



Released April 20, 2017, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

## March Milk Production up 1.8 Percent

**Milk production** in the 23 major States during March totaled 17.5 billion pounds, up 1.8 percent from March 2016. February revised production at 15.6 billion pounds, was down 1.2 percent from February 2016. However, production was 2.3 percent above last year after adjusting for the leap year. The February revision represented a decrease of 27 million pounds or 0.2 percent from last month's preliminary production estimate.

**Production per cow** in the 23 major States averaged 2,012 pounds for March, 18 pounds above March 2016. 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 8.71 million head, 72,000 head more than March 2016, and 15,000 head more than February 2017.

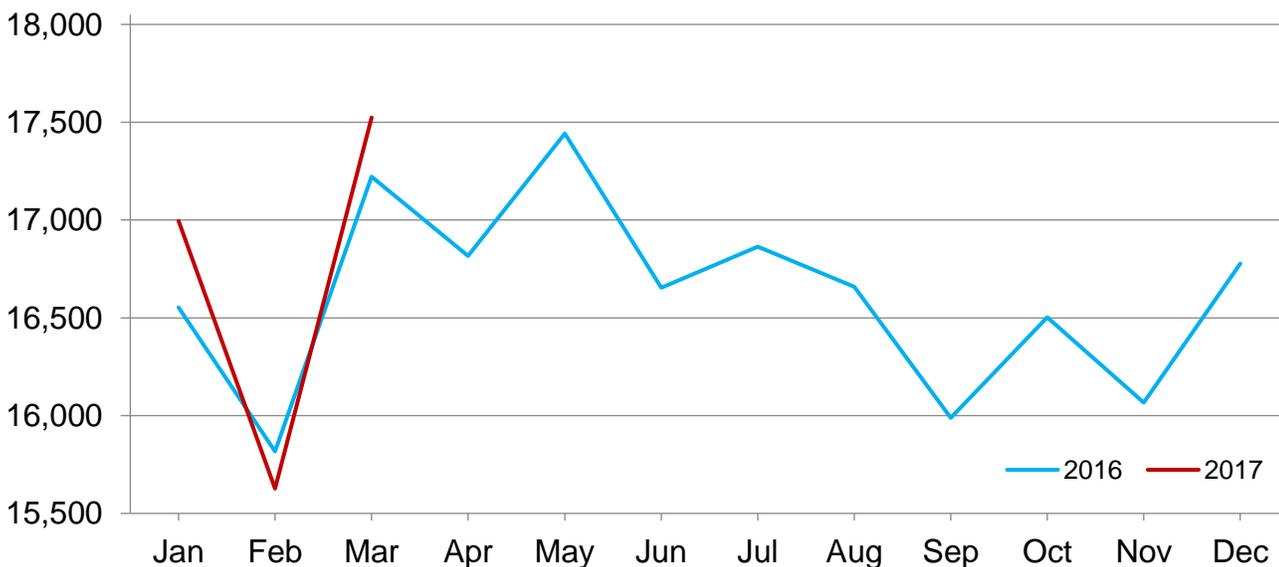
## January-March Milk Production up 1.0 Percent

**Milk production** in the United States during the January - March quarter totaled 53.5 billion pounds, up 1.0 percent from the January - March quarter last year.

**The average number of milk cows** in the United States during the quarter was 9.37 million head, 25,000 head more than the October - December quarter, and 57,000 head more than the same period last year.

## Monthly Milk Production – 23 Selected States

Million pounds



## Milk Cows and Production by Quarter – United States: 2016-2017

[May not add due to rounding]

Quarter	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2016	2017	2016	2017	2016	2017	Change from 2016
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January-March .....	9,312	9,369	5,691	5,715	52,998	53,540	1.0
April-June .....	9,323		5,828		54,331		
July-September .....	9,331		5,636		52,590		
October-December .....	9,344		5,620		52,517		
Annual .....	9,328		22,774		212,436		

<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: 2016-2017

Month	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2016	2017	2016	2017	2016	2017	Change from 2016
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	8,621	8,691	1,920	1,955	16,553	16,995	2.7
February .....	8,628	8,694	1,833	1,797	15,817	15,627	-1.2
March .....	8,637	8,709	1,994	2,012	17,222	17,524	1.8
April .....	8,638		1,947		16,817		
May .....	8,641		2,019		17,442		
June .....	8,648		1,926		16,654		
July .....	8,658		1,948		16,863		
August .....	8,666		1,922		16,659		
September .....	8,664		1,845		15,989		
October .....	8,668		1,904		16,503		
November .....	8,675		1,852		16,066		
December .....	8,683		1,932		16,777		
Annual .....	8,652		23,042		199,362		

