3,284
Production	26,661	26,370	26,546	26,180	25,921	25,881	25,944	26,317	26,725	27,246	27,777
Total	29,773	29,770	30,139	29,885	29,781	29,904	30,090	30,415	30,745	31,223	31,692
<b>Disappearance</b>	(Million Pounds)										
Domestic Use	27,293	27,194	27,300	27,025	26,935	26,994	27,118	27,345	27,567	27,903	28,248
Exports	1,875	2,006	2,283	2,282	2,276	2,333	2,391	2,480	2,571	2,689	2,791
Total	29,773	29,770	30,139	29,885	29,781	29,904	30,090	30,415	30,745	31,223	31,692
Ending Stocks	605	570	556	578	570	576	581	590	607	630	653
<b>Per Capita Consumption</b>	(Pounds)										
Carcass Weight	89.4	88.2	87.7	86.0	84.9	84.2	83.8	83.7	83.6	83.8	84.0
Retail Weight	62.6	61.7	61.4	60.2	59.4	59.0	58.7	58.6	58.5	58.7	58.8
Change	-4.0%	-1.3%	-0.6%	-2.0%	-1.3%	-0.7%	-0.5%	-0.1%	-0.1%	0.3%	0.3%
<b>Prices</b>	(U.S. Dollars per Hundredweight)										
1100 - 1300 #, Nebraska Direct Steers	92.27	89.64	94.97	98.48	100.79	101.75	102.40	102.39	102.58	102.65	102.83
Change	0.5%	-2.8%	5.9%	3.7%	2.3%	0.9%	0.6%	0.0%	0.2%	0.1%	0.2%
600 - 650 #, Oklahoma City Feeder Steers	107.56	104.11	114.02	122.40	128.05	131.27	132.60	132.55	132.87	133.01	133.08
Change	-6.9%	-3.2%	9.5%	7.3%	4.6%	2.5%	1.0%	0.0%	0.2%	0.1%	0.1%
Utility Cows, Sioux Falls	54.77	52.57	57.36	58.47	59.28	59.44	60.93	60.93	60.96	61.02	61.13
Change	5.1%	-4.0%	9.1%	1.9%	1.4%	0.3%	2.5%	0.0%	0.0%	0.1%	0.2%
Boxed Beef Cutout	153.20	150.30	159.11	165.52	169.71	171.64	173.16	173.08	173.47	173.70	174.04
Change	2.3%	-1.9%	5.9%	4.0%	2.5%	1.1%	0.9%	0.0%	0.2%	0.1%	0.2%
	(U.S. Dollars per Pound)										
Beef Retail	4.32	4.24	4.46	4.74	4.95	5.11	5.18	5.18	5.19	5.20	5.20
Change	4.0%	-2.0%	5.2%	6.2%	4.6%	3.1%	1.4%	0.0%	0.1%	0.1%	0.1%
<b>Net Returns</b>	(U.S. Dollars per Cow)										
Cow - Calf	-37.40	-18.87	16.87	31.02	42.83	47.01	47.02	41.84	37.25	30.48	23.76

## **U.S. Pork**

The year 2008 was the worst financially for hog producers since 1998. The hog industry is particularly dependent on corn as a production input, and corn has been the major driver in increased production costs for the sector. Hog prices managed to increase slightly in 2008 despite the largest production increase since 1998, as pork export levels continued to set new records.

U.S. producers began to reduce the sow herd early in 2008. Sow inventory cuts could total 250,000 head by 2011. Reductions would need to be larger if not for the fact that the Canadian pork industry is also contracting after many years of growth. Higher hog prices will be generated by fewer sows, allowing profitability to return to the sector in 2010-11.

Pork exports in 2008 are more than triple the 2001 volume. Export levels began to fall during the fourth quarter of 2008. Though some decline is expected in 2009, the long-term trend of increasing exports is expected to resume in 2010. The combination of a smaller Canadian hog herd and uncertainty over COOL implementation will result in fewer hogs entering the U.S. from Canada.

