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Milk Production

Released April 22, 2019, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

March Milk Production down 0.1 Percent

Milk production in the 23 major States during March totaled 17.8 billion pounds, down 0.1 percent from March 2018. February revised production at 16.0 billion pounds, was up 0.4 percent from February 2018. The February revision represented a decrease of 37 million pounds or 0.2 percent from last month's preliminary production estimate.

Production per cow in the 23 major States averaged 2,044 pounds for March, 10 pounds above March 2018. This is the highest production per cow for the month of March since the 23 State series began in 2003.

The number of milk cows on farms in the 23 major States was 8.71 million head, 50,000 head less than March 2018, and 9,000 head less than February 2019.

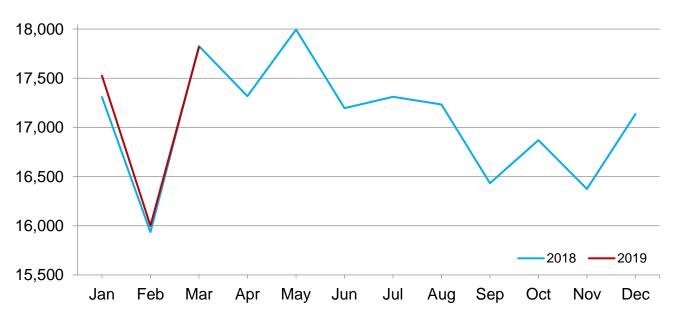
January-March Milk Production up 0.2 Percent

Milk production in the United States during the January - March quarter totaled 54.5 billion pounds, up 0.2 percent from the January - March quarter last year.

The average number of milk cows in the United States during the quarter was 9.35 million head, 8,000 head less than the October - December quarter, and 84,000 head less than the same period last year.

Monthly Milk Production – 23 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]

	Milk cows ¹		Milk per cow ²		Milk production ²		
Quarter	2018	2019	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March April-June July-September October-December		9,351	5,766 5,928 5,752 5,703	5,828	54,399 55,831 53,969 53,376	54,502	0.2
Annual	9,399		23,149		217,575		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production by Month – 23 Selected States: 2018-2019

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

	Milk cows ¹		Milk per	r cow ²	Milk production ²			
Month	2018	2019	2018	2019	2018	2019	Change from 2018	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)	
January	8,771	8,723	1,973	2,009	17,308	17,526	1.3	
February	8,770	8,723	1,817	1,834	15,936	16,000	0.4	
March	8,764	8,714	2,034	2,044	17,826	17,815	-0.1	
April	8,760		1,977		17,318			
May	8,765		2,053		17,995			
June	8,758		1,963		17,195			
July	8,748		1,979		17,311			
August	8,747		1,970		17,233			
September	8,727		1,883		16,432			
October	8,726		1,933		16,870			
November	8,721		1,878		16,374			
December	8,717		1,966		17,135			
Annual	8,748		23,426		204,933			

¹ Includes dry cows. Excludes heifers not yet fresh.

² 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]

	Milk c	OWS ¹	Milk per cow ²		Milk production ²			
Month	2018	2019	2018	2019	2018	2019	Change from 2018	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)	
January February March April May June July August October November December Annual	9,438 9,436 9,430 9,418 9,422 9,414 9,392 9,389 9,368 9,367 9,358 9,353 9,359	9,356 9,354 9,344	1,953 1,799 2,014 1,955 2,030 1,943 1,952 1,943 1,857 1,908 1,857 1,908 1,854 1,941	1,988 1,816 2,024	18,437 16,973 18,989 18,412 19,131 18,288 18,329 18,245 17,395 17,373 17,348 18,155 217,575	18,604 16,985 18,913	0.9 0.1 -0.4	

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production - 23 Selected States: March 2018 and 2019

