



Milk Production

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Special Note

NASS is not changing any process or methodology in the Milk Production report. However, to aid data users, we are providing definitions for items in this report and some questions and answers pertaining to milk production estimates. This information can be found at: https://www.nass.usda.gov/Education_and_Outreach/Understanding_Statistics/Milk-Production-Inclusions.pdf

May Milk Production down 1.0 Percent

Milk production in the 24 major States during May totaled 18.0 billion pounds, down 1.0 percent from May 2019. April revised production, at 17.8 billion pounds, was up 1.3 percent from April 2019. The April revision represented a decrease of 47 million pounds or 0.3 percent from last month's preliminary production estimate.

Production per cow in the 24 major States averaged 2,031 pounds for May, 32 pounds below May 2019.

The number of milk cows on farms in the 24 major States was 8.84 million head, 50,000 head more than May 2019, but 12,000 head less than April 2020.

May Milk Production in the United States down 1.1 Percent

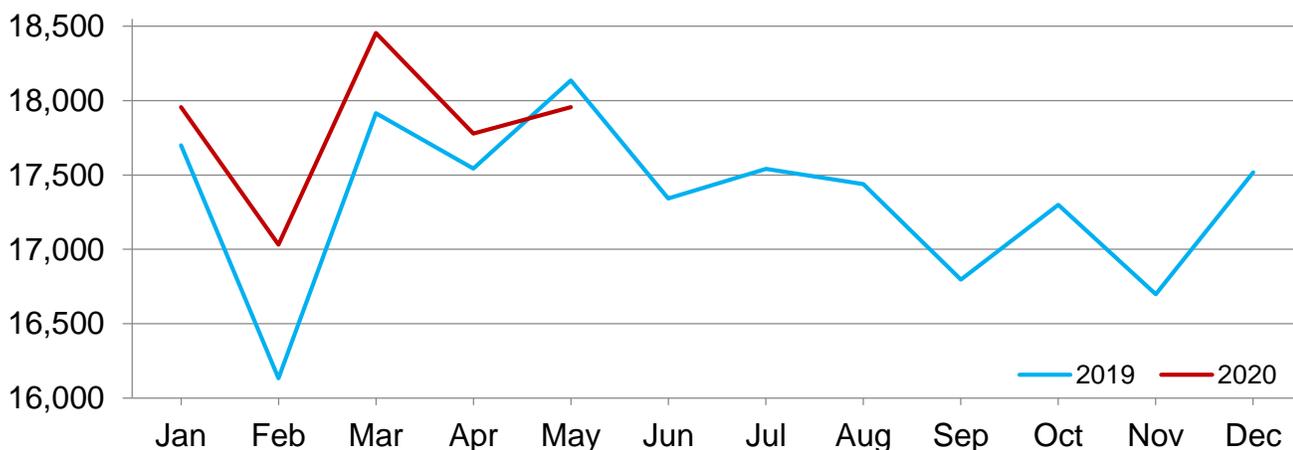
Milk production in the United States during May totaled 18.8 billion pounds, down 1.1 percent from May 2019.

Production per cow in the United States averaged 2,011 pounds for May, 31 pounds below May 2019.

The number of milk cows on farms in the United States was 9.37 million head, 37,000 head more than May 2019, but 11,000 head less than April 2020.

Monthly Milk Production - 24 Selected States

Million pounds



Milk Cows and Production by Quarter - United States: 2019-2020

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

Quarter	Milk Cows ¹		Milk per Cow ²		Milk Production ²		
	2019	2020	2019	2020	2019	2020	Change from 2019
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March	9,346	9,374	5,823	5,987	54,423	56,121	3.1
April-June	9,331		5,971		55,716		
July-September	9,322		5,818		54,237		
October-December	9,345		5,779		54,006		
Annual	9,336		23,391		218,382		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production by Month – 24 Selected States: 2019-2020

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

Month	Milk cows ¹		Milk per cow ²		Milk production ²		
	2019	2020	2019	2020	2019	2020	Change from 2019
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	8,805	8,834	2,010	2,033	17,699	17,956	1.5
February	8,803	8,848	1,833	1,925	16,132	17,031	5.6
March	8,789	8,857	2,038	2,084	17,916	18,455	3.0
April	8,788	8,852	1,996	2,008	17,544	17,778	1.3
May	8,790	8,840	2,063	2,031	18,137	17,956	-1.0
June	8,784		1,974		17,342		
July	8,785		1,997		17,542		
August	8,789		1,984		17,439		
September	8,805		1,908		16,796		
October	8,819		1,962		17,299		
November	8,817		1,894		16,699		
December	8,816		1,987		17,517		
Annual	8,799		23,646		208,062		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Estimated Milk Cows and Production by Month – United States: 2019-2020

