

Milk Production



USDA
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December Milk Production Up 3.0 Percent

Milk production in the 20 major States during December totaled 11.4 billion pounds, up 3.0 percent from production in these same States in December 1997. November revised production, at 10.9 billion pounds was up 2.7 percent from November 1997.

Production per cow in the 20 major States averaged 1,478 pounds for December, 40 pounds above December 1997.

The number of cows on farms in the 20 major States was 7.74 million head, 12,000 head more than December 1997 but 1,000 head less than November 1998.

October-December Milk Production Up 2.4 Percent

The quarterly production of milk for the U.S. was 39.1 billion pounds, 2.4 percent above the October-December period last year. The average number of milk cows in the U.S. during the October-December quarter was 9.19 million head, 12,000 head less than the same period last year.

Milk Cows and Production: By Quarter, United States, 1997-98

Quarter	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		
	1997	1998	1997	1998	1997	1998	Change From 1997
	<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	9,295	9,186	4,192	4,268	38,961	39,209	0.6
Apr-Jun	9,280	9,205	4,384	4,447	40,683	40,931	0.6
Jul-Sep	9,251	9,203	4,195	4,204	38,805	38,685	-0.3
Oct-Dec	9,206	9,194	4,144	4,248	38,153	39,058	2.4
Annual	9,258	9,198	16,915	17,165	156,602	157,883	0.8

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production: By Month, 20 Selected States, 1997-98

Month	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		
	1997	1998	1997	1998	1997	1998	Change From 1997
	<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	7,787	7,730	1,433	1,464	11,158	11,316	1.4
Feb	7,774	7,726	1,328	1,351	10,321	10,434	1.1
Mar	7,763	7,725	1,500	1,517	11,641	11,722	0.7
Apr	7,763	7,735	1,474	1,499	11,446	11,591	1.3
May	7,765	7,750	1,529	1,557	11,869	12,067	1.7
Jun	7,765	7,753	1,471	1,476	11,419	11,446	0.2
Jul	7,765	7,750	1,473	1,464	11,437	11,345	-0.8
Aug	7,757	7,753	1,446	1,439	11,213	11,160	-0.5
Sep	7,752	7,749	1,377	1,382	10,671	10,706	0.3
Oct	7,750	7,746	1,416	1,441	10,977	11,164	1.7
Nov	7,737	7,745	1,369	1,405	10,591	10,881	2.7
Dec	7,732	7,744	1,438	1,478	11,118	11,448	3.0
Annual	7,759	7,742	17,252	17,474	133,861	135,280	1.1

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Estimated Milk Production: United States, 1997-98

Month	By Month			Cumulative		
	1997	1998	Change From 1997	1997	1998	Change From 1997
	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
Jan	13,126	13,256	1.0	13,126	13,256	1.0
Feb	12,141	12,222	0.7	25,267	25,478	0.8
Mar	13,694	13,731	0.3	38,961	39,209	0.6
Apr	13,406	13,515	0.8	52,367	52,724	0.7
May	13,902	14,070	1.2	66,269	66,794	0.8
Jun	13,375	13,346	-0.2	79,644	80,140	0.6
Jul	13,319	13,215	-0.8	92,963	93,355	0.4
Aug	13,059	13,000	-0.5	106,022	106,355	0.3
Sep	12,427	12,470	0.3	118,449	118,825	0.3
Oct	12,814	13,019	1.6	131,263	131,844	0.4
Nov	12,362	12,689	2.6	143,625	144,533	0.6
Dec	12,977	13,350	2.9	156,602	157,883	0.8