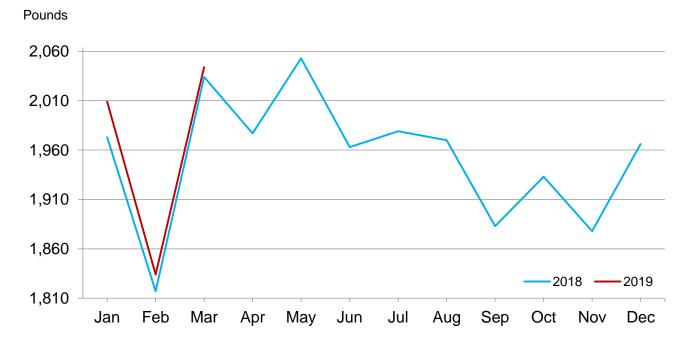
[May not add due to rounding]

	Milk c	OWS ¹	Milk per	r cow ²	Milk production ²		
State	2018	2019	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	211	201	2,205	2,200	465	442	-4.9
California	1,738	1,729	2,065	2,090	3,589	3,614	0.7
Colorado	173	182	2,230	2,205	386	401	3.9
Florida	123	116	1,895	1,915	233	222	-4.7
Idaho	607	616	2,085	2,085	1,266	1,284	1.4
Illinois	93	84	1,875	1,865	174	157	-9.8
Indiana	185	181	1,995	1,970	369	357	-3.3
lowa	220	217	2,070	2,070	455	449	-1.3
Kansas	157	164	2,040	2,000	320	328	2.5
Michigan	425	424	2,260	2,275	961	965	0.4
Minnesota	454	450	1,865	1,890	847	851	0.5
New Mexico	334	322	2,220	2,210	741	712	-3.9
New York	625	627	2,020	2,060	1,263	1,292	2.3
Ohio	262	252	1,875	1,850	491	466	-5.1
Oregon	121	124	1,750	1,780	212	221	4.2
Pennsylvania	524	495	1,830	1,805	959	893	-6.9
South Dakota	120	124	1,900	1,900	228	236	3.5
Texas	530	557	2,105	2,120	1,116	1,181	5.8
Utah	99	99	1,955	1,960	194	194	-
Vermont	128	126	1,805	1,855	231	234	1.3
Virginia	86	76	1,765	1,755	152	133	-12.5
Washington	275	278	2,070	2,040	569	567	-0.4
Wisconsin	1,274	1,270	2,045	2,060	2,605	2,616	0.4
23-State Total	8,764	8,714	2,034	2,044	17,826	17,815	-0.1

- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.
² Excludes milk sucked by calves.

Monthly Milk per Cow – 23 Selected States



Milk Cows and Production - 23 Selected States: February 2018 and 2019

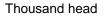
[May not add due to rounding]

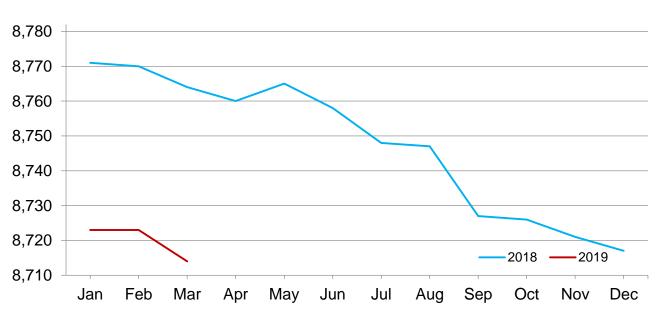
	Milk c	OWS ¹	Milk pe	r cow ²	Milk production ²			
	2018	2019	2018	2019	2018	2019	Change from 2018	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)	
Arizona	212	202	1,960	1,950	416	394	-5.3	
California	1,738	1,730	1,860	1,870	3,233	3,235	0.1	
Colorado	170	182	1,985	1,990	337	362	7.4	
Florida	124	116	1,700	1,700	211	197	-6.6	
Idaho	607	615	1,875	1,875	1,138	1,153	1.3	
Illinois	93	85	1,670	1,690	155	144	-7.1	
Indiana	186	181	1,760	1,770	327	320	-2.1	
lowa	220	220	1,860	1,870	409	411	0.5	
Kansas	156	163	1,820	1,795	284	293	3.2	
Michigan	427	424	2,015	2,050	860	869	1.0	
Minnesota	455	450	1,670	1,710	760	770	1.3	
New Mexico	334	322	1,975	1,970	660	634	-3.9	
New York	625	627	1,805	1,840	1,128	1,154	2.3	
Ohio	262	253	1,665	1,655	436	419	-3.9	
Oregon	123	124	1,555	1,595	191	198	3.7	
Pennsylvania	525	500	1,630	1,610	856	805	-6.0	
South Dakota	119	124	1,700	1,730	202	215	6.4	
Texas	530	553	1,845	1,905	978	1,053	7.7	
Utah	99	100	1,755	1,760	174	176	1.1	
Vermont	128	126	1,625	1,665	208	210	1.0	
Virginia	87	78	1,570	1,545	137	121	-11.7	
Washington	275	278	1,850	1,815	509	505	-0.8	
Wisconsin	1,275	1,270	1,825	1,860	2,327	2,362	1.5	
23-State Total	8,770	8,723	1,817	1,834	15,936	16,000	0.4	