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

Month	Milk cows ¹		Milk per cow ²		Milk production ²		
	2019	2020	2019	2020	2019	2020	Change from 2019
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	9,354	9,361	1,990	2,015	18,612	18,860	1.3
February	9,352	9,375	1,814	1,908	16,966	17,886	5.4
March	9,333	9,385	2,019	2,064	18,845	19,375	2.8
April	9,332	9,381	1,975	1,988	18,433	18,653	1.2
May	9,333	9,370	2,042	2,011	19,058	18,840	-1.1
June	9,327		1,954		18,225		
July	9,315		1,973		18,375		
August	9,318		1,960		18,267		
September	9,333		1,885		17,595		
October	9,347		1,940		18,135		
November	9,345		1,873		17,506		
December	9,343		1,966		18,365		
Annual	9,336		23,391		218,382		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – 24 Selected States: May 2019 and 2020

[May not add due to rounding]

State	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2019
	2019	2020	2019	2020	2019	2020	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	195	197	2,125	2,130	414	420	1.4
California	1,726	1,722	2,060	2,035	3,556	3,504	-1.5
Colorado	185	194	2,220	2,215	411	430	4.6
Florida	115	115	1,850	1,850	213	213	-
Georgia	83	82	1,870	1,855	155	152	-1.9
Idaho	620	647	2,170	2,180	1,345	1,410	4.8
Illinois	84	82	1,860	1,870	156	153	-1.9
Indiana	179	176	2,030	2,030	363	357	-1.7
Iowa	219	217	2,100	2,080	460	451	-2.0
Kansas	162	169	2,020	1,985	327	335	2.4
Michigan	425	428	2,350	2,325	999	995	-0.4
Minnesota	448	443	1,925	1,910	862	846	-1.9
New Mexico	324	328	2,215	2,030	718	666	-7.2
New York	627	626	2,110	2,035	1,323	1,274	-3.7
Ohio	248	253	1,910	1,880	474	476	0.4
Oregon	122	124	1,835	1,805	224	224	-
Pennsylvania	493	483	1,810	1,790	892	865	-3.0
South Dakota	123	134	1,920	1,930	236	259	9.7
Texas	565	590	2,120	2,070	1,198	1,221	1.9
Utah	98	96	2,010	1,990	197	191	-3.0
Vermont	126	123	1,855	1,780	234	219	-6.4
Virginia	76	75	1,750	1,770	133	133	-
Washington	278	279	2,115	2,095	588	585	-0.5
Wisconsin	1,269	1,257	2,095	2,050	2,659	2,577	-3.1
24-State Total	8,790	8,840	2,063	2,031	18,137	17,956	-1.0

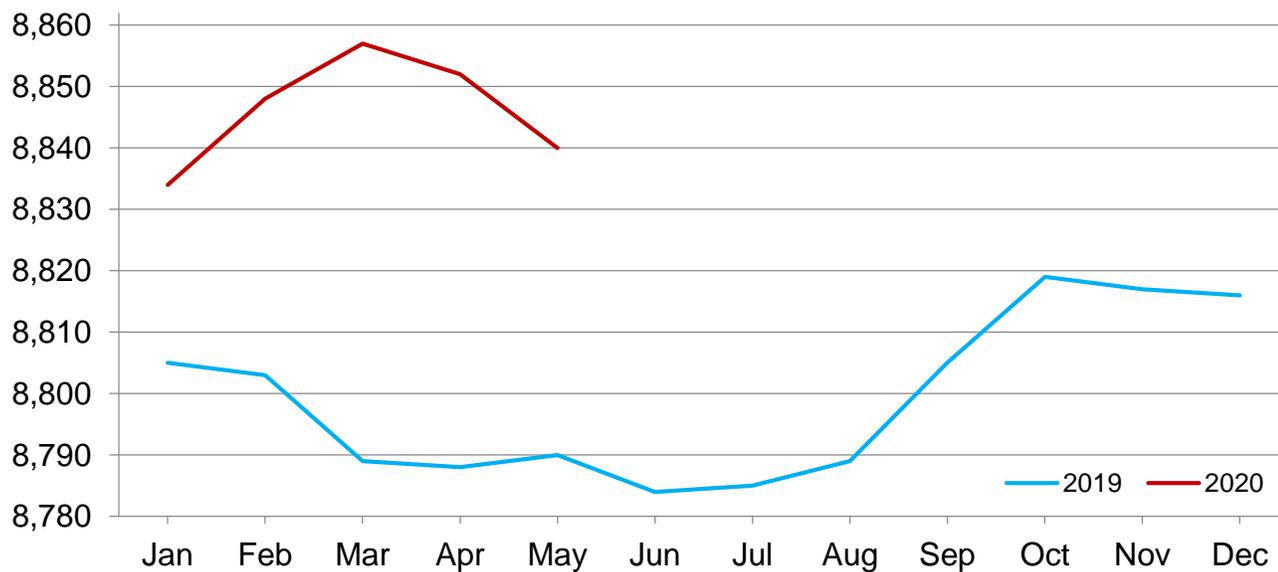
- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Monthly Milk Cows - 24 Selected States