## U.S. Pork Supply and Utilization

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Million Head)										
<b>Breeding Herd (Dec. 1*)</b>	6.23	6.08	5.98	5.98	5.99	6.01	6.07	6.11	6.15	6.12	6.07
Gilts Added	3.46	3.39	3.37	3.36	3.36	3.42	3.45	3.47	3.43	3.38	3.34
Sows Slaughtered	3.55	3.43	3.31	3.30	3.27	3.30	3.34	3.38	3.40	3.37	3.34
Sows Farrowed	12.19	11.99	11.97	12.06	12.18	12.36	12.56	12.74	12.85	12.87	12.86
Pigs per Litter (Head)	9.41	9.44	9.48	9.53	9.57	9.63	9.69	9.74	9.80	9.85	9.90
<b>Market Hogs (Dec. 1*)</b>	61.9	60.6	59.9	59.8	60.3	61.3	62.3	63.6	64.7	65.1	65.4
Pig Crop	114.7	113.1	113.4	114.9	116.6	119.0	121.7	124.2	125.9	126.8	127.3
Barrow and Gilt Slaughter	112.5	109.4	108.4	109.2	110.4	112.5	115.0	117.4	119.5	120.2	120.8
Hog Imports	9.2	7.8	7.1	7.1	7.2	7.3	7.5	7.5	7.4	7.3	7.3
Hog Exports	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Death Loss/Residual	12.6	12.3	12.2	12.2	12.4	12.6	12.9	13.1	13.3	13.4	13.5
<b>Market Hogs (Nov. 30)</b>	60.6	59.9	59.8	60.3	61.3	62.3	63.6	64.7	65.1	65.4	65.7
	(Million Pounds)										
<b>Supply</b>	536	640	632	624	633	643	665	686	706	725	732
Beginning Stocks	536	640	632	624	633	643	665	686	706	725	732
Imports	813	893	921	982	1,014	979	926	907	923	955	991
Production	23,378	22,802	22,706	22,978	23,306	23,852	24,457	25,076	25,639	25,902	26,140
Total	24,727	24,335	24,260	24,585	24,953	25,474	26,047	26,669	27,268	27,582	27,863
<b>Disappearance</b>	19,318	19,594	19,248	19,344	19,486	19,739	20,046	20,448	20,866	21,011	21,168
Domestic Use	19,318	19,594	19,248	19,344	19,486	19,739	20,046	20,448	20,866	21,011	21,168
Exports	4,769	4,108	4,387	4,608	4,824	5,071	5,314	5,515	5,677	5,839	5,957
Total	24,087	23,703	23,635	23,952	24,310	24,810	25,361	25,962	26,543	26,850	27,125
Ending Stocks	640	632	624	633	643	665	686	706	725	732	738
	(Pounds)										
<b>Per Capita Consumption</b>	63.3	63.5	61.8	61.5	61.4	61.6	62.0	62.6	63.3	63.1	63.0
Carcass Weight	63.3	63.5	61.8	61.5	61.4	61.6	62.0	62.6	63.3	63.1	63.0
Retail Weight	49.1	49.3	48.0	47.7	47.6	47.8	48.1	48.6	49.1	49.0	48.9
Change	-3.2%	0.4%	-2.7%	-0.5%	-0.2%	0.3%	0.6%	1.0%	1.1%	-0.3%	-0.2%
<b>Prices</b>	(U.S. Dollars per Hundredweight)										
<b>Barrows &amp; Gilts, Natl. Base</b>	47.84	48.90	53.02	55.02	56.25	54.77	53.97	53.68	53.33	54.60	56.15
51-52% live equiv.	47.84	48.90	53.02	55.02	56.25	54.77	53.97	53.68	53.33	54.60	56.15
Change	1.6%	2.2%	8.4%	3.8%	2.2%	-2.6%	-1.5%	-0.5%	-0.7%	2.4%	2.8%
<b>Sows, IA-S. Minn. #1-2, 300-400 lb</b>	33.22	36.53	39.91	42.09	43.44	41.78	40.55	39.70	38.73	40.03	42.01
300-400 lb	33.22	36.53	39.91	42.09	43.44	41.78	40.55	39.70	38.73	40.03	42.01
Change	-6.1%	10.0%	9.2%	5.5%	3.2%	-3.8%	-2.9%	-2.1%	-2.4%	3.3%	5.0%
<b>Pork Cutout Value</b>	69.32	69.48	75.24	79.00	81.31	80.71	80.48	80.37	80.10	81.98	84.55
Change	2.6%	0.2%	8.3%	5.0%	2.9%	-0.7%	-0.3%	-0.1%	-0.3%	2.3%	3.1%
	(U.S. Dollars per Pound)										
<b>Pork Retail</b>	2.94	2.96	3.12	3.32	3.44	3.43	3.41	3.38	3.37	3.43	3.55
Change	2.3%	0.8%	5.3%	6.3%	3.8%	-0.5%	-0.6%	-0.7%	-0.4%	1.9%	3.4%
<b>Net Returns</b>	(U.S. Dollars per Hundredweight)										
<b>Farrow - Finish</b>	-7.97	-2.42	3.41	5.06	5.36	3.00	0.98	0.00	-0.60	0.86	2.58

\* Preceding year.

## **U.S. Poultry**

In 2008, chicken and turkey producers experienced the third consecutive year of a decrease in the output-to-feed-price ratio. Egg producers began reducing the supply in 2007 and were therefore better able to handle the recent feed cost increases. The difficult financial situation will result in less chicken and turkey production this year, and slower-than-average growth in 2010.

Strong export growth in 2007 and 2008 contributed to back-to-back declines in per capita chicken consumption. The first reduction in chicken production in decades will keep the supply relatively tight in the domestic market, even as exports struggle in 2009. Consumers tend to demand more poultry relative to beef and pork during difficult economic times because it is a lower-cost source of protein. This helped support chicken and turkey prices in 2008.

After posting strong gains in 2007 and 2008, chicken exports decline in 2009. Many factors contribute to the decline, including a weak global economy, a stronger U.S. dollar, and a reduction in the U.S. allocation of the Russian poultry import quota. Export growth should slowly resume as economies strengthen. Exports are extremely important to the U.S. chicken industry since international consumers prefer dark meat products that are less popular with U.S. consumers.