<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: 2016-2017

Month	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		
	2016	2017	2016	2017	2016	2017	Change from 2016
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
January .....	9,304	9,362	1,902	1,938	17,693	18,145	2.6
February .....	9,311	9,365	1,815	1,782	16,904	16,685	-1.3
March .....	9,321	9,380	1,974	1,995	18,401	18,710	1.7
April .....	9,321		1,925		17,947		
May .....	9,322		1,997		18,613		
June .....	9,326		1,906		17,771		
July .....	9,329		1,920		17,908		
August .....	9,334		1,895		17,692		
September .....	9,331		1,821		16,990		
October .....	9,335		1,882		17,565		
November .....	9,344		1,830		17,100		
December .....	9,354		1,908		17,852		
Annual .....	9,328		22,774		212,436		

<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 2016 and 2017

[May not add due to rounding]

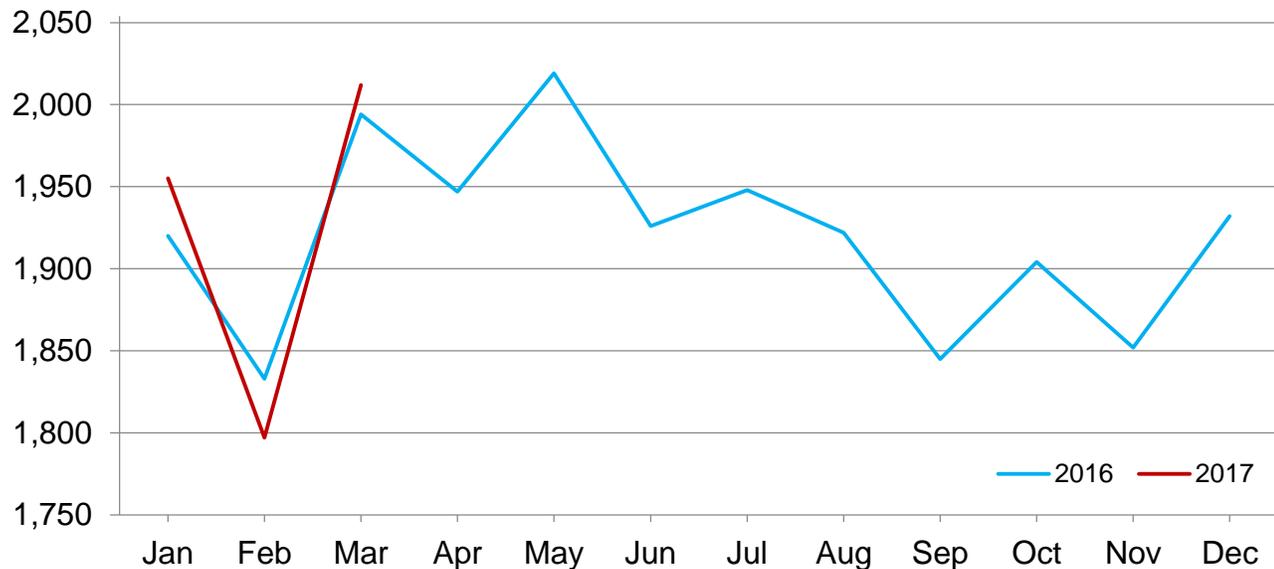
State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2016
	2016	2017	2016	2017	2016	2017	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	197	198	2,260	2,260	445	447	0.4
California .....	1,767	1,755	2,040	1,995	3,605	3,501	-2.9
Colorado .....	149	158	2,210	2,235	329	353	7.3
Florida .....	125	123	1,895	1,920	237	236	-0.4
Idaho .....	591	598	2,075	2,030	1,226	1,214	-1.0
Illinois .....	94	93	1,830	1,830	172	170	-1.2
Indiana .....	184	186	1,960	1,980	361	368	1.9
Iowa .....	212	216	2,045	2,055	434	444	2.3
Kansas .....	144	152	1,990	2,010	287	306	6.6
Michigan .....	416	425	2,220	2,250	924	956	3.5
Minnesota .....	460	459	1,810	1,850	833	849	1.9
New Mexico .....	311	327	2,140	2,220	666	726	9.0
New York .....	620	622	1,995	2,060	1,237	1,281	3.6
Ohio .....	266	262	1,790	1,835	476	481	1.1
Oregon .....	126	124	1,800	1,760	227	218	-4.0
Pennsylvania .....	530	525	1,770	1,840	938	966	3.0
South Dakota .....	114	117	1,890	1,905	215	223	3.7
Texas .....	460	507	1,990	2,100	915	1,065	16.4
Utah .....	92	92	1,915	1,945	176	179	1.7
Vermont .....	131	129	1,780	1,820	233	235	0.9
Virginia .....	91	87	1,695	1,785	154	155	0.6
Washington .....	277	274	2,065	2,020	572	553	-3.3
Wisconsin .....	1,280	1,280	2,000	2,030	2,560	2,598	1.5
23-State Total .....	8,637	8,709	1,994	2,012	17,222	17,524	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 2016 and 2017

