

Released January 18, 2000, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. For information on "Milk Production" call Steve Anderson at 202-690-3236, office hours 7:00 a.m. to 4:30 p.m. ET.

December Milk Production Up 3.8 Percent

Milk production in the 20 major States during December totaled 11.9 billion pounds, up 3.8 percent from production in these same States in December 1998. November revised production, at 11.3 billion pounds, was up 4.5 percent from November 1998. The November revision represented an increase of 0.1 percent or 11 million pounds from last months preliminary production estimate.

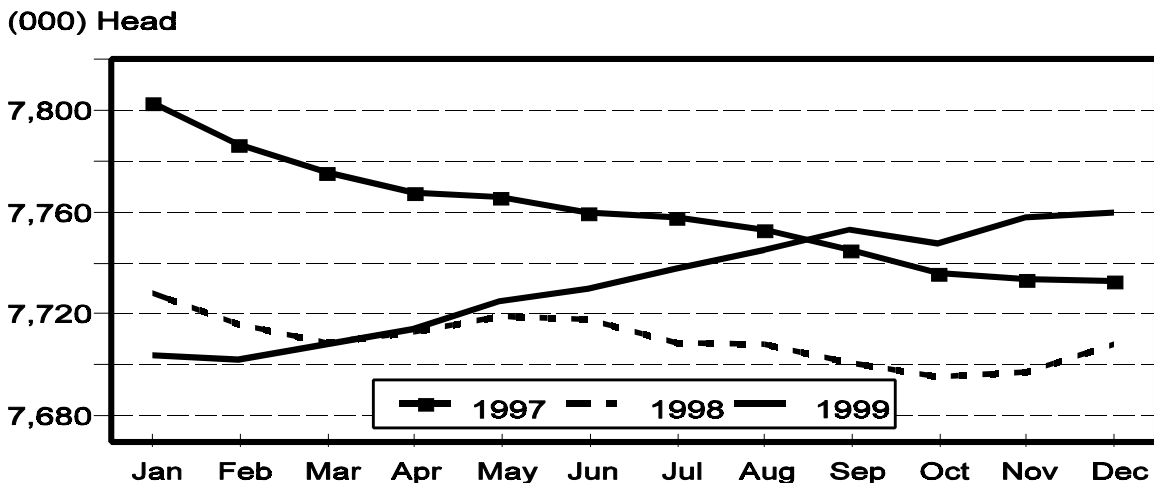
Production per cow in the 20 major States averaged 1,536 pounds for December, 47 pounds above December 1998.

The number of cows on farms in the 20 major States was 7.76 million head, 52,000 head more than December 1998 and 2,000 head more than November 1999.

October-December Milk Production Up 3.8 Percent

The quarterly production of milk for the U.S. was 40.4 billion pounds, 3.8 percent above the October-December period last year. The average number of milk cows in the U.S. during the October-December quarter was 9.18 million head, 41,000 head more than the same period last year.

Monthly Milk Cows 20 States



Milk Cows and Production: By Quarter, United States, 1998-1999¹

Quarter	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	1998	1999	1998	1999	1998	1999	Change From 1998
	<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	9,176	9,136	4,268	4,437	39,164	40,540	3.5
Apr-Jun	9,171	9,151	4,451	4,587	40,821	41,980	2.8
Jul-Sep	9,149	9,166	4,210	4,340	38,519	39,784	3.3
Oct-Dec	9,137	9,178	4,261	4,405	38,937	40,428	3.8
Annual	9,158	9,158	17,192	17,769	157,441	162,732	3.4

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, 1998-1999

Month	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		
	1998	1999	1998	1999	1998	1999	Change From 1998
	<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	7,728	7,704	1,466	1,521	11,327	11,720	3.5
Feb	7,716	7,702	1,347	1,403	10,394	10,809	4.0
Mar	7,709	7,708	1,515	1,584	11,678	12,212	4.6
Apr	7,713	7,714	1,501	1,554	11,579	11,989	3.5
May	7,719	7,725	1,556	1,609	12,011	12,430	3.5
Jun	7,718	7,730	1,477	1,515	11,396	11,714	2.8
Jul	7,709	7,738	1,468	1,497	11,314	11,587	2.4
Aug	7,708	7,745	1,443	1,489	11,124	11,536	3.7
Sep	7,701	7,753	1,386	1,444	10,672	11,198	4.9
Oct	7,695	7,748	1,446	1,493	11,125	11,569	4.0
Nov	7,697	7,758	1,407	1,459	10,829	11,317	4.5
Dec	7,708	7,760	1,489	1,536	11,481	11,918	3.8
Annual	7,710	7,732	17,501	18,106	134,930	139,999	3.8