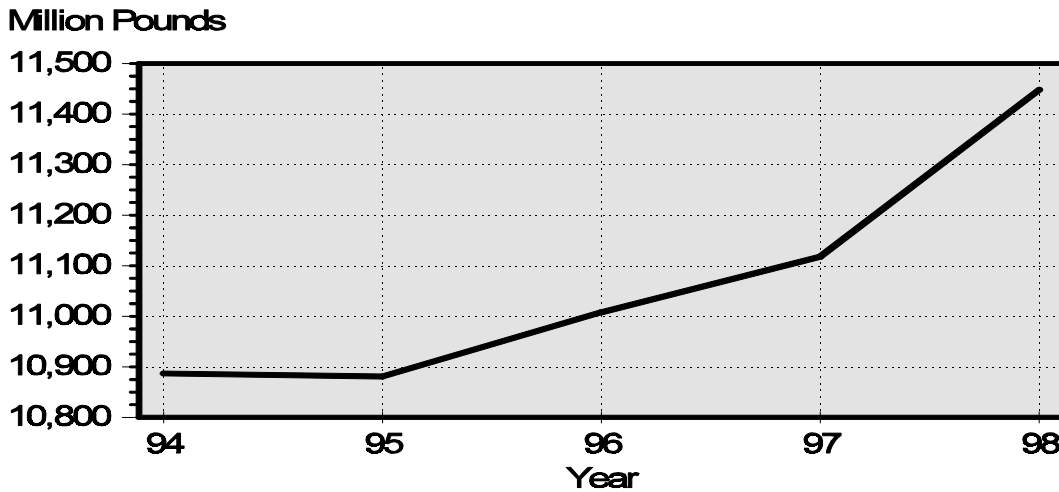
Milk Cows and Production: By State, December 1997-98

Month	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		Change From 1997
	1997	1998	1997	1998	1997	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	130	132	1,710	1,795	222	237	6.8
CA	1,348	1,397	1,710	1,665	2,305	2,326	0.9
FL	160	157	1,315	1,260	210	198	-5.7
ID	280	301	1,610	1,650	451	497	10.2
IL	145	139	1,310	1,390	190	193	1.6
IN	140	142	1,330	1,370	186	195	4.8
IA	240	240	1,420	1,490	341	358	5.0
KY	140	130	1,020	1,040	143	135	-5.6
MI	299	299	1,480	1,510	443	451	1.8
MN	570	550	1,340	1,450	764	798	4.5
MO	162	164	1,165	1,210	189	198	4.8
NM	208	218	1,625	1,675	338	365	8.0
NY	700	702	1,360	1,400	952	983	3.3
OH	272	265	1,320	1,380	359	366	1.9
PA	638	629	1,430	1,450	912	912	
TX	380	365	1,245	1,305	473	476	0.6
VT	158	162	1,385	1,400	219	227	3.7
VA	120	121	1,340	1,265	161	153	-5.0
WA	260	261	1,650	1,715	429	448	4.4
WI	1,382	1,370	1,325	1,410	1,831	1,932	5.5
20-State Total	7,732	7,744	1,438	1,478	11,118	11,448	3.0