[May not add due to rounding]

	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2016
	2016	2017	2016	2017	2016	2017	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	197	198	2,095	1,980	413	392	-5.1
California .....	1,769	1,755	1,865	1,780	3,299	3,124	-5.3
Colorado .....	148	156	2,050	2,005	303	313	3.3
Florida .....	126	123	1,715	1,730	216	213	-1.4
Idaho .....	589	596	1,910	1,800	1,125	1,073	-4.6
Illinois .....	94	93	1,660	1,630	156	152	-2.6
Indiana .....	184	186	1,815	1,780	334	331	-0.9
Iowa .....	211	216	1,870	1,830	395	395	-
Kansas .....	143	151	1,830	1,805	262	273	4.2
Michigan .....	414	425	2,050	2,030	849	863	1.6
Minnesota .....	460	460	1,680	1,660	773	764	-1.2
New Mexico .....	311	325	1,900	1,960	591	637	7.8
New York .....	620	621	1,845	1,860	1,144	1,155	1.0
Ohio .....	266	262	1,640	1,640	436	430	-1.4
Oregon .....	126	124	1,650	1,555	208	193	-7.2
Pennsylvania .....	530	525	1,630	1,635	864	858	-0.7
South Dakota .....	113	117	1,770	1,715	200	201	0.5
Texas .....	455	499	1,815	1,860	826	928	12.3
Utah .....	93	92	1,715	1,740	159	160	0.6
Vermont .....	131	129	1,650	1,645	216	212	-1.9
Virginia .....	91	87	1,565	1,585	142	138	-2.8
Washington .....	277	274	1,920	1,795	532	492	-7.5
Wisconsin .....	1,280	1,280	1,855	1,820	2,374	2,330	-1.9
23-State Total .....	8,628	8,694	1,833	1,797	15,817	15,627	-1.2

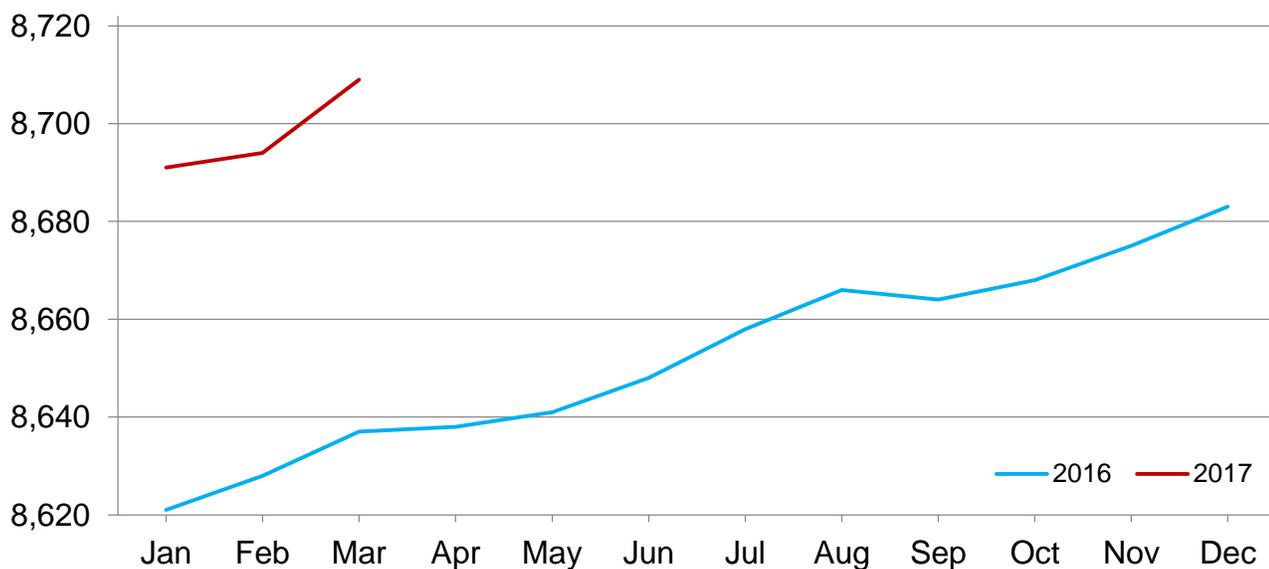
- Represents zero.

