



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

## September Milk Production up 1.2 Percent

**Milk production** in the 23 major States during September totaled 16.2 billion pounds, up 1.2 percent from September 2016. August revised production at 17.0 billion pounds, was up 2.2 percent from August 2016. The August revision represented an increase of 8 million pounds or less than 0.1 percent from last month's preliminary production estimate.

**Production per cow** in the 23 major States averaged 1,851 pounds for September, 6 pounds above September 2016. 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 8.74 million head, 73,000 head more than September 2016, but 3,000 head less than August 2017.

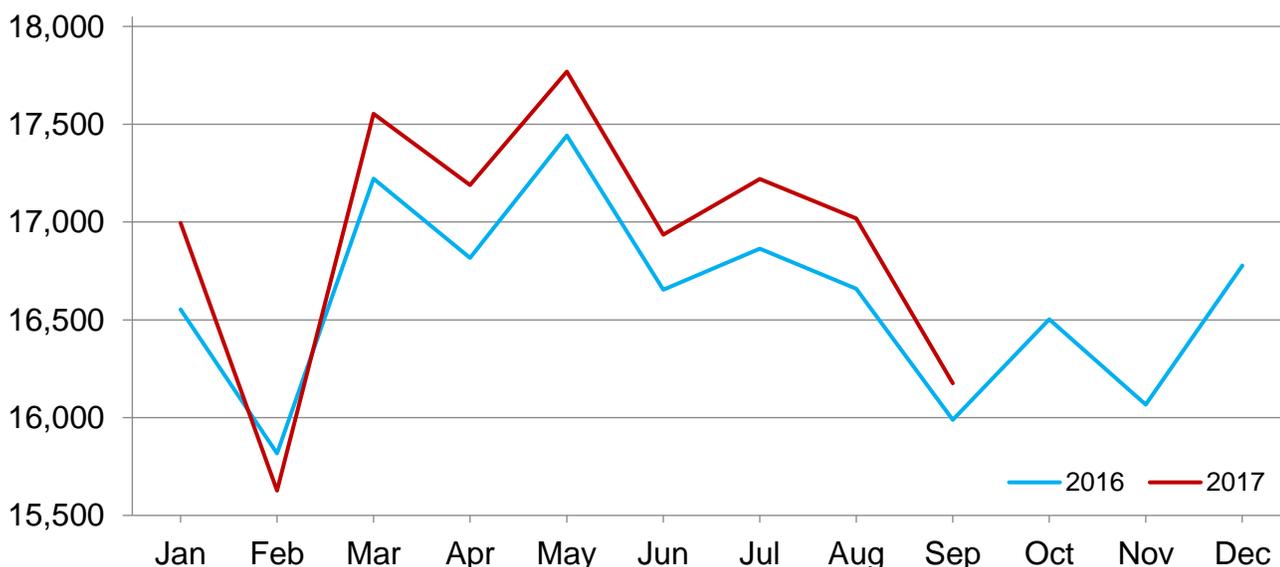
## July-September Milk Production up 1.7 Percent

**Milk production** in the United States during the July - September quarter totaled 53.5 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 9.40 million head, 4,000 head more than the April - June quarter, and 71,000 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. Blank data cells indicate estimation period has not yet begun]

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	9,370	5,691	5,717	52,998	53,568	1.1
April-June .....	9,323	9,398	5,828	5,886	54,331	55,314	1.8
July-September .....	9,331	9,402	5,636	5,690	52,590	53,495	1.7
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

[May not add due to rounding. Blank data cells indicate estimation period has not yet begun]

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	8,711	1,994	2,015	17,222	17,554	1.9
April .....	8,638	8,720	1,947	1,971	16,817	17,189	2.2
May .....	8,641	8,727	2,019	2,036	17,442	17,769	1.9
June .....	8,648	8,731	1,926	1,940	16,654	16,935	1.7
July .....	8,658	8,732	1,948	1,972	16,863	17,220	2.1
August .....	8,666	8,740	1,922	1,947	16,659	17,019	2.2
September .....	8,664	8,737	1,845	1,851	15,989	16,175	1.2
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

