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December Milk Production up 0.9 Percent

Milk production in the 24 major States during December totaled 17.4 billion pounds, up 0.9 percent from December 2018. November revised production at 16.7 billion pounds, was up 0.9 percent from November 2018. The November revision represented an increase of 4 million pounds or less than 0.1 percent from last month's preliminary production estimate.

Production per cow in the 24 major States averaged 1,978 pounds for December, 14 pounds above December 2018.

The number of milk cows on farms in the 24 major States was 8.81 million head, 16,000 head more than December 2018, but unchanged from November 2019.

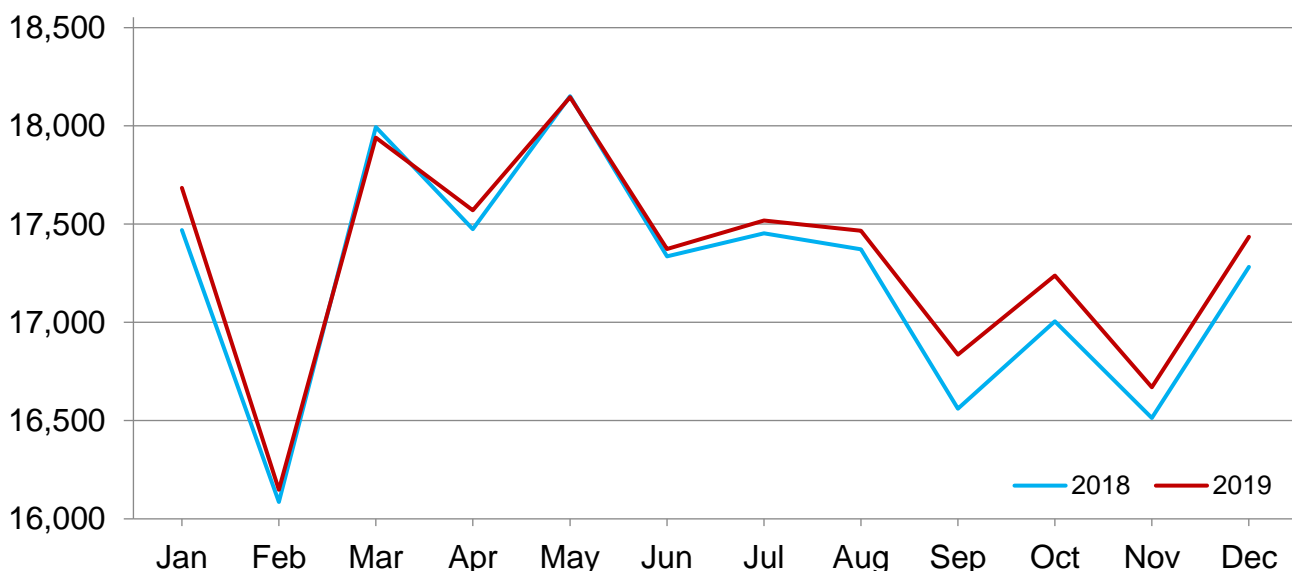
October-December Milk Production up 0.8 Percent

Milk production in the United States during the October - December quarter totaled 53.8 billion pounds, up 0.8 percent from the October - December quarter last year.

The average number of milk cows in the United States during the quarter was 9.34 million head, 18,000 head more than the July - September quarter, but 22,000 head less than the same period last year.

Monthly Milk Production – 24 Selected States

Million pounds



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

[May not add due to rounding]

Quarter	Milk cows ¹		Milk per 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)
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	5,824	53,969	54,272	0.6
October-December	9,359	9,337	5,703	5,764	53,376	53,822	0.8
Annual	9,399	9,332	23,149	23,395	217,575	218,322	0.3

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production by Month – 24 Selected States: 2018-2019

[May not add due to rounding]

Month	Milk cows ¹		Milk per 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)
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	8,814	1,876	1,891	16,514	16,670	0.9
December	8,798	8,814	1,964	1,978	17,282	17,435	0.9
Annual	8,830	8,797	23,407	23,647	206,699	208,027	0.6

- Represents zero.