## U.S. Broiler Supply and Utilization

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Supply</b>	(Million Pounds)										
Beginning Stocks	719	810	738	756	782	790	799	804	806	812	820
Imports	77	80	85	89	92	95	98	101	104	107	110
Production	36,500	36,119	36,597	37,254	37,818	38,392	38,929	39,487	40,123	40,805	41,499
Total	37,296	37,009	37,420	38,100	38,692	39,277	39,826	40,392	41,033	41,724	42,429
<b>Disappearance</b>											
Domestic Use	29,755	30,134	30,440	30,937	31,358	31,725	32,110	32,502	32,941	33,424	33,940
Exports	6,731	6,137	6,224	6,381	6,544	6,753	6,912	7,084	7,280	7,480	7,660
Total	36,486	36,271	36,663	37,318	37,902	38,478	39,022	39,586	40,221	40,904	41,601
Ending Stocks	810	738	756	782	790	799	804	806	812	820	828
<b>Per Capita Consumption</b>	(Pounds)										
RTC Weight	97.4	97.7	97.8	98.4	98.8	99.0	99.2	99.5	99.9	100.4	101.0
Retail Weight	83.7	83.9	84.0	84.5	84.9	85.0	85.2	85.5	85.8	86.2	86.7
Change	-1.5%	0.3%	0.0%	0.7%	0.4%	0.2%	0.2%	0.3%	0.4%	0.5%	0.6%
<b>Prices</b>	(Cents per Pound)										
12-City Wholesale	79.67	80.86	81.24	82.58	83.75	84.98	86.53	87.89	89.06	89.88	90.65
Change	4.3%	1.5%	0.5%	1.6%	1.4%	1.5%	1.8%	1.6%	1.3%	0.9%	0.9%
Broiler Retail	174.64	176.59	181.16	186.91	190.49	193.46	195.86	197.84	200.62	203.03	205.04
Change	5.8%	1.1%	2.6%	3.2%	1.9%	1.6%	1.2%	1.0%	1.4%	1.2%	1.0%
<b>Broiler - Feed Ratio</b>	3.7	5.2	5.6	5.7	5.7	5.7	5.7	5.7	5.8	5.9	5.9

## U.S. Turkey Supply and Utilization

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Supply</b>											
					(Million Pounds)						
Beginning Stocks	261	350	298	304	314	320	326	328	326	326	327
Imports	10	12	13	14	15	16	17	18	19	20	21
Production	6,170	5,988	6,031	6,120	6,215	6,296	6,362	6,420	6,481	6,548	6,619
Total	6,441	6,350	6,342	6,438	6,544	6,632	6,704	6,766	6,826	6,894	6,967
<b>Disappearance</b>											
Domestic Use	5,436	5,447	5,424	5,496	5,579	5,641	5,696	5,742	5,787	5,836	5,891
Exports	654	605	614	629	645	666	681	697	714	730	748
Total	6,090	6,052	6,038	6,125	6,224	6,307	6,377	6,440	6,500	6,567	6,638
Ending Stocks	350	298	304	314	320	326	328	326	326	327	329
					(Pounds)						
<b>Per Capita Consumption</b>	17.8	17.7	17.4	17.5	17.6	17.6	17.6	17.6	17.5	17.5	17.5
Change	1.6%	-0.8%	-1.4%	0.3%	0.5%	0.1%	0.0%	-0.1%	-0.2%	-0.1%	0.0%
<b>Prices</b>					(U.S. Cents per Pound)						
East. Region, Wholesale	87.54	86.59	87.03	88.19	88.75	89.73	91.38	93.10	94.53	95.43	96.29
Change	6.7%	-1.1%	0.5%	1.3%	0.6%	1.1%	1.8%	1.9%	1.5%	1.0%	0.9%
Turkey Retail	125.13	123.46	125.03	128.40	130.64	132.77	134.66	136.52	139.34	142.19	144.90
Change	8.8%	-1.3%	1.3%	2.7%	1.7%	1.6%	1.4%	1.4%	2.1%	2.0%	1.9%
<b>Turkey - Feed Ratio</b>	4.6	6.3	6.7	6.8	6.7	6.7	6.6	6.7	6.8	6.9	7.0



## **U.S. Dairy**

Class III and Class IV milk prices will fall to historically low levels in 2009 because of faltering world demand for U.S. dairy products. Strong cheese prices in 2008 sent the Class III price higher than the Class IV price by over \$2.75 per cwt. The Class III price is expected to exceed the Class IV price throughout the baseline because of weaker world skim milk powder prices.

Strong international demand moved world dairy prices to record levels in the past two years. But over the past six to eight months, world dairy prices have fallen dramatically because of weak global demand for dairy products. The weakening world prices cause wholesale dairy product prices to fall to near government support levels in 2009.

The 2009 all-milk price is expected to average near \$13 per cwt. Some stochastic model outcomes suggest that the 2009 milk price could drop to its lowest level in a decade. The volatility in milk prices that has occurred over the past 10 years is expected to continue. In the stochastic analysis, 80% of model outcomes result in an all-milk price of between \$14 and \$22 per cwt by 2018.

