



Released October 20, 2016, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

September Milk Production up 2.3 Percent

Milk production in the 23 major States during September totaled 16.0 billion pounds, up 2.3 percent from September 2015. August revised production at 16.7 billion pounds, was up 1.9 percent from August 2015. The August revision represented a decrease of 3 million pounds or less than 0.1 percent from last month's preliminary production estimate.

Production per cow in the 23 major States averaged 1,842 pounds for September, 35 pounds above September 2015. This is the highest production per cow for the month of September since the 23 State series began in 2003.

The number of milk cows on farms in the 23 major States was 8.67 million head, 36,000 head more than September 2015, but 2,000 head less than August 2016.

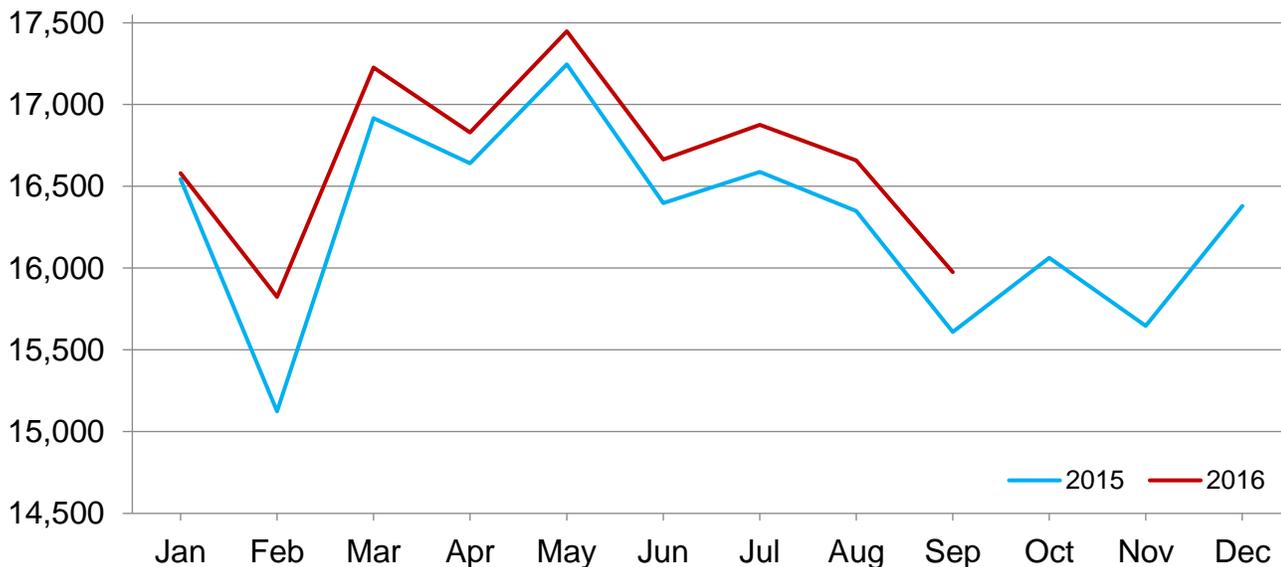
July-September Milk Production up 1.7 Percent

Milk production in the United States during the July - September quarter totaled 52.6 billion pounds, up 1.7 percent from the July - September quarter last year.

The average number of milk cows in the United States during the quarter was 9.34 million head, 9,000 head more than the April - June quarter, and 21,000 head more than the same period last year.

Monthly Milk Production – 23 Selected States

Million pounds



Milk Cows and Production by Quarter – United States: 2015-2016

[May not add due to rounding]

Quarter	Milk cows ¹		Milk per cow ²		Milk production ²		
	2015	2016	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March	9,309	9,319	5,579	5,692	51,936	53,041	2.1
April-June	9,321	9,327	5,763	5,828	53,720	54,360	1.2
July-September	9,315	9,336	5,549	5,632	51,685	52,585	1.7
October-December	9,321		5,503		51,292		
Annual	9,317		22,393		208,633		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production By Month – 23 Selected States: 2015-2016

