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## November Milk Production up 0.9 Percent

**Milk production** in the 24 major States during November totaled 16.7 billion pounds, up 0.9 percent from November 2018. October revised production, at 17.2 billion pounds, was up 1.4 percent from October 2018. The October revision represented a decrease of 60 million pounds or 0.3 percent from last month's preliminary production estimate.

**Production per cow** in the 24 major States averaged 1,892 pounds for November, 16 pounds above November 2018.

**The number of milk cows** on farms in the 24 major States was 8.81 million head, 8,000 head more than November 2018, but unchanged from October 2019.

## November Milk Production in the United States up 0.5 Percent

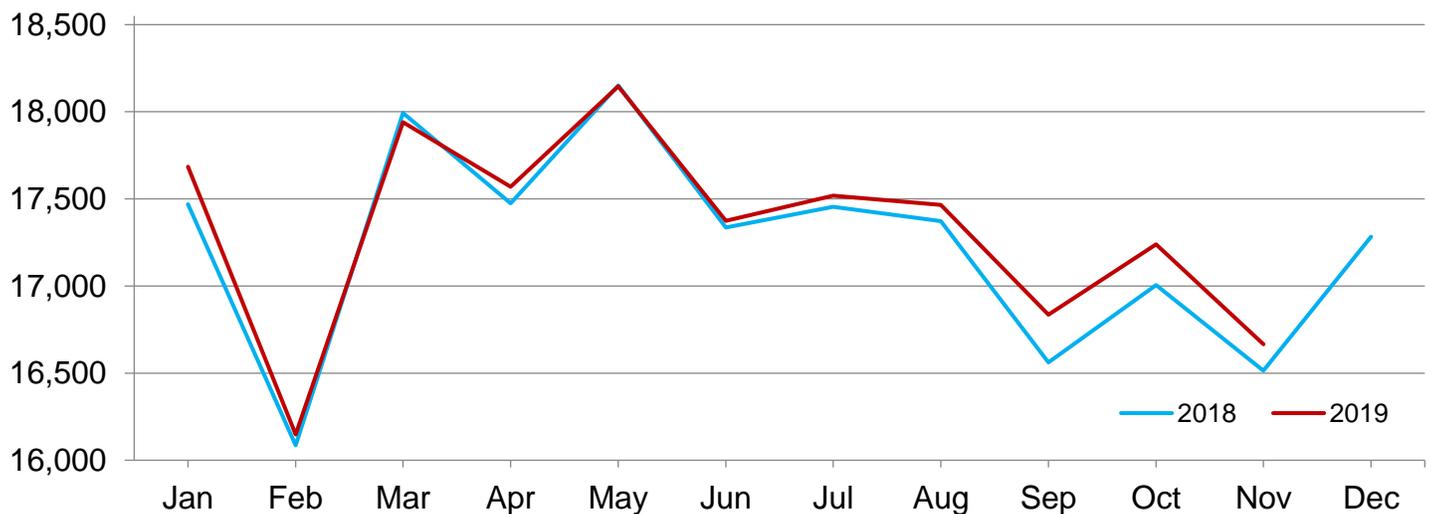
**Milk production** in the United States during November totaled 17.4 billion pounds, up 0.5 percent from November 2018.

**Production per cow** in the United States averaged 1,869 pounds for November, 15 pounds above November 2018.

**The number of milk cows** on farms in the United States was 9.33 million head, 27,000 head less than November 2018, but unchanged from October 2019.