## U.S. Milk Component Supply and Utilization

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Milk-Fat Basis</b>	(Million Pounds)										
Fluid Use	1,675	1,731	1,726	1,719	1,729	1,742	1,757	1,775	1,792	1,811	1,832
Whole Milk	515	520	508	495	486	477	468	460	451	443	435
2% Milk	386	402	405	408	412	418	423	429	435	440	446
1% and Skim Milk	81	83	82	82	82	82	82	82	82	82	82
Other	694	727	731	735	749	766	784	804	825	846	869
Product Use	4,914	4,846	4,889	4,956	5,027	5,085	5,138	5,185	5,235	5,287	5,344
American Cheese	1,300	1,278	1,276	1,295	1,310	1,323	1,335	1,346	1,357	1,369	1,383
Other Cheese	1,422	1,442	1,475	1,500	1,538	1,564	1,590	1,616	1,644	1,673	1,704
Butter	1,330	1,245	1,253	1,276	1,289	1,301	1,311	1,315	1,319	1,323	1,327
Nonfat Dry	7	6	5	6	6	6	6	7	7	7	7
Evap. and Condensed	65	66	66	65	64	64	64	64	65	65	65
Frozen Products	679	692	698	699	705	709	713	719	724	729	735
Whey Products	11	11	11	11	11	11	11	11	11	11	11
Other	99	105	105	104	105	106	107	107	109	110	111
Farm Use	45	45	45	45	46	46	47	47	48	49	49
Milk Production	189,699	189,406	189,461	190,967	193,216	195,430	197,663	199,989	202,456	205,060	207,883
% Fat	3.68%	3.68%	3.68%	3.67%	3.66%	3.65%	3.64%	3.63%	3.62%	3.61%	3.60%
<b>Total Fat Supply</b>	6,981	6,970	6,972	7,008	7,072	7,133	7,195	7,260	7,329	7,403	7,484
Residual Fat	347	348	312	288	270	260	253	252	254	256	259
<b>Solids-Not-Fat Basis</b>											
Fluid Use	4,902	5,043	5,017	4,987	4,989	4,996	5,008	5,022	5,035	5,050	5,068
Whole Milk	1,365	1,378	1,346	1,313	1,288	1,264	1,242	1,219	1,196	1,174	1,152
2% Milk	1,764	1,838	1,851	1,863	1,886	1,910	1,935	1,961	1,987	2,013	2,040
1% and Skim Milk	1,421	1,459	1,449	1,438	1,435	1,434	1,434	1,434	1,434	1,434	1,435
Other	352	368	371	372	380	388	398	408	418	429	441
Product Use	7,393	7,121	7,100	7,215	7,340	7,462	7,581	7,708	7,844	7,989	8,144
American Cheese	1,209	1,189	1,187	1,204	1,218	1,231	1,242	1,252	1,262	1,274	1,286
Other Cheese	1,487	1,508	1,542	1,568	1,608	1,635	1,662	1,689	1,718	1,749	1,781
Butter	50	46	47	48	48	48	49	49	49	49	49
Nonfat Dry	949	565	457	502	526	572	622	676	735	796	861
Total Nonfat Dry	1,747	1,412	1,378	1,466	1,507	1,559	1,614	1,676	1,744	1,815	1,892
Nonfat Dry in Other	-798	-847	-920	-964	-980	-987	-992	-1,000	-1,009	-1,019	-1,031
Evap. and Condensed	632	641	635	625	621	621	622	624	626	628	631
Frozen Products	963	982	990	992	1,000	1,006	1,013	1,020	1,027	1,035	1,043
Whey Products	1,451	1,500	1,554	1,592	1,631	1,654	1,671	1,691	1,714	1,738	1,764
Other	652	689	689	684	688	694	700	706	713	720	728
Farm Use	105	106	106	106	108	109	110	111	113	114	116
Milk Production	189,699	189,406	189,461	190,967	193,216	195,430	197,663	199,989	202,456	205,060	207,883
% SNF	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%	8.70%
<b>Total SNF Supply</b>	16,504	16,478	16,483	16,614	16,810	17,002	17,197	17,399	17,614	17,840	18,086
Residual Whey	2,679	2,682	2,709	2,744	2,787	2,819	2,850	2,880	2,912	2,945	2,982
Residual SNF	1,425	1,526	1,551	1,561	1,586	1,616	1,648	1,678	1,709	1,742	1,776
<b>Min. FMMO Class Prices</b>	(U.S. Dollars per Hundredweight)										
Class I Mover	18.00	12.23	13.67	15.43	15.85	15.90	16.04	16.31	16.60	16.88	17.17
Class II	16.24	10.52	11.08	12.72	13.27	13.55	13.86	14.22	14.58	14.97	15.35
Class III	17.44	12.23	13.67	15.43	15.85	15.90	16.04	16.31	16.60	16.88	17.17
Class IV	14.65	9.82	10.38	12.02	12.57	12.85	13.16	13.52	13.88	14.27	14.65
<b>All Milk Price</b>	18.34	12.99	14.23	16.00	16.52	16.70	16.88	17.16	17.45	17.75	18.06

## **U.S. State-Level Dairy Supply**

The cost of producing milk has increased rapidly because of high feed costs and energy-related inputs. Low milk prices coupled with historically high production costs result in the severe economic stress currently faced by dairy farmers. Milk production costs are expected to decline slightly in 2009 but remain at historically high levels.

The dairy cow herd has increased every year since 2004. A large decrease in dairy cows is expected for 2009 and 2010. The annual growth in milk per cow is expected to remain between 1% and 2% over the baseline. New technology or adverse weather could move the industry outside of this range for any given year.

With poor returns, milk production is expected to stall at 190 billion pounds through 2010. After 2010, milk production is projected to grow by 1.2% annually. The trend of the regional movement of milk production is expected to continue but at a slower rate than has been seen over the past decade.

