

Released January 16, 2004, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. For information on "Milk Production" call Ty Kalaus at 202-690-3236, office hours 7:30 a.m. to 4:00 p.m. ET.

December Milk Production Down 0.3 Percent

Milk production in the 20 major States during December totaled 12.3 billion pounds, down 0.3 percent from December 2002. November revised production, at 11.7 billion pounds, was down 0.1 percent from November 2002. The November revision represented an increase of 13 million pounds or 0.1 percent from last month's preliminary production estimate.

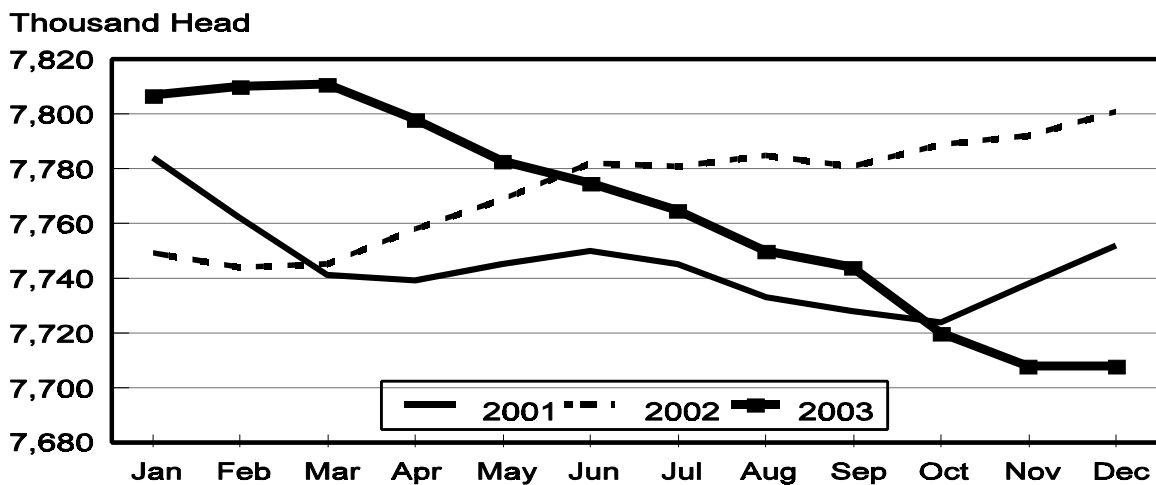
Production per cow in the 20 major States averaged 1,589 pounds for December, 14 pounds above December 2002.

The number of milk cows on farms in the 20 major States was 7.71 million head, 93,000 head less than December 2002, but unchanged from November 2003.

October-December Milk Production Down 0.6 Percent

Milk production in the U.S. during the October-December quarter totaled 41.3 billion pounds, down 0.6 percent from the October-December quarter last year. The average number of milk cows in the U.S. during the quarter was 9.01 million head, 141,000 head less than the same period last year.

Monthly Milk Cows 20 States



Milk Cows and Production: By Quarter, United States, 2002-2003 ¹

Quarter	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2002	2003	2002	2003	2002	2003	Change From 2002
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
Jan-Mar	9,112	9,154	4,653	4,691	42,397	42,939	1.3
Apr-Jun	9,149	9,114	4,811	4,814	44,015	43,872	-0.3
Jul-Sep	9,153	9,064	4,566	4,581	41,791	41,520	-0.6
Oct-Dec	9,148	9,007	4,543	4,588	41,555	41,322	-0.6
Annual	9,141	9,085	18,571	18,674	169,758	169,653	-0.1

¹ May not add due to rounding.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

