



Milk Production

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December Milk Production down 0.1 Percent

Milk production in the 24 major States during December totaled 18.1 billion pounds, down 0.1 percent from December 2022. November revised production, at 17.3 billion pounds, was down 0.6 percent from November 2022. The November revision represented a decrease of 14 million pounds or less than 0.1 percent from last month's preliminary production estimate.

Production per cow in the 24 major States averaged 2,030 pounds for December, 1 pound above December 2022.

The number of milk cows on farms in the 24 major States was 8.90 million head, 17,000 head less than December 2022, but unchanged from November 2023.

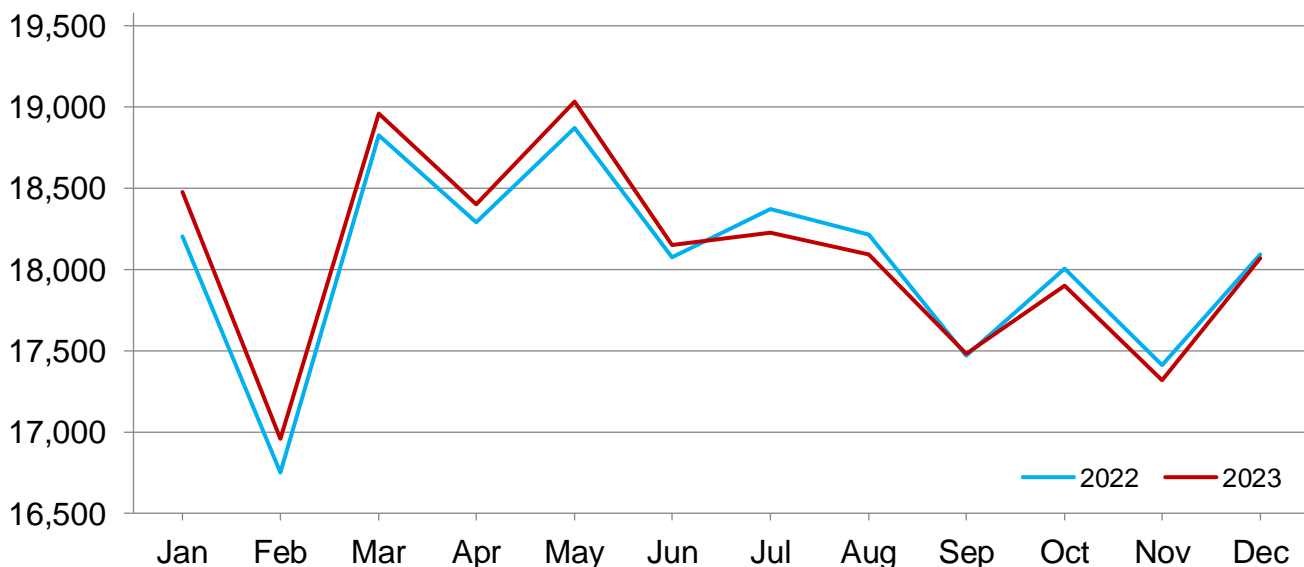
October-December Milk Production down 0.6 Percent

Milk production in the United States during the October - December quarter totaled 55.6 billion pounds, down 0.6 percent from the October - December quarter last year.

The average number of milk cows in the United States during the quarter was 9.36 million head, 16,000 head less than the July - September quarter, and 44,000 head less than the same period last year.

