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## March Milk Production up 1.8 Percent

**Milk production** in the 23 major States during March totaled 17.2 billion pounds, up 1.8 percent from March 2015. February revised production at 15.8 billion pounds, was up 4.6 percent from February 2015. The February revision represented an increase of 4 million pounds or less than 0.1 percent from last month's preliminary production estimate. Adjusting February production for the additional day due to leap year causes February revised production to be up 1.0 percent on a per day basis.

**Production per cow** in the 23 major States averaged 1,993 pounds for March, 31 pounds above March 2015. This is the highest production per cow for the month of March since the 23 State series began in 2003.

**The number of milk cows** on farms in the 23 major States was 8.64 million head, 19,000 head more than March 2015, and 9,000 head more than February 2016.

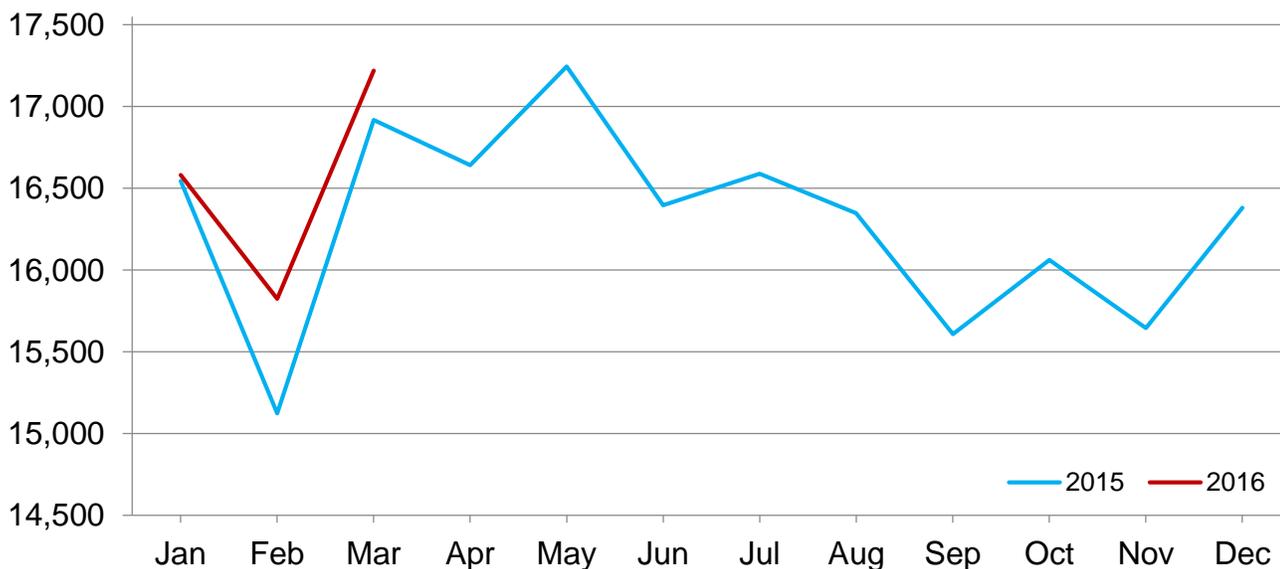
## January-March Milk Production up 2.1 Percent

**Milk production** in the United States during the January - March quarter totaled 53.0 billion pounds, up 2.1 percent from the January - March quarter last year.

**The average number of milk cows** in the United States during the quarter was 9.32 million head, 5,000 head less than the October - December 2015 quarter, but 7,000 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 <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	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	9,316	5,579	5,693	51,936	53,038	2.1
April-June .....	9,321		5,763		53,720		
July-September .....	9,315		5,549		51,685		
October-December .....	9,321		5,503		51,292		
Annual .....	9,317		22,393		208,633		

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

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

Month	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	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	8,642	1,962	1,993	16,918	17,220	1.8
April .....	8,627		1,929		16,641		
May .....	8,633		1,998		17,246		
June .....	8,630		1,900		16,397		
July .....	8,630		1,922		16,589		
August .....	8,633		1,894		16,349		
September .....	8,636		1,807		15,609		
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		