## Monthly Milk Production – 24 Selected States

Million pounds



## Milk Cows and Production by Quarter – United States: 2018-2019

[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>		
	2018	2019	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March .....	9,435	9,344	5,766	5,827	54,399	54,450	0.1
April-June .....	9,418	9,327	5,928	5,980	55,831	55,778	-0.1
July-September .....	9,383	9,319	5,752	5,823	53,969	54,268	0.6
October-December .....	9,359		5,703		53,376		
Annual .....	9,399		23,149		217,575		

<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 – 24 Selected States: 2018-2019

[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>		
	2018	2019	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	8,856	8,805	1,973	2,009	17,469	17,685	1.2
February .....	8,855	8,805	1,817	1,834	16,086	16,148	0.4
March .....	8,849	8,788	2,033	2,041	17,994	17,940	-0.3
April .....	8,844	8,788	1,976	1,999	17,475	17,570	0.5
May .....	8,848	8,790	2,051	2,064	18,151	18,146	-
June .....	8,840	8,777	1,961	1,979	17,336	17,374	0.2
July .....	8,829	8,779	1,977	1,995	17,454	17,518	0.4
August .....	8,826	8,789	1,968	1,987	17,372	17,466	0.5
September .....	8,807	8,801	1,880	1,913	16,561	16,836	1.7
October .....	8,807	8,810	1,931	1,957	17,005	17,239	1.4
November .....	8,802	8,810	1,876	1,892	16,514	16,666	0.9
December .....	8,798		1,964		17,282		
Annual .....	8,830		23,407		206,699		

- Represents zero.

<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: 2018-2019

[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>		
	2018	2019	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	9,438	9,352	1,953	1,989	18,437	18,600	0.9
February .....	9,436	9,350	1,799	1,816	16,973	16,981	-
March .....	9,430	9,330	2,014	2,022	18,989	18,869	-0.6
April .....	9,418	9,330	1,955	1,978	18,412	18,458	0.2
May .....	9,422	9,332	2,030	2,043	19,131	19,064	-0.4
June .....	9,414	9,319	1,943	1,959	18,288	18,256	-0.2
July .....	9,392	9,319	1,952	1,970	18,329	18,355	0.1
August .....	9,389	9,317	1,943	1,963	18,245	18,290	0.2
September .....	9,368	9,322	1,857	1,890	17,395	17,623	1.3
October .....	9,367	9,331	1,908	1,934	17,873	18,045	1.0
November .....	9,358	9,331	1,854	1,869	17,348	17,440	0.5
December .....	9,353		1,941		18,155		
Annual .....	9,399		23,149		217,575		

- Represents zero.

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

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

## Milk Cows and Production – 24 Selected States: November 2018 and 2019

[May not add due to rounding]

