



# Milk Production

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## August Milk Production up 1.4 Percent

**Milk production** in the 23 major States during August totaled 17.2 billion pounds, up 1.4 percent from August 2017. July revised production, at 17.3 billion pounds, was up 0.5 percent from July 2017. The July revision represented an increase of 16 million pounds or 0.1 percent from last month's preliminary production estimate.

**Production per cow** in the 23 major States averaged 1,974 pounds for August, 28 pounds above August 2017. This is the highest production per cow for the month of August since the 23 State series began in 2003.

**The number of milk cows** on farms in the 23 major States was 8.74 million head, 3,000 head less than August 2017, but 4,000 head more than July 2018.

## August Milk Production in the United States up 1.4 Percent

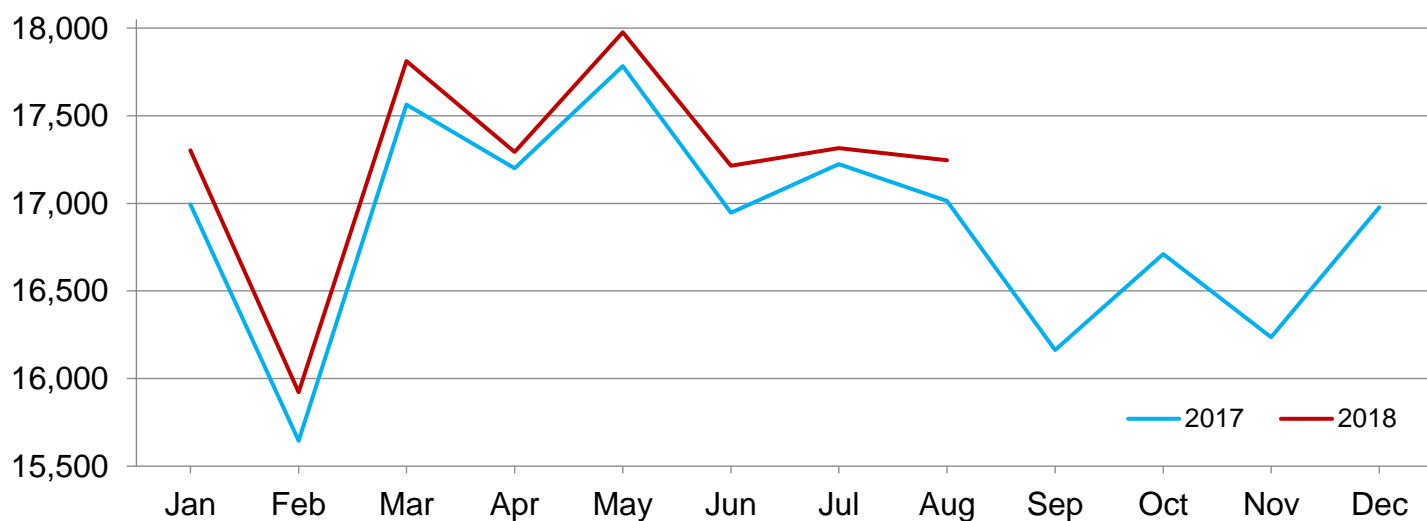
**Milk production** in the United States during August totaled 18.3 billion pounds, up 1.4 percent from August 2017.