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]

Month	Milk cows ¹		Milk per 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)
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	18,287	0.2
September	9,368	9,322	1,857	1,891	17,395	17,630	1.4
October	9,367	9,333	1,908	1,936	17,873	18,070	1.1
November	9,358	9,339	1,854	1,871	17,348	17,475	0.7
December	9,353	9,339	1,941	1,957	18,155	18,277	0.7
Annual	9,399	9,332	23,149	23,395	217,575	218,322	0.3

- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – 24 Selected States: December 2018 and 2019

[May not add due to rounding]

State	Milk cows ¹		Milk per cow ²		Milk production ²		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	2,060	2,045	422	395	-6.4
California	1,730	1,725	1,970	1,985	3,408	3,424	0.5
Colorado	178	189	2,195	2,180	391	412	5.4
Florida	116	116	1,665	1,685	193	195	1.0
Georgia	81	81	1,810	1,830	147	148	0.7
Idaho	614	635	2,060	2,055	1,265	1,305	3.2
Illinois	85	82	1,770	1,810	150	148	-1.3
Indiana	181	176	1,890	1,905	342	335	-2.0
Iowa	220	215	2,035	2,065	448	444	-0.9
Kansas	161	167	1,970	1,990	317	332	4.7
Michigan	422	427	2,205	2,205	931	942	1.2
Minnesota	450	445	1,850	1,870	833	832	-0.1
New Mexico	325	330	2,060	2,070	670	683	1.9
New York	625	626	1,990	2,025	1,244	1,268	1.9
Ohio	253	252	1,780	1,810	450	456	1.3
Oregon	125	127	1,735	1,710	217	217	-
Pennsylvania	505	483	1,695	1,745	856	843	-1.5
South Dakota	122	127	1,900	1,900	232	241	3.9
Texas	544	578	1,985	2,030	1,080	1,173	8.6
Utah	100	97	1,920	1,910	192	185	-3.6
Vermont	126	124	1,785	1,805	225	224	-0.4
Virginia	79	74	1,620	1,675	128	124	-3.1
Washington	280	282	2,025	2,000	567	564	-0.5
Wisconsin	1,271	1,263	2,025	2,015	2,574	2,545	-1.1
24-State Total	8,798	8,814	1,964	1,978	17,282	17,435	0.9

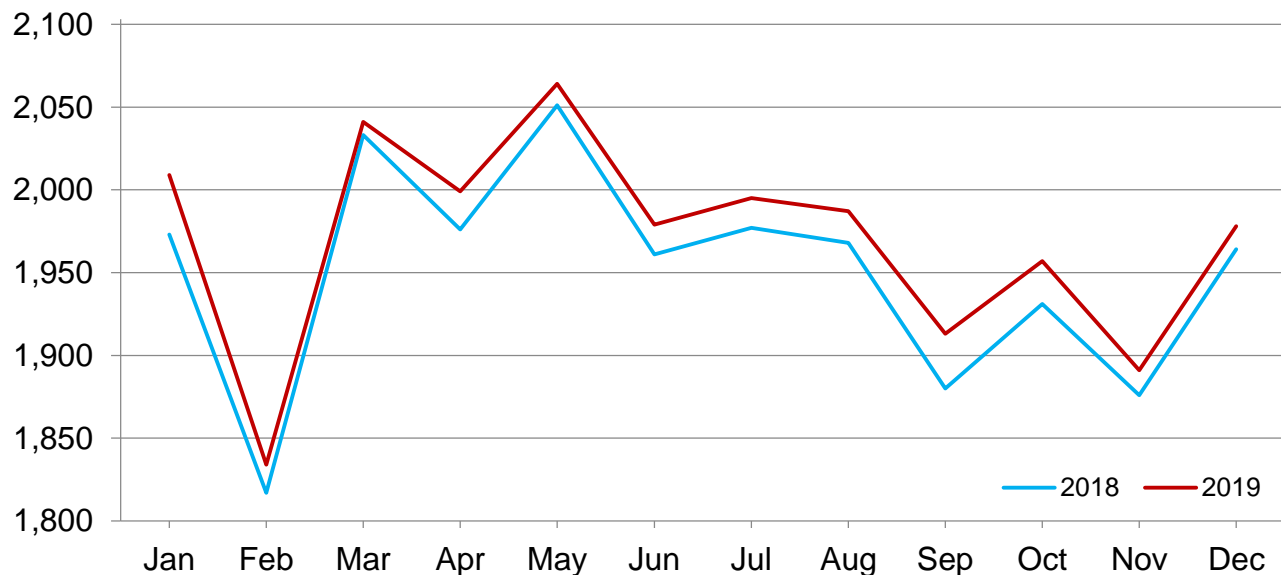
- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Monthly Milk per Cow – 24 Selected States

