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## October Milk Production up 1.0 Percent

**Milk production** in the 23 major States during October totaled 16.9 billion pounds, up 1.0 percent from October 2017. September revised production, at 16.4 billion pounds, was up 1.5 percent from September 2017. The September revision represented a decrease of 2 million pounds or less than 0.1 percent from last month's preliminary production estimate.

**Production per cow** in the 23 major States averaged 1,934 pounds for October, 20 pounds above October 2017. This is the highest production per cow for the month of October since the 23 State series began in 2003.

**The number of milk cows** on farms in the 23 major States was 8.72 million head, 8,000 head less than October 2017, and 1,000 head less than September 2018.

## October Milk Production in the United States up 0.8 Percent

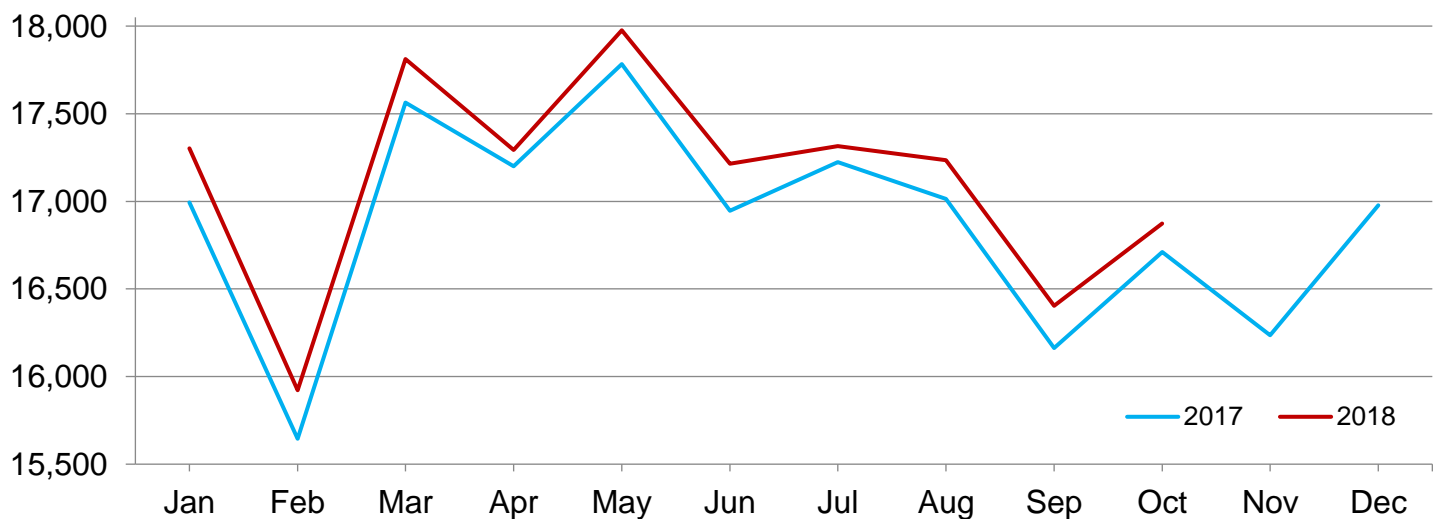
**Milk production** in the United States during October totaled 17.9 billion pounds, up 0.8 percent from October 2017.

**Production per cow** in the United States averaged 1,912 pounds for October, 21 pounds above October 2017.

**The number of milk cows** on farms in the United States was 9.37 million head, 30,000 head less than October 2017, and 2,000 head less than September 2018.

## Monthly Milk Production – 23 Selected States

Million pounds



## Milk Cows and Production by Quarter – United States: 2017-2018

[May not add due to rounding. Blank data cells indicate estimation period has not yet begun]

Quarter	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2017	2018	2017	2018	2017	2018	Change from 2017
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March .....	9,369	9,406	5,717	5,780	53,562	54,367	1.5
April-June .....	9,399	9,402	5,888	5,936	55,344	55,808	0.8
July-September .....	9,402	9,375	5,687	5,756	53,473	53,964	0.9
October-December .....	9,398		5,649		53,087		
Annual .....	9,392		22,941		215,466		

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Milk Cows and Production by Month – 23 Selected States: 2017-2018

[May not add due to rounding. Blank data cells indicate estimation period has not yet begun]