## U.S. Dairy Cows by State

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Thousand Head)										
Alabama	12	11	9	8	7	6	5	5	4	3	3
Alaska	1	1	1	1	1	1	1	1	1	1	1
Arizona	186	187	185	186	189	192	195	197	199	202	204
Arkansas	15	13	11	10	9	8	7	6	5	5	4
California	1,844	1,860	1,851	1,855	1,871	1,890	1,911	1,933	1,957	1,982	2,010
Colorado	128	133	137	140	144	148	152	155	158	161	164
Connecticut	19	19	18	18	17	17	16	16	16	16	15
Delaware	7	6	6	6	5	5	5	5	4	4	4
Florida	122	115	107	101	97	93	89	86	83	80	78
Georgia	76	73	70	67	65	64	63	62	61	60	60
Hawaii	2	2	1	1	2	2	1	1	1	1	1
Idaho	549	566	573	584	599	614	630	646	662	678	695
Illinois	102	100	97	95	94	93	92	92	91	91	90
Indiana	167	164	161	160	160	160	160	160	161	161	162
Iowa	216	214	209	207	205	204	202	201	199	198	197
Kansas	113	112	110	109	109	109	109	109	109	110	110
Kentucky	90	83	76	70	66	62	59	57	55	53	52
Louisiana	26	23	20	17	15	13	12	10	9	8	8
Maine	33	33	32	32	32	31	31	31	31	30	30
Maryland	56	51	47	45	43	41	40	39	38	37	37
Massachusetts	15	14	13	13	12	12	11	11	11	10	10
Michigan	348	350	346	344	345	346	346	346	346	346	346
Minnesota	464	458	446	438	433	429	424	420	416	413	409
Mississippi	20	18	17	15	14	13	12	11	10	9	8
Missouri	111	107	102	97	94	91	88	85	83	80	78
Montana	17	16	15	14	14	13	13	13	13	12	12
Nebraska	58	56	54	52	51	49	48	48	47	46	46
Nevada	27	27	26	26	26	25	25	25	25	25	25
New Hampshire	15	15	14	14	14	14	13	13	13	13	13
New Jersey	10	10	9	9	8	8	8	7	7	7	7
New Mexico	338	333	324	320	320	321	321	322	323	324	325
New York	626	621	608	598	592	586	580	574	569	564	560
North Carolina	47	43	39	35	32	29	26	23	20	17	15
North Dakota	27	25	22	20	18	16	14	12	11	9	8
Ohio	280	279	275	273	272	271	270	269	268	267	267
Oklahoma	64	60	56	52	50	48	46	45	43	42	41
Oregon	114	111	109	107	105	104	104	103	103	102	102
Pennsylvania	549	543	531	522	516	509	503	498	492	487	483
Rhode Island	1	1	1	1	1	1	1	1	1	1	1
South Carolina	18	17	17	16	16	15	15	15	14	14	14
South Dakota	90	92	91	89	88	88	87	87	87	87	86
Tennessee	59	55	51	47	44	41	38	35	33	31	28
Texas	379	389	388	389	394	398	402	405	408	411	413
Utah	85	83	80	77	76	74	73	72	71	70	69
Vermont	140	139	136	134	132	131	130	129	127	126	125
Virginia	98	94	89	86	83	81	79	78	76	75	74
Washington	245	244	239	236	235	234	233	232	231	230	229
West Virginia	12	11	10	9	8	8	7	7	7	7	7
Wisconsin	1,252	1,238	1,209	1,189	1,179	1,170	1,162	1,154	1,147	1,141	1,137
Wyoming	7	7	7	6	6	6	6	6	6	6	6
<b>United States</b>	<b>9,271</b>	<b>9,221</b>	<b>9,044</b>	<b>8,940</b>	<b>8,907</b>	<b>8,884</b>	<b>8,866</b>	<b>8,854</b>	<b>8,851</b>	<b>8,855</b>	<b>8,870</b>

