



Milk Production

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Update Alert – October 27, 2023

US totals for Estimated Milk Cows and Production by Month for April, May, and June 2023 were updated on page 2. US and state totals for Milk Cows and Production by Quarter for April-June 2023 were updated on pages 2 and 5.

September Milk Production down slightly

Milk production in the 24 major States during September totaled 17.5 billion pounds, down slightly from September 2022. August revised production, at 18.1 billion pounds, was down 0.7 percent from August 2022. The August revision represented a decrease of 73 million pounds or 0.4 percent from last month's preliminary production estimate.

Production per cow in the 24 major States averaged 1,960 pounds for September, 3 pounds above September 2022.

The number of milk cows on farms in the 24 major States was 8.91 million head, 16,000 head less than September 2022, and 2,000 head less than August 2023.

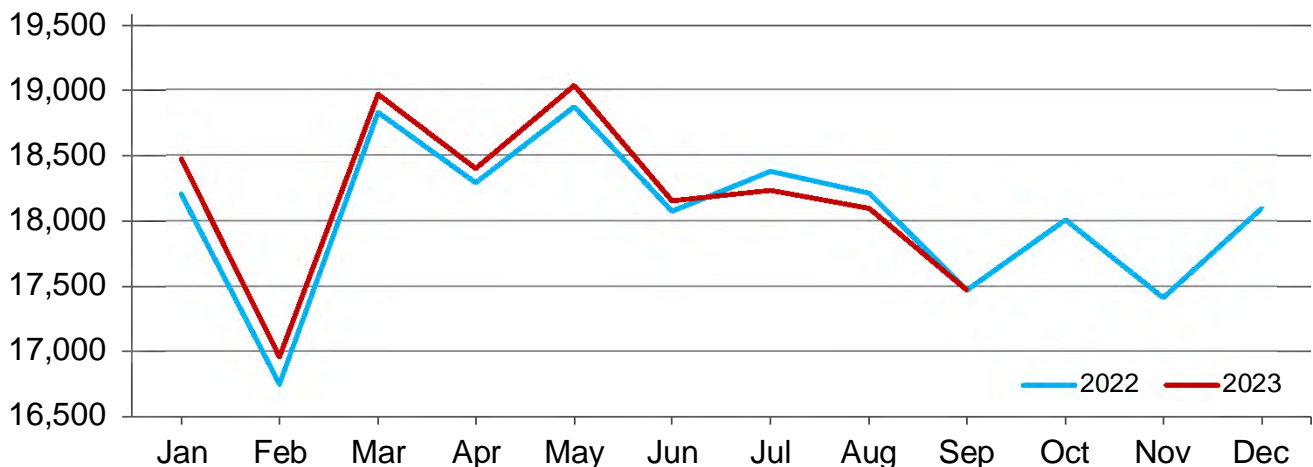
July-September Milk Production down 0.7 Percent

Milk production in the United States during the July - September quarter totaled 56.1 billion pounds, down 0.7 percent from the July - September quarter last year.

The average number of milk cows in the United States during the quarter was 9.38 million head, 41,000 head less than the April - June quarter, and 33,000 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. Blank data cells indicate estimation period has not yet begun]

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	9,375	5,999	5,980	56,438	56,066	-0.7
October-December	9,404		5,944		55,897		
Annual	9,402		24,087		226,462		

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. Blank data cells indicate estimation period has not yet begun]

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	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	8,911	1,957	1,960	17,470	17,465	(Z)
October	8,931		2,016		18,005		
November	8,924		1,951		17,413		
December	8,918		2,029		18,093		
Annual	8,913		24,300		216,584		

(Z) Less than half of the unit shown.

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. Blank data cells indicate estimation period has not yet begun]

