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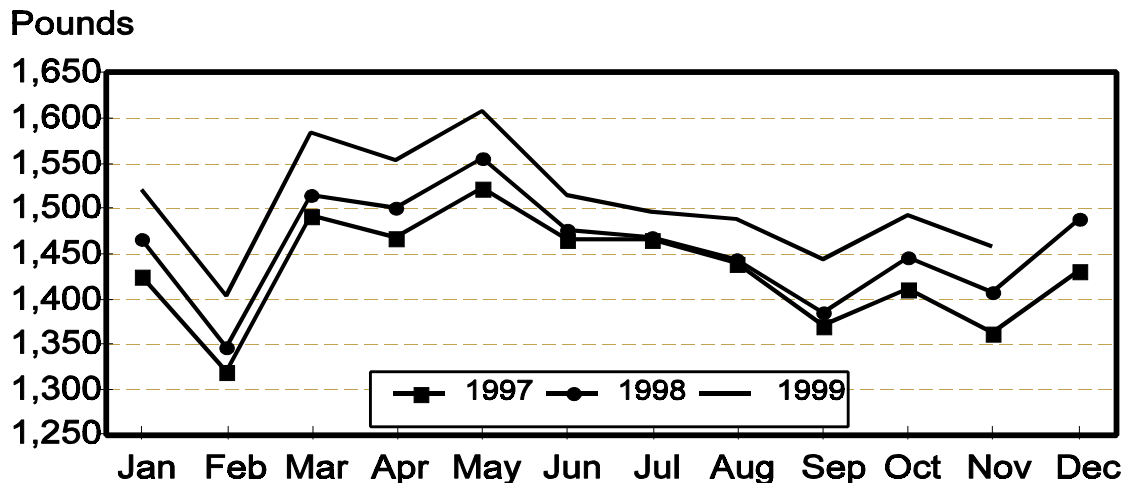
November Milk Production Up 4.4 Percent

Milk production in the 20 major States during November totaled 11.3 billion pounds, up 4.4 percent from production in these same States in November 1998. October revised production, at 11.6 billion pounds was up 4.0 percent from October 1998. The October revision represented a decrease of 0.3 percent or 29 million pounds from last months preliminary production estimate.

Production per cow in the 20 major States averaged 1,458 pounds for November, 51 pounds or 3.6 percent above November 1998.

The number of cows on farms in the 20 major States was 7.76 million head, 58,000 head more than November 1998 and 7,000 head more than October 1999.

Monthly Milk per Cow 20 States



Milk Cows and Production: By Quarter, United States, 1998-1999 ¹

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	9,165	4,210	4,339	38,519	39,763	3.2
Oct-Dec	9,137		4,261		38,937		
Annual	9,158		17,192		157,441		

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	7,755	1,407	1,458	10,829	11,306	4.4
Dec	7,708		1,489		11,481		
Annual	7,710		17,501		134,930		

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	13,450	2.2	93,147	95,970	3.0
Aug	12,942	13,374	3.3	106,089	109,344	3.1
Sep	12,415	12,939	4.2	118,504	122,283	3.2
Oct	12,956	13,473	4.0	131,460	135,756	3.3
Nov	12,611	13,166	4.4	144,071	148,922	3.4
Dec	13,370			157,441		

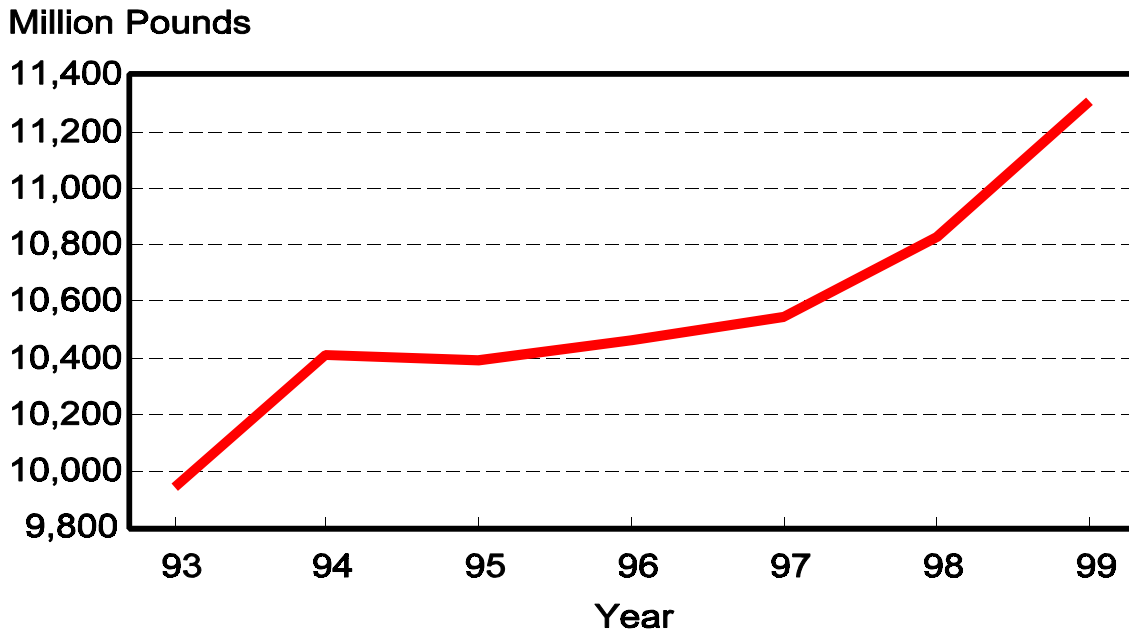
Milk Cows and Production: By State, November 1998-1999