[May not add due to rounding. Blank data cells indicate estimation period has not yet begun]

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	16,684	-1.3
March .....	9,321	9,382	1,974	1,997	18,401	18,739	1.8
April .....	9,321	9,392	1,925	1,951	17,947	18,320	2.1
May .....	9,322	9,400	1,997	2,015	18,613	18,942	1.8
June .....	9,326	9,402	1,906	1,920	17,771	18,052	1.6
July .....	9,329	9,403	1,920	1,943	17,908	18,269	2.0
August .....	9,334	9,404	1,895	1,920	17,692	18,056	2.1
September .....	9,331	9,400	1,821	1,827	16,990	17,170	1.1
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: September 2016 and 2017

[May not add due to rounding]

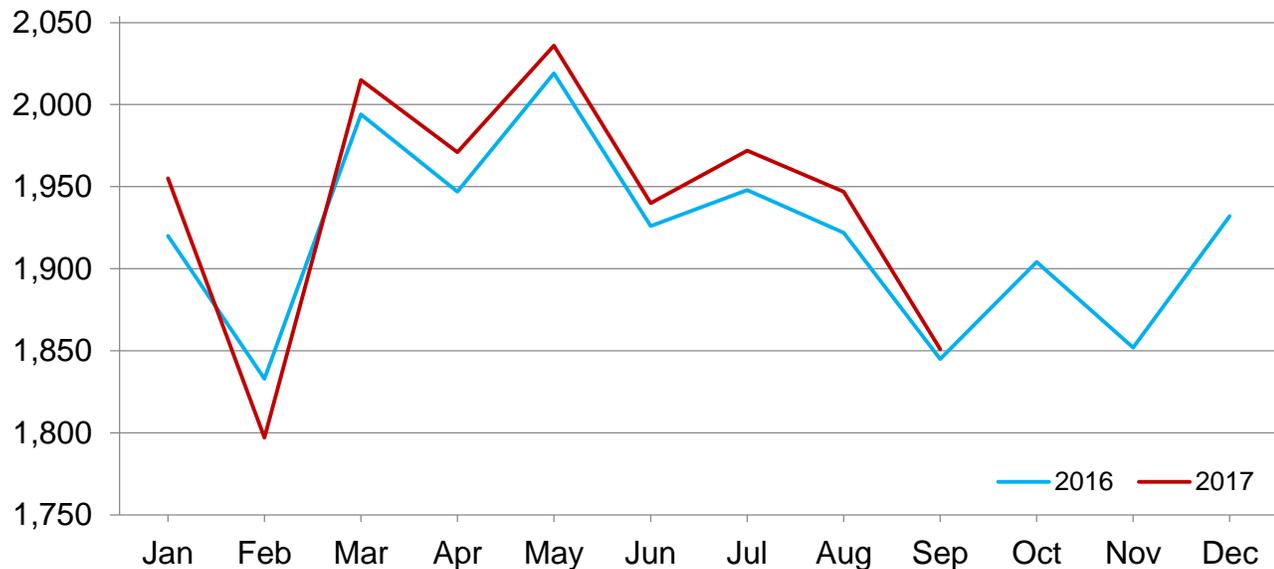
State	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2016
	2016	2017	2016	2017	2016	2017	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	197	203	1,815	1,820	358	369	3.1
California .....	1,758	1,746	1,805	1,755	3,173	3,064	-3.4
Colorado .....	152	162	2,130	2,150	324	348	7.4
Florida .....	120	123	1,450	1,400	174	172	-1.1
Idaho .....	599	603	2,045	2,035	1,225	1,227	0.2
Illinois .....	94	93	1,560	1,600	147	149	1.4
Indiana .....	184	187	1,805	1,820	332	340	2.4
Iowa .....	214	219	1,880	1,920	402	420	4.5
Kansas .....	147	152	1,835	1,870	270	284	5.2
Michigan .....	422	428	2,085	2,125	880	910	3.4
Minnesota .....	461	457	1,670	1,740	770	795	3.2
New Mexico .....	318	331	1,965	1,965	625	650	4.0
New York .....	620	624	1,950	1,930	1,209	1,204	-0.4
Ohio .....	264	264	1,675	1,710	442	451	2.0
Oregon .....	125	123	1,690	1,665	211	205	-2.8
Pennsylvania .....	527	525	1,630	1,665	859	874	1.7
South Dakota .....	115	118	1,800	1,830	207	216	4.3
Texas .....	485	515	1,790	1,855	868	955	10.0
Utah .....	91	97	1,900	1,910	173	185	6.9
Vermont .....	130	128	1,690	1,710	220	219	-0.5
Virginia .....	89	87	1,520	1,590	135	138	2.2
Washington .....	275	275	1,985	1,970	546	542	-0.7
Wisconsin .....	1,277	1,277	1,910	1,925	2,439	2,458	0.8
23-State Total .....	8,664	8,737	1,845	1,851	15,989	16,175	1.2