Month	Milk cows ¹		Milk per cow ²		Milk production ²		
	2015	2016	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	8,621	8,627	1,919	1,922	16,544	16,581	0.2
February	8,621	8,633	1,754	1,833	15,124	15,824	4.6
March	8,623	8,644	1,962	1,993	16,918	17,227	1.8
April	8,627	8,644	1,929	1,947	16,641	16,830	1.1
May	8,633	8,644	1,998	2,019	17,246	17,448	1.2
June	8,630	8,647	1,900	1,927	16,397	16,664	1.6
July	8,630	8,661	1,922	1,949	16,589	16,876	1.7
August	8,633	8,674	1,894	1,920	16,349	16,658	1.9
September	8,636	8,672	1,807	1,842	15,609	15,975	2.3
October	8,638		1,860		16,063		
November	8,640		1,811		15,646		
December	8,638		1,896		16,381		
Annual	8,631		22,652		195,507		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Estimated Milk Cows and Production By Month – United States: 2015-2016

Month	Milk cows ¹		Milk per cow ²		Milk production ²		
	2015	2016	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January	9,308	9,310	1,900	1,903	17,685	17,718	0.2
February	9,308	9,317	1,737	1,815	16,166	16,912	4.6
March	9,311	9,329	1,942	1,974	18,085	18,411	1.8
April	9,316	9,327	1,909	1,926	17,788	17,964	1.0
May	9,324	9,327	1,976	1,997	18,428	18,622	1.1
June	9,323	9,328	1,878	1,905	17,504	17,774	1.5
July	9,314	9,329	1,897	1,921	17,665	17,925	1.5
August	9,315	9,341	1,868	1,894	17,403	17,693	1.7
September	9,317	9,338	1,784	1,817	16,617	16,967	2.1
October	9,320		1,838		17,130		
November	9,322		1,790		16,689		
December	9,320		1,875		17,473		
Annual	9,317		22,393		208,633		

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production – 23 Selected States: September 2015 and 2016

[May not add due to rounding]

State	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2015
	2015	2016	2015	2016	2015	2016	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	195	198	1,795	1,790	350	354	1.1
California	1,777	1,766	1,785	1,795	3,172	3,170	-0.1
Colorado	145	152	2,145	2,140	311	325	4.5
Florida	125	120	1,450	1,465	181	176	-2.8
Idaho	587	599	1,995	2,050	1,171	1,228	4.9
Illinois	94	93	1,520	1,530	143	142	-0.7
Indiana	183	184	1,780	1,805	326	332	1.8
Iowa	210	211	1,810	1,880	380	397	4.5
Kansas	143	146	1,760	1,835	252	268	6.3
Michigan	410	422	2,015	2,070	826	874	5.8
Minnesota	460	461	1,635	1,670	752	770	2.4
New Mexico	323	318	1,960	1,965	633	625	-1.3
New York	620	620	1,860	1,950	1,153	1,209	4.9
Ohio	266	264	1,660	1,675	442	442	-
Oregon	125	125	1,685	1,680	211	210	-0.5
Pennsylvania	530	527	1,615	1,645	856	867	1.3
South Dakota	108	115	1,825	1,800	197	207	5.1
Texas	462	488	1,785	1,780	825	869	5.3
Utah	96	92	1,875	1,890	180	174	-3.3
Vermont	131	130	1,625	1,690	213	220	3.3
Virginia	90	89	1,545	1,510	139	134	-3.6
Washington	277	275	1,935	1,975	536	543	1.3
Wisconsin	1,279	1,277	1,845	1,910	2,360	2,439	3.3
23-State Total	8,636	8,672	1,807	1,842	15,609	15,975	2.3