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

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

Month	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	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	9,309	1,900	1,903	17,685	17,719	0.2
February .....	9,308	9,315	1,737	1,816	16,166	16,913	4.6
March .....	9,311	9,325	1,942	1,974	18,085	18,406	1.8
April .....	9,316		1,909		17,788		
May .....	9,324		1,976		18,428		
June .....	9,323		1,878		17,504		
July .....	9,314		1,897		17,665		
August .....	9,315		1,868		17,403		
September .....	9,317		1,784		16,617		
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		

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Milk Cows and Production – 23 Selected States: March 2015 and 2016

[May not add due to rounding]

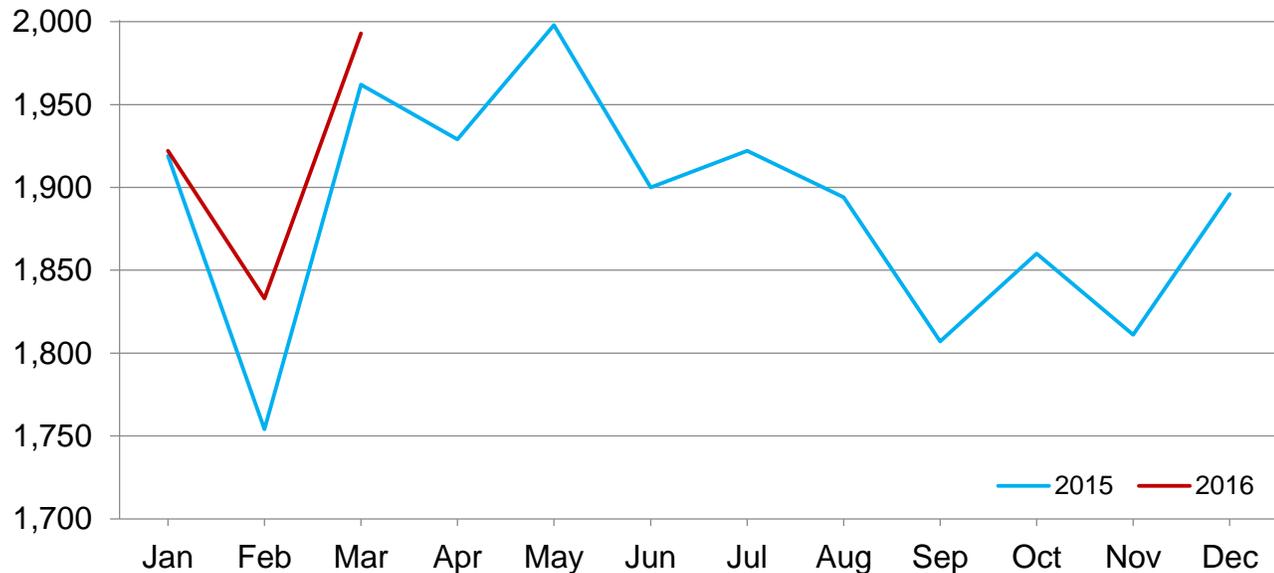
State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2015
	2015	2016	2015	2016	2015	2016	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	195	199	2,265	2,290	442	456	3.2
California .....	1,779	1,774	2,080	2,035	3,700	3,610	-2.4
Colorado .....	145	148	2,190	2,210	318	327	2.8
Florida .....	125	125	1,960	1,845	245	231	-5.7
Idaho .....	583	591	2,035	2,055	1,186	1,215	2.4
Illinois .....	95	94	1,770	1,840	168	173	3.0
Indiana .....	181	184	1,895	1,945	343	358	4.4
Iowa .....	211	209	1,965	2,000	415	418	0.7
Kansas .....	144	144	1,970	1,990	284	287	1.1
Michigan .....	403	416	2,130	2,220	858	924	7.7
Minnesota .....	460	460	1,760	1,810	810	833	2.8
New Mexico .....	323	311	2,125	2,140	686	666	-2.9
New York .....	617	620	1,905	2,000	1,175	1,240	5.5
Ohio .....	268	266	1,745	1,770	468	471	0.6
Oregon .....	125	126	1,785	1,785	223	225	0.9
Pennsylvania .....	530	530	1,770	1,800	938	954	1.7
South Dakota .....	102	113	1,890	1,890	193	214	10.9
Texas .....	464	458	1,925	1,990	893	911	2.0
Utah .....	96	95	1,990	1,975	191	188	-1.6
Vermont .....	132	131	1,720	1,780	227	233	2.6
Virginia .....	92	91	1,685	1,695	155	154	-0.6
Washington .....	277	277	2,055	2,065	569	572	0.5
Wisconsin .....	1,276	1,280	1,905	2,000	2,431	2,560	5.3
23-State Total .....	8,623	8,642	1,962	1,993	16,918	17,220	1.8