State	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		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	1,484	1,590	1,725	2,283	2,560	12.1
FL	158	156	1,115	1,095	176	171	-2.8
ID	299	329	1,600	1,670	478	549	14.9
IL	126	121	1,350	1,330	170	161	-5.3
IN	138	136	1,300	1,275	179	173	-3.4
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	235	1,610	1,670	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	160	1,335	1,345	215	215	
VA	123	121	1,185	1,290	146	156	6.8
WA	247	244	1,740	1,800	430	439	2.1
WI	1,368	1,364	1,325	1,325	1,813	1,807	-0.3
20-State Total	7,697	7,755	1,407	1,458	10,829	11,306	4.4

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

November Milk Production, 1993-1999 20 States



Milk Cows and Production: By State, October 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	1,650	1,725	218	233	6.9
CA	1,432	1,480	1,650	1,760	2,363	2,605	10.2
FL	158	156	1,030	1,015	163	158	-3.1
ID	298	327	1,660	1,750	495	572	15.6
IL	126	121	1,340	1,340	169	162	-4.1
IN	137	135	1,300	1,325	178	179	0.6
IA	221	215	1,420	1,455	314	313	-0.3
KY	137	131	970	1,015	133	133	
MI	300	295	1,505	1,540	452	454	0.4
MN	545	545	1,375	1,395	749	760	1.5
MO	167	161	1,125	1,150	188	185	-1.6
NM	219	235	1,680	1,685	368	396	7.6
NY	702	700	1,380	1,400	969	980	1.1
OH	262	259	1,350	1,410	354	365	3.1
PA	621	617	1,415	1,450	879	895	1.8
TX	342	346	1,260	1,255	431	434	0.7
VT	160	160	1,380	1,380	221	221	
VA	123	121	1,205	1,315	148	159	7.4
WA	247	245	1,815	1,885	448	462	3.1
WI	1,366	1,364	1,380	1,395	1,885	1,903	1.0
20-State Total	7,695	7,748	1,446	1,493	11,125	11,569	4.0

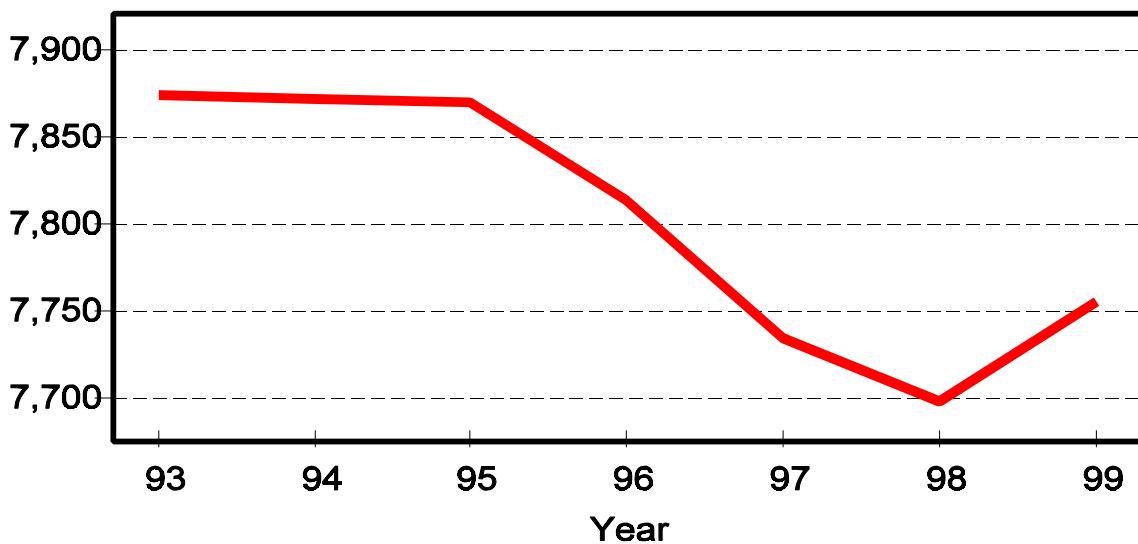
¹ 1999 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

November Milk Cows, 1993-1999 20 States

Thousand Head



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 July-September estimate will not be above or below the current estimate of 9.17 million head by more than 1.2 percent. Chances are 9 out of 10 that the difference will not exceed 2.2 percent.

Reliability of July-September 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>
	0.8	1.5	596	287	181	456	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>
	1.2	2.2	202	101	11	179	9	1

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 18, 2000.

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