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March Milk Production up 2.0 Percent

Milk production in the 24 major States during March totaled 18.8 billion pounds, up 2.0 percent from March 2020. February revised production, at 16.9 billion pounds, was down 1.1 percent from February 2020. However, production was 2.5 percent above last year after adjusting for the leap year. The February revision represented an increase of 36 million pounds or 0.2 percent from last month's preliminary production estimate.

Production per cow in the 24 major States averaged 2,104 pounds for March, 19 pounds above March 2020.

The number of milk cows on farms in the 24 major States was 8.95 million head, 93,000 head more than March 2020, and 7,000 head more than February 2021.

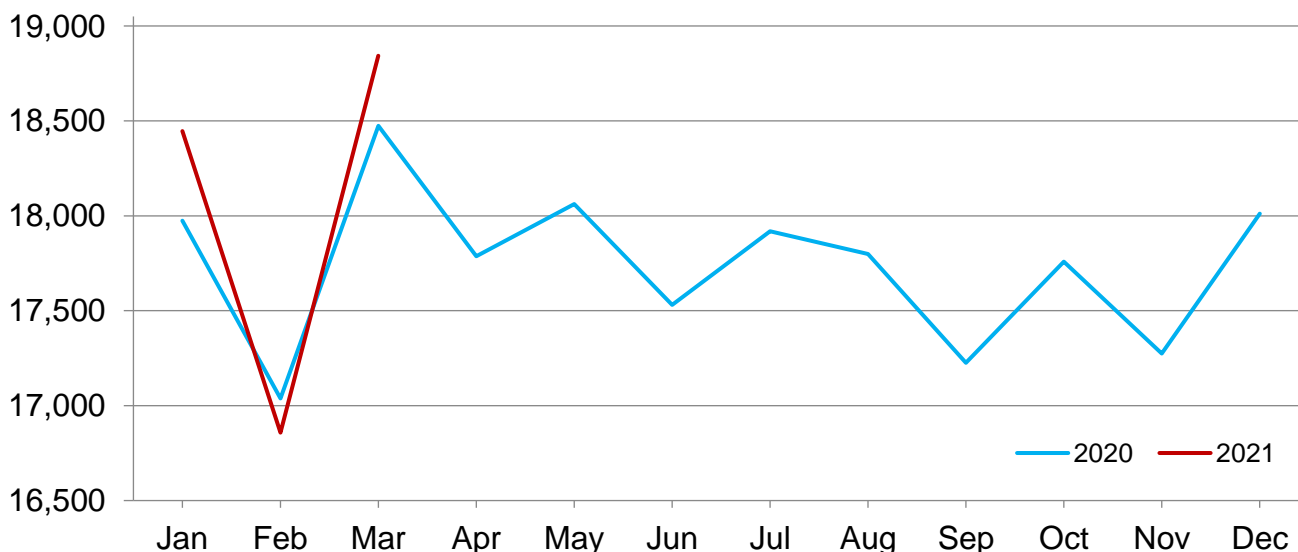
January-March Milk Production up 1.0 Percent

Milk production in the United States during the January - March quarter totaled 56.7 billion pounds, up 1.0 percent from the January - March quarter last year.

The average number of milk cows in the United States during the quarter was 9.46 million head, 29,000 head more than the October - December quarter, and 80,000 head more than the same period last year.

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 ¹		Milk per cow ²		Milk production ²		
	2020	2021	2020	2021	2020	2021	Change from 2020
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March	9,378	9,458	5,990	6,000	56,174	56,745	1.0
April-June	9,364		5,988		56,070		
July-September	9,380		5,908		55,419		
October-December	9,429		5,892		55,557		
Annual	9,388		23,777		223,220		

¹ Includes dry cows. Excludes heifers not yet fresh.

² 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 ¹		Milk per cow ²		Milk production ²		
	2020	2021	2020	2021	2020	2021	Change from 2020
	(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	8,954	2,085	2,104	18,474	18,843	2.0
April	8,855		2,009		17,787		
May	8,838		2,044		18,061		
June	8,834		1,984		17,530		
July	8,854		2,024		17,919		
August	8,857		2,010		17,799		
September	8,877		1,941		17,226		
October	8,897		1,996		17,758		
November	8,914		1,938		17,274		
December	8,923		2,019		18,012		
Annual	8,866		24,008		212,852		

¹ Includes dry cows. Excludes heifers not yet fresh.