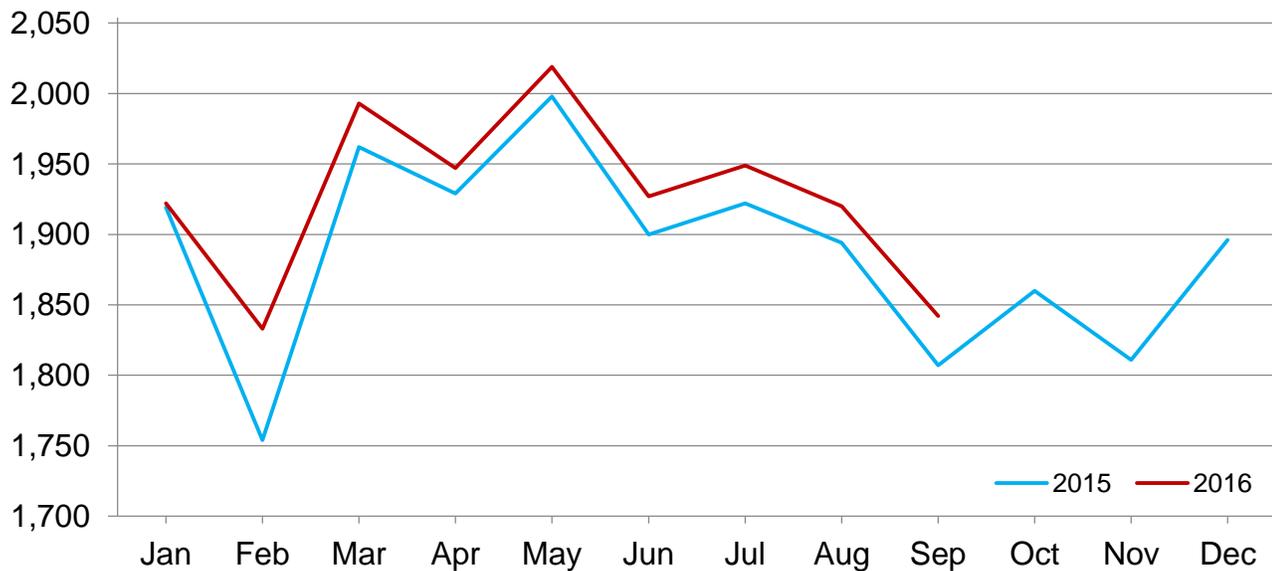
- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Monthly Milk per Cow – 23 Selected States

Pounds



Milk Cows and Production – 23 Selected States: August 2015 and 2016

[May not add due to rounding]

	Milk cows ¹		Milk per cow ²		Milk production ²		Change from 2015
	2015	2016	2015	2016	2015	2016	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona	195	197	1,870	1,855	365	365	-
California	1,778	1,767	1,880	1,860	3,343	3,287	-1.7
Colorado	145	152	2,210	2,235	320	340	6.3
Florida	125	120	1,555	1,585	194	190	-2.1
Idaho	586	599	2,090	2,155	1,225	1,291	5.4
Illinois	94	93	1,600	1,590	150	148	-1.3
Indiana	181	184	1,860	1,870	337	344	2.1
Iowa	211	211	1,915	1,970	404	416	3.0
Kansas	143	146	1,840	1,905	263	278	5.7
Michigan	410	422	2,140	2,180	877	920	4.9
Minnesota	460	462	1,730	1,745	796	806	1.3
New Mexico	323	317	2,010	2,080	649	659	1.5
New York	619	620	1,945	2,015	1,204	1,249	3.7
Ohio	266	264	1,750	1,730	466	457	-1.9
Oregon	123	125	1,740	1,745	214	218	1.9
Pennsylvania	530	529	1,700	1,695	901	897	-0.4
South Dakota	107	115	1,915	1,880	205	216	5.4
Texas	462	487	1,790	1,885	827	918	11.0
Utah	96	92	1,990	2,000	191	184	-3.7
Vermont	132	130	1,700	1,745	224	227	1.3
Virginia	91	89	1,595	1,540	145	137	-5.5
Washington	276	275	2,050	2,065	566	568	0.4
Wisconsin	1,280	1,278	1,940	1,990	2,483	2,543	2.4
23-State Total	8,633	8,674	1,894	1,920	16,349	16,658	1.9

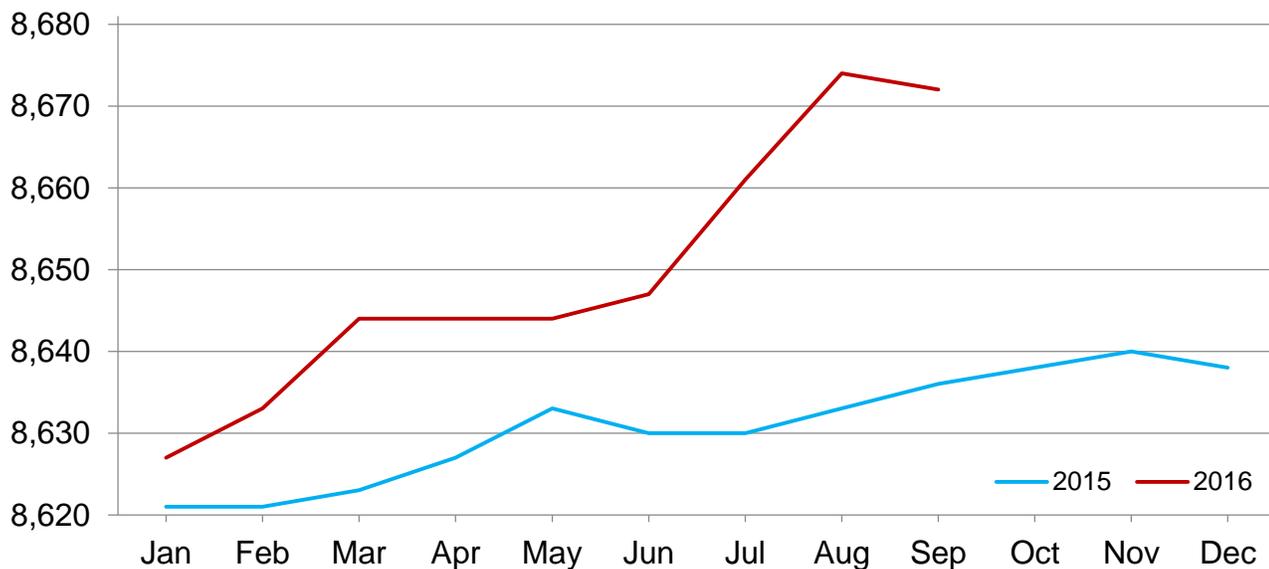
- Represents zero.