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	9,379	2,038	2,026	19,180	19,000	-0.9
August	9,406	9,376	2,022	2,011	19,016	18,856	-0.8
September	9,406	9,370	1,939	1,943	18,242	18,210	-0.2
October	9,412		1,998		18,809		
November	9,404		1,934		18,184		
December	9,396		2,012		18,904		
Annual	9,402		24,087		226,462		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – 24 Selected States: September 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	201	1,790	1,800	349	362	3.7
California	1,723	1,714	1,900	1,875	3,274	3,214	-1.8
Colorado	206	198	2,130	2,130	439	422	-3.9
Florida	93	100	1,430	1,485	133	149	12.0
Georgia	92	94	1,695	1,745	156	164	5.1
Idaho	660	665	2,105	2,075	1,389	1,380	-0.6
Illinois	80	79	1,650	1,660	132	131	-0.8
Indiana	186	191	1,900	1,910	353	365	3.4
Iowa	238	240	2,000	2,000	476	480	0.8
Kansas	175	169	1,955	1,945	342	329	-3.8
Michigan	428	439	2,235	2,240	957	983	2.7
Minnesota	453	450	1,895	1,895	858	853	-0.6
New Mexico	284	265	1,970	1,960	559	519	-7.2
New York	625	630	2,055	2,080	1,284	1,310	2.0
Ohio	250	255	1,770	1,795	443	458	3.4
Oregon	125	120	1,710	1,710	214	205	-4.2
Pennsylvania	468	466	1,680	1,685	786	785	-0.1
South Dakota	185	197	1,920	1,910	355	376	5.9
Texas	655	635	2,050	2,095	1,343	1,330	-1.0
Utah	92	92	1,905	1,905	175	175	-
Vermont	117	116	1,770	1,750	207	203	-1.9
Virginia	69	68	1,615	1,660	111	113	1.8
Washington	257	257	2,010	1,990	517	511	-1.2
Wisconsin	1,271	1,270	2,060	2,085	2,618	2,648	1.1
24-State Total	8,927	8,911	1,957	1,960	17,470	17,465	(Z)

- Represents zero.

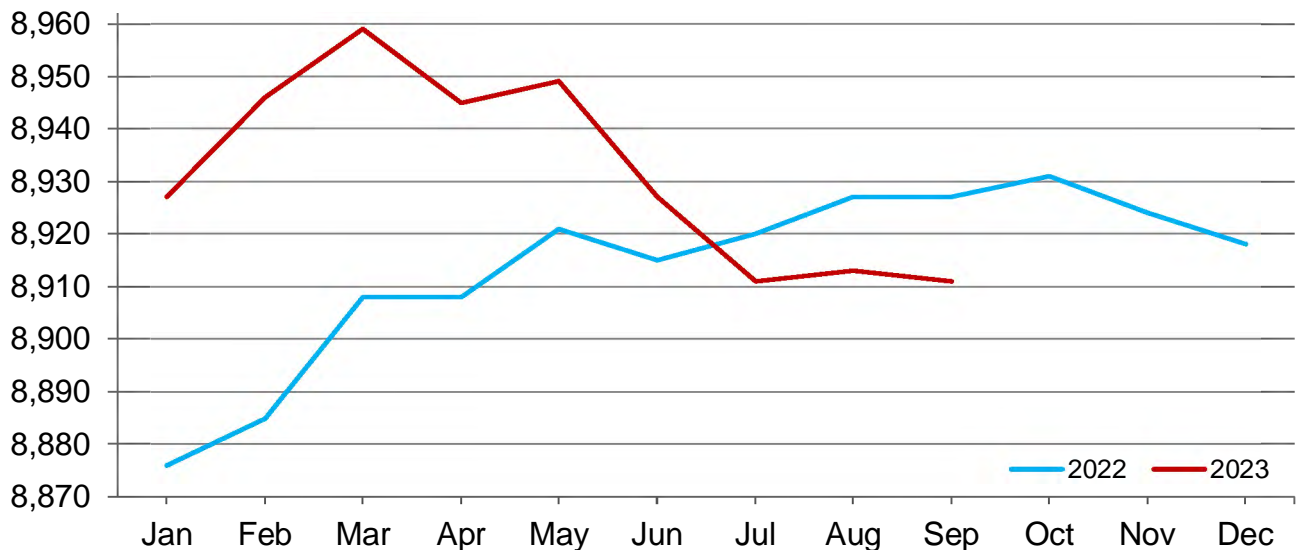
(Z) Less than half of the unit shown.