Month	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2017	2018	2017	2018	2017	2018	Change from 2017
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	8,691	8,744	1,955	1,979	16,993	17,302	1.8
February .....	8,696	8,745	1,799	1,821	15,645	15,922	1.8
March .....	8,714	8,738	2,016	2,038	17,564	17,812	1.4
April .....	8,722	8,738	1,972	1,979	17,200	17,294	0.5
May .....	8,730	8,745	2,037	2,056	17,783	17,976	1.1
June .....	8,733	8,743	1,941	1,969	16,947	17,214	1.6
July .....	8,734	8,734	1,972	1,982	17,224	17,315	0.5
August .....	8,741	8,736	1,946	1,973	17,014	17,235	1.3
September .....	8,737	8,724	1,850	1,880	16,162	16,403	1.5
October .....	8,731	8,723	1,914	1,934	16,710	16,874	1.0
November .....	8,734		1,859		16,235		
December .....	8,736		1,943		16,978		
Annual .....	8,725		23,204		202,455		

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Estimated Milk Cows and Production by Month – United States: 2017-2018

[May not add due to rounding. Blank data cells indicate estimation period has not yet begun]

Month	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2017	2018	2017	2018	2017	2018	Change from 2017
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	9,359	9,408	1,937	1,959	18,128	18,431	1.7
February .....	9,365	9,408	1,783	1,803	16,694	16,961	1.6
March .....	9,383	9,401	1,997	2,018	18,740	18,975	1.3
April .....	9,392	9,400	1,952	1,956	18,332	18,390	0.3
May .....	9,401	9,404	2,016	2,033	18,952	19,114	0.9
June .....	9,404	9,402	1,920	1,947	18,060	18,304	1.4
July .....	9,404	9,378	1,943	1,955	18,268	18,338	0.4
August .....	9,404	9,379	1,919	1,946	18,049	18,252	1.1
September .....	9,399	9,367	1,825	1,855	17,156	17,374	1.3
October .....	9,395	9,365	1,891	1,912	17,769	17,905	0.8
November .....	9,398		1,837		17,260		
December .....	9,400		1,921		18,058		
Annual .....	9,392		22,941		215,466		

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Milk Cows and Production – 23 Selected States: October 2017 and 2018

[May not add due to rounding]

State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2017
	2017	2018	2017	2018	2017	2018	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	205	204	1,910	1,905	392	389	-0.8
California .....	1,743	1,733	1,870	1,940	3,259	3,362	3.2
Colorado .....	163	179	2,175	2,185	355	391	10.1
Florida .....	124	118	1,460	1,450	181	171	-5.5
Idaho .....	600	607	2,045	2,065	1,227	1,253	2.1
Illinois .....	93	90	1,680	1,660	156	149	-4.5
Indiana .....	187	182	1,910	1,870	357	340	-4.8
Iowa .....	219	220	1,995	1,965	437	432	-1.1
Kansas .....	152	161	1,935	1,940	294	312	6.1
Michigan .....	428	422	2,185	2,195	935	926	-1.0
Minnesota .....	457	451	1,790	1,805	818	814	-0.5
New Mexico .....	329	327	2,000	2,015	658	659	0.2
New York .....	624	621	1,980	2,010	1,236	1,248	1.0
Ohio .....	264	254	1,745	1,740	461	442	-4.1
Oregon .....	123	122	1,700	1,715	209	209	-
Pennsylvania .....	525	516	1,700	1,665	893	859	-3.8
South Dakota .....	117	121	1,870	1,885	219	228	4.1
Texas .....	515	539	1,890	1,940	973	1,046	7.5
Utah .....	97	100	1,930	1,935	187	194	3.7
Vermont .....	128	126	1,765	1,760	226	222	-1.8
Virginia .....	87	80	1,630	1,590	142	127	-10.6
Washington .....	274	277	1,995	2,025	547	561	2.6
Wisconsin .....	1,277	1,273	1,995	1,995	2,548	2,540	-0.3
23-State Total .....	8,731	8,723	1,914	1,934	16,710	16,874	1.0