Monthly Milk Production - 24 Selected States

Million pounds



Milk Cows and Production by Quarter – United States: 2022-2023

[May not add due to rounding]

Quarter	Milk cows ¹		Milk per cow ²		Milk production ²		
	2022	2023	2022	2023	2022	2023	Change from 2022
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March	9,384	9,427	6,000	6,031	56,305	56,855	1.0
April-June	9,411	9,416	6,144	6,165	57,822	58,054	0.4
July-September	9,408	9,376	5,999	5,981	56,438	56,077	-0.6
October-December	9,404	9,360	5,944	5,936	55,897	55,565	-0.6
Annual	9,402	9,395	24,087	24,114	226,462	226,551	(Z)

(Z) Less than half of the unit shown.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production by Month – 24 Selected States: 2022-2023

[May not add due to rounding]

Month	Milk cows ¹		Milk per cow ²		Milk production ²		
	2022	2023	2022	2023	2022	2023	Change from 2023
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	8,876	8,927	2,051	2,069	18,205	18,474	1.5
February	8,885	8,946	1,885	1,896	16,750	16,958	1.2
March	8,908	8,959	2,113	2,117	18,827	18,962	0.7
April	8,908	8,945	2,053	2,057	18,291	18,401	0.6
May	8,921	8,949	2,115	2,127	18,871	19,033	0.9
June	8,915	8,927	2,027	2,033	18,074	18,148	0.4
July	8,920	8,911	2,060	2,046	18,373	18,228	-0.8
August	8,927	8,913	2,040	2,030	18,212	18,093	-0.7
September	8,927	8,917	1,957	1,961	17,470	17,482	0.1
October	8,931	8,907	2,016	2,010	18,005	17,899	-0.6
November	8,924	8,901	1,951	1,945	17,413	17,316	-0.6
December	8,918	8,901	2,029	2,030	18,093	18,069	-0.1
Annual	8,913	8,925	24,300	24,321	216,584	217,063	0.2

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Estimated Milk Cows and Production by Month – United States: 2022-2023

[May not add due to rounding]

Month	Milk cows ¹		Milk per cow ²		Milk production ²		
	2022	2023	2022	2023	2022	2023	Change from 2022
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	9,367	9,408	2,034	2,052	19,050	19,308	1.4
February	9,380	9,429	1,870	1,880	17,540	17,724	1.0
March	9,404	9,444	2,096	2,099	19,715	19,823	0.5
April	9,404	9,425	2,036	2,039	19,147	19,217	0.4
May	9,417	9,425	2,098	2,110	19,755	19,884	0.7
June	9,413	9,399	2,010	2,016	18,920	18,953	0.2
July	9,413	9,373	2,038	2,027	19,180	18,999	-0.9
August	9,406	9,375	2,022	2,011	19,016	18,857	-0.8
September	9,406	9,380	1,939	1,943	18,242	18,221	-0.1
October	9,412	9,365	1,998	1,993	18,809	18,666	-0.8
November	9,404	9,358	1,934	1,929	18,184	18,056	-0.7
December	9,396	9,357	2,012	2,014	18,904	18,843	-0.3
Annual	9,402	9,395	24,087	24,114	226,462	226,551	(Z)

(Z) Less than half of the unit shown.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – 24 Selected States: December 2022 and 2023

[May not add due to rounding]