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: August 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	196	201	1,840	1,850	361	372	3.0
California	1,723	1,714	2,010	1,930	3,463	3,308	-4.5
Colorado	206	198	2,215	2,200	456	436	-4.4
Florida	95	98	1,545	1,620	147	159	8.2
Georgia	93	94	1,750	1,790	163	168	3.1
Idaho	657	666	2,205	2,175	1,449	1,449	-
Illinois	80	79	1,730	1,720	138	136	-1.4
Indiana	186	190	1,950	1,970	363	374	3.0
Iowa	238	240	2,070	2,065	493	496	0.6
Kansas	174	169	2,000	1,970	348	333	-4.3
Michigan	427	439	2,325	2,335	993	1,025	3.2
Minnesota	453	450	1,985	1,970	899	887	-1.3
New Mexico	287	270	2,050	2,005	588	541	-8.0
New York	624	630	2,130	2,195	1,329	1,383	4.1
Ohio	250	253	1,860	1,890	465	478	2.8
Oregon	124	120	1,775	1,775	220	213	-3.2
Pennsylvania	468	466	1,755	1,770	821	825	0.5
South Dakota	185	197	1,990	1,975	368	389	5.7
Texas	655	635	2,115	2,110	1,385	1,340	-3.2
Utah	93	93	1,995	1,990	186	185	-0.5
Vermont	117	117	1,830	1,845	214	216	0.9
Virginia	69	68	1,675	1,730	116	118	1.7
Washington	255	257	2,035	2,050	519	527	1.5
Wisconsin	1,272	1,269	2,145	2,155	2,728	2,735	0.3
24-State Total	8,927	8,913	2,040	2,030	18,212	18,093	-0.7

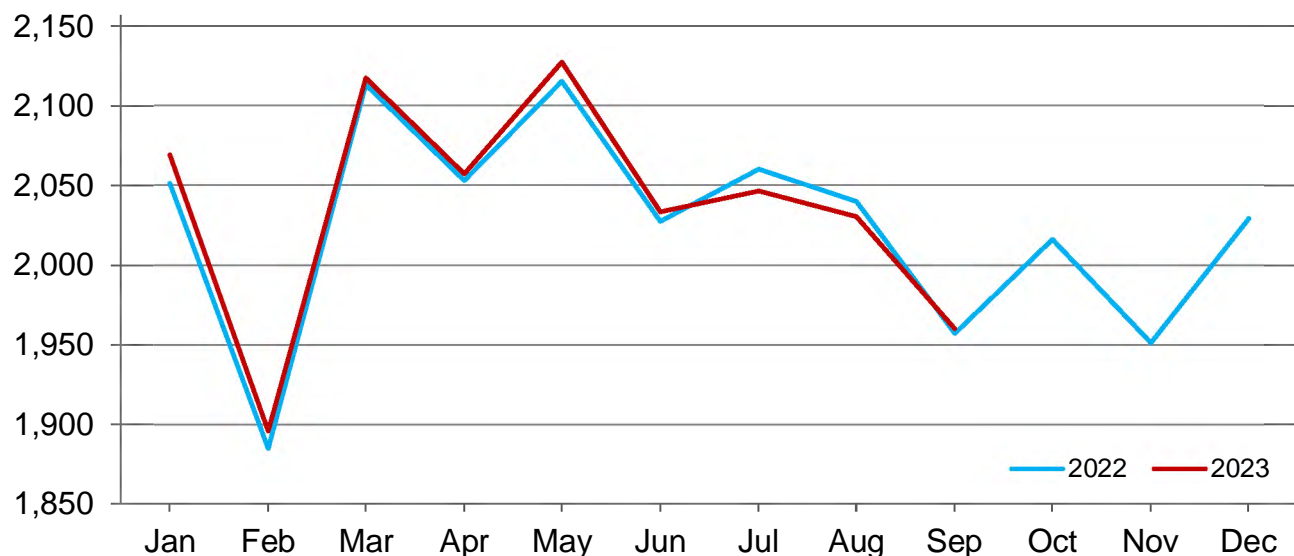
- Represents zero.

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 April - June 2022 and 2023

[May not add due to rounding]