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

December Milk Production, 1994-1998
20 States



Milk Cows and Production: By State, November 1997-98 ¹

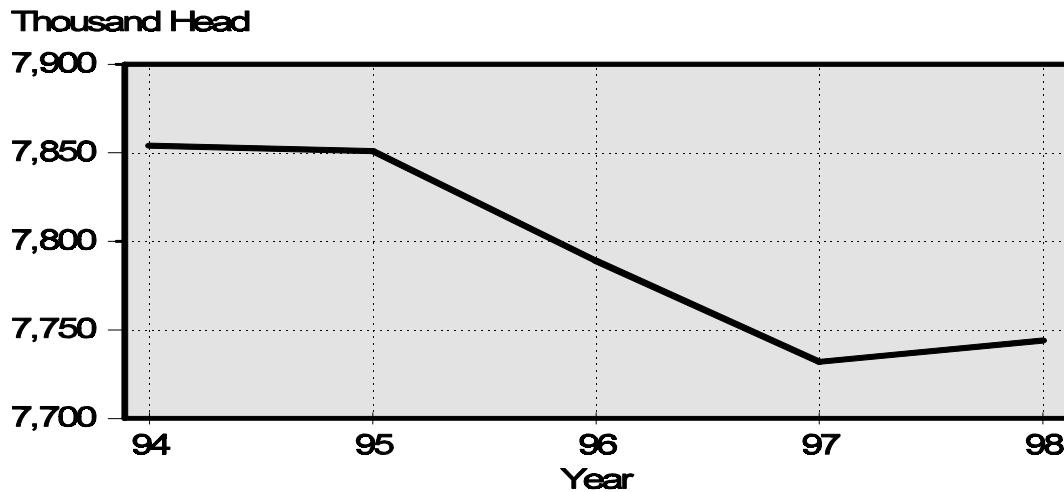
State	Milk Cows ²		Milk per Cow ³		Milk Production ³		Change From 1997
	1997	1998	1997	1998	1997	1998	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AZ	130	132	1,600	1,675	208	221	6.3
CA	1,343	1,394	1,685	1,640	2,263	2,286	1.0
FL	159	158	1,165	1,115	185	176	-4.9
ID	280	300	1,550	1,600	434	480	10.6
IL	145	139	1,250	1,320	181	183	1.1
IN	140	142	1,250	1,285	175	182	4.0
IA	241	240	1,340	1,400	323	336	4.0
KY	141	131	970	980	137	128	-6.6
MI	301	298	1,415	1,460	426	435	2.1
MN	570	555	1,230	1,330	701	738	5.3
MO	164	164	1,090	1,140	179	187	4.5
NM	206	218	1,590	1,610	328	351	7.0
NY	699	702	1,290	1,310	902	920	2.0
OH	274	266	1,260	1,305	345	347	0.6
PA	640	631	1,350	1,380	864	871	0.8
TX	380	366	1,155	1,195	439	437	-0.5
VT	159	161	1,305	1,330	207	214	3.4
VA	120	120	1,260	1,215	151	146	-3.3
WA	260	260	1,585	1,655	412	430	4.4
WI	1,385	1,368	1,250	1,325	1,731	1,813	4.7
20-State Total	7,737	7,745	1,369	1,405	10,591	10,881	2.7

¹ 1998 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

**December Milk Cows, 1994-1998
20 States**



**Milk Cows and Production: By State and United States,
Revised July-September, 1997-98**

State	Jul-Sep Milk Cows ¹		Jul-Sep Milk Production ²		Change From 1997
	1997	1998	1997	1998	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	31	27	88	82	-6.8
AK	0.9	0.9	3.96	3.63	-8.3
AZ	128	132	579	569	-1.7
AR	53	52	154	166	7.8
CA	1,332	1,383	7,031	6,763	-3.8
CO	84	83	420	429	2.1
CT	30	30	125	126	0.8
DE	10.0	11.0	38.0	44.7	17.6
FL	160	159	513	504	-1.8
GA	96	93	324	309	-4.6
HI	8.9	8.7	29.9	32.9	10.0
ID	276	295	1,377	1,491	8.3
IL	146	141	572	540	-5.6
IN	140	140	547	547	
IA	243	240	1,001	945	-5.6
KS	81	82	300	305	1.7
KY	144	135	437	405	-7.3
LA	76	68	170	156	-8.2
ME	40	41	169	172	1.8
MD	86	86	326	351	7.7
MA	26	26	109	106	-2.8
MI	307	301	1,357	1,346	-0.8
MN	580	563	2,242	2,231	-0.5
MS	47	41	135	121	-10.4
MO	166	160	558	544	-2.5
MT	19	18	75	72	-4.0
NE	69	71	260	280	7.7
NV	26	26	120	125	4.2
NH	19	19	81	77	-4.9
NJ	20	19	73	72	-1.4
NM	203	218	998	1,104	10.6
NY	698	701	2,912	2,958	1.6
NC	75	73	295	284	-3.7
ND	53	50	172	174	1.2
OH	280	271	1,088	1,099	1.0
OK	96	94	310	296	-4.5
OR	89	89	413	418	1.2
PA	639	635	2,655	2,692	1.4
RI	2.0	2.0	7.6	7.5	-1.3
SC	26	23	84	80	-4.8
SD	104	102	350	366	4.6
TN	110	104	371	347	-6.5
TX	384	372	1,265	1,234	-2.5
UT	91	90	394	383	-2.8
VT	158	158	660	665	0.8
VA	121	120	449	439	-2.2
WA	263	260	1,350	1,349	-0.1
WV	18	18	66	69	4.5
WI	1,391	1,366	5,730	5,786	1.0
WY	6.0	5.5	20.4	19.3	-5.4
US ³	9,251	9,203	38,805	38,685	-0.3