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Monthly Milk Cows – 23 Selected States





r - December 2017 and 2018

	October - Decemb	er milk cows ¹	October - December milk production				
State	2017	2018	2017	2018			
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)			
Alabama	6.0	5.0	19.0	16.0			
Alaska	0.3	0.2	0.7	0.6			
Arizona	210.0	205.0	1,243.0	1,208.0			
Arkansas	6.0	5.0	18.0	16.0			
California	1,742.0	1,731.0	9,809.0	9,997.0			
Colorado	166.0	178.0	1,074.0	1,148.0			
Connecticut	20.0	19.5	108.0	104.0			
Delaware	5.0	4.5	22.5	20.1			
Florida	124.0	117.0	577.0	545.0			
Georgia	85.0	81.0	434.0	422.0			
Hawaii	2.1	1.7	9.0	5.3			
daho	600.0	612.0	3,612.0	3,767.0			
Illinois	93.0	85.0	476.0	435.0			
ndiana	187.0	181.0	1,049.0	1,010.0			
lowa	219.0	220.0	1,308.0	1,326.0			
Kansas	153.0	160.0	886.0	927.0			
Kentucky	56.0	53.0	257.0	233.0			
Louisiana	12.0	11.0	37.0	32.0			
Maine	30.0	29.0	153.0	151.0			
Maryland	47.0	44.0	233.0	215.0			
Massachusetts	11.5	10.5	50.0	48.0			
Michigan	428.0	422.0	2,773.0	2,752.0			
Minnesota	456.0	451.0	2,433.0	2,438.0			
Mississippi	9.0	8.0	30.0	28.0			
Missouri	84.0	81.0	292.0	270.0			
Montana	13.0	12.0	71.0	65.0			
Nebraska	60.0	59.0	366.0	354.0			
Nevada	32.0	33.0	181.0	184.0			
New Hampshire	12.5	12.0	64.0	60.0			
New Jersey	6.0	5.5	29.0	25.0			