Pounds



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

[May not add due to rounding]

	Milk cows ¹		Milk per cow ²		Milk production ²		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	1,895	3,272	3,269	-0.1
Colorado	178	190	2,090	2,085	372	396	6.5
Florida	118	117	1,540	1,570	182	184	1.1
Georgia	81	81	1,730	1,755	140	142	1.4
Idaho	612	634	1,995	1,995	1,221	1,265	3.6
Illinois	85	82	1,660	1,700	141	139	-1.4
Indiana	181	175	1,810	1,825	328	319	-2.7
Iowa	220	216	1,965	1,960	432	423	-2.1
Kansas	160	165	1,890	1,915	302	316	4.6
Michigan	422	428	2,120	2,125	895	910	1.7
Minnesota	451	446	1,750	1,770	789	789	-
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	127	1,655	1,645	207	209	1.0
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	574	1,890	1,960	1,024	1,125	9.9
Utah	100	97	1,870	1,860	187	180	-3.7
Vermont	126	124	1,690	1,725	213	214	0.5
Virginia	80	73	1,555	1,600	124	117	-5.6
Washington	280	281	1,935	1,930	542	542	-
Wisconsin	1,272	1,265	1,925	1,915	2,449	2,422	-1.1
24-State Total	8,802	8,814	1,876	1,891	16,514	16,670	0.9

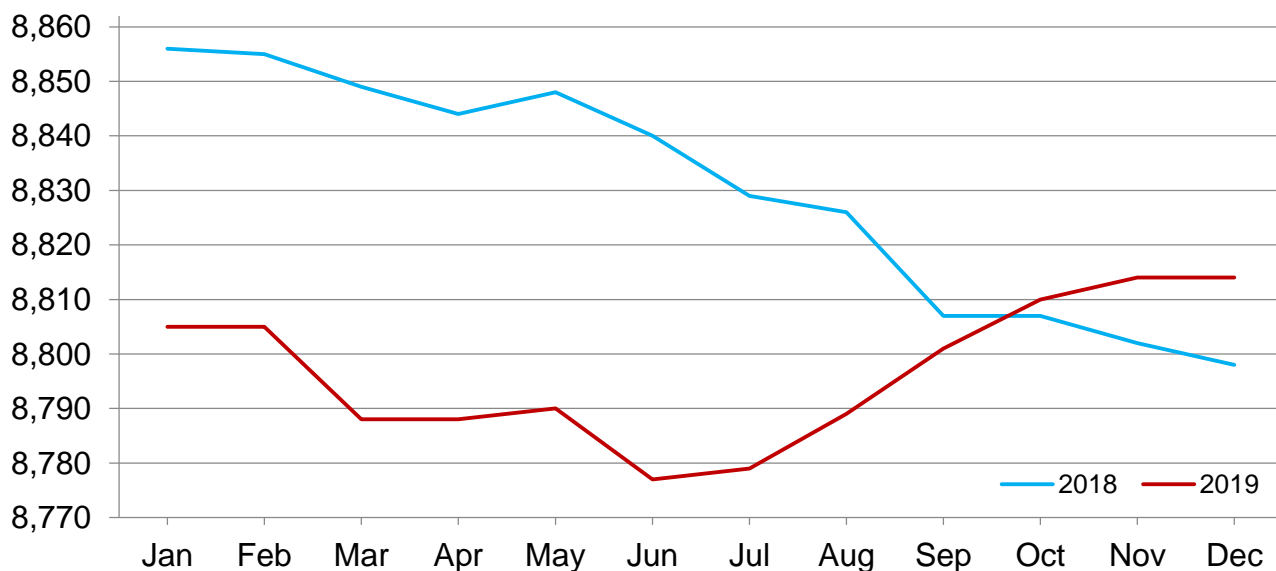
- Represents zero.