<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: August 2016 and 2017

[May not add due to rounding]

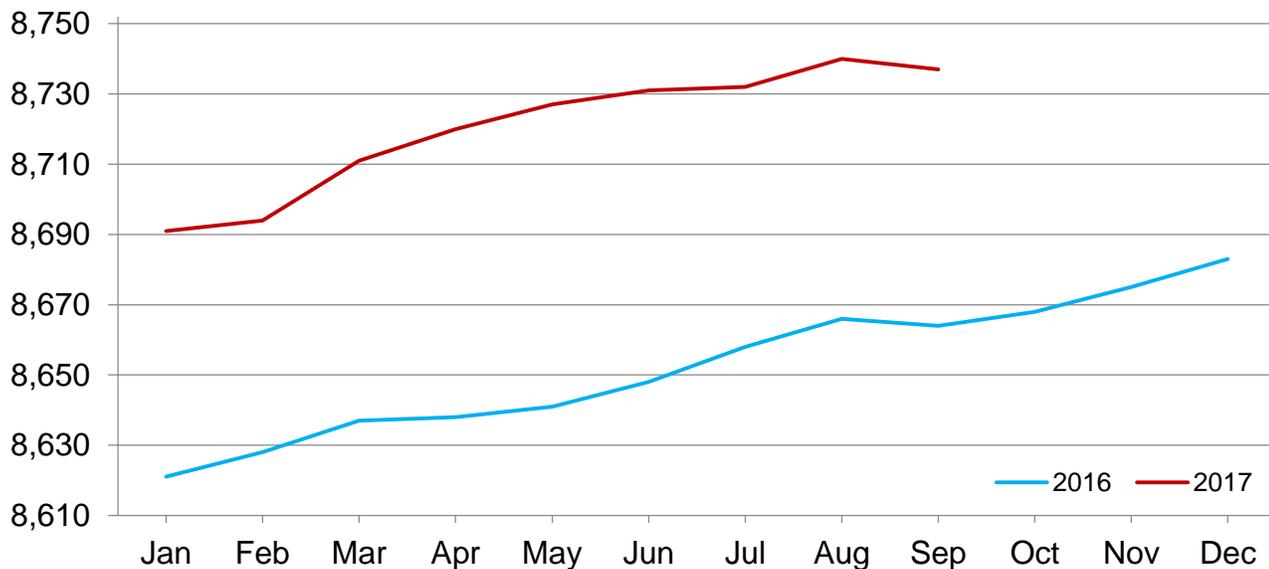
	Milk cows <sup>1</sup>		Milk per cow <sup>2</sup>		Milk production <sup>2</sup>		Change from 2016
	2016	2017	2016	2017	2016	2017	
	(1,000 head)	(1,000 head)	(pounds)	(pounds)	(million pounds)	(million pounds)	(percent)
Arizona .....	197	203	1,880	1,900	370	386	4.3
California .....	1,759	1,746	1,870	1,870	3,289	3,265	-0.7
Colorado .....	152	161	2,235	2,250	340	362	6.5
Florida .....	120	124	1,585	1,555	190	193	1.6
Idaho .....	599	603	2,155	2,155	1,291	1,299	0.6
Illinois .....	94	93	1,615	1,675	152	156	2.6
Indiana .....	184	187	1,870	1,870	344	350	1.7
Iowa .....	214	219	1,970	2,010	422	440	4.3
Kansas .....	146	152	1,905	1,920	278	292	5.0
Michigan .....	422	428	2,180	2,230	920	954	3.7
Minnesota .....	462	458	1,745	1,830	806	838	4.0
New Mexico .....	317	331	2,085	2,065	661	684	3.5
New York .....	620	624	2,015	2,015	1,249	1,257	0.6
Ohio .....	264	264	1,730	1,790	457	473	3.5
Oregon .....	125	123	1,745	1,735	218	213	-2.3
Pennsylvania .....	529	525	1,675	1,735	886	911	2.8
South Dakota .....	115	118	1,880	1,915	216	226	4.6
Texas .....	485	515	1,895	1,950	919	1,004	9.2
Utah .....	90	97	1,960	2,010	176	195	10.8
Vermont .....	130	129	1,745	1,775	227	229	0.9
Virginia .....	89	87	1,540	1,610	137	140	2.2
Washington .....	275	275	2,065	2,050	568	564	-0.7
Wisconsin .....	1,278	1,278	1,990	2,025	2,543	2,588	1.8
23-State Total .....	8,666	8,740	1,922	1,947	16,659	17,019	2.2