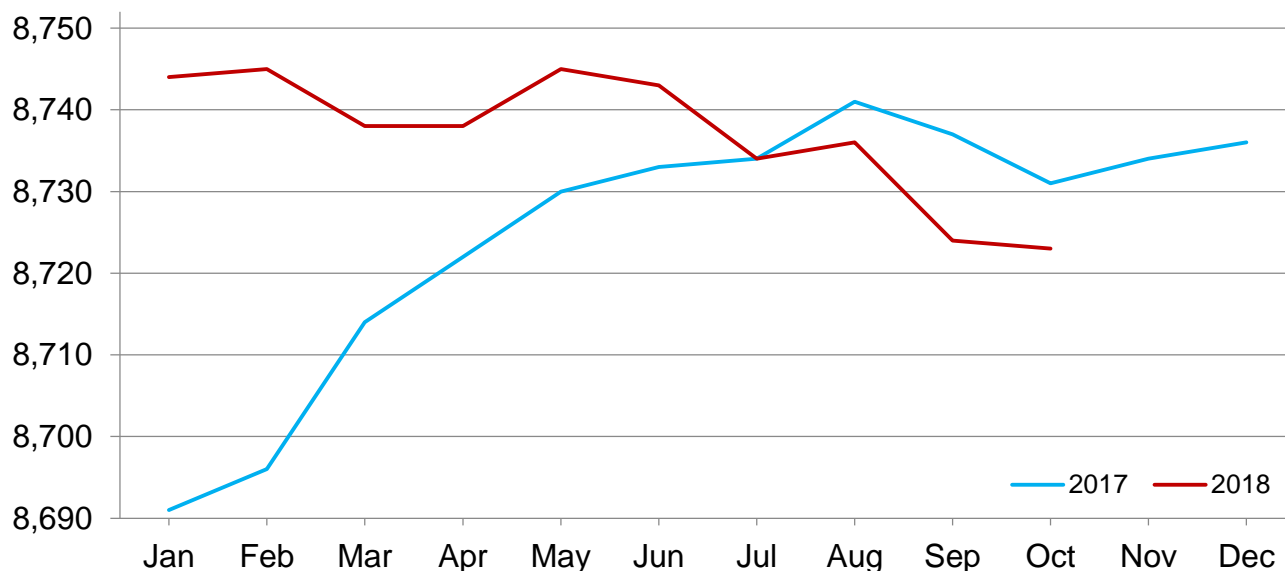
- Represents zero.

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Monthly Milk Cows – 23 Selected States

Thousand head



## Milk Cows and Production – 23 Selected States: September 2017 and 2018

[May not add due to rounding]

	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2017
	2017	2018	2017	2018	2017	2018	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	205	204	1,820	1,760	373	359	-3.8
California .....	1,745	1,733	1,760	1,860	3,071	3,223	4.9
Colorado .....	162	177	2,135	2,125	346	376	8.7
Florida .....	123	118	1,400	1,375	172	162	-5.8
Idaho .....	603	607	2,025	2,040	1,221	1,238	1.4
Illinois .....	93	90	1,600	1,575	149	142	-4.7
Indiana .....	187	183	1,820	1,760	340	322	-5.3
Iowa .....	219	220	1,915	1,880	419	414	-1.2
Kansas .....	152	160	1,880	1,870	286	299	4.5
Michigan .....	428	422	2,100	2,115	899	893	-0.7
Minnesota .....	457	451	1,740	1,770	795	798	0.4
New Mexico .....	331	327	1,965	2,005	650	656	0.9
New York .....	624	621	1,925	1,950	1,201	1,211	0.8
Ohio .....	264	255	1,710	1,660	451	423	-6.2
Oregon .....	123	122	1,675	1,690	206	206	-
Pennsylvania .....	525	517	1,655	1,610	869	832	-4.3
South Dakota .....	118	121	1,820	1,840	215	223	3.7
Texas .....	515	539	1,855	1,930	955	1,040	8.9
Utah .....	97	100	1,910	1,920	185	192	3.8
Vermont .....	128	126	1,710	1,720	219	217	-0.9
Virginia .....	87	81	1,580	1,520	137	123	-10.2
Washington .....	274	277	1,965	1,995	538	553	2.8
Wisconsin .....	1,277	1,273	1,930	1,965	2,465	2,501	1.5
23-State Total .....	8,737	8,724	1,850	1,880	16,162	16,403	1.5

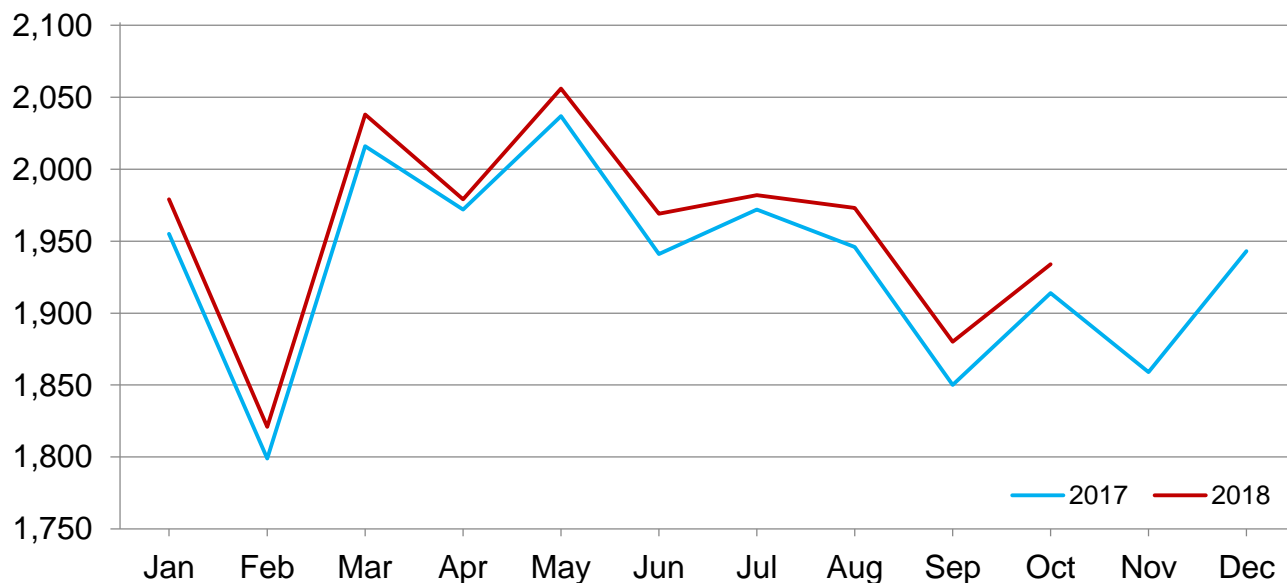
- Represents zero.