## U.S. Milk Production by State

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Million Pounds)										
Alabama	184	164	144	128	113	100	88	77	67	58	50
Alaska	7	8	8	8	8	8	8	8	8	8	8
Arizona	4,348	4,376	4,410	4,485	4,585	4,681	4,772	4,858	4,940	5,019	5,099
Arkansas	195	173	151	133	119	106	94	85	76	69	63
California	41,185	41,741	42,226	43,014	43,973	44,950	45,966	46,966	48,013	49,106	50,264
Colorado	2,935	3,108	3,254	3,402	3,553	3,696	3,833	3,965	4,092	4,215	4,334
Connecticut	364	361	356	354	352	350	349	348	347	346	346
Delaware	110	106	102	99	96	93	91	88	86	84	83
Florida	2,059	1,938	1,835	1,759	1,699	1,644	1,592	1,547	1,508	1,475	1,448
Georgia	1,355	1,324	1,286	1,265	1,251	1,239	1,230	1,225	1,224	1,227	1,233
Hawaii	19	17	17	18	18	18	18	16	15	14	14
Idaho	12,315	12,785	13,155	13,614	14,109	14,610	15,123	15,654	16,197	16,754	17,330
Illinois	1,894	1,906	1,886	1,884	1,890	1,897	1,906	1,918	1,932	1,949	1,969
Indiana	3,298	3,263	3,259	3,283	3,311	3,336	3,363	3,395	3,431	3,469	3,511
Iowa	4,319	4,275	4,260	4,276	4,298	4,316	4,332	4,353	4,374	4,397	4,422
Kansas	2,381	2,400	2,422	2,461	2,517	2,575	2,628	2,669	2,713	2,757	2,803
Kentucky	1,209	1,133	1,055	996	953	918	888	866	849	839	834
Louisiana	322	284	248	220	196	174	155	139	125	113	103
Maine	604	606	606	609	612	616	619	623	627	631	635
Maryland	1,025	934	889	856	830	809	793	783	779	779	785
Massachusetts	258	251	242	236	230	225	220	216	211	208	205
Michigan	7,650	7,906	7,979	8,103	8,258	8,371	8,471	8,566	8,659	8,749	8,840
Minnesota	8,778	8,685	8,623	8,633	8,666	8,690	8,714	8,747	8,783	8,825	8,875
Mississippi	291	279	255	237	221	206	193	180	169	160	151
Missouri	1,615	1,557	1,488	1,437	1,394	1,353	1,314	1,280	1,249	1,221	1,197
Montana	313	296	285	278	273	268	265	264	264	266	269
Nebraska	1,080	1,046	1,024	1,012	1,007	1,003	1,001	1,002	1,005	1,010	1,018
Nevada	572	555	551	552	556	561	566	572	578	585	593
New Hampshire	296	299	297	297	297	297	297	297	297	298	299
New Jersey	165	163	159	156	153	150	148	145	143	141	140
New Mexico	7,866	7,354	7,253	7,257	7,314	7,389	7,462	7,536	7,611	7,688	7,772
New York	12,420	12,334	12,310	12,346	12,417	12,483	12,550	12,625	12,703	12,785	12,877
North Carolina	888	829	759	698	643	589	534	479	425	371	317
North Dakota	418	384	351	321	295	268	242	216	192	168	144
Ohio	5,113	5,144	5,128	5,145	5,177	5,202	5,224	5,245	5,266	5,287	5,309
Oklahoma	1,067	1,011	960	925	899	877	858	844	834	827	824
Oregon	2,167	2,167	2,143	2,136	2,141	2,148	2,158	2,172	2,188	2,207	2,230
Pennsylvania	10,575	10,548	10,519	10,542	10,576	10,600	10,628	10,666	10,707	10,751	10,804
Rhode Island	20	20	20	20	20	20	20	20	20	20	20
South Carolina	319	315	310	307	305	302	299	297	294	291	288
South Dakota	1,796	1,824	1,847	1,861	1,885	1,910	1,935	1,963	1,993	2,024	2,058
Tennessee	948	902	843	794	754	715	677	641	607	574	542
Texas	8,412	8,510	8,711	8,994	9,286	9,559	9,775	9,984	10,185	10,380	10,574
Utah	1,762	1,705	1,663	1,640	1,627	1,615	1,605	1,598	1,593	1,591	1,591
Vermont	2,577	2,571	2,560	2,561	2,570	2,578	2,586	2,596	2,607	2,618	2,631
Virginia	1,726	1,679	1,618	1,578	1,552	1,530	1,511	1,497	1,487	1,482	1,480
Washington	5,694	5,706	5,684	5,684	5,687	5,689	5,692	5,697	5,702	5,709	5,720
West Virginia	181	167	152	141	133	127	123	120	118	118	120
Wisconsin	24,460	24,155	24,015	24,078	24,257	24,430	24,607	24,805	25,022	25,259	25,523
Wyoming	144	143	140	139	138	137	137	137	137	138	139
<b>United States</b>	<b>189,699</b>	<b>189,406</b>	<b>189,461</b>	<b>190,967</b>	<b>193,216</b>	<b>195,430</b>	<b>197,663</b>	<b>199,989</b>	<b>202,456</b>	<b>205,060</b>	<b>207,883</b>