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ Milk cows will not add due to rounding.

**Milk Cows and Production: By State and United States,
Preliminary October-December, 1997-98**

State	Oct-Dec Milk Cows ¹		Oct-Dec Milk Production ²		Change From 1997 <i>Percent</i>
	1997 <i>1,000 Head</i>	1998 <i>1,000 Head</i>	1997 <i>Million Pounds</i>	1998 <i>Million Pounds</i>	
AL	29	27	100	90	-10.0
AK	0.9	0.8	3.80	3.51	-7.6
AZ	130	132	632	674	6.6
AR	52	51	153	171	11.8
CA	1,343	1,394	6,918	6,975	0.8
CO	83	83	395	414	4.8
CT	30	30	128	128	
DE	10.5	11.0	38.2	44.6	16.8
FL	159	158	571	545	-4.6
GA	96	90	357	341	-4.5
HI	8.9	8.8	27.7	29.5	6.5
ID	280	300	1,334	1,472	10.3
IL	145	139	558	558	
IN	140	142	544	559	2.8
IA	241	240	996	1,016	2.0
KS	80	83	315	320	1.6
KY	141	131	423	395	-6.6
LA	76	68	184	176	-4.3
ME	39	41	160	163	1.9
MD	86	86	331	352	6.3
MA	25	26	105	105	
MI	301	298	1,313	1,333	1.5
MN	572	555	2,190	2,281	4.2
MS	44	41	142	131	-7.7
MO	164	163	552	573	3.8
MT	18	18	70	73	4.3
NE	69	72	261	290	11.1
NV	26	26	122	122	
NH	18	19	80	77	-3.8
NJ	20	19	71	72	1.4
NM	206	218	1,002	1,083	8.1
NY	699	702	2,798	2,868	2.5
NC	75	72	306	291	-4.9
ND	49	50	159	172	8.2
OH	274	266	1,060	1,072	1.1
OK	95	94	310	310	
OR	88	88	388	400	3.1
PA	639	631	2,669	2,679	0.4
RI	2.0	2.0	7.7	7.6	-1.3
SC	25	24	91	90	-1.1
SD	102	102	338	366	8.3
TN	106	101	371	357	-3.8
TX	380	366	1,350	1,344	-0.4
UT	89	93	366	381	4.1
VT	158	161	640	661	3.3
VA	120	120	466	448	-3.9
WA	260	260	1,276	1,327	4.0
WV	18	18	68	68	
WI	1,385	1,368	5,394	5,630	4.4
WY	5.7	5.5	18.2	19.3	6.0
US ³	9,206	9,194	38,153	39,058	2.4

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ Milk cows will 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 1.2 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 9.19 million head by more than 1.2 percent, or about 110,000 head. Chances are 9 out of 10 that the difference will not exceed 2.3 percent, or about 211,000 head (the 90 percent confidence level).

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>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>
Milk Production	0.6	1.1	430	185	66	385	9	1
	<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>
All Milk Cows	1.2	2.3	211	100	2	195	8	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 16, 1999.

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