<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 April - June 2016 and 2017

[May not add due to rounding]

State	April - June milk cows <sup>1</sup>		April - June 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	26.0	-
Alaska .....	0.3	0.3	0.9	0.7	-22.2
Arizona .....	196.0	203.0	1,257.0	1,321.0	5.1
Arkansas .....	6.5	6.0	22.0	21.0	-4.5
California .....	1,764.0	1,752.0	10,392.0	10,243.0	-1.4
Colorado .....	149.0	159.0	970.0	1,043.0	7.5
Connecticut .....	19.0	18.5	105.0	106.0	1.0
Delaware .....	5.0	5.0	25.7	24.3	-5.4
Florida .....	123.0	124.0	671.0	672.0	0.1
Georgia .....	85.0	84.0	483.0	489.0	1.2
Hawaii .....	2.5	2.3	9.7	10.4	7.2
Idaho .....	592.0	599.0	3,696.0	3,726.0	0.8
Illinois .....	94.0	93.0	495.0	498.0	0.6
Indiana .....	184.0	186.0	1,052.0	1,084.0	3.0
Iowa .....	213.0	217.0	1,283.0	1,308.0	1.9
Kansas .....	145.0	151.0	834.0	869.0	4.2
Kentucky .....	58.0	56.0	284.0	277.0	-2.5
Louisiana .....	12.5	12.0	49.0	44.0	-10.2
Maine .....	30.0	30.0	163.0	163.0	-
Maryland .....	48.0	48.0	246.0	247.0	0.4
Massachusetts .....	11.5	11.5	56.0	55.0	-1.8
Michigan .....	418.0	427.0	2,780.0	2,889.0	3.9
Minnesota .....	461.0	459.0	2,467.0	2,516.0	2.0
Mississippi .....	10.0	9.0	40.0	38.0	-5.0
Missouri .....	88.0	87.0	360.0	352.0	-2.2
Montana .....	14.0	13.5	75.0	73.0	-2.7
Nebraska .....	60.0	60.0	351.0	362.0	3.1
Nevada .....	30.0	32.0	164.0	182.0	11.0
New Hampshire .....	13.5	13.5	73.0	72.0	-1.4
New Jersey .....	6.5	6.5	32.0	31.0	-3.1
New Mexico .....	310.0	330.0	1,970.0	2,128.0	8.0
New York .....	620.0	624.0	3,760.0	3,845.0	2.3
North Carolina .....	47.0	45.0	252.0	247.0	-2.0
North Dakota .....	16.0	16.0	88.0	89.0	1.1
Ohio .....	266.0	262.0	1,424.0	1,448.0	1.7
Oklahoma .....	38.0	39.0	185.0	190.0	2.7
Oregon .....	126.0	124.0	672.0	650.0	-3.3
Pennsylvania .....	530.0	525.0	2,788.0	2,831.0	1.5
Rhode Island .....	0.8	0.8	3.7	3.3	-10.8
South Carolina .....	15.0	15.0	68.0	66.0	-2.9
South Dakota .....	114.0	117.0	637.0	658.0	3.3
Tennessee .....	43.0	40.0	185.0	183.0	-1.1
Texas .....	470.0	513.0	2,721.0	3,106.0	14.1
Utah .....	91.0	94.0	533.0	564.0	5.8
Vermont .....	131.0	129.0	694.0	697.0	0.4
Virginia .....	90.0	87.0	446.0	449.0	0.7
Washington .....	275.0	273.0	1,680.0	1,664.0	-1.0
West Virginia .....	9.0	8.0	36.0	34.0	-5.6
Wisconsin .....	1,279.0	1,279.0	7,691.0	7,684.0	-0.1
Wyoming .....	6.0	6.0	34.6	34.8	0.6
United States .....	9,323.0	9,398.0	54,331.0	55,314.0	1.8