Arkansas	6.0	5.0	18.0	16.0	-11.1
California	1,742.0	1,731.0	9,809.0	9,997.0	1.9
Colorado	166.0	178.0	1,074.0	1,148.0	6.9
Connecticut	20.0	19.5	108.0	104.0	-3.7
Delaware	5.0	4.5	22.5	20.1	-10.7
	124.0	117.0	577.0	545.0	-5.5
Florida					
Georgia	85.0	81.0	434.0	422.0	-2.8
Hawaii	2.1	1.7	9.0	5.3	-41.1
Idaho	600.0	612.0	3,612.0	3,767.0	4.3
Illinois	93.0	85.0	476.0	435.0	-8.6
Indiana	187.0	181.0	1,049.0	1,010.0	-3.7
lowa	219.0	220.0	1,308.0	1,326.0	1.4
Kansas	153.0	160.0	886.0	927.0	4.6
Kentucky	56.0	53.0	257.0	233.0	-9.3
Louisiana	12.0	11.0	37.0	32.0	-13.5
	30.0	29.0			-1.3
Maine			153.0	151.0	
Maryland	47.0	44.0	233.0	215.0	-7.7
Massachusetts	11.5	10.5	50.0	48.0	-4.0
Michigan	428.0	422.0	2,773.0	2,752.0	-0.8
Minnesota	456.0	451.0	2,433.0	2,438.0	0.2
Mississippi	9.0	8.0	30.0	28.0	-6.7
	84.0	81.0	292.0	270.0	-7.5
Missouri					
Montana	13.0	12.0	71.0	65.0	-8.5
Nebraska	60.0	59.0	366.0	354.0	-3.3
Nevada	32.0	33.0	181.0	184.0	1.7
New Hampshire	12.5	12.0	64.0	60.0	-6.3
New Jersey	6.0	5.5	29.0	25.0	-13.8
New Mexico	330.0	326.0	2,002.0	1,965.0	-1.8
New York	625.0	623.0	3,638.0	3,673.0	1.0
North Carolina	45.0	43.0	234.0	224.0	-4.3
North Dakota	16.0	15.0	85.0	82.0	-3.5
Ohio	264.0	254.0	1,367.0	1,331.0	-2.6
Oklahoma	41.0	40.0	178.0	180.0	-2.0
Oregon	124.0	125.0	618.0	638.0	3.2
Pennsylvania	525.0	510.0	2,655.0	2,532.0	-4.6
Rhode Island	0.8	0.7	3.2	2.7	-15.6
South Carolina	15.0	14.0	59.0	55.0	-6.8
South Dakota	117.0	122.0	649.0	682.0	5.1
Tennessee	40.0	36.0	168.0	143.0	-14.9
Texas	525.0	542.0	2,976.0	3,149.0	5.8
Utah	97.0	100.0	557.0	573.0	2.9
Vermont	128.0	126.0	671.0	660.0	-1.6
	87.0	80.0	428.0	380.0	-11.2
Virginia					
Washington	274.0	280.0	1,614.0	1,680.0	4.1
West Virginia	7.0	7.0	29.0	25.0	-13.8
Wisconsin	1,277.0	1,272.0	7,526.0	7,563.0	0.5
Wyoming	6.0	6.0	33.9	35.8	5.6
United States	9,419.0	9,359.0	53,105.0	53,376.0	0.5
¹ Includes drv cows. Ex	cludes heifers not vet fres	sh.			

¹ Includes dry cows. Excludes heifers not yet fresh.
² Excludes milk sucked by calves.

Change from 2017

(percent)

-15.8

-14.3 -2.8

-11.1

Milk Cows and Production – States and United States: Preliminary January - March 2018 and 2019 [May not add due to rounding]