² 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 ¹		Milk per cow ²		Milk production ²		
	2020	2021	2020	2021	2020	2021	Change from 2020
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	9,365	9,447	2,016	2,046	18,877	19,328	2.4
February	9,377	9,460	1,908	1,868	17,895	17,667	-1.3
March	9,391	9,468	2,066	2,086	19,402	19,750	1.8
April	9,377		1,993		18,684		
May	9,360		2,027		18,972		
June	9,355		1,968		18,414		
July	9,372		2,001		18,756		
August	9,374		1,988		18,632		
September	9,395		1,919		18,031		
October	9,414		1,976		18,603		
November	9,432		1,919		18,103		
December	9,442		1,997		18,851		
Annual	9,388		23,777		223,220		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – 24 Selected States: March 2020 and 2021

[May not add due to rounding]

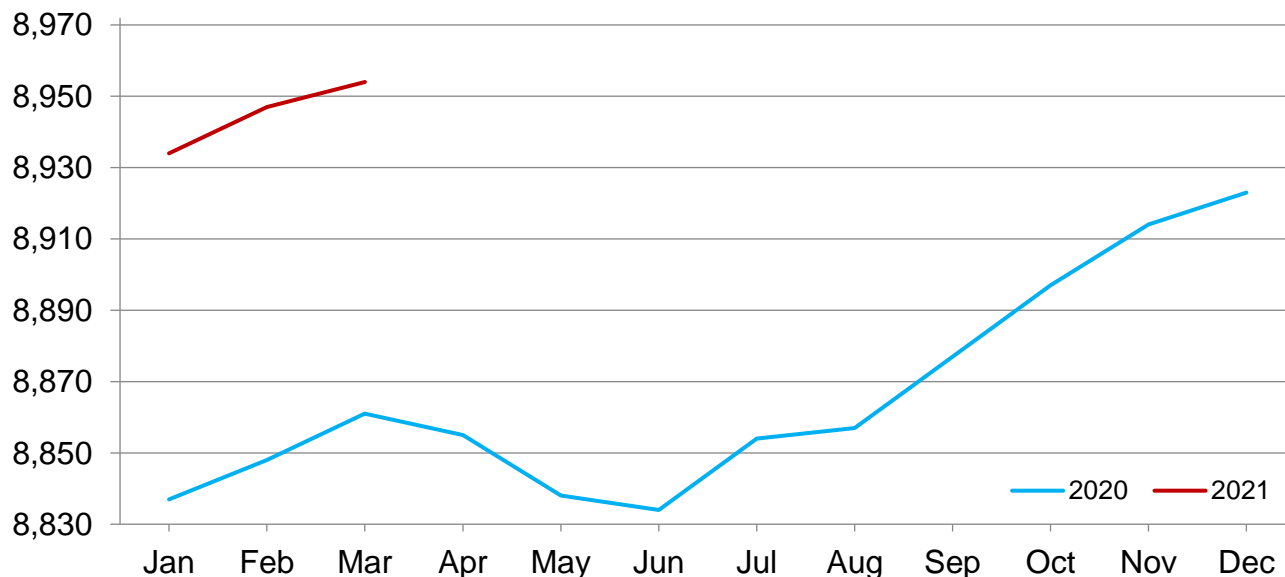
State	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2020
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	200	196	2,285	2,260	457	443	-3.1
California	1,722	1,720	2,135	2,170	3,676	3,732	1.5
Colorado	194	203	2,225	2,220	432	451	4.4
Florida	116	108	1,885	1,880	219	203	-7.3
Georgia	82	80	1,990	2,000	163	160	-1.8
Idaho	647	652	2,135	2,135	1,381	1,392	0.8
Illinois	82	83	1,940	1,950	159	162	1.9
Indiana	176	193	2,045	2,050	360	396	10.0
Iowa	219	224	2,110	2,115	462	474	2.6
Kansas	171	175	2,050	2,070	351	362	3.1
Michigan	428	442	2,335	2,340	999	1,034	3.5
Minnesota	445	462	1,910	1,980	850	915	7.6
New Mexico	332	333	2,195	2,165	729	721	-1.1
New York	626	626	2,110	2,120	1,321	1,327	0.5
Ohio	253	260	1,900	1,910	481	497	3.3
Oregon	127	125	1,780	1,790	226	224	-0.9
Pennsylvania	485	475	1,870	1,880	907	893	-1.5
South Dakota	129	147	1,960	1,950	253	287	13.4
Texas	590	617	2,180	2,165	1,286	1,336	3.9
Utah	98	95	1,960	1,965	192	187	-2.6
Vermont	124	119	1,870	1,865	232	222	-4.3
Virginia	75	74	1,830	1,815	137	134	-2.2
Washington	280	278	2,070	2,060	580	573	-1.2
Wisconsin	1,260	1,267	2,080	2,145	2,621	2,718	3.7
24-State Total	8,861	8,954	2,085	2,104	18,474	18,843	2.0