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Monthly Milk per Cow – 23 Selected States

Pounds



## Statistical Methodology

**Survey Procedures:** Primary data used to determine these estimates were obtained from a sample of producers. Individual States maintain a list of all known milk producers and information on the size of their herd. States use all known sources of producers to ensure that their lists are as complete as possible. Generally, all large producers and a sample of small producers are included in the survey. Questionnaires are mailed to producers near the end of the month to obtain data for the first day of the month. Additional reports are obtained by telephone, as needed, to supplement the mail response. Where feasible, States utilize state and federal administrative data to estimate milk production. This eliminates duplication of data gathering by different government agencies such as Agricultural Marketing Service (AMS) Dairy Market News. Indications of milk cow inventory are also obtained in the January Cattle Survey.

**Estimation Procedures:** Regional Field Offices prepare these estimates by using a combination of survey indications, historic trends, and any available administrative data. Individual State estimates are reviewed by the Agricultural Statistics Board for reasonableness.

**Revision Policy:** Milk production, milk per cow, and number of milk cows are subject to revision the following month after initial publication for monthly States or the following quarter for the quarterly States. Normally, administrative data from Federal Market Orders, State Departments of Agriculture, or other sources are the main basis for revisions. However, administrative data for all States may not be available in time for these revisions. Estimates are again subject to revisions in February each year based on additional administrative data. In the event that additional changes are necessary, a third revision is possible in February the following year. Estimates are again reviewed after data from the five-year Census of Agriculture are available. No revisions are made after that date.

**Reliability:** Since all operations with dairy animals are not included in the sample, survey estimates are subject to sampling variability. Survey results are also subject to non-sampling errors such as omissions, duplications, and mistakes in reporting, recording, and processing the data. The effects of these errors cannot be measured directly. They are minimized through rigid quality controls in the data collection process and through a careful review of all reported data for consistency and reasonableness.

To assist users in evaluating the reliability of the estimates in this report, the "Root Mean Square Error" is shown for selected items in the table below. The "Root Mean Square Error" is a statistical measure based on past performance and is computed using the differences between first and final estimates. The "Root Mean Square Error" for the 23 State milk production estimates over the past 24 months is 0.1 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 16.9 billion pounds by more than 0.1 percent. Chances are 9 out of 10 that the difference will not exceed 0.2 percent.

### Reliability of Monthly Milk Production Estimates

[Based on data for the past 24 months]

Item	Root mean square error	90 percent confidence level	Difference between first and latest estimate				
			Average	Smallest	Largest	Months	
						Below latest	Above latest
	(percent)	(percent)	(1,000)	(1,000)	(1,000)	(number)	(number)
Milk production .....	0.1	0.2	20	2	48	14	10
All Milk cows .....	0.0	0.1	3	0	9	13	8

## Information Contacts

Listed below are the commodity specialists in the Livestock Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to [nass@nass.usda.gov](mailto:nass@nass.usda.gov).

Travis Averill, Chief, Livestock Branch .....	(202) 720-3570
Scott Hollis, Head, Livestock Section .....	(202) 690-2424
Sherry Bertramsen – Livestock Slaughter .....	(202) 690-8632
Holly Brenize – Sheep and Goats .....	(202) 720-0585
Donnie Fike – Dairy Products .....	(202) 720-4448
Heidi Gleich – Cattle, Cattle on Feed .....	(202) 720-3040
Mike Miller – Milk Production and Milk Cows .....	(202) 720-3278
Seth Riggins – Hogs and Pigs .....	(202) 720-3106

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For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: [nass@nass.usda.gov](mailto:nass@nass.usda.gov).

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