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Estimated Milk Production: United States, 1998-1999

Month	By Month			Cumulative		
	1998	1999	Change From 1998	1998	1999	Change From 1998
	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
Jan	13,282	13,676	3.0	13,282	13,676	3.0
Feb	12,188	12,613	3.5	25,470	26,289	3.2
Mar	13,694	14,251	4.1	39,164	40,540	3.5
Apr	13,510	13,926	3.1	52,674	54,466	3.4
May	14,015	14,437	3.0	66,689	68,903	3.3
Jun	13,296	13,617	2.4	79,985	82,520	3.2
Jul	13,162	13,432	2.1	93,147	95,952	3.0
Aug	12,942	13,372	3.3	106,089	109,324	3.0
Sep	12,415	12,980	4.6	118,504	122,304	3.2
Oct	12,956	13,438	3.7	131,460	135,742	3.3
Nov	12,611	13,146	4.2	144,071	148,888	3.3
Dec	13,370	13,844	3.5	157,441	162,732	3.4

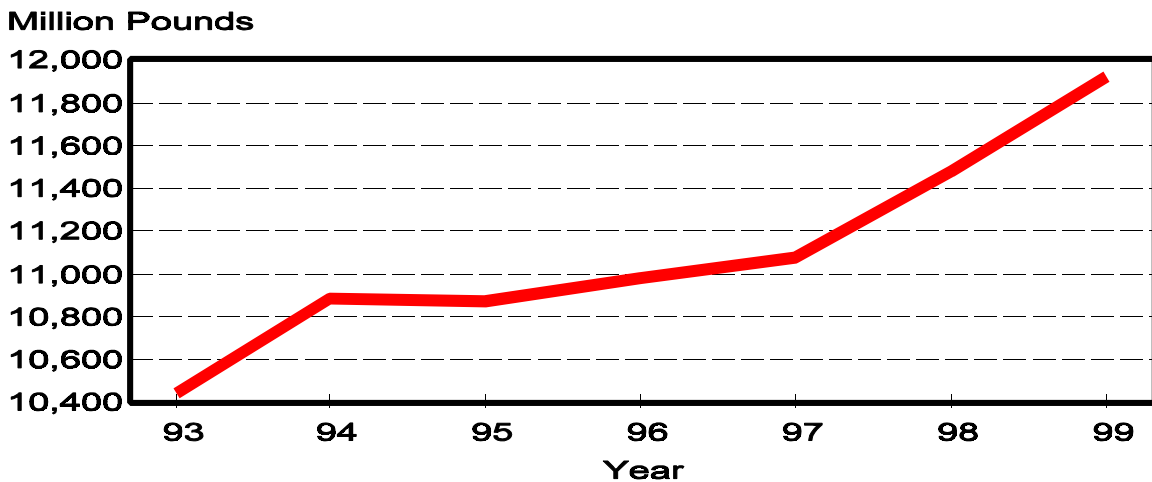
Milk Cows and Production: By State, December 1998-1999

State	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		
	1998	1999	1998	1999	1998	1999	Change From 1998
	<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	132	135	1,795	1,830	237	247	4.2
CA	1,439	1,486	1,650	1,775	2,374	2,638	11.1
FL	157	156	1,320	1,315	207	205	-1.0
ID	301	331	1,660	1,730	500	573	14.6
IL	125	121	1,420	1,430	178	173	-2.8
IN	137	138	1,390	1,355	190	187	-1.6
IA	230	215	1,505	1,495	346	321	-7.2
KY	136	131	1,030	1,060	140	139	-0.7
MI	299	295	1,525	1,595	456	471	3.3
MN	545	540	1,475	1,500	804	810	0.7
MO	165	159	1,200	1,225	198	195	-1.5
NM	218	236	1,715	1,720	374	406	8.6
NY	702	700	1,400	1,440	983	1,008	2.5
OH	261	259	1,400	1,430	365	370	1.4
PA	619	619	1,435	1,480	888	916	3.2
TX	340	348	1,400	1,395	476	485	1.9
VT	162	161	1,420	1,440	230	232	0.9
VA	122	120	1,270	1,350	155	162	4.5
WA	248	246	1,805	1,885	448	464	3.6
WI	1,370	1,364	1,410	1,405	1,932	1,916	-0.8
20-State Total	7,708	7,760	1,489	1,536	11,481	11,918	3.8