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 – States and United States: Revised July - September 2018 and 2019

[May not add due to rounding]

State	July - September milk cows ¹		July - September milk production ²		
	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	5.5	4.5	15.0	12.0	-20.0
Alaska	0.3	0.2	0.8	0.6	-25.0
Arizona	206.0	194.0	1,138.0	1,079.0	-5.2
Arkansas	5.5	5.0	16.0	15.0	-6.3
California	1,733.0	1,728.0	9,820.0	10,003.0	1.9
Colorado	178.0	188.0	1,161.0	1,222.0	5.3
Connecticut	19.5	19.0	104.0	104.0	-
Delaware	4.9	4.0	21.1	16.2	-23.2
Florida	119.0	116.0	531.0	537.0	1.1
Georgia	80.0	80.0	411.0	409.0	-0.5
Hawaii	2.0	0.8	7.8	0.6	-92.3
Idaho	610.0	627.0	3,898.0	4,035.0	3.5
Illinois	90.0	83.0	444.0	412.0	-7.2
Indiana	183.0	175.0	1,016.0	978.0	-3.7
Iowa	220.0	217.0	1,300.0	1,294.0	-0.5
Kansas	160.0	162.0	927.0	947.0	2.2
Kentucky	53.0	49.0	227.0	213.0	-6.2
Louisiana	11.0	10.0	31.0	27.0	-12.9
Maine	30.0	29.0	156.0	156.0	-
Maryland	45.0	42.0	219.0	200.0	-8.7
Massachusetts	11.0	10.0	51.0	47.0	-7.8
Michigan	423.0	427.0	2,789.0	2,854.0	2.3
Minnesota	451.0	447.0	2,478.0	2,508.0	1.2
Mississippi	8.5	8.0	28.0	27.0	-3.6
Missouri	82.0	77.0	276.0	254.0	-8.0
Montana	12.0	11.5	69.0	66.0	-4.3
Nebraska	59.0	58.0	353.0	345.0	-2.3
Nevada	32.0	33.0	184.0	188.0	2.2
New Hampshire	12.0	11.0	61.0	59.0	-3.3
New Jersey	5.5	4.7	26.0	23.0	-11.5
New Mexico	328.0	325.0	2,047.0	2,045.0	-0.1
New York	622.0	627.0	3,773.0	3,802.0	0.8
North Carolina	43.0	41.0	219.0	213.0	-2.7
North Dakota	15.5	14.5	85.0	83.0	-2.4
Ohio	258.0	250.0	1,357.0	1,345.0	-0.9
Oklahoma	40.0	41.0	170.0	170.0	-
Oregon	122.0	124.0	638.0	656.0	2.8
Pennsylvania	519.0	485.0	2,614.0	2,461.0	-5.9
Rhode Island	0.7	0.7	3.0	2.7	-10.0
South Carolina	13.5	11.0	53.0	45.0	-15.1
South Dakota	121.0	124.0	685.0	712.0	3.9
Tennessee	36.0	31.0	143.0	126.0	-11.9
Texas	539.0	567.0	3,242.0	3,455.0	6.6
Utah	101.0	97.0	596.0	574.0	-3.7
Vermont	127.0	126.0	669.0	673.0	0.6
Virginia	82.0	74.0	389.0	349.0	-10.3
Washington	277.0	281.0	1,708.0	1,746.0	2.2
West Virginia	7.0	6.0	27.0	22.0	-18.5
Wisconsin	1,274.0	1,267.0	7,756.0	7,724.0	-0.4
Wyoming	6.0	6.0	35.8	37.0	3.4
United States	9,383.0	9,319.0	53,969.0	54,272.0	0.6

- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – States and United States: Preliminary October - December 2018 and 2019

[May not add due to rounding]

State	October - December milk cows ¹		October - December milk production ²		
	2018	2019	2018	2019	Change from 2018
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	5.0	4.0	16.0	12.0	-25.0
Alaska	0.2	0.3	0.6	0.8	33.3
Arizona	205.0	193.0	1,208.0	1,131.0	-6.4
Arkansas	5.0	5.0	16.0	15.0	-6.3
California	1,731.0	1,725.0	9,997.0	10,040.0	0.4
Colorado	178.0	190.0	1,148.0	1,218.0	6.1
Connecticut	19.5	19.5	104.0	106.0	1.9
Delaware	4.5	3.8	20.1	16.7	-16.9
Florida	117.0	117.0	545.0	558.0	2.4
Georgia	81.0	81.0	422.0	429.0	1.7
Hawaii	1.7	0.8	5.3	0.6	-88.7
Idaho	612.0	633.0	3,767.0	3,892.0	3.3
Illinois	85.0	82.0	435.0	424.0	-2.5
Indiana	181.0	175.0	1,010.0	984.0	-2.6
Iowa	220.0	216.0	1,326.0	1,306.0	-1.5
Kansas	160.0	165.0	927.0	972.0	4.9
Kentucky	53.0	49.0	233.0	223.0	-4.3
Louisiana	11.0	10.0	32.0	30.0	-6.3
Maine	29.0	28.0	151.0	147.0	-2.6
Maryland	44.0	42.0	215.0	209.0	-2.8
Massachusetts	10.5	10.0	48.0	48.0	-
Michigan	422.0	428.0	2,752.0	2,806.0	2.0
Minnesota	451.0	446.0	2,438.0	2,448.0	0.4
Mississippi	8.0	8.0	28.0	29.0	3.6
Missouri	81.0	77.0	270.0	254.0	-5.9
Montana	12.0	12.0	65.0	64.0	-1.5
Nebraska	59.0	58.0	354.0	354.0	-
Nevada	33.0	32.0	184.0	179.0	-2.7
New Hampshire	12.0	11.0	60.0	57.0	-5.0
New Jersey	5.5	4.7	25.0	24.0	-4.0
New Mexico	326.0	330.0	1,965.0	2,007.0	2.1
New York	623.0	626.0	3,673.0	3,743.0	1.9
North Carolina	43.0	41.0	224.0	217.0	-3.1
North Dakota	15.0	14.5	82.0	80.0	-2.4
Ohio	254.0	252.0	1,331.0	1,343.0	0.9
Oklahoma	40.0	41.0	180.0	174.0	-3.3
Oregon	125.0	127.0	638.0	646.0	1.3
Pennsylvania	510.0	484.0	2,532.0	2,478.0	-2.1
Rhode Island	0.7	0.6	2.7	2.6	-3.7
South Carolina	14.0	11.0	55.0	47.0	-14.5
South Dakota	122.0	127.0	682.0	713.0	4.5
Tennessee	36.0	31.0	143.0	130.0	-9.1
Texas	542.0	574.0	3,149.0	3,440.0	9.2
Utah	100.0	97.0	573.0	556.0	-3.0
Vermont	126.0	124.0	660.0	661.0	0.2
Virginia	80.0	73.0	380.0	360.0	-5.3
Washington	280.0	281.0	1,680.0	1,675.0	-0.3
West Virginia	7.0	6.0	25.0	21.0	-16.0
Wisconsin	1,272.0	1,265.0	7,563.0	7,514.0	-0.6
Wyoming	6.0	6.0	35.8	37.2	3.9
United States	9,359.0	9,337.0	53,376.0	53,822.0	0.8

- 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 53.8 billion pounds by more than 0.1 percent. Chances are 9 out of 10 that the difference will not exceed 0.1 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	0.1	36	3	124	14	6
All milk cows	0.1	0.2	9	0	28	14	5

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
Heidi Lanouette – 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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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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For More Information, please contact the Forum Coordinator [Mirvat Sewadeh](#) at 202-720-5447