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## November Milk Production down 0.1 Percent

**Milk production** in the 24 major States during November totaled 17.3 billion pounds, down 0.1 percent from November 2020. October revised production, at 17.8 billion pounds, was up 0.4 percent from October 2020. The October revision represented an increase of 110 million pounds or 0.6 percent from last month's preliminary production estimate.

**Production per cow** in the 24 major States averaged 1,941 pounds for November, 3 pounds above November 2020.

**The number of milk cows** on farms in the 24 major States was 8.89 million head, 24,000 head less than November 2020, and 8,000 head less than October 2021.

## November Milk Production in the United States down 0.4 Percent

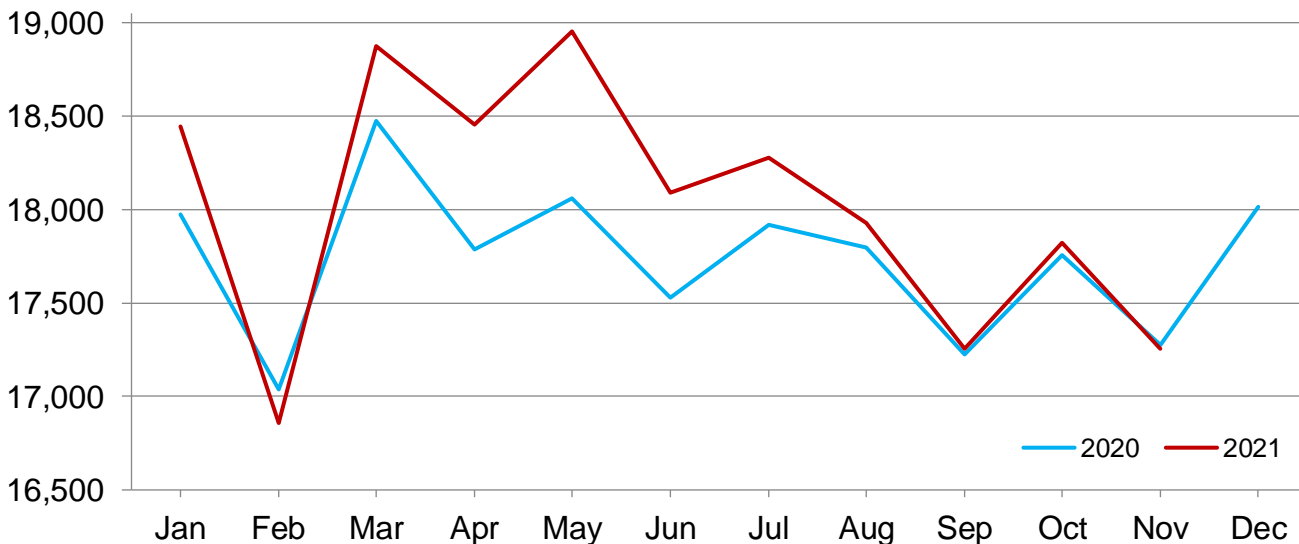
**Milk production** in the United States during November totaled 18.0 billion pounds, down 0.4 percent from November 2020.

**Production per cow** in the United States averaged 1,922 pounds for November, 3 pounds above November 2020.

**The number of milk cows** on farms in the United States was 9.39 million head, 47,000 head less than November 2020, and 10,000 head less than October 2021.

## Monthly Milk Production - 24 Selected States

Million pounds



## Milk Cows and Production by Quarter – United States: 2020-2021

[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>		Change from 2020
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March .....	9,378	9,458	5,990	6,003	56,174	56,776	1.1
April-June .....	9,364	9,502	5,988	6,119	56,070	58,141	3.7
July-September .....	9,380	9,451	5,908	5,913	55,419	55,880	0.8
October-December .....	9,429		5,892		55,557		
Annual .....	9,388		23,777		223,220		

<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: 2020-2021

[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>		Change from 2020
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	8,837	8,934	2,034	2,065	17,974	18,446	2.6
February .....	8,848	8,947	1,926	1,884	17,038	16,858	-1.1
March .....	8,861	8,961	2,085	2,106	18,474	18,873	2.2
April .....	8,855	8,985	2,009	2,054	17,787	18,454	3.7
May .....	8,838	8,996	2,044	2,107	18,061	18,953	4.9
June .....	8,834	8,993	1,984	2,012	17,530	18,091	3.2
July .....	8,854	8,989	2,024	2,033	17,919	18,275	2.0
August .....	8,857	8,947	2,010	2,004	17,799	17,927	0.7
September .....	8,877	8,916	1,941	1,935	17,226	17,255	0.2
October .....	8,897	8,898	1,996	2,003	17,758	17,821	0.4
November .....	8,914	8,890	1,938	1,941	17,274	17,255	-0.1
December .....	8,923		2,019		18,012		
Annual .....	8,866		24,008		212,852		