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: February 2020 and 2021

[May not add due to rounding]

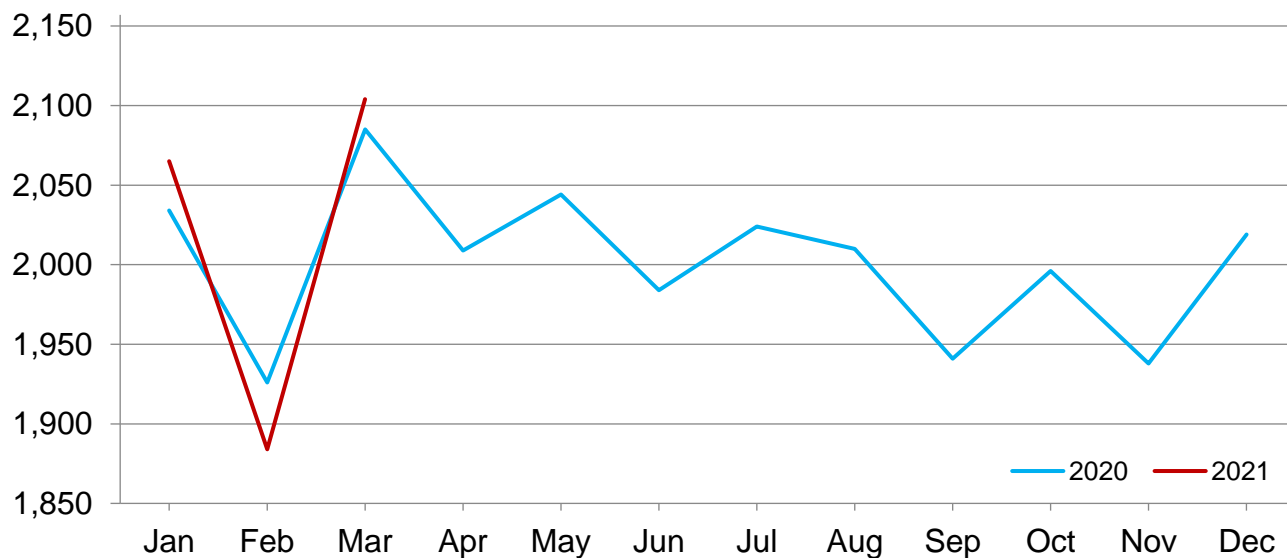
	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2020
	2020	2021	2020	2021	2020	2021	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	198	197	2,100	2,020	416	398	-4.3
California	1,723	1,720	1,960	1,935	3,377	3,328	-1.5
Colorado	193	203	2,065	1,995	399	405	1.5
Florida	116	108	1,770	1,695	205	183	-10.7
Georgia	82	80	1,855	1,790	152	143	-5.9
Idaho	645	652	1,965	1,910	1,267	1,245	-1.7
Illinois	82	83	1,790	1,725	147	143	-2.7
Indiana	176	193	1,870	1,820	329	351	6.7
Iowa	217	224	1,975	1,900	429	426	-0.7
Kansas	169	174	1,905	1,860	322	324	0.6
Michigan	427	441	2,150	2,100	918	926	0.9
Minnesota	445	460	1,780	1,785	792	821	3.7
New Mexico	333	336	2,025	1,955	674	657	-2.5
New York	626	626	1,945	1,905	1,218	1,193	-2.1
Ohio	253	260	1,760	1,700	445	442	-0.7
Oregon	127	125	1,660	1,605	211	201	-4.7
Pennsylvania	483	475	1,725	1,680	833	798	-4.2
South Dakota	129	143	1,835	1,770	237	253	6.8
Texas	585	615	2,005	1,940	1,173	1,193	1.7
Utah	97	96	1,820	1,770	177	170	-4.0
Vermont	124	120	1,725	1,660	214	199	-7.0
Virginia	76	74	1,670	1,600	127	118	-7.1
Washington	282	278	1,930	1,850	544	514	-5.5
Wisconsin	1,260	1,264	1,930	1,920	2,432	2,427	-0.2
24-State Total	8,848	8,947	1,926	1,884	17,038	16,858	-1.1