<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 2015 and 2016

[May not add due to rounding]

State	October - December milk cows <sup>1</sup>		October - December milk production <sup>2</sup>		
	2015	2016	2015	2016	Change from 2015
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama .....	7.0	7.0	23.0	21.0	-8.7
Alaska .....	0.3	0.3	0.8	0.9	12.5
Arizona .....	194.0	196.0	1,139.0	1,154.0	1.3
Arkansas .....	7.0	6.0	20.0	18.0	-10.0
California .....	1,771.0	1,757.0	9,814.0	9,900.0	0.9
Colorado .....	147.0	154.0	944.0	999.0	5.8
Connecticut .....	19.0	19.0	98.0	100.0	2.0
Delaware .....	5.0	5.0	23.6	22.1	-6.4
Florida .....	125.0	121.0	593.0	588.0	-0.8
Georgia .....	85.0	83.0	439.0	439.0	-
Hawaii .....	2.2	2.4	7.6	8.4	10.5
Idaho .....	587.0	599.0	3,496.0	3,626.0	3.7
Illinois .....	94.0	93.0	465.0	461.0	-0.9
Indiana .....	184.0	185.0	1,009.0	1,032.0	2.3
Iowa .....	210.0	215.0	1,196.0	1,256.0	5.0
Kansas .....	142.0	149.0	772.0	854.0	10.6
Kentucky .....	60.0	57.0	259.0	252.0	-2.7
Louisiana .....	13.0	12.0	41.0	35.0	-14.6
Maine .....	30.0	30.0	149.0	154.0	3.4
Maryland .....	49.0	47.0	241.0	234.0	-2.9
Massachusetts .....	12.0	11.5	53.0	52.0	-1.9
Michigan .....	411.0	423.0	2,588.0	2,695.0	4.1
Minnesota .....	460.0	461.0	2,347.0	2,388.0	1.7
Mississippi .....	10.0	9.5	34.0	32.0	-5.9
Missouri .....	88.0	88.0	326.0	333.0	2.1
Montana .....	14.0	14.0	73.0	72.0	-1.4
Nebraska .....	58.0	60.0	341.0	351.0	2.9
Nevada .....	28.0	30.0	170.0	169.0	-0.6
New Hampshire .....	14.0	13.5	70.0	69.0	-1.4
New Jersey .....	7.0	6.5	30.0	30.0	-
New Mexico .....	321.0	323.0	1,884.0	1,958.0	3.9
New York .....	620.0	620.0	3,528.0	3,680.0	4.3
North Carolina .....	47.0	45.0	240.0	233.0	-2.9
North Dakota .....	16.0	16.0	83.0	87.0	4.8
Ohio .....	266.0	262.0	1,347.0	1,357.0	0.7
Oklahoma .....	37.0	35.0	175.0	165.0	-5.7
Oregon .....	126.0	124.0	629.0	617.0	-1.9
Pennsylvania .....	530.0	525.0	2,629.0	2,664.0	1.3
Rhode Island .....	0.9	0.8	3.8	3.2	-15.8
South Carolina .....	15.0	15.0	60.0	59.0	-1.7
South Dakota .....	110.0	116.0	614.0	644.0	4.9
Tennessee .....	43.0	41.0	175.0	165.0	-5.7
Texas .....	462.0	490.0	2,530.0	2,796.0	10.5
Utah .....	95.0	92.0	533.0	528.0	-0.9
Vermont .....	131.0	129.0	660.0	674.0	2.1
Virginia .....	90.0	88.0	430.0	418.0	-2.8
Washington .....	277.0	275.0	1,623.0	1,625.0	0.1
West Virginia .....	8.5	8.0	34.0	31.0	-8.8
Wisconsin .....	1,280.0	1,278.0	7,275.0	7,432.0	2.2
Wyoming .....	6.0	6.0	34.4	35.7	3.8
United States .....	9,315.0	9,344.0	51,249.0	52,517.0	2.5

