



Released December 19, 2018, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

## November Milk Production up 0.8 Percent

**Milk production** in the 23 major States during November totaled 16.4 billion pounds, up 0.8 percent from November 2017. October revised production, at 16.9 billion pounds, was up 0.9 percent from October 2017. The October revision represented a decrease of 18 million pounds or 0.1 percent from last month's preliminary production estimate.

**Production per cow** in the 23 major States averaged 1,877 pounds for November, 18 pounds above November 2017. This is the highest production per cow for the month of November 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, 16,000 head less than November 2017, and 8,000 head less than October 2018.

## November Milk Production in the United States up 0.6 Percent

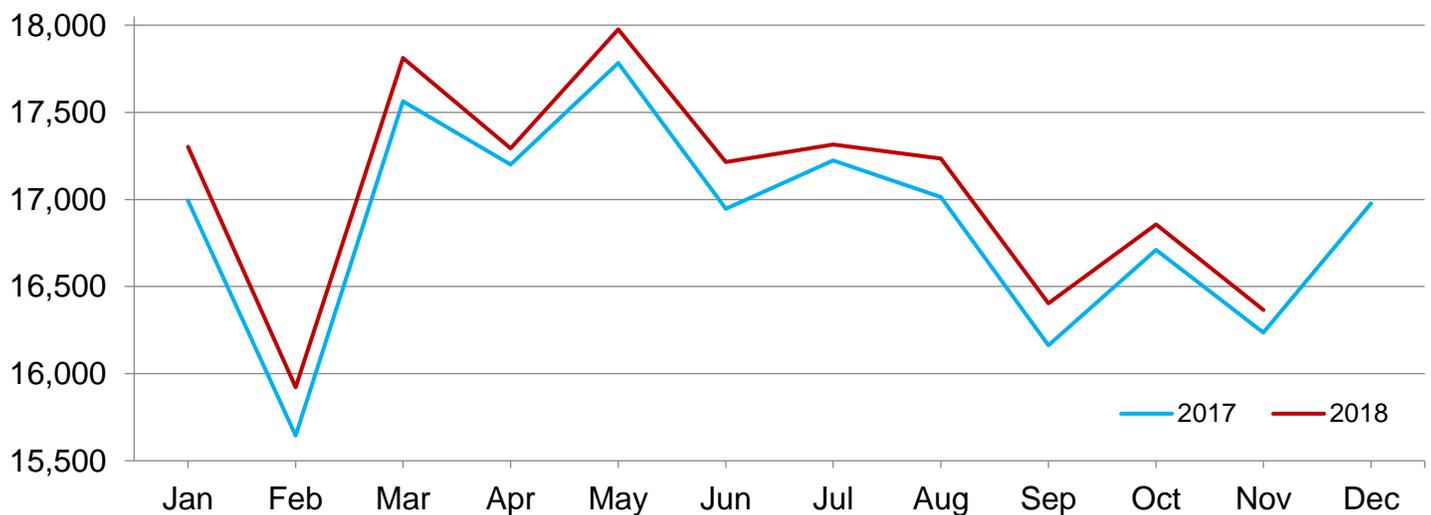
**Milk production** in the United States during November totaled 17.4 billion pounds, up 0.6 percent from November 2017.

**Production per cow** in the United States averaged 1,856 pounds for November, 19 pounds above November 2017.

**The number of milk cows** on farms in the United States was 9.36 million head, 38,000 head less than November 2017, and 8,000 head less than October 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	8,726	1,914	1,932	16,710	16,856	0.9
November .....	8,734	8,718	1,859	1,877	16,235	16,366	0.8
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	9,368	1,891	1,909	17,769	17,887	0.7
November .....	9,398	9,360	1,837	1,856	17,260	17,370	0.6
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: November 2017 and 2018

[May not add due to rounding]