¹ Includes dry cows. Excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Monthly Milk Cows – 23 Selected States

Thousand head



Milk Cows and Production – States and United States: Revised April - June 2015 and 2016

[May not add due to rounding]

State	April - June milk cows ¹		April - June milk production ²		
	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	8.0	7.0	28.0	26.0	-7.1
Alaska	0.3	0.3	0.9	0.9	-
Arizona	195.0	198.0	1,259.0	1,281.0	1.7
Arkansas	7.0	6.5	26.0	22.0	-15.4
California	1,778.0	1,771.0	10,652.0	10,394.0	-2.4
Colorado	145.0	149.0	944.0	972.0	3.0
Connecticut	19.5	19.0	102.0	105.0	2.9
Delaware	5.0	5.0	25.9	25.7	-0.8
Florida	125.0	123.0	701.0	671.0	-4.3
Georgia	82.0	85.0	469.0	483.0	3.0
Hawaii	2.3	2.5	10.0	9.7	-3.0
Idaho	586.0	592.0	3,602.0	3,692.0	2.5
Illinois	95.0	94.0	498.0	498.0	-
Indiana	181.0	184.0	1,024.0	1,049.0	2.4
Iowa	212.0	211.0	1,243.0	1,272.0	2.3
Kansas	144.0	145.0	822.0	834.0	1.5
Kentucky	62.0	58.0	289.0	284.0	-1.7
Louisiana	14.0	12.5	52.0	49.0	-5.8
Maine	30.0	30.0	150.0	163.0	8.7
Maryland	49.0	48.0	255.0	246.0	-3.5
Massachusetts	12.0	11.5	56.0	56.0	-
Michigan	406.0	418.0	2,612.0	2,780.0	6.4
Minnesota	460.0	461.0	2,413.0	2,469.0	2.3
Mississippi	12.0	10.0	47.0	40.0	-14.9
Missouri	88.0	88.0	370.0	360.0	-2.7
Montana	14.0	14.0	77.0	75.0	-2.6
Nebraska	56.0	60.0	328.0	351.0	7.0
Nevada	29.0	30.0	168.0	164.0	-2.4
New Hampshire	14.0	13.5	72.0	73.0	1.4
New Jersey	7.0	6.5	33.0	32.0	-3.0
New Mexico	323.0	310.0	2,044.0	1,970.0	-3.6
New York	618.0	620.0	3,586.0	3,760.0	4.9
North Carolina	46.0	47.0	256.0	252.0	-1.6
North Dakota	16.0	16.0	85.0	88.0	3.5
Ohio	267.0	266.0	1,409.0	1,419.0	0.7
Oklahoma	40.0	38.0	191.0	185.0	-3.1
Oregon	124.0	126.0	655.0	663.0	1.2
Pennsylvania	530.0	530.0	2,796.0	2,809.0	0.5
Rhode Island	0.9	0.8	4.0	3.7	-7.5
South Carolina	15.0	15.0	71.0	68.0	-4.2
South Dakota	105.0	114.0	587.0	637.0	8.5
Tennessee	46.0	43.0	199.0	185.0	-7.0
Texas	462.0	465.0	2,656.0	2,715.0	2.2
Utah	96.0	93.0	573.0	546.0	-4.7
Vermont	132.0	131.0	682.0	694.0	1.8
Virginia	92.0	90.0	461.0	446.0	-3.3
Washington	276.0	275.0	1,690.0	1,680.0	-0.6
West Virginia	9.0	9.0	37.0	36.0	-2.7
Wisconsin	1,279.0	1,279.0	7,375.0	7,691.0	4.3
Wyoming	6.0	6.0	34.0	34.6	1.8
United States	9,321.0	9,327.0	53,720.0	54,360.0	1.2