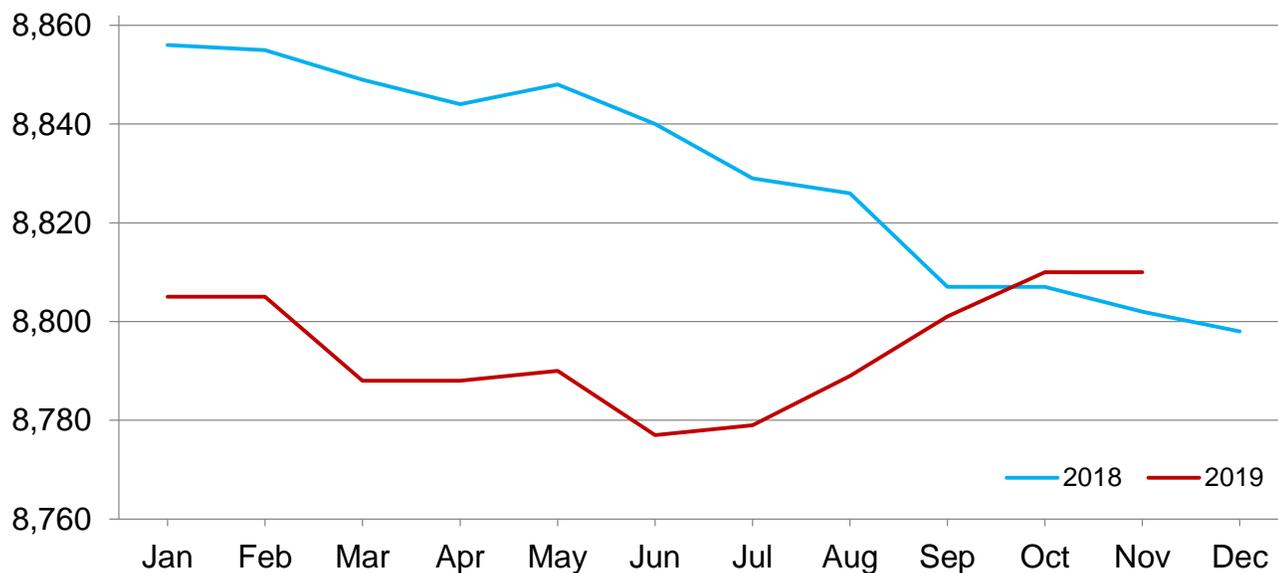
State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2018
	2018	2019	2018	2019	2018	2019	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	205	193	1,920	1,910	394	369	-6.3
California .....	1,731	1,725	1,890	1,910	3,272	3,295	0.7
Colorado .....	178	190	2,090	2,095	372	398	7.0
Florida .....	118	118	1,540	1,575	182	186	2.2
Georgia .....	81	81	1,730	1,755	140	142	1.4
Idaho .....	612	631	1,995	1,995	1,221	1,259	3.1
Illinois .....	85	81	1,660	1,670	141	135	-4.3
Indiana .....	181	175	1,810	1,825	328	319	-2.7
Iowa .....	220	217	1,965	1,965	432	426	-1.4
Kansas .....	160	164	1,890	1,910	302	313	3.6
Michigan .....	422	428	2,120	2,125	895	910	1.7
Minnesota .....	451	446	1,750	1,790	789	798	1.1
New Mexico .....	326	331	1,950	1,965	636	650	2.2
New York .....	623	626	1,910	1,940	1,190	1,214	2.0
Ohio .....	253	252	1,710	1,730	433	436	0.7
Oregon .....	125	126	1,655	1,675	207	211	1.9
Pennsylvania .....	509	485	1,610	1,665	819	808	-1.3
South Dakota .....	122	127	1,820	1,825	222	232	4.5
Texas .....	542	572	1,890	1,915	1,024	1,095	6.9
Utah .....	100	98	1,870	1,875	187	184	-1.6
Vermont .....	126	125	1,690	1,710	213	214	0.5
Virginia .....	80	73	1,555	1,610	124	118	-4.8
Washington .....	280	281	1,935	1,935	542	544	0.4
Wisconsin .....	1,272	1,265	1,925	1,905	2,449	2,410	-1.6
24-State Total .....	8,802	8,810	1,876	1,892	16,514	16,666	0.9

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

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

## Monthly Milk Cows – 24 Selected States

Thousand head



## Milk Cows and Production – 24 Selected States: October 2018 and 2019

[May not add due to rounding]