- 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 July - September 2016 and 2017

[May not add due to rounding]

State	July - September milk cows <sup>1</sup>		July - September 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	19.0	18.0	-5.3
Alaska .....	0.3	0.3	0.9	0.6	-33.3
Arizona .....	197.0	203.0	1,108.0	1,153.0	4.1
Arkansas .....	6.0	6.0	17.0	17.0	-
California .....	1,759.0	1,746.0	9,841.0	9,701.0	-1.4
Colorado .....	152.0	161.0	1,002.0	1,071.0	6.9
Connecticut .....	19.0	18.5	100.0	102.0	2.0
Delaware .....	5.0	5.0	21.7	21.2	-2.3
Florida .....	120.0	124.0	563.0	569.0	1.1
Georgia .....	83.0	84.0	415.0	415.0	-
Hawaii .....	2.4	2.2	8.3	9.9	19.3
Idaho .....	599.0	602.0	3,813.0	3,824.0	0.3
Illinois .....	94.0	93.0	455.0	462.0	1.5
Indiana .....	184.0	187.0	1,020.0	1,038.0	1.8
Iowa .....	214.0	218.0	1,249.0	1,295.0	3.7
Kansas .....	146.0	152.0	821.0	866.0	5.5
Kentucky .....	56.0	55.0	234.0	236.0	0.9
Louisiana .....	12.0	12.0	32.0	32.0	-
Maine .....	30.0	30.0	158.0	159.0	0.6
Maryland .....	47.0	48.0	229.0	226.0	-1.3
Massachusetts .....	11.5	11.5	53.0	52.0	-1.9
Michigan .....	421.0	428.0	2,732.0	2,827.0	3.5
Minnesota .....	462.0	458.0	2,391.0	2,476.0	3.6
Mississippi .....	9.5	8.5	30.0	29.0	-3.3
Missouri .....	88.0	86.0	324.0	297.0	-8.3
Montana .....	14.0	13.5	74.0	73.0	-1.4
Nebraska .....	60.0	60.0	346.0	360.0	4.0
Nevada .....	30.0	32.0	166.0	182.0	9.6
New Hampshire .....	13.5	13.0	70.0	65.0	-7.1
New Jersey .....	6.5	6.0	29.0	28.0	-3.4
New Mexico .....	316.0	331.0	1,937.0	2,040.0	5.3
New York .....	620.0	624.0	3,729.0	3,737.0	0.2
North Carolina .....	45.0	44.0	227.0	219.0	-3.5
North Dakota .....	16.0	16.0	87.0	88.0	1.1
Ohio .....	265.0	263.0	1,370.0	1,393.0	1.7
Oklahoma .....	36.0	39.0	155.0	172.0	11.0
Oregon .....	125.0	123.0	652.0	636.0	-2.5
Pennsylvania .....	529.0	525.0	2,657.0	2,693.0	1.4
Rhode Island .....	0.8	0.8	3.5	3.4	-2.9
South Carolina .....	14.5	14.5	54.0	53.0	-1.9
South Dakota .....	115.0	118.0	638.0	667.0	4.5
Tennessee .....	41.0	39.0	159.0	157.0	-1.3
Texas .....	483.0	515.0	2,680.0	2,984.0	11.3
Utah .....	90.0	97.0	526.0	575.0	9.3
Vermont .....	130.0	129.0	677.0	680.0	0.4
Virginia .....	89.0	87.0	413.0	418.0	1.2
Washington .....	275.0	275.0	1,686.0	1,675.0	-0.7
West Virginia .....	8.0	7.5	31.0	31.0	-
Wisconsin .....	1,278.0	1,278.0	7,551.0	7,634.0	1.1
Wyoming .....	6.0	6.0	35.1	34.7	-1.1
United States .....	9,331.0	9,402.0	52,590.0	53,495.0	1.7