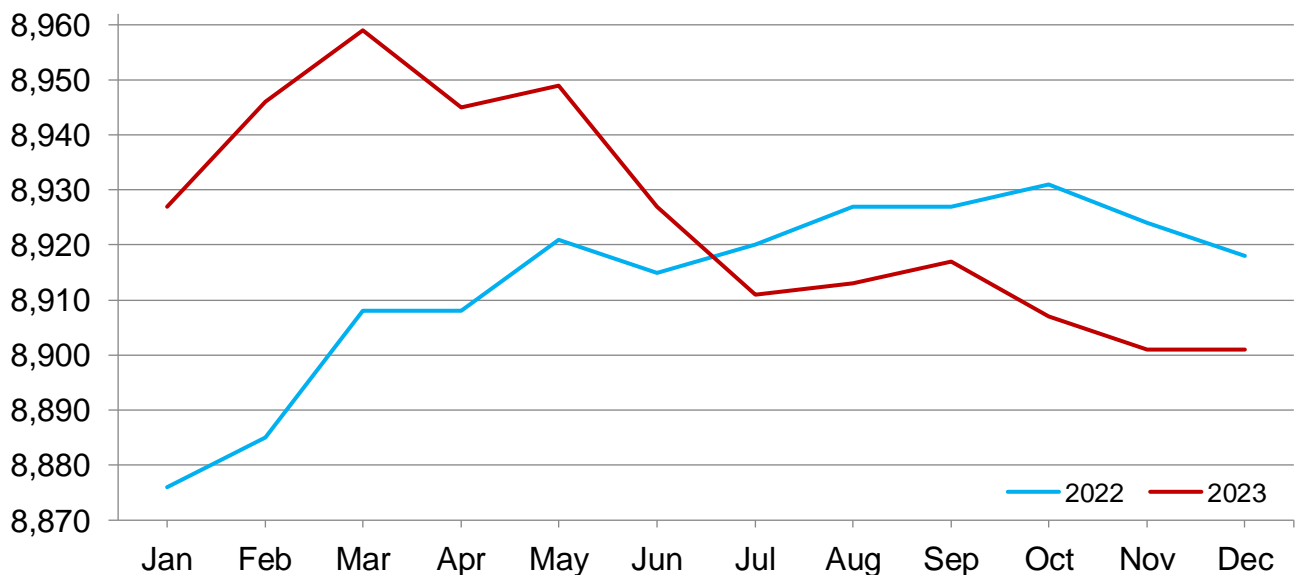
State	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2022
	2022	2023	2022	2023	2022	2023	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	195	199	2,085	2,085	407	415	2.0
California	1,724	1,715	2,020	2,010	3,482	3,447	-1.0
Colorado	203	197	2,180	2,185	443	430	-2.9
Florida	92	98	1,710	1,705	157	167	6.4
Georgia	92	91	1,900	1,870	175	170	-2.9
Idaho	661	663	2,085	2,065	1,378	1,369	-0.7
Illinois	79	79	1,800	1,820	142	144	1.4
Indiana	187	190	2,000	1,995	374	379	1.3
Iowa	239	240	2,065	2,085	494	500	1.2
Kansas	175	176	2,010	2,010	352	354	0.6
Michigan	432	439	2,305	2,290	996	1,005	0.9
Minnesota	455	450	1,940	1,935	883	871	-1.4
New Mexico	279	250	2,060	2,045	575	511	-11.1
New York	630	630	2,090	2,120	1,317	1,336	1.4
Ohio	250	255	1,865	1,870	466	477	2.4
Oregon	123	120	1,725	1,725	212	207	-2.4
Pennsylvania	465	465	1,780	1,765	828	821	-0.8
South Dakota	186	207	1,910	1,910	355	395	11.3
Texas	650	635	2,135	2,170	1,388	1,378	-0.7
Utah	92	92	1,925	1,930	177	178	0.6
Vermont	118	116	1,815	1,800	214	209	-2.3
Virginia	67	67	1,710	1,755	115	118	2.6
Washington	254	257	1,975	2,005	502	515	2.6
Wisconsin	1,270	1,270	2,095	2,105	2,661	2,673	0.5
24-State Total	8,918	8,901	2,029	2,030	18,093	18,069	-0.1

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: November 2022 and 2023

[May not add due to rounding]