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Monthly Milk per Cow – 23 Selected States

Pounds



## Milk Cows and Production – 23 Selected States: February 2015 and 2016

[May not add due to rounding]

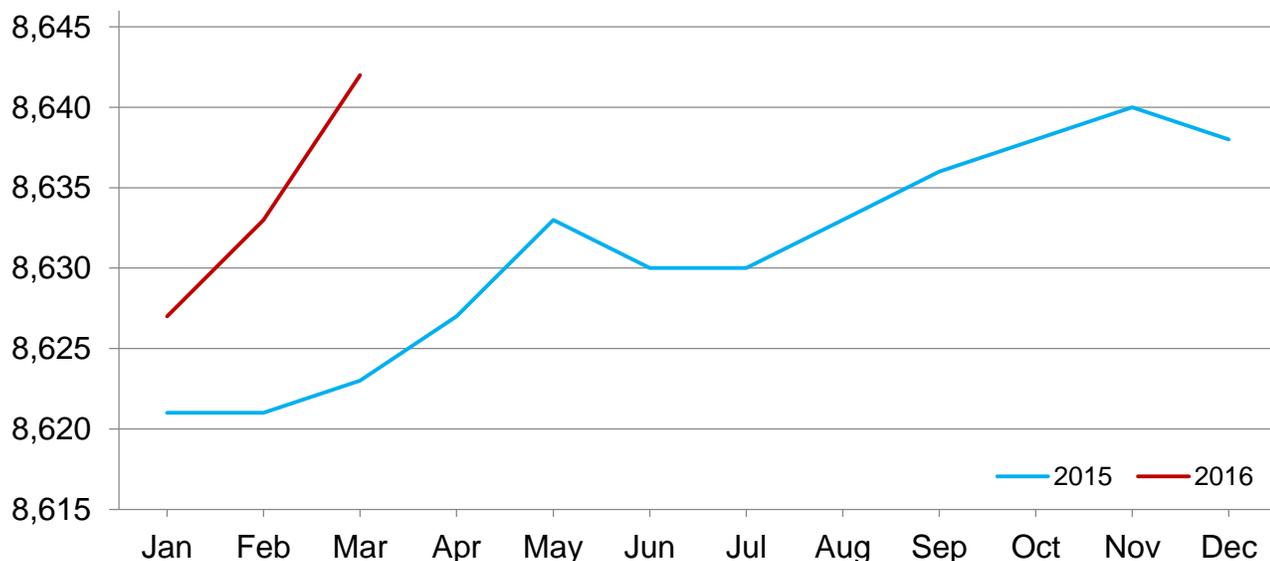
	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2015
	2015	2016	2015	2016	2015	2016	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	195	197	1,990	2,095	388	413	6.4
California .....	1,779	1,774	1,845	1,860	3,282	3,300	0.5
Colorado .....	145	148	1,970	2,050	286	303	5.9
Florida .....	124	126	1,780	1,715	221	216	-2.3
Idaho .....	581	589	1,810	1,910	1,052	1,125	6.9
Illinois .....	95	94	1,590	1,660	151	156	3.3
Indiana .....	181	184	1,705	1,815	309	334	8.1
Iowa .....	211	209	1,775	1,865	375	390	4.0
Kansas .....	143	143	1,740	1,830	249	262	5.2
Michigan .....	403	414	1,900	2,065	766	855	11.6
Minnesota .....	460	460	1,590	1,680	731	773	5.7
New Mexico .....	323	311	1,880	1,900	607	591	-2.6
New York .....	616	620	1,715	1,845	1,056	1,144	8.3
Ohio .....	268	266	1,570	1,585	421	422	0.2
Oregon .....	125	126	1,570	1,650	196	208	6.1
Pennsylvania .....	530	530	1,585	1,640	840	869	3.5
South Dakota .....	101	113	1,700	1,770	172	200	16.3
Texas .....	468	455	1,740	1,815	814	826	1.5
Utah .....	96	95	1,770	1,820	170	173	1.8
Vermont .....	132	131	1,545	1,650	204	216	5.9
Virginia .....	93	91	1,500	1,565	140	142	1.4
Washington .....	277	277	1,830	1,920	507	532	4.9
Wisconsin .....	1,275	1,280	1,715	1,855	2,187	2,374	8.6
23-State Total .....	8,621	8,633	1,754	1,833	15,124	15,824	4.6