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Monthly Milk Per Cow - 24 Selected States

Pounds



Milk Cows and Production – States and United States: Revised October - December 2019 and 2020

[May not add due to rounding]

State	October - December milk cows ¹		October - December milk production ²		
	2019	2020	2019	2020	Change from 2019
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	4.0	3.0	12.0	10.0	-16.7
Alaska	(D)	(D)	(D)	(D)	(NA)
Arizona	197.0	198.0	1,190.0	1,208.0	1.5
Arkansas	5.0	5.0	15.0	14.0	-6.7
California	1,725.0	1,720.0	10,066.0	10,157.0	0.9
Colorado	190.0	201.0	1,219.0	1,306.0	7.1
Connecticut	19.5	19.0	107.0	108.0	0.9
Delaware	3.8	3.7	16.7	16.4	-1.8
Florida	117.0	111.0	565.0	537.0	-5.0
Georgia	81.0	81.0	433.0	437.0	0.9
Hawaii	(D)	(D)	(D)	(D)	(NA)
Idaho	635.0	646.0	3,917.0	3,978.0	1.6
Illinois	82.0	84.0	424.0	446.0	5.2
Indiana	176.0	191.0	1,000.0	1,118.0	11.8
Iowa	216.0	219.0	1,318.0	1,352.0	2.6
Kansas	165.0	172.0	977.0	1,025.0	4.9
Kentucky	49.0	47.0	224.0	219.0	-2.2
Louisiana	10.0	10.0	31.0	31.0	-
Maine	28.0	27.0	147.0	143.0	-2.7
Maryland	42.0	43.0	208.0	221.0	6.3
Massachusetts	10.0	10.0	48.0	48.0	-
Michigan	427.0	435.0	2,811.0	2,925.0	4.1
Minnesota	446.0	454.0	2,437.0	2,569.0	5.4
Mississippi	8.0	8.0	30.0	30.0	-
Missouri	77.0	75.0	254.0	256.0	0.8
Montana	12.0	11.0	64.0	62.0	-3.1
Nebraska	58.0	60.0	355.0	369.0	3.9
Nevada	32.0	31.0	184.0	185.0	0.5
New Hampshire	11.0	11.0	58.0	56.0	-3.4
New Jersey	4.7	4.6	24.0	24.0	-
New Mexico	330.0	334.0	2,006.0	2,060.0	2.7
New York	626.0	626.0	3,737.0	3,813.0	2.0
North Carolina	41.0	40.0	217.0	217.0	-
North Dakota	15.0	15.0	80.0	82.0	2.5
Ohio	252.0	257.0	1,343.0	1,411.0	5.1
Oklahoma	41.0	41.0	179.0	174.0	-2.8
Oregon	127.0	125.0	655.0	644.0	-1.7
Pennsylvania	484.0	481.0	2,478.0	2,533.0	2.2
Rhode Island	0.6	0.5	2.6	2.7	3.8
South Carolina	11.0	10.0	47.0	42.0	-10.6
South Dakota	127.0	140.0	717.0	812.0	13.2
Tennessee	31.0	29.0	130.0	129.0	-0.8
Texas	577.0	608.0	3,503.0	3,800.0	8.5
Utah	97.0	95.0	552.0	548.0	-0.7
Vermont	124.0	120.0	662.0	636.0	-3.9
Virginia	74.0	74.0	365.0	372.0	1.9
Washington	281.0	279.0	1,675.0	1,665.0	-0.6
West Virginia	6.0	6.0	21.0	21.0	-
Wisconsin	1,264.0	1,259.0	7,494.0	7,692.0	2.6
Wyoming	6.0	8.0	37.2	51.8	39.2
Other States ³	1.1	0.8	1.1	1.3	18.2
United States	9,347.0	9,429.0	54,037.0	55,557.0	2.8

- Represents zero.

(D) Withheld to avoid disclosing data for individual operations.

(NA) Not available.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ Other States includes Alaska and Hawaii.