State	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2022
	2022	2023	2022	2023	2022	2023	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	195	199	1,965	1,960	383	390	1.8
California	1,724	1,714	1,930	1,900	3,327	3,257	-2.1
Colorado	203	197	2,105	2,105	427	415	-2.8
Florida	92	98	1,575	1,620	145	159	9.7
Georgia	92	91	1,760	1,760	162	160	-1.2
Idaho	661	663	2,000	1,995	1,322	1,323	0.1
Illinois	79	79	1,710	1,720	135	136	0.7
Indiana	186	190	1,920	1,915	357	364	2.0
Iowa	239	239	2,000	1,990	478	476	-0.4
Kansas	175	176	1,950	1,945	341	342	0.3
Michigan	431	439	2,220	2,210	957	970	1.4
Minnesota	454	449	1,870	1,855	849	833	-1.9
New Mexico	282	255	1,960	1,950	553	497	-10.1
New York	628	630	2,035	2,040	1,278	1,285	0.5
Ohio	250	255	1,790	1,800	448	459	2.5
Oregon	123	120	1,670	1,675	205	201	-2.0
Pennsylvania	467	466	1,700	1,680	794	783	-1.4
South Dakota	185	202	1,860	1,860	344	376	9.3
Texas	653	635	2,065	2,090	1,348	1,327	-1.6
Utah	92	92	1,850	1,850	170	170	-
Vermont	118	116	1,755	1,725	207	200	-3.4
Virginia	69	69	1,635	1,655	113	114	0.9
Washington	255	257	1,920	1,925	490	495	1.0
Wisconsin	1,271	1,270	2,030	2,035	2,580	2,584	0.2
24-State Total	8,924	8,901	1,951	1,945	17,413	17,316	-0.6

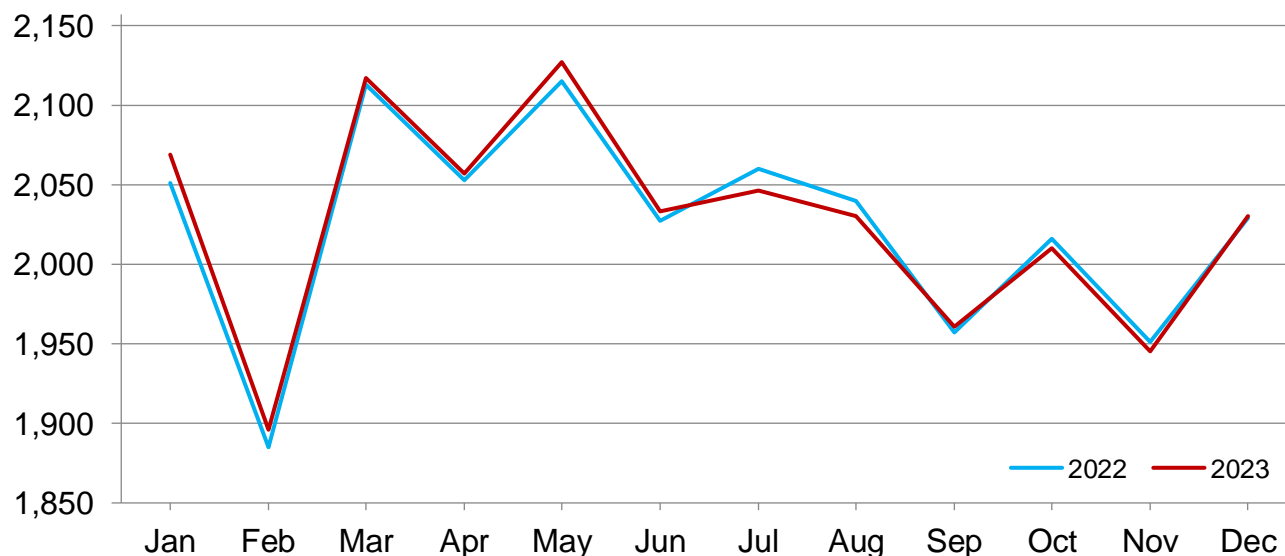
- Represents zero.