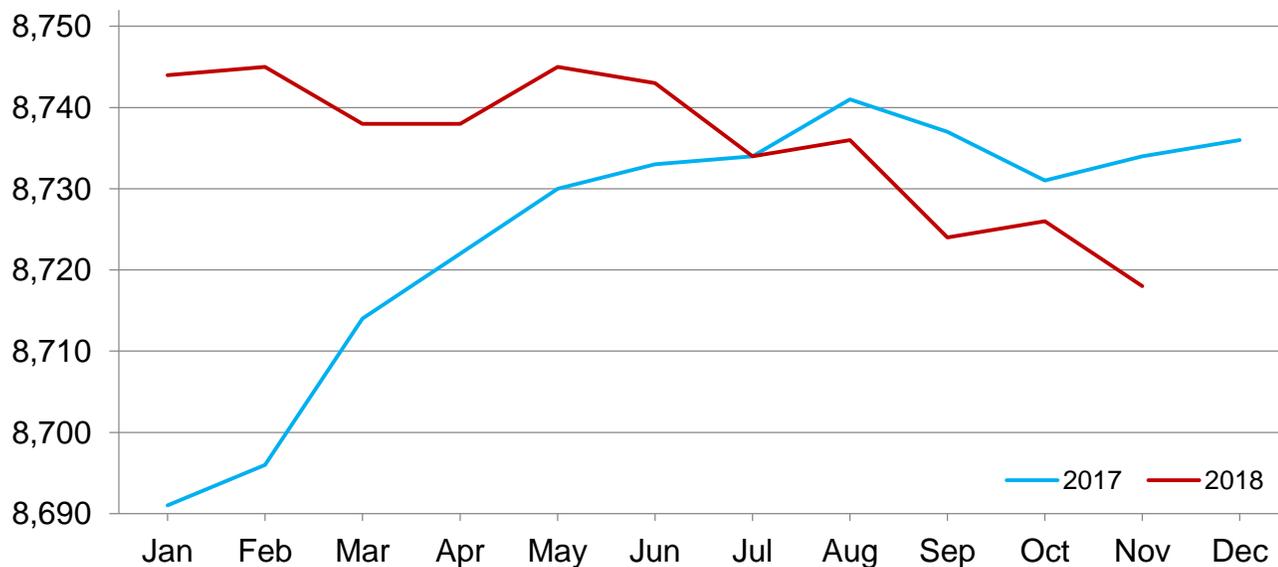
State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2017	2018	2017	2018	2017	2018	Change from 2017
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	204	204	1,960	1,930	400	394	-1.5
California .....	1,743	1,731	1,825	1,890	3,181	3,272	2.9
Colorado .....	164	178	2,135	2,105	350	375	7.1
Florida .....	124	118	1,515	1,515	188	179	-4.8
Idaho .....	600	610	1,955	2,000	1,173	1,220	4.0
Illinois .....	93	89	1,670	1,640	155	146	-5.8
Indiana .....	187	181	1,855	1,810	347	328	-5.5
Iowa .....	219	220	1,935	1,930	424	425	0.2
Kansas .....	153	160	1,880	1,895	288	303	5.2
Michigan .....	428	422	2,115	2,120	905	895	-1.1
Minnesota .....	456	451	1,725	1,740	787	785	-0.3
New Mexico .....	330	326	1,985	1,950	655	636	-2.9
New York .....	625	620	1,895	1,905	1,184	1,181	-0.3
Ohio .....	264	253	1,675	1,665	442	421	-4.8
Oregon .....	124	124	1,620	1,655	201	205	2.0
Pennsylvania .....	525	513	1,660	1,630	872	836	-4.1
South Dakota .....	117	121	1,795	1,825	210	221	5.2
Texas .....	515	539	1,890	1,900	973	1,024	5.2
Utah .....	97	100	1,880	1,875	182	188	3.3
Vermont .....	128	126	1,705	1,690	218	213	-2.3
Virginia .....	87	80	1,610	1,560	140	125	-10.7
Washington .....	274	280	1,900	1,970	521	552	6.0
Wisconsin .....	1,277	1,272	1,910	1,920	2,439	2,442	0.1
23-State Total .....	8,734	8,718	1,859	1,877	16,235	16,366	0.8

<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: October 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	1,910	1,920	392	392	-
California .....	1,743	1,732	1,870	1,915	3,259	3,317	1.8
Colorado .....	163	178	2,175	2,165	355	385	8.5
Florida .....	124	118	1,460	1,440	181	170	-6.1
Idaho .....	600	610	2,045	2,100	1,227	1,281	4.4
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	1,975	437	435	-0.5
Kansas .....	152	160	1,935	1,925	294	308	4.8
Michigan .....	428	422	2,185	2,195	935	926	-1.0
Minnesota .....	457	451	1,790	1,810	818	816	-0.2
New Mexico .....	329	327	2,000	2,015	658	659	0.2
New York .....	624	621	1,980	1,995	1,236	1,239	0.2
Ohio .....	264	254	1,745	1,730	461	439	-4.8
Oregon .....	123	124	1,700	1,725	209	214	2.4
Pennsylvania .....	525	515	1,700	1,665	893	857	-4.0
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	1,595	142	128	-9.9
Washington .....	274	279	1,995	2,045	547	571	4.4
Wisconsin .....	1,277	1,273	1,995	1,995	2,548	2,540	-0.3
23-State Total .....	8,731	8,726	1,914	1,932	16,710	16,856	0.9