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

**December Milk Production, 1993-1999
20 States**



Milk Cows and Production: By State, November 1998-1999 ¹

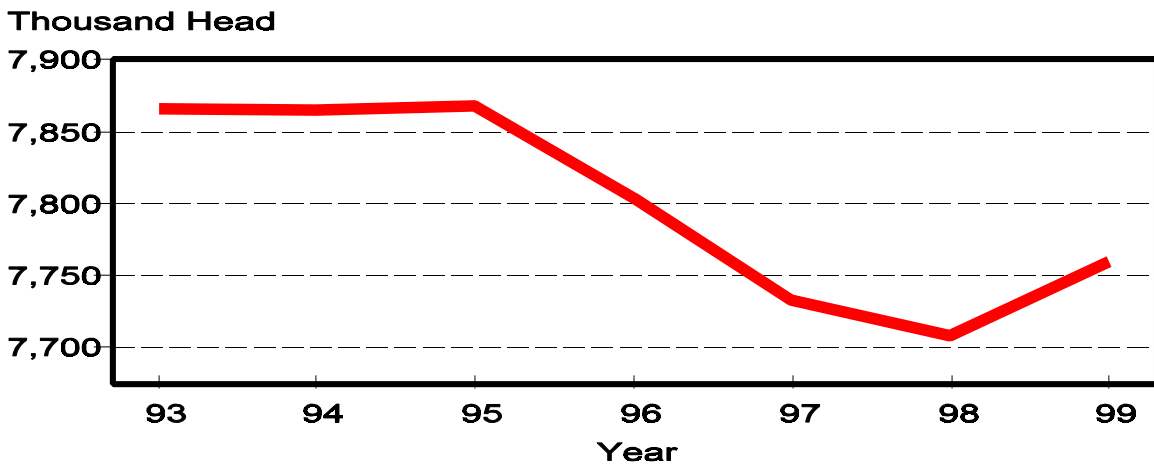
State	Milk Cows ²		Milk per Cow ³		Milk Production ³		Change From 1998
	1998	1999	1998	1999	1998	1999	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AZ	132	135	1,675	1,755	221	237	7.2
CA	1,436	1,483	1,590	1,715	2,283	2,543	11.4
FL	158	156	1,115	1,110	176	173	-1.7
ID	299	329	1,600	1,680	478	553	15.7
IL	126	121	1,350	1,330	170	161	-5.3
IN	138	137	1,300	1,275	179	175	-2.2
IA	221	215	1,410	1,420	312	305	-2.2
KY	136	131	965	1,000	131	131	
MI	298	294	1,460	1,495	435	440	1.1
MN	545	545	1,355	1,380	738	752	1.9
MO	166	160	1,125	1,140	187	182	-2.7
NM	218	236	1,610	1,660	351	392	11.7
NY	702	700	1,320	1,360	927	952	2.7
OH	262	259	1,310	1,380	343	357	4.1
PA	620	618	1,380	1,420	856	878	2.6
TX	341	348	1,285	1,290	438	449	2.5
VT	161	161	1,335	1,335	215	215	
VA	123	121	1,185	1,315	146	159	8.9
WA	247	245	1,740	1,805	430	442	2.8
WI	1,368	1,364	1,325	1,335	1,813	1,821	0.4
20-State Total	7,697	7,758	1,407	1,459	10,829	11,317	4.5