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 – States and United States: Revised July - September 2022 and 2023

[May not add due to rounding]

State	July - September milk cows ¹		July - September milk production ²		
	2022	2023	2022	2023	Change from 2022
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	2.5	2.0	7.0	6.0	-14.3
Alaska	(D)	(D)	(D)	(D)	(NA)
Arizona	196.0	200.0	1,085.0	1,119.0	3.1
Arkansas	3.5	2.5	9.0	7.0	-22.2
California	1,723.0	1,714.0	10,258.0	9,849.0	-4.0
Colorado	206.0	199.0	1,352.0	1,298.0	-4.0
Connecticut	18.5	17.5	106.0	104.0	-1.9
Delaware	2.6	2.6	11.0	11.3	2.7
Florida	95.0	97.0	434.0	465.0	7.1
Georgia	93.0	94.0	486.0	503.0	3.5
Hawaii	(D)	(D)	(D)	(D)	(NA)
Idaho	658.0	666.0	4,300.0	4,284.0	-0.4
Illinois	80.0	79.0	412.0	414.0	0.5
Indiana	186.0	190.0	1,082.0	1,120.0	3.5
Iowa	237.0	241.0	1,460.0	1,486.0	1.8
Kansas	174.0	170.0	1,038.0	1,004.0	-3.3
Kentucky	45.0	44.0	220.0	215.0	-2.3
Louisiana	8.0	7.0	22.0	20.0	-9.1
Maine	26.0	25.0	139.0	136.0	-2.2
Maryland	40.0	40.0	203.0	206.0	1.5
Massachusetts	9.5	9.0	47.0	44.0	-6.4
Michigan	427.0	439.0	2,947.0	3,044.0	3.3
Minnesota	453.0	451.0	2,658.0	2,643.0	-0.6
Mississippi	6.0	5.5	19.0	15.0	-21.1
Missouri	65.0	60.0	222.0	203.0	-8.6
Montana	10.0	9.0	56.0	52.0	-7.1
Nebraska	57.0	54.0	349.0	329.0	-5.7
Nevada	32.0	36.0	201.0	200.0	-0.5
New Hampshire	10.0	9.5	54.0	52.0	-3.7
New Jersey	4.3	3.9	21.0	20.0	-4.8
New Mexico	286.0	268.0	1,740.0	1,599.0	-8.1
New York	624.0	630.0	3,949.0	4,073.0	3.1
North Carolina	39.0	38.0	215.0	213.0	-0.9
North Dakota	14.0	11.0	81.0	66.0	-18.5
Ohio	250.0	254.0	1,375.0	1,417.0	3.1
Oklahoma	38.0	37.0	162.0	149.0	-8.0
Oregon	125.0	120.0	662.0	635.0	-4.1
Pennsylvania	468.0	466.0	2,443.0	2,439.0	-0.2
Rhode Island	0.5	0.5	2.5	2.4	-4.0
South Carolina	9.0	8.0	35.0	32.0	-8.6
South Dakota	184.0	197.0	1,084.0	1,161.0	7.1
Tennessee	27.0	25.0	120.0	111.0	-7.5
Texas	653.0	635.0	4,109.0	4,010.0	-2.4
Utah	93.0	93.0	551.0	546.0	-0.9
Vermont	117.0	117.0	637.0	634.0	-0.5
Virginia	69.0	68.0	344.0	350.0	1.7
Washington	256.0	257.0	1,568.0	1,567.0	-0.1
West Virginia	5.0	4.5	18.0	16.0	-11.1
Wisconsin	1,272.0	1,269.0	8,081.0	8,143.0	0.8
Wyoming	9.5	9.5	62.2	62.5	0.5
Other States ³	0.9	0.8	1.3	1.7	30.8
United States	9,408.0	9,376.0	56,438.0	56,077.0	-0.6

(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 October - December 2022 and 2023

[May not add due to rounding]