- 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 July - September 2015 and 2016

[May not add due to rounding]

State	July - September milk cows ¹		July - September milk production ²		
	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama	7.5	6.5	21.0	20.0	-4.8
Alaska	0.3	0.3	0.9	0.9	-
Arizona	195.0	197.0	1,102.0	1,107.0	0.5
Arkansas	7.0	6.0	20.0	17.0	-15.0
California	1,778.0	1,767.0	9,920.0	9,834.0	-0.9
Colorado	145.0	152.0	953.0	1,005.0	5.5
Connecticut	19.5	19.0	98.0	100.0	2.0
Delaware	5.0	5.0	23.0	21.7	-5.7
Florida	125.0	120.0	589.0	565.0	-4.1
Georgia	84.0	83.0	421.0	415.0	-1.4
Hawaii	2.2	2.4	8.6	8.6	-
Idaho	586.0	599.0	3,624.0	3,816.0	5.3
Illinois	94.0	93.0	448.0	446.0	-0.4
Indiana	182.0	184.0	998.0	1,016.0	1.8
Iowa	211.0	211.0	1,188.0	1,231.0	3.6
Kansas	143.0	146.0	779.0	819.0	5.1
Kentucky	60.0	55.0	249.0	231.0	-7.2
Louisiana	13.0	12.0	37.0	33.0	-10.8
Maine	30.0	30.0	151.0	158.0	4.6
Maryland	48.0	47.0	239.0	229.0	-4.2
Massachusetts	12.0	11.5	54.0	53.0	-1.9
Michigan	410.0	421.0	2,591.0	2,726.0	5.2
Minnesota	460.0	462.0	2,358.0	2,391.0	1.4
Mississippi	10.5	9.5	31.0	30.0	-3.2
Missouri	88.0	88.0	324.0	324.0	-
Montana	14.0	14.0	75.0	74.0	-1.3
Nebraska	57.0	60.0	323.0	344.0	6.5
Nevada	29.0	30.0	173.0	166.0	-4.0
New Hampshire	14.0	13.5	70.0	70.0	-
New Jersey	7.0	6.5	31.0	29.0	-6.5
New Mexico	323.0	316.0	1,941.0	1,935.0	-0.3
New York	619.0	620.0	3,576.0	3,729.0	4.3
North Carolina	46.0	45.0	235.0	226.0	-3.8
North Dakota	16.0	16.0	84.0	87.0	3.6
Ohio	266.0	265.0	1,379.0	1,372.0	-0.5
Oklahoma	38.0	36.0	166.0	155.0	-6.6
Oregon	123.0	125.0	638.0	651.0	2.0
Pennsylvania	530.0	529.0	2,674.0	2,684.0	0.4
Rhode Island	0.9	0.8	4.0	3.5	-12.5
South Carolina	15.0	14.5	58.0	55.0	-5.2
South Dakota	107.0	115.0	605.0	638.0	5.5
Tennessee	43.0	41.0	172.0	159.0	-7.6
Texas	462.0	483.0	2,507.0	2,680.0	6.9
Utah	96.0	92.0	564.0	541.0	-4.1
Vermont	132.0	130.0	667.0	677.0	1.5
Virginia	91.0	89.0	432.0	412.0	-4.6
Washington	276.0	275.0	1,662.0	1,683.0	1.3
West Virginia	8.5	8.0	34.0	31.0	-8.8
Wisconsin	1,280.0	1,278.0	7,352.0	7,551.0	2.7
Wyoming	6.0	6.0	35.0	35.1	0.3
United States	9,315.0	9,336.0	51,685.0	52,585.0	1.7

- Represents zero.

¹ Excludes 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: State 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 52.6 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]

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	0.2	53	2	141	17	3
All milk cows	0.0	0.1	3	0	8	14	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.

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Doug Bounds – Hogs and Pigs	(202) 720-3106
David Colwell – Sheep and Goats	(202) 720-8784
Donnie Fike – Dairy Products	(202) 690-3236
Michael Klamm – Cattle, Cattle on Feed	(202) 720-3040
Mike Miller – Milk Production and Milk Cows	(202) 720-3278

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