- 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 2016 and 2017

[May not add due to rounding]

State	January - March milk cows <sup>1</sup>		January - March milk production <sup>2</sup>		
	2016	2017	2016	2017	Change from 2016
	(1,000 head)	(1,000 head)	(million pounds)	(million pounds)	(percent)
Alabama .....	7.0	6.5	26.0	25.0	-3.8
Alaska .....	0.3	0.3	0.8	0.9	12.5
Arizona .....	196.0	198.0	1,269.0	1,264.0	-0.4
Arkansas .....	6.5	6.0	22.0	20.0	-9.1
California .....	1,768.0	1,755.0	10,336.0	10,038.0	-2.9
Colorado .....	148.0	156.0	952.0	1,003.0	5.4
Connecticut .....	19.0	19.0	103.0	104.0	1.0
Delaware .....	5.0	5.0	26.0	24.8	-4.6
Florida .....	126.0	123.0	681.0	675.0	-0.9
Georgia .....	85.0	84.0	493.0	502.0	1.8
Hawaii .....	2.4	2.4	8.5	9.3	9.4
Idaho .....	589.0	598.0	3,530.0	3,484.0	-1.3
Illinois .....	94.0	93.0	492.0	486.0	-1.2
Indiana .....	184.0	186.0	1,047.0	1,058.0	1.1
Iowa .....	211.0	216.0	1,246.0	1,269.0	1.8
Kansas .....	143.0	151.0	820.0	871.0	6.2
Kentucky .....	59.0	56.0	278.0	268.0	-3.6
Louisiana .....	13.0	12.0	53.0	46.0	-13.2
Maine .....	30.0	30.0	155.0	155.0	-
Maryland .....	48.0	47.0	247.0	247.0	-
Massachusetts .....	11.5	11.5	54.0	54.0	-
Michigan .....	414.0	425.0	2,669.0	2,750.0	3.0
Minnesota .....	460.0	460.0	2,420.0	2,443.0	1.0
Mississippi .....	10.0	9.5	42.0	39.0	-7.1
Missouri .....	88.0	88.0	356.0	367.0	3.1
Montana .....	14.0	13.5	74.0	72.0	-2.7
Nebraska .....	60.0	60.0	351.0	352.0	0.3
Nevada .....	29.0	31.0	161.0	166.0	3.1
New Hampshire .....	13.5	13.5	72.0	71.0	-1.4
New Jersey .....	6.5	6.5	31.0	31.0	-
New Mexico .....	311.0	326.0	1,846.0	2,042.0	10.6
New York .....	620.0	621.0	3,596.0	3,697.0	2.8
North Carolina .....	47.0	45.0	253.0	248.0	-2.0
North Dakota .....	16.0	15.5	83.0	83.0	-
Ohio .....	266.0	262.0	1,381.0	1,380.0	-0.1
Oklahoma .....	38.0	38.0	187.0	188.0	0.5
Oregon .....	126.0	124.0	652.0	620.0	-4.9
Pennsylvania .....	530.0	525.0	2,711.0	2,751.0	1.5
Rhode Island .....	0.8	0.8	3.6	3.0	-16.7
South Carolina .....	15.0	15.0	69.0	68.0	-1.4
South Dakota .....	113.0	117.0	627.0	644.0	2.7
Tennessee .....	44.0	41.0	187.0	182.0	-2.7
Texas .....	457.0	500.0	2,576.0	2,988.0	16.0
Utah .....	93.0	92.0	508.0	516.0	1.6
Vermont .....	131.0	129.0	679.0	680.0	0.1
Virginia .....	91.0	87.0	446.0	441.0	-1.1
Washington .....	277.0	274.0	1,659.0	1,584.0	-4.5
West Virginia .....	9.0	8.0	36.0	33.0	-8.3
Wisconsin .....	1,280.0	1,280.0	7,449.0	7,462.0	0.2
Wyoming .....	6.0	6.0	34.4	34.8	1.2
United States .....	9,312.0	9,369.0	52,998.0	53,540.0	1.0

- Represents zero.

<sup>1</sup> Includes 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 53.5 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	52	2	141	15	5
All milk cows .....	0.0	0.1	4	0	8	10	8

## 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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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
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@nass.usda.gov](mailto:nass@nass.usda.gov).

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