	January - March	milk cows 1	January - March milk production ²					
State	2018	2019	2018	2019	Change from 2018			
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)			
Alabama	5.5	5.0	21.0	19.0	-9.5			
Alaska	0.3	0.2	0.7	0.5	-28.6			
Arizona	212.0	202.0	1,325.0	1,263.0	-4.7			
Arkansas	6.0	5.0	21.0	17.0	-19.0			
California	1,738.0	1,730.0	10,307.0	10,361.0	0.5			
Colorado	171.0	181.0	1,096.0	1,161.0	5.9			
Connecticut	19.0	19.5	108.0	109.0	0.9			
elaware	5.0	4.5	25.2	21.6	-14.3			
lorida	124.0	116.0	664.0	629.0	-5.3			
Seorgia	85.0	82.0	479.0	472.0	-1.5			
lawaii	2.1	1.1	10.2	1.7	-83.3			
daho	606.0	615.0	3,647.0	3,716.0	1.9			
linois	93.0	85.0	496.0	456.0	-8.1			
ndiana	186.0	181.0	1,057.0	1,027.0	-2.8			
owa	220.0	219.0	1,312.0	1,317.0	0.4			
ansas	156.0	163.0	910.0	941.0	3.4			
Kentucky	57.0	52.0	277.0	254.0	-8.3			
ouisiana	12.0	11.0	46.0	41.0	-10.9			
laine	30.0	29.0	151.0	156.0	3.3			
laryland	46.0	43.0	246.0	218.0	-11.4			
lassachusetts	11.5	10.5	50.0	48.0	-4.0			
lichigan	427.0	424.0	2,758.0	2.786.0	1.0			
linnesota	455.0	450.0	2,442.0	2,474.0	1.3			
lississippi	9.0	8.5	37.0	36.0	-2.7			
lissouri	84.0	80.0	313.0	289.0	-7.7			
/Iontana	12.5	11.5	70.0	64.0	-8.6			
lebraska	60.0	59.0	366.0	357.0	-2.5			
Nevada	32.0	33.0	180.0	190.0	5.6			
lew Hampshire	12.5	12.0	63.0	61.0	-3.2			
lew Jersey	6.0	5.0	30.0	26.0	-13.3			
lew Mexico	334.0	323.0	2,116.0	2,036.0	-3.8			
New York	625.0	627.0	3,613.0	3,709.0	2.7			
lorth Carolina	45.0	43.0	249.0	238.0	-4.4			
orth Dakota	15.5	14.5	82.0	80.0	-2.4			
Dhio	262.0	253.0	1,399.0	1,339.0	-4.3			
)klahoma	41.0	40.0	190.0	190.0	-			
Dregon	123.0	125.0	613.0	641.0	4.6			
Pennsylvania	525.0	498.0	2,739.0	2,571.0	-6.1			
hode Island	0.8	0.7	3.0	2.6	-13.3			
South Carolina	15.0	13.0	68.0	59.0	-13.2			
South Dakota	119.0	124.0	651.0	690.0	6.0			
ennessee	39.0	34.0	178.0	151.0	-15.2			
exas	530.0	553.0	3,146.0	3,363.0	6.9			
Itah	99.0	100.0	557.0	563.0	1.1			
ermont	128.0	126.0	667.0	674.0	1.0			
irginia	87.0	77.0	437.0	385.0	-11.9			
Vashington	275.0	279.0	1,636.0	1,645.0	0.6			
Vest Virginia	7.0	6.5	30.0	24.0	-20.0			
Visconsin	1,275.0	1,270.0	7,482.0	7,594.0	1.5			
Vyoming	6.0	6.0	34.8	35.9	3.2			
Jnited States	9,435.0	9,351.0	54,399.0	54,502.0	0.2			

Represents zero.
¹ Includes dry cows. Excludes heifers not yet fresh.
² Excludes milk sucked by calves.

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. Indications of milk cow inventory are also obtained in the January Cattle Surveys.

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 on the next page. 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 milk production estimates over the past 20 quarters 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 54.5 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 Quarterly Milk Production Estimates

[Based on data for the past 20 quarters]

		90 percent	Difference between first and latest estimate					
Item	Root mean square error	confidence	Average	Omellest	Lannaat	Quarters		
		level	Average	Smallest	Largest	Below latest	Above latest	
	(percent)	(percent)	(1,000)	(1,000)	(1,000)	(number)	(number)	
Milk production	0.1	0.2	40	3	124	14	6	
All milk cows	0.1	0.2	9	0	28	16	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@nass.usda.gov.

Scott Hollis, Head, Livestock Section	(202) 690-2424
Sherry Bertramsen – Livestock Slaughter	
Holly Brenize – Sheep and Goats	
Donnie Fike – Dairy Products	(202) 720-4448
Heidi Gleich – Cattle, Cattle on Feed	
Mike Miller – Milk Production and Milk Cows	
Seth Riggins – Hogs and Pigs	

Access to NASS Reports

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- > All reports are available electronically, at no cost, on the NASS web site: <u>www.nass.usda.gov</u>
- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit <u>www.nass.usda.gov</u> 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, <u>https://usda.library.cornell.edu</u>. All email subscriptions containing reports will be sent from the new website, <u>https://usda.library.cornell.edu</u>. 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: <u>https://usda.library.cornell.edu/help</u>. You should whitelist <u>notifications@usda-esmis.library.cornell.edu</u> 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.

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