**U.S. All-Milk Prices by State**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	(Dollars per Hundredweight)										
Alabama	19.90	14.27	15.65	17.48	18.03	18.21	18.39	18.67	18.97	19.28	19.59
Alaska	21.20	15.91	17.07	18.88	19.46	19.70	19.92	20.22	20.54	20.87	21.20
Arizona	17.65	12.34	13.55	15.36	15.93	16.16	16.37	16.67	16.99	17.31	17.64
Arkansas	18.23	12.64	14.00	15.82	16.38	16.57	16.75	17.03	17.34	17.65	17.96
California	16.85	11.74	12.82	14.45	14.90	15.01	15.20	15.48	15.78	16.08	16.38
Colorado	18.40	12.99	14.25	16.07	16.64	16.85	17.05	17.34	17.66	17.97	18.29
Connecticut	19.44	13.94	15.18	16.99	17.56	17.79	17.99	18.29	18.60	18.92	19.25
Delaware	18.23	12.67	13.94	15.75	16.32	16.54	16.73	17.03	17.34	17.66	17.98
Florida	22.64	16.96	18.37	20.21	20.75	20.93	21.09	21.37	21.68	21.98	22.28
Georgia	18.88	13.98	15.37	17.21	17.75	17.94	18.11	18.39	18.69	19.00	19.30
Hawaii	26.22	20.92	22.12	23.93	24.51	24.74	24.95	25.25	25.57	25.89	26.22
Idaho	17.11	11.79	12.97	14.78	15.36	15.60	15.81	16.11	16.43	16.76	17.09
Illinois	19.57	14.18	15.52	17.35	17.90	18.10	18.28	18.57	18.87	19.18	19.49
Indiana	19.21	13.65	14.96	16.79	17.35	17.55	17.74	18.03	18.34	18.65	18.96
Iowa	18.49	13.11	14.43	16.26	16.81	17.01	17.20	17.49	17.80	18.11	18.42
Kansas	19.01	13.56	14.84	16.66	17.22	17.44	17.63	17.92	18.24	18.55	18.87
Kentucky	20.07	14.43	15.77	17.59	18.15	18.35	18.53	18.82	19.12	19.43	19.75
Louisiana	18.78	13.16	14.54	16.37	16.92	17.11	17.28	17.57	17.87	18.18	18.48
Maine	20.37	14.87	16.11	17.92	18.49	18.72	18.92	19.22	19.53	19.85	20.18
Maryland	18.60	13.09	14.34	16.15	16.72	16.94	17.14	17.44	17.75	18.07	18.40
Massachusetts	19.53	14.04	15.27	17.09	17.66	17.88	18.08	18.38	18.70	19.02	19.34
Michigan	19.04	13.53	14.83	16.65	17.21	17.42	17.61	17.90	18.21	18.52	18.84
Minnesota	19.12	13.80	15.26	17.10	17.64	17.80	17.96	18.24	18.54	18.83	19.13
Mississippi	18.97	13.35	14.72	16.56	17.11	17.29	17.46	17.75	18.05	18.36	18.67
Missouri	18.83	13.28	14.61	16.44	17.00	17.19	17.38	17.66	17.97	18.28	18.59
Montana	17.39	12.08	13.53	15.38	15.91	16.08	16.24	16.51	16.81	17.11	17.41
Nebraska	17.48	12.07	13.33	15.15	15.72	15.93	16.13	16.42	16.74	17.05	17.37
Nevada	17.76	12.35	13.59	15.40	15.97	16.20	16.40	16.70	17.01	17.33	17.66
New Hampshire	19.53	14.04	15.27	17.09	17.66	17.88	18.08	18.38	18.70	19.02	19.34
New Jersey	18.23	12.73	13.97	15.78	16.35	16.58	16.78	17.08	17.39	17.71	18.04
New Mexico	17.66	12.21	13.48	15.29	15.86	16.08	16.27	16.57	16.88	17.20	17.52
New York	18.59	13.10	14.34	16.16	16.73	16.95	17.15	17.45	17.76	18.08	18.40
North Carolina	19.34	13.69	15.01	16.83	17.39	17.59	17.78	18.07	18.38	18.69	19.00
North Dakota	17.20	11.89	13.33	15.17	15.71	15.88	16.04	16.32	16.62	16.91	17.21
Ohio	19.77	14.26	15.55	17.37	17.93	18.14	18.33	18.62	18.93	19.25	19.57
Oklahoma	19.44	13.96	15.25	17.07	17.63	17.84	18.03	18.33	18.64	18.95	19.27
Oregon	18.36	13.06	14.23	16.03	16.61	16.86	17.07	17.38	17.70	18.03	18.36
Pennsylvania	20.08	14.58	15.83	17.64	18.21	18.43	18.63	18.93	19.24	19.56	19.88
Rhode Island	19.62	14.13	15.37	17.18	17.75	17.97	18.17	18.47	18.79	19.11	19.43
South Carolina	19.62	13.97	15.28	17.11	17.67	17.87	18.05	18.34	18.65	18.97	19.28
South Dakota	17.76	12.39	13.73	15.56	16.11	16.31	16.49	16.78	17.08	17.39	17.70
Tennessee	18.88	13.24	14.58	16.41	16.96	17.16	17.34	17.63	17.94	18.25	18.56
Texas	18.92	13.46	14.72	16.54	17.11	17.32	17.52	17.81	18.13	18.44	18.76
Utah	17.58	12.17	13.40	15.22	15.79	16.01	16.21	16.51	16.83	17.15	17.47
Vermont	19.53	14.04	15.28	17.09	17.66	17.88	18.09	18.38	18.70	19.02	19.34
Virginia	21.74	16.10	17.41	19.24	19.79	20.00	20.19	20.48	20.79	21.10	21.41
Washington	17.57	12.27	13.44	15.24	15.82	16.07	16.28	16.59	16.91	17.24	17.57
West Virginia	18.41	12.86	14.15	15.97	16.53	16.74	16.93	17.23	17.54	17.85	18.17
Wisconsin	18.93	13.60	15.04	16.88	17.42	17.59	17.75	18.03	18.33	18.63	18.93
Wyoming	17.20	11.79	13.06	14.87	15.44	15.66	15.85	16.15	16.46	16.78	17.10
<b>United States</b>	18.34	12.99	14.23	16.00	16.52	16.70	16.88	17.16	17.45	17.75	18.06

## **U.S. Dairy Products**

Fluid milk consumption is expected to continue to decline over the baseline. As retail milk prices drop, consumption rises in 2009 relative to the 2008 level. Changes in fluid milk consumption are having smaller effects on producer milk prices because a smaller percentage of milk production is used for fluid purposes.

Growth in per capita cheese consumption remains important to the overall dairy outlook. The growth in total per capita cheese consumption occurs in types other than American cheese. American cheese consumption declines by 0.3 pounds over the baseline. Total per capita cheese consumption reaches 34 pounds by 2018, an increase of 1.5 pounds from the 2008 level.

U.S. trade in butter and cheese is normally small relative to production. Thus, domestic production and consumption are similar except when stocks build or decline. With the high global butter prices in 2008, the U.S. more than doubled the percentage of butter production exported. Significantly lower world skim milk powder prices in 2009 will result in the smallest percentage of nonfat dry milk production exported since 2004.