State	April - June milk cows ¹		April - June milk production ²		Change from 2022
	2022	2023	2022	2023	
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	2.5	2.5	9.0	8.0	-11.1
Alaska	(D)	(D)	(D)	(D)	(NA)
Arizona	199.0	198.0	1,264.0	1,268.0	0.3
Arkansas	4.5	3.0	13.0	9.0	-30.8
California	1,722.0	1,719.0	10,752.0	10,612.0	-1.3
Colorado	206.0	205.0	1,347.0	1,342.0	-0.4
Connecticut	18.5	18.0	111.0	108.0	-2.7
Delaware	2.8	2.7	12.9	12.9	-
Florida	98.0	92.0	517.0	498.0	-3.7
Georgia	92.0	93.0	519.0	533.0	2.7
Hawaii	(D)	(D)	(D)	(D)	(NA)
Idaho	654.0	670.0	4,220.0	4,329.0	2.6
Illinois	80.0	79.0	446.0	443.0	-0.7
Indiana	186.0	189.0	1,129.0	1,151.0	1.9
Iowa	233.0	240.0	1,454.0	1,503.0	3.4
Kansas	173.0	178.0	1,046.0	1,070.0	2.3
Kentucky	46.0	45.0	251.0	244.0	-2.8
Louisiana	9.0	8.0	32.0	29.0	-9.4
Maine	26.0	25.0	144.0	142.0	-1.4
Maryland	41.0	40.0	216.0	216.0	-
Massachusetts	9.5	9.0	49.0	47.0	-4.1
Michigan	427.0	436.0	2,968.0	3,061.0	3.1
Minnesota	452.0	453.0	2,627.0	2,675.0	1.8
Mississippi	7.0	6.0	26.0	20.0	-23.1
Missouri	68.0	63.0	263.0	240.0	-8.7
Montana	10.0	10.0	57.0	55.0	-3.5
Nebraska	58.0	55.0	359.0	345.0	-3.9
Nevada	32.0	36.0	199.0	201.0	1.0
New Hampshire	10.0	10.0	57.0	54.0	-5.3
New Jersey	4.3	4.0	23.0	22.0	-4.3
New Mexico	291.0	279.0	1,845.0	1,757.0	-4.8
New York	622.0	630.0	3,980.0	4,102.0	3.1
North Carolina	39.0	38.0	239.0	229.0	-4.2
North Dakota	14.0	12.0	81.0	71.0	-12.3
Ohio	250.0	252.0	1,402.0	1,436.0	2.4
Oklahoma	40.0	39.0	186.0	178.0	-4.3
Oregon	127.0	122.0	682.0	655.0	-4.0
Pennsylvania	467.0	466.0	2,572.0	2,558.0	-0.5
Rhode Island	0.5	0.5	2.6	2.5	-3.8
South Carolina	9.0	8.5	44.0	40.0	-9.1
South Dakota	178.0	192.0	1,036.0	1,114.0	7.5
Tennessee	27.0	25.0	130.0	119.0	-8.5
Texas	644.0	642.0	4,199.0	4,188.0	-0.3
Utah	94.0	93.0	560.0	551.0	-1.6
Vermont	118.0	118.0	649.0	649.0	-
Virginia	70.0	67.0	369.0	362.0	-1.9
Washington	261.0	259.0	1,591.0	1,591.0	-
West Virginia	5.0	4.5	20.0	17.0	-15.0
Wisconsin	1,273.0	1,269.0	8,062.0	8,134.0	0.9
Wyoming	9.5	9.5	60.3	60.8	0.8
Other States ³	1.0	0.9	1.3	1.7	30.8
United States	9,411.0	9,416.0	57,822.0	58,054.0	0.4

- 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 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	1,112.0	2.5
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	1,299.0	-3.9
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	463.0	6.7
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	4,291.0	-0.2
Illinois	80.0	79.0	412.0	410.0	-0.5
Indiana	186.0	190.0	1,082.0	1,120.0	3.5
Iowa	237.0	241.0	1,460.0	1,484.0	1.6
Kansas	174.0	169.0	1,038.0	997.0	-3.9
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	24.0	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	450.0	2,658.0	2,637.0	-0.8
Mississippi	6.0	5.5	19.0	15.0	-21.1
Missouri	65.0	61.0	222.0	203.0	-8.6
Montana	10.0	9.5	56.0	53.0	-5.4
Nebraska	57.0	54.0	349.0	334.0	-4.3
Nevada	32.0	36.0	201.0	200.0	-0.5
New Hampshire	10.0	10.0	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	4,079.0	3.3
North Carolina	39.0	38.0	215.0	213.0	-0.9
North Dakota	14.0	11.0	81.0	65.0	-19.8
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	634.0	-4.2
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	8.5	35.0	34.0	-2.9
South Dakota	184.0	197.0	1,084.0	1,156.0	6.6
Tennessee	27.0	25.0	120.0	110.0	-8.3
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	349.0	1.5
Washington	256.0	257.0	1,568.0	1,565.0	-0.2
West Virginia	5.0	4.5	18.0	16.0	-11.1
Wisconsin	1,272.0	1,269.0	8,081.0	8,149.0	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	9,375.0	56,438.0	56,066.0	-0.7

(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 56.1 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	11	9
All milk cows	0.1	0.2	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.

Travis Averill, Chief, Livestock Branch	(202) 692-0069
Scott Hollis, Head, Livestock Section	(202) 690-2424
Sherry Bertramsen – Livestock Slaughter	(202) 690-8632
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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- 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.

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