¹ 1999 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

**December Milk Cows, 1993-1999
20 States**



**Milk Cows and Production: By State and United States,
Revised July-September, 1998-1999**

State	Jul-Sep Milk Cows ¹		Jul-Sep Milk Production ²		Change From 1998
	1998	1999	1998	1999	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	27	27	81	76	-6.2
AK	0.9	1.0	3.63	3.48	-4.1
AZ	132	135	578	641	10.9
AR	48	44	154	126	-18.2
CA	1,425	1,472	6,762	7,625	12.8
CO	83	82	429	428	-0.2
CT	30	28	128	126	-1.6
DE	11.0	11.0	37.4	44.0	17.6
FL	159	158	502	521	3.8
GA	93	88	310	313	1.0
HI	8.8	8.6	32.3	31.4	-2.8
ID	295	323	1,491	1,690	13.3
IL	127	121	499	472	-5.4
IN	136	136	533	538	0.9
IA	222	215	927	908	-2.0
KS	82	86	305	325	6.6
KY	138	132	404	388	-4.0
LA	63	61	156	151	-3.2
ME	42	41	176	173	-1.7
MD	86	86	324	341	5.2
MA	26	24	111	104	-6.3
MI	303	293	1,376	1,344	-2.3
MN	550	548	2,236	2,270	1.5
MS	41	38	121	116	-4.1
MO	169	160	544	509	-6.4
MT	18	18	72	76	5.6
NE	69	74	262	302	15.3
NV	25	25	118	128	8.5
NH	21	19	85	79	-7.1
NJ	19	18	72	69	-4.2
NM	218	235	1,104	1,157	4.8
NY	701	702	2,958	3,019	2.1
NC	74	73	291	289	-0.7
ND	50	48	174	172	-1.1
OH	263	259	1,056	1,101	4.3
OK	92	92	294	294	
OR	89	89	401	413	3.0
PA	623	615	2,664	2,670	0.2
RI	2.1	2.0	8.3	7.7	-7.2
SC	24	23	81	79	-2.5
SD	102	102	366	375	2.5
TN	103	95	344	320	-7.0
TX	347	346	1,234	1,192	-3.4
UT	90	93	383	412	7.6
VT	161	161	677	688	1.6
VA	123	120	438	450	2.7
WA	247	248	1,348	1,414	4.9
WV	18	18	69	68	-1.4
WI	1,366	1,366	5,779	5,724	-1.0
WY	6.0	6.0	20.4	21.0	2.9
US ³	9,149	9,166	38,519	39,784	3.3

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, 1998-1999**

State	Oct-Dec Milk Cows ¹		Oct-Dec Milk Production ²		Change From 1998
	1998	1999	1998	1999	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	27	27	92	90	-2.2
AK	0.8	0.9	3.51	3.03	-13.7
AZ	132	135	676	717	6.1
AR	46	43	154	120	-22.1
CA	1,436	1,483	7,020	7,786	10.9
CO	83	83	421	429	1.9
CT	30	28	129	126	-2.3
DE	11.0	11.0	37.3	46.1	23.6
FL	158	156	546	536	-1.8
GA	90	88	343	344	0.3
HI	8.8	8.6	29.5	26.9	-8.8
ID	299	329	1,473	1,698	15.3
IL	126	121	517	496	-4.1
IN	137	137	547	541	-1.1
IA	224	215	972	939	-3.4
KS	83	87	320	355	10.9
KY	136	131	404	403	-0.2
LA	63	61	176	165	-6.3
ME	42	41	166	165	-0.6
MD	86	86	320	364	13.8
MA	25	24	106	102	-3.8
MI	299	295	1,343	1,365	1.6
MN	545	543	2,291	2,322	1.4
MS	41	38	132	130	-1.5
MO	166	160	573	562	-1.9
MT	18	18	73	76	4.1
NE	70	75	266	310	16.5
NV	25	25	115	123	7.0
NH	20	19	79	77	-2.5
NJ	19	18	70	69	-1.4
NM	218	236	1,093	1,194	9.2
NY	702	700	2,879	2,940	2.1
NC	73	73	312	299	-4.2
ND	50	48	172	168	-2.3
OH	262	259	1,062	1,092	2.8
OK	92	92	304	313	3.0
OR	88	89	394	408	3.6
PA	620	618	2,623	2,689	2.5
RI	2.0	1.9	7.8	7.3	-6.4
SC	24	23	88	86	-2.3
SD	102	102	366	385	5.2
TN	101	95	357	345	-3.4
TX	341	347	1,345	1,368	1.7
UT	93	93	381	403	5.8
VT	161	161	666	668	0.3
VA	123	121	449	480	6.9
WA	247	245	1,326	1,368	3.2
WV	18	18	68	69	1.5
WI	1,368	1,364	5,630	5,640	0.2
WY	5.9	6.0	19.5	19.8	1.5
US ³	9,137	9,178	38,937	40,428	3.8

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.

Estimation Procedures: State offices prepare these estimates using 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 quarters is 1.3 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 9.18 million head by more than 1.3 percent. Chances are 9 out of 10 that the difference will not exceed 2.3 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>	<i>Percent</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Number</i>	<i>Number</i>
	0.6	1.1	445	183	1	385	10	0
All Milk Cows	<i>Percent</i>	<i>Percent</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Number</i>	<i>Number</i>
	1.3	2.3	211	102	2	195	9	1

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 16, 2000.

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