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Monthly Milk Cows – 23 Selected States

Thousand head



## Milk Cows and Production – States and United States: Revised October - December 2014 and 2015

[May not add due to rounding]

State	October - December milk cows <sup>1</sup>		October - December milk production <sup>2</sup>		
	2014	2015	2014	2015	Change from 2014
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama .....	8.0	7.0	25.0	23.0	-8.0
Alaska .....	0.3	0.3	0.9	0.8	-11.1
Arizona .....	195.0	195.0	1,159.0	1,166.0	0.6
Arkansas .....	7.0	7.0	22.0	20.0	-9.1
California .....	1,780.0	1,776.0	10,261.0	9,813.0	-4.4
Colorado .....	145.0	147.0	907.0	939.0	3.5
Connecticut .....	19.0	19.0	95.0	98.0	3.2
Delaware .....	4.9	5.0	24.1	23.6	-2.1
Florida .....	123.0	125.0	579.0	593.0	2.4
Georgia .....	81.0	85.0	404.0	439.0	8.7
Hawaii .....	2.2	2.2	7.2	7.6	5.6
Idaho .....	579.0	587.0	3,434.0	3,496.0	1.8
Illinois .....	93.0	94.0	454.0	463.0	2.0
Indiana .....	179.0	184.0	980.0	1,014.0	3.5
Iowa .....	208.0	210.0	1,176.0	1,199.0	2.0
Kansas .....	143.0	142.0	791.0	775.0	-2.0
Kentucky .....	62.0	60.0	248.0	256.0	3.2
Louisiana .....	14.0	13.0	47.0	41.0	-12.8
Maine .....	30.0	30.0	148.0	149.0	0.7
Maryland .....	49.0	49.0	244.0	241.0	-1.2
Massachusetts .....	12.5	12.0	55.0	53.0	-3.6
Michigan .....	399.0	411.0	2,438.0	2,580.0	5.8
Minnesota .....	460.0	460.0	2,286.0	2,351.0	2.8
Mississippi .....	12.0	10.0	45.0	34.0	-24.4
Missouri .....	88.0	88.0	337.0	326.0	-3.3
Montana .....	14.0	14.0	74.0	73.0	-1.4
Nebraska .....	54.0	58.0	304.0	341.0	12.2
Nevada .....	28.0	28.0	174.0	170.0	-2.3
New Hampshire .....	14.0	14.0	69.0	70.0	1.4
New Jersey .....	7.0	7.0	31.0	30.0	-3.2
New Mexico .....	323.0	321.0	1,965.0	1,884.0	-4.1
New York .....	615.0	620.0	3,428.0	3,534.0	3.1
North Carolina .....	47.0	47.0	239.0	241.0	0.8
North Dakota .....	16.0	16.0	79.0	83.0	5.1
Ohio .....	267.0	266.0	1,341.0	1,347.0	0.4
Oklahoma .....	40.0	37.0	185.0	175.0	-5.4
Oregon .....	124.0	126.0	613.0	629.0	2.6
Pennsylvania .....	530.0	530.0	2,645.0	2,640.0	-0.2
Rhode Island .....	0.9	0.9	4.1	3.8	-7.3
South Carolina .....	15.0	15.0	62.0	60.0	-3.2
South Dakota .....	98.0	110.0	542.0	614.0	13.3
Tennessee .....	47.0	43.0	184.0	175.0	-4.9
Texas .....	470.0	462.0	2,576.0	2,530.0	-1.8
Utah .....	96.0	95.0	552.0	535.0	-3.1
Vermont .....	132.0	131.0	662.0	660.0	-0.3
Virginia .....	92.0	90.0	440.0	430.0	-2.3
Washington .....	276.0	277.0	1,617.0	1,623.0	0.4
West Virginia .....	9.0	8.5	34.0	34.0	-
Wisconsin .....	1,273.0	1,280.0	6,956.0	7,275.0	4.6
Wyoming .....	6.0	6.0	32.0	34.4	7.5
United States .....	9,288.0	9,321.0	50,975.0	51,292.0	0.6

- Represents zero.