Milk Cows and Production: By Month, 20 Selected States, 2002-2003

Month	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2002	2003	2002	2003	2002	2003	Change From 2002
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
Jan	7,749	7,807	1,591	1,607	12,327	12,548	1.8
Feb	7,744	7,810	1,472	1,484	11,401	11,588	1.6
Mar	7,745	7,811	1,654	1,660	12,810	12,969	1.2
Apr	7,758	7,798	1,621	1,622	12,575	12,645	0.6
May	7,769	7,783	1,678	1,668	13,039	12,983	-0.4
Jun	7,782	7,775	1,587	1,590	12,348	12,366	0.1
Jul	7,781	7,765	1,578	1,590	12,281	12,345	0.5
Aug	7,785	7,750	1,570	1,563	12,223	12,110	-0.9
Sep	7,781	7,744	1,497	1,503	11,648	11,643	
Oct	7,789	7,720	1,539	1,552	11,991	11,978	-0.1
Nov	7,792	7,708	1,496	1,511	11,657	11,650	-0.1
Dec	7,801	7,708	1,575	1,589	12,290	12,251	-0.3
Annual	7,773	7,765	18,858	18,941	146,590	147,076	0.3

¹ 2003 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

Estimated Milk Cows and Production: By Month, United States, 2002- 2003 ¹

Month	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2002	2003	2002	2003	2002	2003	Change From 2002
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
Jan	9,117	9,153	1,569	1,587	14,304	14,521	1.5
Feb	9,109	9,155	1,452	1,465	13,229	13,409	1.4
Mar	9,110	9,155	1,632	1,639	14,864	15,009	1.0
Apr	9,132	9,133	1,597	1,599	14,580	14,602	0.2
May	9,149	9,109	1,652	1,646	15,118	14,991	-0.8
Jun	9,166	9,101	1,562	1,569	14,317	14,279	-0.3
Jul	9,158	9,080	1,550	1,564	14,196	14,199	
Aug	9,157	9,061	1,543	1,537	14,128	13,929	-1.4
Sep	9,145	9,052	1,473	1,480	13,467	13,392	-0.6
Oct	9,147	9,017	1,516	1,530	13,866	13,795	-0.5
Nov	9,146	9,002	1,474	1,490	13,478	13,417	-0.5
Dec	9,150	9,001	1,553	1,568	14,211	14,110	-0.7
Annual	9,141	9,085	18,571	18,674	169,758	169,653	-0.1

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

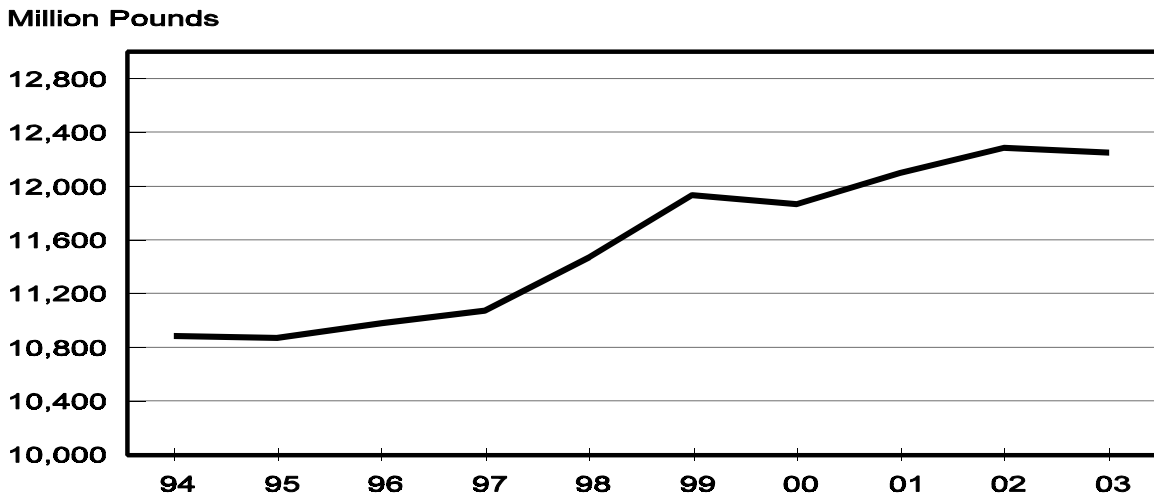
Milk Cows and Production: By State, December 2002-2003