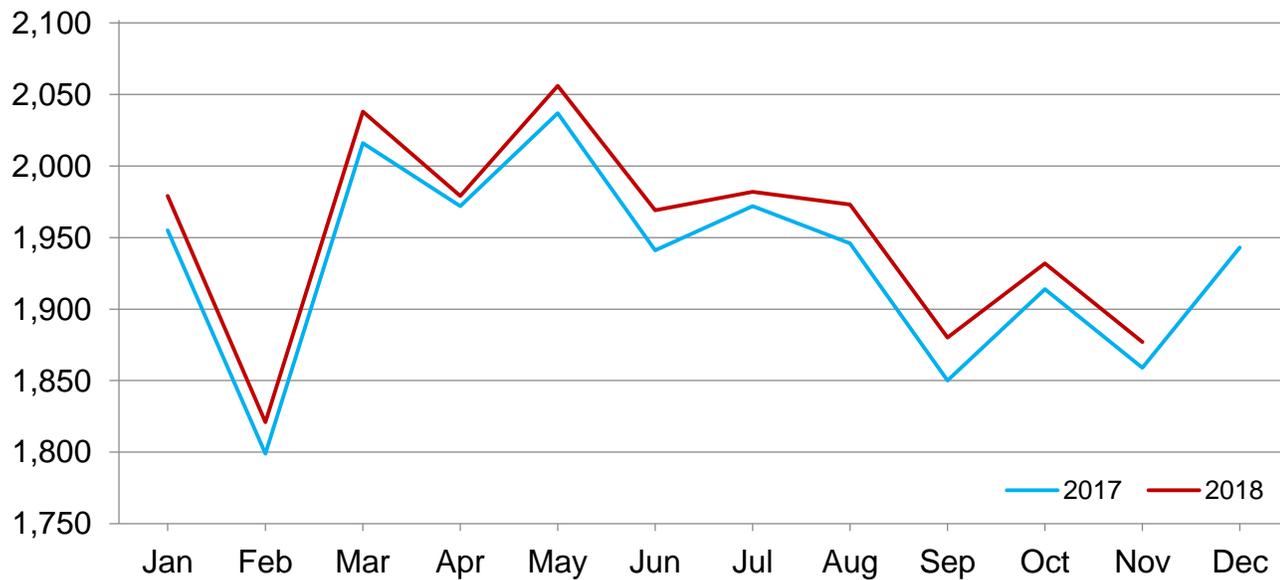
- Represents zero.

<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 16.4 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	13	11
All Milk cows .....	0.0	0.1	3	0	9	14	7

## 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

## Access to NASS Reports

For your convenience, you may access NASS reports and products the following ways:

- All reports are available electronically, at no cost, on the NASS web site: [www.nass.usda.gov](http://www.nass.usda.gov)
- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit [www.nass.usda.gov](http://www.nass.usda.gov) and click on “National” or “State” in upper right corner above “search” box to create an account and select the reports you would like to receive.
- Cornell’s Mann Library has launched a new website housing NASS’s and other agency’s archived reports. The new website, <https://usda.library.cornell.edu>. All email subscriptions containing reports will be sent from the new website, <https://usda.library.cornell.edu>. To continue receiving the reports via e-mail, you will have to go to the new website, create a new account and re-subscribe to the reports. If you need instructions to set up an account or subscribe, they are located at: <https://usda.library.cornell.edu/help>. You should whitelist [notifications@usda-esmis.library.cornell.edu](mailto:notifications@usda-esmis.library.cornell.edu) in your email client to avoid the emails going into spam/junk folders.

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).

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file a Civil Rights program complaint of discrimination, complete the [USDA Program Discrimination Complaint Form](#) (PDF), found online at [www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer](http://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer), or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at [program.intake@usda.gov](mailto:program.intake@usda.gov).



United States Department of Agriculture

USDA's  
95th Annual

# Agricultural Outlook Forum

## Growing Locally, Selling Globally



February 21-22, 2019

Crystal Gateway Marriott Hotel, Arlington, Virginia

[www.usda.gov/oce/forum](http://www.usda.gov/oce/forum)

Follow us on Social Media (#AgOutlook)



@USDA



@usdagov



@USDA