## U.S. Dairy Product Supply and Utilization

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Butter</b>	(Million Pounds)										
Production	1,640	1,535	1,545	1,574	1,589	1,604	1,616	1,621	1,626	1,631	1,637
Imports	20	20	20	20	20	20	20	20	20	20	20
Domestic Use	1,490	1,477	1,499	1,503	1,509	1,520	1,525	1,531	1,535	1,540	1,546
Total Foreign Use	205	75	77	90	99	103	110	110	111	110	110
Ending Stocks	120	123	112	113	114	115	116	117	117	117	118
Government	0	10	0	0	0	0	0	0	0	0	0
Commercial	120	113	112	113	114	115	116	117	117	117	118
CCC Net Rem. inc DEIP	0	10	-10	0	0	0	0	0	0	0	0
<b>American Cheese</b>											
Production	4,047	3,980	3,971	4,030	4,077	4,120	4,157	4,190	4,226	4,263	4,304
Imports	49	49	49	49	49	49	49	49	49	49	49
Domestic Use	3,968	3,904	3,973	4,010	4,030	4,069	4,106	4,140	4,175	4,211	4,251
Total Foreign Use	114	67	73	82	91	92	93	94	94	95	96
Ending Stocks	523	582	556	544	550	558	566	571	577	583	590
Government	0	30	10	0	0	0	0	0	0	0	0
Commercial	523	552	546	544	550	558	566	571	577	583	590
CCC Net Rem. inc DEIP	0	30	-20	-10	0	0	0	0	0	0	0
<b>Other Cheese</b>											
Production	5,791	5,872	6,004	6,107	6,261	6,368	6,473	6,579	6,692	6,810	6,938
Imports	365	369	372	376	380	384	387	391	395	399	403
Domestic Use	5,927	6,085	6,236	6,321	6,471	6,573	6,676	6,780	6,891	7,008	7,133
Total Foreign Use	211	138	139	157	162	170	176	182	188	193	199
Ending Stocks	307	325	327	331	339	349	357	365	373	381	390
<b>Nonfat Dry Milk</b>											
Production	1,826	1,475	1,439	1,532	1,574	1,629	1,686	1,751	1,822	1,897	1,977
Imports	1	1	1	1	1	1	1	1	1	1	1
Domestic Use	936	977	1,076	1,179	1,010	951	957	971	1,006	1,045	1,089
Total Foreign Use	850	376	419	515	563	675	727	777	812	848	883
Ending Stocks	200	323	268	106	109	112	116	120	125	131	136
Government	80	218	166	0	0	0	0	0	0	0	0
Commercial	120	105	102	106	109	112	116	120	125	131	136
CCC Net Rem. inc DEIP	115	138	-52	-166	0	0	0	0	0	0	0
<b>Evap. and Condensed Milk</b>											
Production	775	785	778	766	761	762	763	765	767	770	773
Imports	11	11	11	11	11	11	11	11	11	11	11
Domestic Use	691	706	702	691	685	685	686	688	691	693	696
Total Foreign Use	88	88	88	88	88	88	88	88	88	88	88
Ending Stocks	45	48	47	46	45	45	45	46	46	46	47

**U.S. Dairy Product Supply and Utilization (continued)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Per Capita Consumption</b>											
											(Pounds)
Butter	4.9	4.8	4.8	4.8	4.8	4.7	4.7	4.7	4.7	4.6	4.6
Nonfat Dry Milk	3.1	3.2	3.5	3.7	3.2	3.0	3.0	3.0	3.1	3.1	3.2
Total Cheese	32.4	32.4	32.8	32.9	33.1	33.2	33.3	33.4	33.5	33.7	33.9
American	13.0	12.7	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.6	12.6
Other	19.4	19.7	20.0	20.1	20.4	20.5	20.6	20.8	20.9	21.0	21.2
Total Fluid Milk	194.7	198.5	195.6	192.6	191.0	189.6	188.4	187.3	186.2	185.2	184.3
Whole	51.5	51.6	49.9	48.2	46.8	45.5	44.3	43.0	41.8	40.7	39.5
2%	58.5	60.4	60.2	60.1	60.2	60.4	60.6	60.8	61.0	61.2	61.5
Lowfat	59.3	60.3	59.3	58.3	57.6	57.0	56.5	55.9	55.4	54.9	54.4
Other	25.4	26.3	26.2	26.1	26.4	26.7	27.1	27.5	27.9	28.4	28.9
Ice Cream	23.4	23.7	23.6	23.4	23.4	23.3	23.2	23.1	23.1	23.0	23.0
<b>Wholesale Prices</b>											
											(Cents per Pound)
Butter, CME	146.3	123.8	136.5	150.5	153.2	154.9	155.1	159.0	163.4	168.3	173.2
Cheese, Am., 40#, CME	185.6	137.0	150.8	166.9	170.7	170.8	172.0	174.2	176.7	179.1	181.5
Nonfat Dry Milk, AA	130.0	84.7	85.1	97.3	102.4	104.8	108.4	110.6	112.7	114.8	116.9
Evaporated	172.2	154.3	159.6	170.8	178.6	182.1	185.5	188.4	191.3	194.2	197.2
<b>Retail Prices</b>											
											(Dollars per Pound)
Cheese, Natural Cheddar	4.73	4.14	4.14	4.35	4.51	4.62	4.68	4.71	4.77	4.84	4.91
Milk, Fresh, Whole Fortified	3.80	3.00	3.20	3.44	3.50	3.51	3.53	3.56	3.60	3.64	3.68
Ice Cream (half gallon)	4.21	3.61	3.59	3.72	3.71	3.75	3.81	3.87	3.93	3.99	4.06