State	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2002	2003	2002	2003	2002	2003	Change From 2002
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AZ	150	155	1,920	1,895	288	294	2.1
CA	1,676	1,698	1,750	1,740	2,933	2,955	0.8
FL	147	140	1,325	1,320	195	185	-5.1
ID	390	412	1,780	1,780	694	733	5.6
IL	115	108	1,505	1,560	173	168	-2.9
IN	146	143	1,515	1,540	221	220	-0.5
IA	208	196	1,550	1,560	322	306	-5.0
KY	120	112	1,075	1,085	129	122	-5.4
MI	301	299	1,675	1,735	504	519	3.0
MN	480	465	1,485	1,500	713	698	-2.1
MO	134	124	1,210	1,250	162	155	-4.3
NM	308	324	1,710	1,730	527	561	6.5
NY	680	657	1,490	1,485	1,013	976	-3.7
OH	260	258	1,405	1,440	365	372	1.9
PA	590	560	1,515	1,485	894	832	-6.9
TX	311	317	1,465	1,575	456	499	9.4
VT	153	146	1,470	1,500	225	219	-2.7
VA	119	106	1,295	1,325	154	140	-9.1
WA	247	241	1,890	1,900	467	458	-1.9
WI	1,266	1,247	1,465	1,475	1,855	1,839	-0.9
20-State Total	7,801	7,708	1,575	1,589	12,290	12,251	-0.3

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

**December Milk Production, 1994-2003
20 States**



Milk Cows and Production: By State, November 2002-2003 ¹

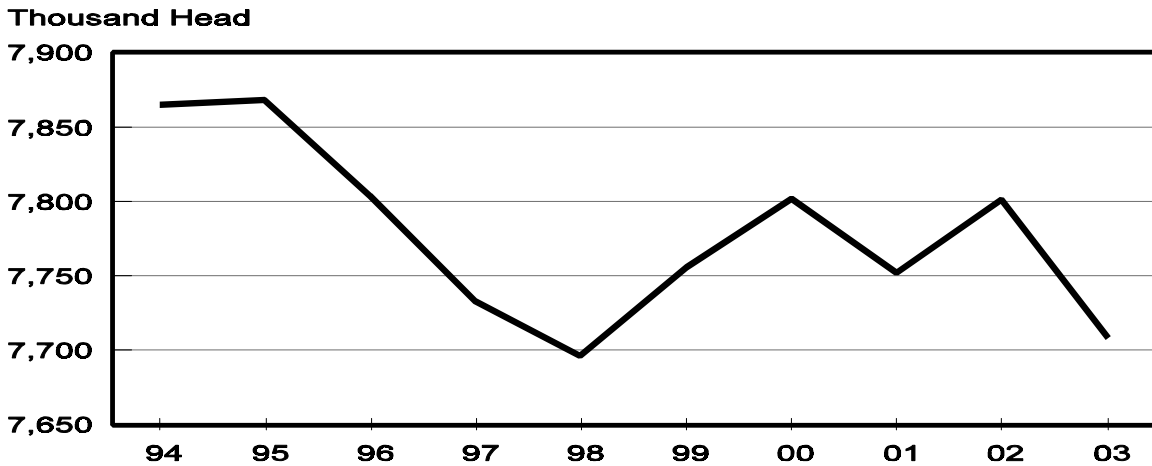
State	Milk Cows ²		Milk per Cow ³		Milk Production ³		
	2002	2003	2002	2003	2002	2003	Change From 2002
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AZ	150	153	1,800	1,800	270	275	1.9
CA	1,669	1,696	1,685	1,665	2,812	2,824	0.4
FL	147	140	1,155	1,170	170	164	-3.5
ID	390	412	1,690	1,740	659	717	8.8
IL	115	108	1,420	1,460	163	158	-3.1
IN	147	143	1,420	1,460	209	209	
IA	208	197	1,470	1,490	306	294	-3.9
KY	120	112	1,020	1,035	122	116	-4.9
MI	301	298	1,610	1,640	485	489	0.8
MN	480	465	1,380	1,390	662	646	-2.4
MO	135	125	1,125	1,190	152	149	-2.0
NM	305	320	1,650	1,670	503	534	6.2
NY	678	658	1,410	1,415	956	931	-2.6
OH	261	258	1,350	1,365	352	352	
PA	591	560	1,460	1,420	863	795	-7.9
TX	310	317	1,345	1,430	417	453	8.6
VT	153	146	1,380	1,415	211	207	-1.9
VA	119	108	1,235	1,260	147	136	-7.5
WA	247	243	1,800	1,810	445	440	-1.1
WI	1,266	1,249	1,385	1,410	1,753	1,761	0.5
20-State Total	7,792	7,708	1,496	1,511	11,657	11,650	-0.1