**Production per cow** in the United States averaged 1,946 pounds for August, 27 pounds above August 2017.

**The number of milk cows** on farms in the United States was 9.40 million head, 4,000 head less than August 2017, but 5,000 head more than July 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	9,403	5,888	5,937	55,344	55,830	0.9
July-September .....	9,402		5,687		53,473		
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	8,738	1,946	1,974	17,014	17,245	1.4
September .....	8,737		1,850		16,162		
October .....	8,731		1,914		16,710		
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	1,957	18,332	18,397	0.4
May .....	9,401	9,404	2,016	2,033	18,952	19,123	0.9
June .....	9,404	9,404	1,920	1,947	18,060	18,310	1.4
July .....	9,404	9,395	1,943	1,955	18,268	18,365	0.5
August .....	9,404	9,400	1,919	1,946	18,049	18,295	1.4
September .....	9,399		1,825		17,156		
October .....	9,395		1,891		17,769		
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: August 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>		
	2017	2018	2017	2018	2017	2018	Change from 2017
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	204	206	1,890	1,885	386	388	0.5
California .....	1,746	1,734	1,870	1,905	3,265	3,303	1.2
Colorado .....	161	175	2,250	2,245	362	393	8.6
Florida .....	124	119	1,555	1,505	193	179	-7.3
Idaho .....	603	607	2,155	2,160	1,299	1,311	0.9
Illinois .....	93	93	1,675	1,645	156	153	-1.9
Indiana .....	187	185	1,870	1,880	350	348	-0.6
Iowa .....	219	220	2,010	2,010	440	442	0.5
Kansas .....	152	160	1,920	1,980	292	317	8.6
Michigan .....	428	423	2,230	2,240	954	948	-0.6
Minnesota .....	458	452	1,830	1,880	838	850	1.4
New Mexico .....	331	328	2,065	2,095	684	687	0.4
New York .....	624	622	2,015	2,055	1,257	1,278	1.7
Ohio .....	264	257	1,790	1,805	473	464	-1.9
Oregon .....	123	121	1,735	1,760	213	213	-
Pennsylvania .....	525	519	1,725	1,700	906	882	-2.6
South Dakota .....	118	121	1,915	1,915	226	232	2.7
Texas .....	515	535	1,950	2,055	1,004	1,099	9.5
Utah .....	97	100	2,010	2,000	195	200	2.6
Vermont .....	129	127	1,775	1,785	229	227	-0.9
Virginia .....	87	83	1,610	1,585	140	132	-5.7
Washington .....	275	277	2,050	2,075	564	575	2.0
Wisconsin .....	1,278	1,274	2,025	2,060	2,588	2,624	1.4
23-State Total .....	8,741	8,738	1,946	1,974	17,014	17,245	1.4

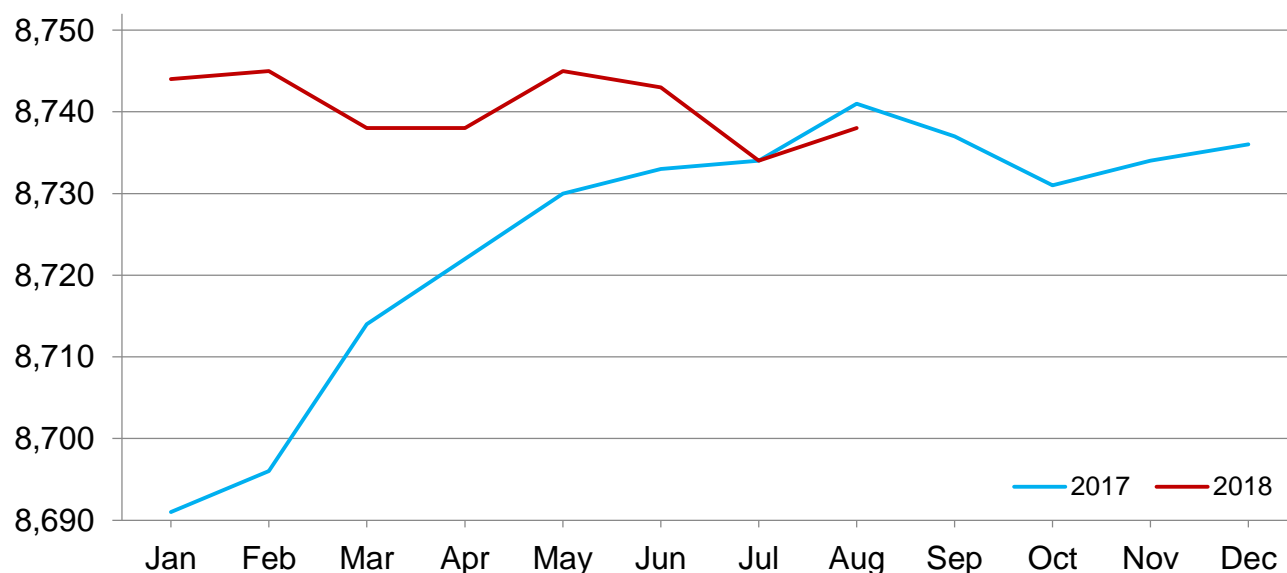
- Represents zero.