Milk Cows and Production – States and United States: Preliminary January - March 2020 and 2021

[May not add due to rounding]

State	January - March milk cows ¹		January - March milk production ²		
	2020	2021	2020	2021	Change from 2020
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	4.0	3.0	14.0	11.0	-21.4
Alaska	(D)	(D)	(D)	(D)	(NA)
Arizona	198.0	197.0	1,292.0	1,265.0	-2.1
Arkansas	5.0	5.0	18.0	18.0	-
California	1,723.0	1,720.0	10,587.0	10,663.0	0.7
Colorado	193.0	203.0	1,253.0	1,306.0	4.2
Connecticut	19.5	19.0	114.0	112.0	-1.8
Delaware	3.8	3.0	19.0	14.5	-23.7
Florida	116.0	108.0	639.0	585.0	-8.5
Georgia	82.0	80.0	476.0	460.0	-3.4
Hawaii	(D)	(D)	(D)	(D)	(NA)
Idaho	646.0	651.0	3,996.0	3,995.0	-
Illinois	82.0	83.0	459.0	462.0	0.7
Indiana	176.0	193.0	1,036.0	1,133.0	9.4
Iowa	217.0	223.0	1,344.0	1,367.0	1.7
Kansas	170.0	174.0	1,017.0	1,045.0	2.8
Kentucky	49.0	47.0	251.0	238.0	-5.2
Louisiana	10.0	10.0	39.0	37.0	-5.1
Maine	27.0	27.0	151.0	144.0	-4.6
Maryland	42.0	43.0	225.0	229.0	1.8
Massachusetts	10.0	10.0	51.0	50.0	-2.0
Michigan	427.0	441.0	2,891.0	2,976.0	2.9
Minnesota	445.0	460.0	2,481.0	2,629.0	6.0
Mississippi	8.5	8.0	37.0	33.0	-10.8
Missouri	77.0	74.0	275.0	268.0	-2.5
Montana	12.0	11.0	64.0	61.0	-4.7
Nebraska	59.0	59.0	367.0	360.0	-1.9
Nevada	31.0	31.0	190.0	189.0	-0.5
New Hampshire	11.0	10.5	61.0	58.0	-4.9
New Jersey	4.7	4.4	26.0	24.0	-7.7
New Mexico	333.0	335.0	2,114.0	2,099.0	-0.7
New York	626.0	626.0	3,830.0	3,826.0	-0.1
North Carolina	41.0	40.0	239.0	238.0	-0.4
North Dakota	14.5	15.0	80.0	82.0	2.5
Ohio	253.0	260.0	1,395.0	1,425.0	2.2
Oklahoma	42.0	40.0	200.0	178.0	-11.0
Oregon	127.0	125.0	660.0	645.0	-2.3
Pennsylvania	483.0	475.0	2,606.0	2,565.0	-1.6
Rhode Island	0.6	0.5	2.7	2.5	-7.4
South Carolina	11.0	9.5	55.0	45.0	-18.2
South Dakota	129.0	144.0	740.0	818.0	10.5
Tennessee	31.0	29.0	145.0	133.0	-8.3
Texas	587.0	616.0	3,714.0	3,851.0	3.7
Utah	97.0	95.0	555.0	542.0	-2.3
Vermont	124.0	120.0	672.0	641.0	-4.6
Virginia	76.0	74.0	398.0	382.0	-4.0
Washington	281.0	278.0	1,701.0	1,653.0	-2.8
West Virginia	6.0	5.0	23.0	19.0	-17.4
Wisconsin	1,260.0	1,264.0	7,630.0	7,814.0	2.4
Wyoming	6.5	8.0	40.0	52.0	30.0
Other States ³	1.0	0.8	1.4	1.7	21.4
United States	9,378.0	9,458.0	56,174.0	56,745.0	1.0

- Represents zero.

(D) Withheld to avoid disclosing data for individual operations.

(NA) Not available.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ Other States includes Alaska and Hawaii.

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 56.7 billion pounds by more than 0.1 percent. Chances are 9 out of 10 that the difference will not exceed 0.3 percent.

Reliability of Quarterly Milk Production Estimates

[Based on data for the past 20 quarters]

Item	Root mean square error	90 percent confidence level	Difference between first and latest estimate				
			Average	Smallest	Largest	Quarters	
						Below latest	Above latest
	(percent)	(percent)	(1,000)	(1,000)	(1,000)	(number)	(number)
Milk production	0.1	0.3	58	4	215	12	8
All milk cows	0.1	0.2	9	0	26	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@usda.gov.

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Sherry Bertramsen – Livestock Slaughter	(202) 690-8632
Ryan Cowen – Cattle, Cattle on Feed	(202) 720-3040
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
Seth Riggins – Hogs and Pigs	(202) 720-3106

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