State	October - December milk cows ¹		October - December milk production ²		
	2022	2023	2022	2023	Change from 2022
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	2.0	2.0	6.0	5.0	-16.7
Alaska	(D)	(D)	(D)	(D)	(NA)
Arizona	195.0	200.0	1,167.0	1,199.0	2.7
Arkansas	3.5	2.5	10.0	7.0	-30.0
California	1,724.0	1,714.0	10,214.0	10,019.0	-1.9
Colorado	204.0	197.0	1,315.0	1,276.0	-3.0
Connecticut	18.5	17.5	105.0	104.0	-1.0
Delaware	2.6	2.6	11.2	11.6	3.6
Florida	93.0	99.0	448.0	483.0	7.8
Georgia	92.0	92.0	504.0	495.0	-1.8
Hawaii	(D)	(D)	(D)	(D)	(NA)
Idaho	661.0	663.0	4,103.0	4,071.0	-0.8
Illinois	79.0	79.0	414.0	418.0	1.0
Indiana	186.0	190.0	1,099.0	1,118.0	1.7
Iowa	239.0	239.0	1,466.0	1,468.0	0.1
Kansas	175.0	175.0	1,046.0	1,044.0	-0.2
Kentucky	45.0	43.0	222.0	211.0	-5.0
Louisiana	8.0	7.0	25.0	22.0	-12.0
Maine	25.0	24.0	134.0	130.0	-3.0
Maryland	40.0	40.0	205.0	210.0	2.4
Massachusetts	9.0	9.0	44.0	43.0	-2.3
Michigan	430.0	439.0	2,937.0	2,980.0	1.5
Minnesota	454.0	450.0	2,611.0	2,577.0	-1.3
Mississippi	6.0	5.5	19.0	16.0	-15.8
Missouri	65.0	60.0	218.0	201.0	-7.8
Montana	10.0	9.0	53.0	50.0	-5.7
Nebraska	57.0	53.0	356.0	328.0	-7.9
Nevada	32.0	35.0	192.0	196.0	2.1
New Hampshire	10.0	9.5	52.0	51.0	-1.9
New Jersey	4.1	4.0	20.0	21.0	5.0
New Mexico	282.0	255.0	1,705.0	1,528.0	-10.4
New York	628.0	630.0	3,915.0	3,963.0	1.2
North Carolina	39.0	38.0	220.0	217.0	-1.4
North Dakota	14.0	10.5	77.0	60.0	-22.1
Ohio	250.0	255.0	1,372.0	1,406.0	2.5
Oklahoma	39.0	37.0	178.0	167.0	-6.2
Oregon	123.0	120.0	635.0	616.0	-3.0
Pennsylvania	467.0	466.0	2,432.0	2,410.0	-0.9
Rhode Island	0.5	0.5	2.4	2.4	-
South Carolina	9.0	8.0	38.0	35.0	-7.9
South Dakota	185.0	202.0	1,061.0	1,158.0	9.1
Tennessee	26.0	25.0	118.0	113.0	-4.2
Texas	653.0	635.0	4,144.0	4,086.0	-1.4
Utah	92.0	92.0	525.0	526.0	0.2
Vermont	118.0	116.0	633.0	618.0	-2.4
Virginia	68.0	68.0	343.0	349.0	1.7
Washington	255.0	257.0	1,512.0	1,527.0	1.0
West Virginia	5.0	4.5	18.0	16.0	-11.1
Wisconsin	1,271.0	1,270.0	7,910.0	7,949.0	0.5
Wyoming	9.0	9.0	61.0	62.0	1.6
Other States ³	0.8	0.8	1.1	1.6	45.5
United States	9,404.0	9,360.0	55,897.0	55,565.0	-0.6

- 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 0.2 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 55.6 billion pounds by more than 0.2 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	0.2	0.3	66	2	215	10	10
All milk cows	0.1	0.1	6	0	24	12	7

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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Ryan Cowen – Cattle, Cattle on Feed	(202) 720-3040
Kim DaPra – Milk Production and Milk Cows	(512) 501-3266
Donnie Fike – Dairy Products	(202) 690-3347
Anthony Fischer – Hogs and Pigs	(202) 720-3106
Suzanne Richards – Sheep and Goats	(202) 720-4448

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