<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: 2020-2021

[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>		Change from 2020
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	9,365	9,445	2,016	2,047	18,877	19,330	2.4
February .....	9,377	9,458	1,908	1,868	17,895	17,666	-1.3
March .....	9,391	9,472	2,066	2,088	19,402	19,780	1.9
April .....	9,377	9,496	1,993	2,036	18,684	19,332	3.5
May .....	9,360	9,507	2,027	2,088	18,972	19,855	4.7
June .....	9,355	9,503	1,968	1,995	18,414	18,954	2.9
July .....	9,372	9,492	2,001	2,013	18,756	19,103	1.9
August .....	9,374	9,447	1,988	1,984	18,632	18,739	0.6
September .....	9,395	9,414	1,919	1,916	18,031	18,038	-
October .....	9,414	9,395	1,976	1,982	18,603	18,625	0.1
November .....	9,432	9,385	1,919	1,922	18,103	18,035	-0.4
December .....	9,442		1,997		18,851		
Annual .....	9,388		23,777		223,220		

- 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 2020 and 2021

[May not add due to rounding]

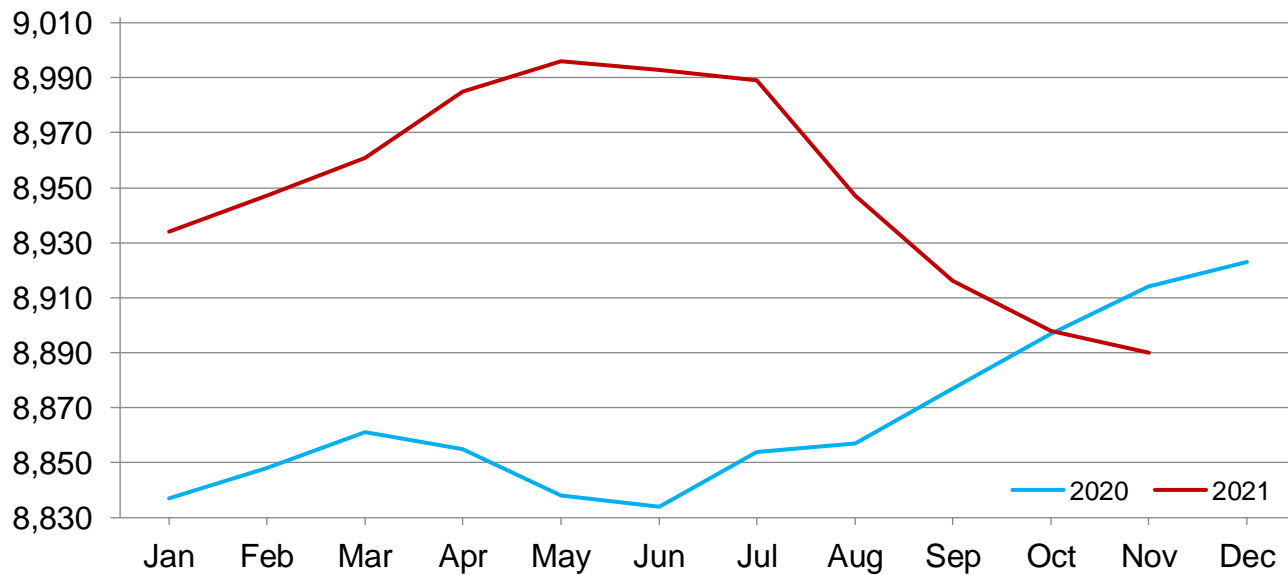
State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2020 (percent)
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	
Arizona .....	198	194	1,975	1,955	391	379	-3.1
California .....	1,720	1,719	1,940	1,960	3,337	3,369	1.0
Colorado .....	201	200	2,110	2,115	424	423	-0.2
Florida .....	111	105	1,570	1,600	174	168	-3.4
Georgia .....	81	82	1,755	1,760	142	144	1.4
Idaho .....	646	650	2,005	2,000	1,295	1,300	0.4
Illinois .....	84	82	1,730	1,735	145	142	-2.1
Indiana .....	191	186	1,875	1,890	358	352	-1.7
Iowa .....	219	225	2,005	2,005	439	451	2.7
Kansas .....	172	170	1,960	1,960	337	333	-1.2
Michigan .....	436	434	2,180	2,170	950	942	-0.8
Minnesota .....	455	461	1,835	1,845	835	851	1.9
New Mexico .....	334	295	1,995	1,960	666	578	-13.2
New York .....	626	628	1,985	1,975	1,243	1,240	-0.2
Ohio .....	257	250	1,780	1,770	457	443	-3.1
Oregon .....	125	125	1,670	1,680	209	210	0.5
Pennsylvania .....	482	472	1,720	1,695	829	800	-3.5
South Dakota .....	140	162	1,880	1,895	263	307	16.7
Texas .....	608	625	2,030	2,030	1,234	1,269	2.8
Utah .....	95	94	1,880	1,865	179	175	-2.2
Vermont .....	120	120	1,725	1,700	207	204	-1.4
Virginia .....	74	71	1,630	1,645	121	117	-3.3
Washington .....	279	262	1,930	1,915	538	502	-6.7
Wisconsin .....	1,260	1,278	1,985	2,000	2,501	2,556	2.2
24-State Total .....	8,914	8,890	1,938	1,941	17,274	17,255	-0.1