<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 Production (September 2018)

USDA, National Agricultural Statistics Service

## Milk Cows and Production – 23 Selected States: July 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 .....	204	206	1,975	1,955	403	403	-
California .....	1,747	1,734	1,930	1,900	3,372	3,295	-2.3
Colorado .....	160	175	2,255	2,240	361	392	8.6
Florida .....	124	120	1,645	1,565	204	188	-7.8
Idaho .....	601	607	2,160	2,165	1,298	1,314	1.2
Illinois .....	93	93	1,690	1,680	157	156	-0.6
Indiana .....	187	185	1,870	1,890	350	350	-
Iowa .....	217	220	2,005	1,995	435	439	0.9
Kansas .....	151	159	1,920	1,970	290	313	7.9
Michigan .....	427	423	2,255	2,245	963	950	-1.3
Minnesota .....	458	452	1,835	1,875	840	848	1.0
New Mexico .....	332	328	2,125	2,135	706	700	-0.8
New York .....	624	622	2,045	2,065	1,276	1,284	0.6
Ohio .....	262	257	1,790	1,820	469	468	-0.2
Oregon .....	124	121	1,755	1,790	218	217	-0.5
Pennsylvania .....	525	520	1,730	1,735	908	902	-0.7
South Dakota .....	118	121	1,905	1,900	225	230	2.2
Texas .....	515	530	1,990	2,075	1,025	1,100	7.3
Utah .....	96	100	2,030	2,025	195	203	4.1
Vermont .....	129	127	1,800	1,770	232	225	-3.0
Virginia .....	87	83	1,605	1,610	140	134	-4.3
Washington .....	275	277	2,070	2,095	569	580	1.9
Wisconsin .....	1,278	1,274	2,025	2,060	2,588	2,624	1.4
23-State Total .....	8,734	8,734	1,972	1,982	17,224	17,315	0.5

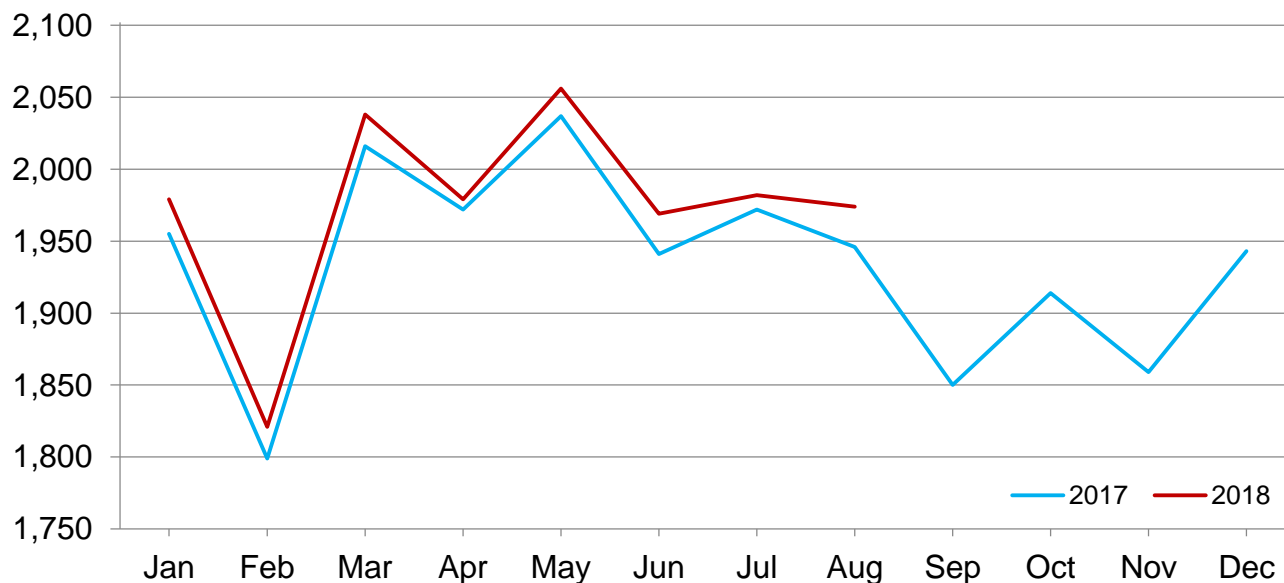
- Represents zero.

<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 17.2 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	15	9
All Milk cows .....	0.1	0.1	4	0	9	13	9

## 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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