

# Milk Production



United States  
Department of  
Agriculture

Washington, D.C.

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## November Milk Production

Milk production in the 21 major States during November totaled 10.0 billion pounds, 2 percent less than production in these same States in November 1992. October revised production at 10.4 billion pounds was 2 percent below October 1992.

Production per cow in the 21 major States averaged 1,237 pounds for November, unchanged from November 1992.

The number of cows on farms in the 21 major States was 8.08 million head, 152,000 head less than November 1992 and 10,000 less than October 1993.

During the July-September period, the 21 major States produced 31.7 billion pounds of milk, 84.4 percent of the U.S. production. If producers in the remaining 29 States not surveyed monthly followed the same pattern as the 21 States, the U.S. production would be 11.8 billion pounds for November 1993.

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Milk Cows and Production: By Quarter, United States, 1992-93

Month	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		---- Pounds ----		Million Pounds		Percent
Jan-Mar	9,863	9,777	3,852	3,862	37,989	37,763	99
Apr-Jun	9,841	9,739	3,971	4,068	39,077	39,614	101
Jul-Sep	9,826	9,710	3,818	3,863	37,515	37,514	100
Oct-Dec	9,827		3,782		37,166		
Annual	9,839		15,423		151,747		

1/ Includes dry cows. Excludes heifers not yet fresh.

2/ Excludes milk sucked by calves.

Milk Cows and Production: By State, October 1992-93 1/

State	Milk Cows <u>2/</u>		Milk Per Cow <u>3/</u>		Milk Production <u>3/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		---- Pounds ----		Million Pounds		Percent
CA	1,159	1,180	1,620	1,660	1,878	1,959	104
FL	181	177	1,060	1,065	192	189	98
ID	186	193	1,440	1,460	268	282	105
IL	183	175	1,220	1,190	223	208	93
IN	144	145	1,330	1,260	192	183	95
IA	306	301	1,180	1,140	361	343	95
KY	184	176	985	980	181	172	95
MD	100	96	1,180	1,220	118	117	99
MI	340	339	1,315	1,315	447	446	100
MN	655	645	1,190	1,155	779	745	96
MO	228	220	1,065	1,000	243	220	91
NY	753	753	1,240	1,220	934	919	98
NC	96	92	1,315	1,305	126	120	95
OH	318	306	1,200	1,230	382	376	98
PA	650	652	1,290	1,285	839	838	100
TN	190	181	950	970	181	176	97
TX	376	386	1,210	1,230	455	475	104
VT	164	164	1,250	1,230	205	202	99
VA	135	131	1,265	1,250	171	164	96
WA	253	258	1,615	1,625	409	419	102
WI	1,637	1,523	1,190	1,185	1,948	1,805	93
21 State: Total	8,238	8,093	1,278	1,280	10,532	10,358	98

1/ 1992 and 1993 revised.

2/ Includes dry cows. Excludes heifers not yet fresh.

3/ Excludes milk sucked by calves.

Milk Cows and Production : By Month, 21 Selected States, 1992-93

Month	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		---- Pounds ----		Million Pounds		Percent
Jan	8,298	8,215	1,291	1,310	10,715	10,760	100
Feb	8,278	8,196	1,238	1,216	10,251	9,965	97
Mar	8,257	8,178	1,344	1,356	11,096	11,087	100
Apr	8,255	8,153	1,314	1,344	10,850	10,956	101
May	8,250	8,148	1,367	1,404	11,280	11,443	101
Jun	8,250	8,144	1,321	1,354	10,897	11,024	101
Jul	8,247	8,134	1,322	1,346	10,900	10,948	100
Aug	8,243	8,120	1,295	1,302	10,673	10,572	99
Sep	8,237	8,110	1,246	1,253	10,263	10,160	99
Oct	8,238	8,093	1,278	1,280	10,532	10,358	98
Nov	8,235	8,083	1,237	1,237	10,184	9,995	98
Dec	8,247		1,292		10,659		
Annual	8,253		15,546		128,300		

1/ Includes dry cows. Excludes heifers not yet fresh.

2/ Excludes milk sucked by calves.

Milk Cows and Production: By State, November 1992-93

State	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	----- 1,000 -----		----- Pounds -----		Million Pounds		Percent
CA	1,160	1,181	1,565	1,590	1,815	1,878	103
FL	181	177	1,105	1,110	200	196	98
ID	185	193	1,380	1,400	255	270	106
IL	182	176	1,190	1,130	217	199	92
IN	143	145	1,270	1,220	182	177	97
IA	305	301	1,180	1,100	360	331	92
KY	186	176	935	940	174	165	95
MD	100	96	1,180	1,200	118	115	97
MI	340	339	1,260	1,250	428	424	99
MN	655	645	1,175	1,140	770	735	95
MO	226	220	1,035	990	234	218	93
NY	753	756	1,175	1,180	885	892	101
NC	96	92	1,310	1,310	126	121	96
OH	315	304	1,150	1,240	362	377	104
PA	655	650	1,260	1,250	825	813	99
TN	190	180	940	980	179	176	98
TX	378	386	1,195	1,190	452	459	102
VT	164	165	1,195	1,165	196	192	98
VA	135	131	1,245	1,235	168	162	96
WA	253	258	1,555	1,560	393	402	102
WI	1,633	1,512	1,130	1,120	1,845	1,693	92
21 State:							
Total	8,235	8,083	1,237	1,237	10,184	9,995	98

1/ Includes dry cows. Excludes heifers not yet fresh.  
2/ Excludes milk sucked by calves.

**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. About 20,000 producers are sampled in January and data are collected from about 10,000 respondents. There are about 7,300 respondents in each of the remaining quarters. Generally all larger producers and a sample of smaller 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, January 1, February 1, etc. Toward the end of the data collection period, statisticians review mail returns to ensure that each size group is adequately represented. If additional reports are needed in some size groups, statisticians obtain these by telephone.

**Estimation Procedures:** Each state statistician prepares their estimate by plotting survey estimates and averages on time series charts. The individual state estimates are reviewed by the Agricultural Statistics Board for reasonableness.

**Revision Policy:** Milk production, rate per cow, and number of cows are subject to revision the following month for monthly States or the following quarter for the quarterly States. Normally, Federal Market Order sales are the main reason for revisions, however, not all orders have data available in time for this revision. A second revision is made in February each year based on additional administrative data. In the event that some additional changes are necessary a third revision is made in February the following year. Estimates are again reviewed after data for the five-year Census of Agriculture, conducted by the Department of Commerce are available.

**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 in the table below. 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 cow inventory estimates over the past 10 quarters is 0.6 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 9.71 million head by more than 0.6 percent, or about 58,000 head. Chances are 9 out of 10 that the difference will not exceed 1.0 percent, or about 97,000 head (the 90 percent confidence level).

Reliability of July-September Milk Estimates 1/

Item	Root	90%	Difference Between			Number of		
	Mean	Confidence	First and Final	Estimates <u>1/</u>		Quarters		
	Square	Level	Average	Smallest	Largest	First	First	
	Error					Above	Below	
						Final	Final	
	- Percent -		----- Mil Lbs. -----			- Number -		
Milk Production	0.7	1.2	450	-158	-4	-538	9	1
				----- 1,000 Head -----				
All Milk Cows	0.6	1.0	97	-43	0	-135	9	0

1/ Based on records for the past 10 July-September quarters.

The next "Milk Production" report will be released at 3 p.m. ET on January 14, 1994.