<sup>1</sup> Includes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

## Milk Cows and Production – States and United States: Preliminary January - March 2015 and 2016

[May not add due to rounding]

State	January - March milk cows <sup>1</sup>		January - March milk production <sup>2</sup>		
	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama .....	8.0	7.0	29.0	28.0	-3.4
Alaska .....	0.3	0.3	0.9	0.8	-11.1
Arizona .....	195.0	197.0	1,246.0	1,286.0	3.2
Arkansas .....	7.0	6.5	25.0	22.0	-12.0
California .....	1,779.0	1,774.0	10,513.0	10,343.0	-1.6
Colorado .....	145.0	148.0	914.0	950.0	3.9
Connecticut .....	19.0	19.0	98.0	103.0	5.1
Delaware .....	5.0	5.0	26.0	26.0	-
Florida .....	124.0	126.0	699.0	675.0	-3.4
Georgia .....	81.0	85.0	468.0	499.0	6.6
Hawaii .....	2.2	2.4	8.8	8.3	-5.7
Idaho .....	581.0	589.0	3,392.0	3,519.0	3.7
Illinois .....	95.0	94.0	483.0	493.0	2.1
Indiana .....	181.0	184.0	994.0	1,044.0	5.0
Iowa .....	211.0	209.0	1,211.0	1,225.0	1.2
Kansas .....	143.0	143.0	803.0	820.0	2.1
Kentucky .....	63.0	59.0	280.0	278.0	-0.7
Louisiana .....	14.0	13.0	58.0	54.0	-6.9
Maine .....	30.0	30.0	144.0	155.0	7.6
Maryland .....	49.0	48.0	248.0	250.0	0.8
Massachusetts .....	12.0	11.5	54.0	54.0	-
Michigan .....	403.0	414.0	2,470.0	2,675.0	8.3
Minnesota .....	460.0	460.0	2,344.0	2,420.0	3.2
Mississippi .....	12.0	10.0	53.0	42.0	-20.8
Missouri .....	89.0	88.0	345.0	356.0	3.2
Montana .....	14.0	14.0	74.0	74.0	-
Nebraska .....	55.0	59.0	315.0	344.0	9.2
Nevada .....	28.0	29.0	158.0	161.0	1.9
New Hampshire .....	14.0	13.5	70.0	72.0	2.9
New Jersey .....	7.0	6.5	33.0	31.0	-6.1
New Mexico .....	323.0	311.0	1,962.0	1,846.0	-5.9
New York .....	616.0	620.0	3,404.0	3,599.0	5.7
North Carolina .....	47.0	47.0	254.0	258.0	1.6
North Dakota .....	16.0	16.0	80.0	83.0	3.8
Ohio .....	268.0	266.0	1,358.0	1,362.0	0.3
Oklahoma .....	40.0	37.0	188.0	183.0	-2.7
Oregon .....	125.0	126.0	629.0	650.0	3.3
Pennsylvania .....	530.0	530.0	2,695.0	2,743.0	1.8
Rhode Island .....	0.9	0.8	4.1	3.6	-12.2
South Carolina .....	15.0	15.0	72.0	70.0	-2.8
South Dakota .....	101.0	113.0	553.0	626.0	13.2
Tennessee .....	46.0	44.0	196.0	187.0	-4.6
Texas .....	467.0	456.0	2,602.0	2,572.0	-1.2
Utah .....	96.0	95.0	550.0	544.0	-1.1
Vermont .....	132.0	131.0	657.0	679.0	3.3
Virginia .....	93.0	91.0	448.0	446.0	-0.4
Washington .....	277.0	277.0	1,631.0	1,659.0	1.7
West Virginia .....	9.0	9.0	36.0	36.0	-
Wisconsin .....	1,275.0	1,280.0	7,028.0	7,449.0	6.0
Wyoming .....	6.0	6.0	32.0	34.4	7.5
United States .....	9,309.0	9,316.0	51,936.0	53,038.0	2.1

- Represents zero.

<sup>1</sup> Excludes dry cows. Excludes heifers not yet fresh.

<sup>2</sup> 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 53.0 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	54	2	141	17	3
All milk cows .....	0.0	0.1	4	0	10	14	4

## 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](mailto: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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