¹ 2003 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

**December Milk Cows, 1994-2003
20 States**



**Milk Cows and Production: By State and United States,
Revised July-September, 2002-2003**

State	Jul-Sep Milk Cows ¹		Jul-Sep Milk Production ²		Change From 2002
	2002	2003	2002	2003	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	20	18	59	53	-10.2
AK	1.3	1.2	4.94	4.40	-10.9
AZ	149	150	791	770	-2.7
AR	32	28	88	79	-10.2
CA	1,652	1,697	8,788	8,724	-0.7
CO	102	100	550	545	-0.9
CT	24	22	107	99	-7.5
DE	9.0	8.0	35.0	31.0	-11.4
FL	149	140	519	471	-9.2
GA	85	85	330	319	-3.3
HI	6.5	6.5	23.9	22.6	-5.4
ID	393	411	2,111	2,266	7.3
IL	115	108	480	470	-2.1
IN	148	143	623	630	1.1
IA	210	200	923	911	-1.3
KS	104	106	500	504	0.8
KY	122	113	371	333	-10.2
LA	50	46	123	109	-11.4
ME	37	35	164	157	-4.3
MD	81	78	324	304	-6.2
MA	20	18	89	79	-11.2
MI	301	298	1,489	1,520	2.1
MN	483	472	2,013	2,011	-0.1
MS	34	30	101	87	-13.9
MO	136	128	444	437	-1.6
MT	18	18	87	85	-2.3
NE	67	63	283	268	-5.3
NV	25	26	123	133	8.1
NH	17	16	80	74	-7.5
NJ	13	12	58	52	-10.3
NM	304	317	1,605	1,664	3.7
NY	677	676	3,043	2,964	-2.6
NC	64	60	270	243	-10.0
ND	39	35	145	137	-5.5
OH	263	260	1,088	1,103	1.4
OK	88	84	316	309	-2.2
OR	117	120	540	555	2.8
PA	585	570	2,634	2,507	-4.8
RI	1.4	1.3	5.6	5.3	-5.4
SC	20	18	80	64	-20.0
SD	96	89	340	360	5.9
TN	87	78	300	270	-10.0
TX	308	312	1,202	1,282	6.7
UT	93	90	436	405	-7.1
VT	154	147	665	648	-2.6
VA	119	113	448	401	-10.5
WA	248	244	1,432	1,412	-1.4
WV	15	15	60	56	-6.7
WI	1,266	1,254	5,483	5,574	1.7
WY	4.4	3.7	16.3	13.0	-20.2
US ³	9,153	9,064	41,791	41,520	-0.6

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ May not add due to rounding.