<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 2020 and 2021

[May not add due to rounding]

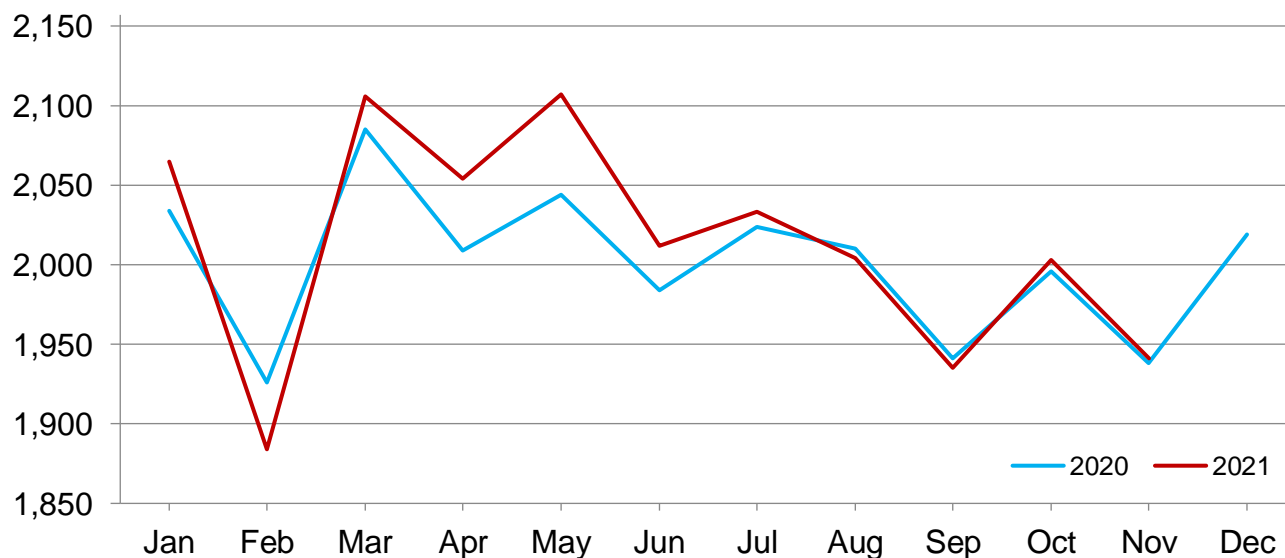
	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2020
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	200	195	2,000	1,975	400	385	-3.8
California .....	1,720	1,720	1,965	2,005	3,380	3,449	2.0
Colorado .....	201	200	2,185	2,180	439	436	-0.7
Florida .....	112	105	1,525	1,550	171	163	-4.7
Georgia .....	81	82	1,740	1,780	141	146	3.5
Idaho .....	645	650	2,100	2,090	1,355	1,359	0.3
Illinois .....	84	82	1,740	1,735	146	142	-2.7
Indiana .....	191	186	1,990	1,985	380	369	-2.9
Iowa .....	219	225	2,065	2,050	452	461	2.0
Kansas .....	172	169	1,985	1,990	341	336	-1.5
Michigan .....	431	435	2,270	2,255	978	981	0.3
Minnesota .....	452	461	1,910	1,910	863	881	2.1
New Mexico .....	332	298	2,065	2,020	686	602	-12.2
New York .....	626	628	2,035	2,050	1,274	1,287	1.0
Ohio .....	256	251	1,850	1,820	474	457	-3.6
Oregon .....	125	125	1,750	1,760	219	220	0.5
Pennsylvania .....	482	473	1,760	1,730	848	818	-3.5
South Dakota .....	140	162	1,955	1,975	274	320	16.8
Texas .....	603	625	2,100	2,105	1,266	1,316	3.9
Utah .....	95	94	1,950	1,940	185	182	-1.6
Vermont .....	120	120	1,765	1,760	212	211	-0.5
Virginia .....	74	71	1,660	1,670	123	119	-3.3
Washington .....	279	263	2,035	2,010	568	529	-6.9
Wisconsin .....	1,257	1,278	2,055	2,075	2,583	2,652	2.7
24-State Total .....	8,897	8,898	1,996	2,003	17,758	17,821	0.4

<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 24 months is 0.4 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 17.3 billion pounds by more than 0.4 percent. Chances are 9 out of 10 that the difference will not exceed 0.7 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 .....	0.4	0.7	59	0	150	17	6
All Milk cows .....	0.1	0.2	10	0	26	17	6

## 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
Ryan Cowen – Cattle, Cattle on Feed .....	(202) 720-3040
Anthony Fischer – Hogs and Pigs .....	(202) 720-3106
Logan Hartley-Sanguinett – Sheep and Goats .....	(202) 690-3236
Mike Miller – Milk Production and Milk Cows .....	(202) 720-3278
Suzanne Richards – Dairy Products .....	(202) 720-4448

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