Thousand head



Milk Cows and Production – 24 Selected States: April 2019 and 2020

[May not add due to rounding]

	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2019
	2019	2020	2019	2020	2019	2020	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	198	197	2,135	2,145	423	423	-
California	1,726	1,722	2,025	2,035	3,495	3,504	0.3
Colorado	182	194	2,155	2,160	392	419	6.9
Florida	116	115	1,785	1,805	207	208	0.5
Georgia	83	82	1,890	1,880	157	154	-1.9
Idaho	618	647	2,070	2,090	1,279	1,352	5.7
Illinois	84	82	1,810	1,870	152	153	0.7
Indiana	179	176	1,960	1,990	351	350	-0.3
Iowa	219	219	2,020	2,040	442	447	1.1
Kansas	163	170	1,965	1,960	320	333	4.1
Michigan	425	428	2,235	2,255	950	965	1.6
Minnesota	448	445	1,835	1,850	822	823	0.1
New Mexico	321	330	2,165	2,100	695	693	-0.3
New York	627	626	2,020	2,045	1,267	1,280	1.0
Ohio	250	253	1,830	1,840	458	466	1.7
Oregon	122	124	1,760	1,750	215	217	0.9
Pennsylvania	495	485	1,755	1,820	869	883	1.6
South Dakota	123	132	1,835	1,870	226	247	9.3
Texas	562	590	2,090	2,090	1,175	1,233	4.9
Utah	98	96	1,930	1,930	189	185	-2.1
Vermont	126	124	1,800	1,800	227	223	-1.8
Virginia	76	75	1,720	1,765	131	132	0.8
Washington	278	280	2,030	2,030	564	568	0.7
Wisconsin	1,269	1,260	2,000	2,000	2,538	2,520	-0.7
24-State Total	8,788	8,852	1,996	2,008	17,544	17,778	1.3

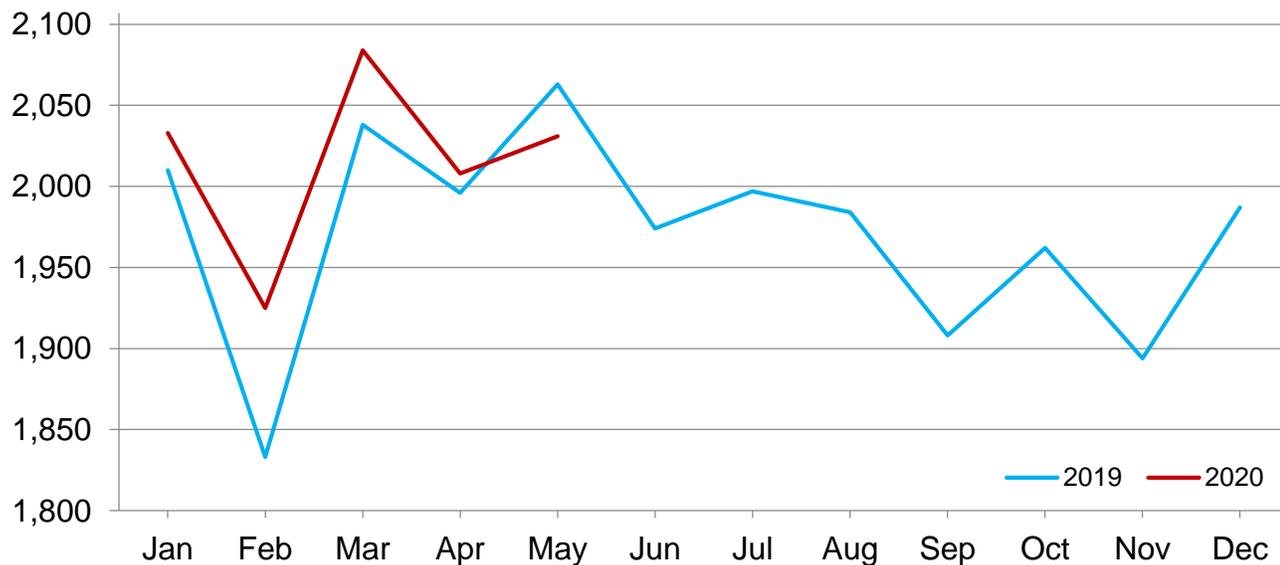
- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² 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 0.2 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 18.0 billion pounds by more than 0.2 percent. Chances are 9 out of 10 that the difference will not exceed 0.4 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	0.2	0.4	30	0	115	15	8
All Milk cows	0.1	0.2	7	0	23	19	4

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.

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
Ryan Cowen – Cattle, Cattle on Feed	(202) 720-3040
Mike Miller – Milk Production and Milk Cows	(202) 720-3278
Suzanne Richards – Dairy Products	(202) 720-4448
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 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@usda.gov.

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