**Milk Cows and Production: By State and United States,
Preliminary October-December, 2002-2003**

State	Oct-Dec Milk Cows ¹		Oct-Dec Milk Production ²		Change From 2002
	2002	2003	2002	2003	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	19	18	63	60	-4.8
AK	1.3	1.2	4.36	3.50	-19.7
AZ	150	153	821	838	2.1
AR	31	28	87	80	-8.0
CA	1,670	1,699	8,674	8,683	0.1
CO	99	99	540	540	
CT	23	21	107	98	-8.4
DE	9.0	8.0	36.0	32.0	-11.1
FL	147	140	528	504	-4.5
GA	85	84	344	337	-2.0
HI	6.6	6.5	22.7	20.6	-9.3
ID	390	412	2,041	2,200	7.8
IL	115	108	500	485	-3.0
IN	147	143	641	644	0.5
IA	208	197	936	901	-3.7
KS	105	110	515	530	2.9
KY	120	112	374	353	-5.6
LA	49	43	128	117	-8.6
ME	36	34	157	151	-3.8
MD	80	77	327	308	-5.8
MA	20	18	87	77	-11.5
MI	301	298	1,484	1,510	1.8
MN	480	465	2,042	2,000	-2.1
MS	33	29	105	96	-8.6
MO	135	125	466	455	-2.4
MT	18	18	85	86	1.2
NE	66	62	290	270	-6.9
NV	25	26	121	131	8.3
NH	17	16	79	73	-7.6
NJ	13	12	57	50	-12.3
NM	306	321	1,564	1,650	5.5
NY	678	660	2,973	2,875	-3.3
NC	63	59	267	250	-6.4
ND	38	34	140	131	-6.4
OH	261	258	1,086	1,092	0.6
OK	88	81	316	301	-4.7
OR	117	118	529	527	-0.4
PA	591	561	2,641	2,445	-7.4
RI	1.4	1.3	5.4	5.1	-5.6
SC	20	18	83	72	-13.3
SD	95	87	336	347	3.3
TN	84	77	305	285	-6.6
TX	310	315	1,292	1,403	8.6
UT	92	90	409	398	-2.7
VT	153	146	654	639	-2.3
VA	119	108	451	412	-8.6
WA	247	243	1,374	1,359	-1.1
WV	15	14	57	52	-8.8
WI	1,267	1,249	5,396	5,431	0.6
WY	4.1	3.9	14.3	14.4	0.7
US ³	9,148	9,007	41,555	41,322	-0.6

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ May not add due to rounding.

Reliability Statement

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, rather than conduct a monthly or quarterly survey, 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 and July 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, 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 basis for revisions. However, data for all orders are not available in time for this revision. 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 cow inventory estimates over the past 10 October-December quarters is 0.7 percent. This means that chances are 2 out of 3 that the final October-December estimate will not be above or below the current estimate of 9.01 million head by more than 0.7 percent. Chances are 9 out of 10 that the difference will not exceed 1.2 percent.

Reliability of October-December Milk Estimates ¹

Item	Root Mean Square Error	90% Confidence Level		Difference Between First and Latest Estimates			Quarters	
				Average	Smallest	Largest	First Above Latest	First Below Latest
				<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Number</i>	<i>Number</i>
Milk Production	<i>Percent</i> 0.4	<i>Percent</i> 0.7	<i>Million Pounds</i> 289	<i>Million Pounds</i> 129	<i>Million Pounds</i> 1	<i>Million Pounds</i> 233	<i>Number</i> 7	<i>Number</i> 3
All Milk Cows	<i>Percent</i> 0.7	<i>Percent</i> 1.2	<i>1,000 Head</i> 108	<i>1,000 Head</i> 44	<i>1,000 Head</i> 0	<i>1,000 Head</i> 138	<i>Number</i> 7	<i>Number</i> 2

¹ Based on records for the past 10 October-December quarters.

The next "*Milk Production*" report will be released at 3 p.m. ET on February 17, 2004.

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Ensuring a Healthy Food Supply



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