- 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	40	2	111	15	5
All milk cows .....	0.0	0.1	3	0	6	9	9

## 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).

Vacant, Chief, Livestock Branch .....	(202) 720-3570
Scott Hollis, Head, Livestock Section .....	(202) 690-2424
Sherry Bertramsen – Livestock Slaughter .....	(202) 720-3240
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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- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit [www.nass.usda.gov](http://www.nass.usda.gov) and click on “National” or “State” in upper right corner above “search” box to create an account and select the reports you would like to receive.

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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## **USDA NASS Data Users' Meeting Tuesday, October 24, 2017**

**Embassy Suites Hotel Kansas City Plaza  
220 West 43<sup>rd</sup> Street  
Kansas City, MO 64111  
816-756-1720**

USDA's National Agricultural Statistics Service will hold an open forum for users of U.S. domestic and international agriculture data. NASS is organizing the 2017 Data Users' Meeting in cooperation with five other USDA agencies Agricultural Marketing Service, Economic Research Service, Farm Service Agency, Foreign Agricultural Service, and World Agricultural Outlook Board and the Census Bureau's Foreign Trade Division. Agency representatives will provide updates on recent and pending changes in statistical and information programs important to agriculture, answer questions, and welcome comments and input from data users.

For registration details or additional information about the Data Users' Meeting, see the meeting page on the NASS website ([https://www.nass.usda.gov/Education\\_and\\_Outreach/Meeting/index.php](https://www.nass.usda.gov/Education_and_Outreach/Meeting/index.php)) or contact Tina Hall (NASS) at 202-720-3896 or [tina.hall@nass.usda.gov](mailto:tina.hall@nass.usda.gov).

The Data Users' Meeting precedes the Industry Outlook Conference at the same location on Wednesday, October 25, 2017. The outlook meeting brings together analysts from various commodity sectors to discuss developments and trends. For registration details or additional information about the Industry Outlook Conference, see the conference page on the LMIC website (<http://lmic.info/page/meetings>) or contact James Robb at (303) 716-9933.