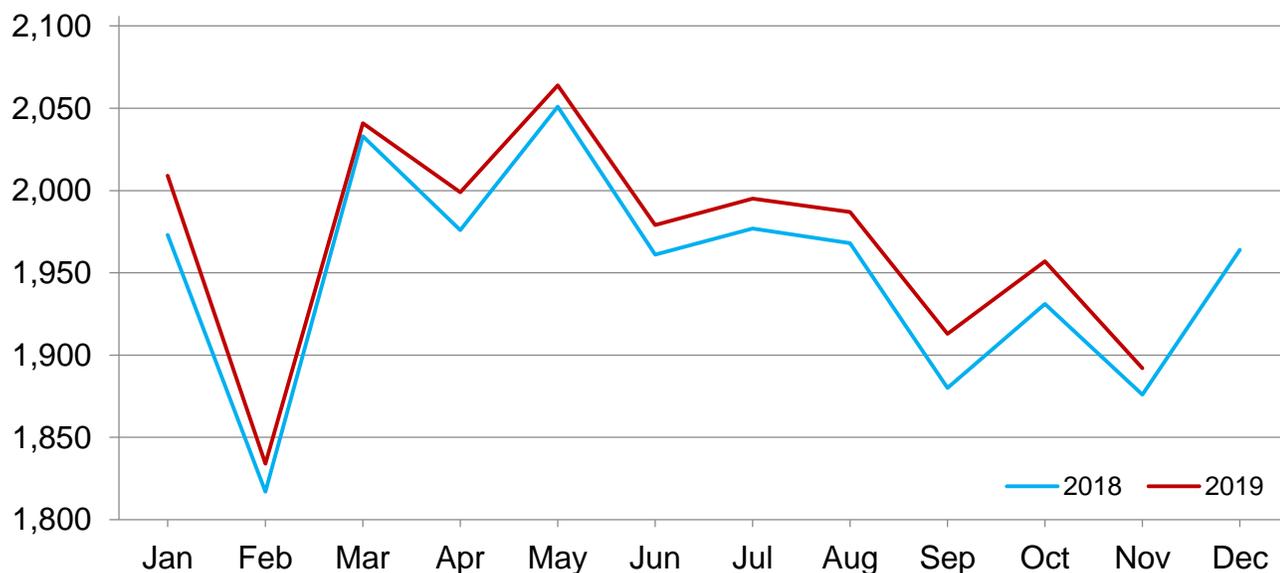
	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2018
	2018	2019	2018	2019	2018	2019	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	205	193	1,910	1,900	392	367	-6.4
California .....	1,732	1,725	1,915	1,940	3,317	3,347	0.9
Colorado .....	178	190	2,165	2,160	385	410	6.5
Florida .....	118	118	1,440	1,515	170	179	5.3
Georgia .....	81	81	1,670	1,715	135	139	3.0
Idaho .....	610	631	2,100	2,095	1,281	1,322	3.2
Illinois .....	86	81	1,675	1,690	144	137	-4.9
Indiana .....	182	175	1,870	1,885	340	330	-2.9
Iowa .....	220	217	2,025	2,025	446	439	-1.6
Kansas .....	160	164	1,925	1,975	308	324	5.2
Michigan .....	422	428	2,195	2,230	926	954	3.0
Minnesota .....	451	447	1,810	1,850	816	827	1.3
New Mexico .....	327	329	2,015	2,050	659	674	2.3
New York .....	621	626	1,995	2,015	1,239	1,261	1.8
Ohio .....	256	252	1,750	1,790	448	451	0.7
Oregon .....	124	126	1,725	1,745	214	220	2.8
Pennsylvania .....	515	485	1,665	1,705	857	827	-3.5
South Dakota .....	121	127	1,885	1,890	228	240	5.3
Texas .....	540	571	1,935	2,000	1,045	1,142	9.3
Utah .....	100	98	1,935	1,945	194	191	-1.5
Vermont .....	126	125	1,760	1,785	222	223	0.5
Virginia .....	80	73	1,595	1,625	128	119	-7.0
Washington .....	279	281	2,045	2,025	571	569	-0.4
Wisconsin .....	1,273	1,267	1,995	2,010	2,540	2,547	0.3
24-State Total .....	8,807	8,810	1,931	1,957	17,005	17,239	1.4

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

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

## Monthly Milk per Cow – 24 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 24 State milk production estimates over the past 22 months is 0.2 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 16.7 billion pounds by more than 0.2 percent. Chances are 9 out of 10 that the difference will not exceed 0.3 percent.

### Reliability of Monthly Milk Production Estimates

[Based on data for the past 22 months. 24-State data not available prior to 2018]

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 .....	0.2	0.3	22	2	60	16	6
All Milk cows .....	0.2	0.3	10	0	31	17	3

## 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@usda.gov](mailto:nass@usda.gov).

Travis Averill, Chief, Livestock Branch .....	(202) 692-0069
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 Lanouette – 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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- 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).

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