



Milk Production

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January Milk Production Down 0.9 Percent

Milk production in the 20 major States during January totaled 12.5 billion pounds, down 0.9 percent from January 2003. December revised production, at 12.3 billion pounds, was down 0.2 percent from December 2002. The December revision represented an increase of 0.5 percent or 62 million pounds from last month's preliminary production estimate.

Production per cow in the 20 major States averaged 1,620 pounds for January, 5 pounds above January 2003.

The number of cows on farms in the 20 major States was 7.72 million head, 92,000 head less than January 2003, but 5,000 head more than December 2003.

2003 Annual Milk Production Up 0.1 Percent from 2002

The annual production of milk for the U.S. during 2003 was 170.3 billion pounds, 0.1 percent above 2002. Revisions to 2002 production increased the annual total by 0.2 percent. Revised 2003 production was up 0.4 percent from last month's publication.

Production per cow in the U.S. averaged 18,749 pounds for 2003, 141 pounds above 2002. The average annual rate of milk production per cow has increased 16 percent from 1994.

The average number of milk cows on farms in the U.S. during 2003 was 9.08 million head, down 0.6 percent from 2002. The average number of milk cows was revised down 2,000 head for 2002, and down 1,000 head for 2003.

Special Note

This issue contains monthly, quarterly, and annual revisions for 2002-2003. Preliminary 2002 Census data were used in the review process for the estimates included in this publication. States requiring a 5-year historical revision may carry a disjointed data series from the current historical data series. December 2002 and prior estimates contained in this publication will be republished in the *Milk Cows and Production, Final Estimates 1998-2002* publication, which is scheduled for release on April 30, 2004.

Milk Cows and Production: By Quarter, United States, 2003-2004 ¹

Quarter	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2003	2004	2003	2004	2003	2004	Change From 2003
	<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	9,144		4,710		43,069		
Apr-Jun	9,109		4,827		43,965		
Jul-Sep	9,073		4,601		41,746		
Oct-Dec	9,011		4,609		41,532		
Annual	9,084		18,749		170,312		

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, 2003-2004 ¹

	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2003	2004	2003	2004	2003	2004	Change From 2003
	<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	7,810	7,718	1,615	1,620	12,616	12,502	-0.9
Feb	7,811		1,489		11,628		
Mar	7,810		1,666		13,014		
Apr	7,800		1,627		12,693		
May	7,787		1,671		13,013		
Jun	7,785		1,596		12,428		
Jul	7,780		1,597		12,421		
Aug	7,771		1,571		12,207		
Sep	7,764		1,511		11,731		
Oct	7,743		1,561		12,083		
Nov	7,721		1,517		11,709		
Dec	7,713		1,596		12,313		
Annual	7,775		19,017		147,856		

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, 2003- 2004 ¹

Month	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2003	2004	2003	2004	2003	2004	Change From 2003
	<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	9,147	8,994	1,594	1,600	14,584	14,388	-1.3
Feb	9,145		1,470		13,441		
Mar	9,141		1,646		15,044		
Apr	9,125		1,604		14,634		
May	9,104		1,648		15,003		
Jun	9,097		1,575		14,328		
Jul	9,087		1,570		14,263		
Aug	9,072		1,545		14,015		
Sep	9,061		1,486		13,468		
Oct	9,034		1,538		13,898		
Nov	9,005		1,496		13,470		
Dec	8,994		1,575		14,164		
Annual	9,084		18,749		170,312		

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

Milk Cows and Production: By State, January 2003-2004

State	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2003	2004	2003	2004	2003	2004	Change From 2003
	<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	155	155	1,970	2,015	305	312	2.3
CA	1,672	1,702	1,790	1,755	2,993	2,987	-0.2
FL	147	140	1,360	1,395	200	195	-2.5
ID	392	412	1,800	1,800	706	742	5.1
IL	114	108	1,580	1,610	180	174	-3.3
IN	146	145	1,710	1,715	250	249	-0.4
IA	207	196	1,595	1,600	330	314	-4.8
KY	120	112	1,115	1,090	134	122	-9.0
MI	302	301	1,765	1,780	533	536	0.6
MN	480	465	1,520	1,515	730	704	-3.6
MO	134	125	1,240	1,265	166	158	-4.8
NM	314	325	1,720	1,760	540	572	5.9
NY	675	658	1,515	1,495	1,023	984	-3.8
OH	260	258	1,445	1,450	376	374	-0.5
PA	590	563	1,540	1,500	909	845	-7.0
TX	320	317	1,505	1,660	482	526	9.1
VT	153	146	1,495	1,530	229	223	-2.6
VA	116	105	1,365	1,380	158	145	-8.2
WA	248	240	1,910	1,915	474	460	-3.0
WI	1,265	1,245	1,500	1,510	1,898	1,880	-0.9
20-State Total	7,810	7,718	1,615	1,620	12,616	12,502	-0.9

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

**January Milk Production, 1995-2004
20 States**



Milk Cows and Production: By State, December 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	154	155	1,875	1,895	289	294	1.7
CA	1,667	1,697	1,770	1,740	2,951	2,953	0.1
FL	147	140	1,265	1,355	186	190	2.2
ID	390	412	1,780	1,800	694	742	6.9
IL	115	109	1,505	1,585	173	173	
IN	146	145	1,600	1,700	234	247	5.6
IA	208	196	1,550	1,580	322	310	-3.7
KY	120	112	1,075	1,070	129	120	-7.0
MI	301	300	1,740	1,765	524	530	1.1
MN	480	465	1,485	1,485	713	691	-3.1
MO	134	124	1,210	1,250	162	155	-4.3
NM	313	324	1,685	1,730	527	561	6.5
NY	675	657	1,500	1,480	1,013	972	-4.0
OH	260	258	1,405	1,440	365	372	1.9
PA	590	562	1,515	1,480	894	832	-6.9
TX	320	317	1,425	1,575	456	499	9.4
VT	153	146	1,470	1,505	225	220	-2.2
VA	117	106	1,315	1,335	154	142	-7.8
WA	247	241	1,890	1,900	467	458	-1.9
WI	1,266	1,247	1,465	1,485	1,855	1,852	-0.2
20-State Total	7,803	7,713	1,581	1,596	12,333	12,313	-0.2

¹ 2003 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

**January Milk Cows, 1995-2004
20 States**



Milk Cows and Production: United States, 1994-2003 ¹

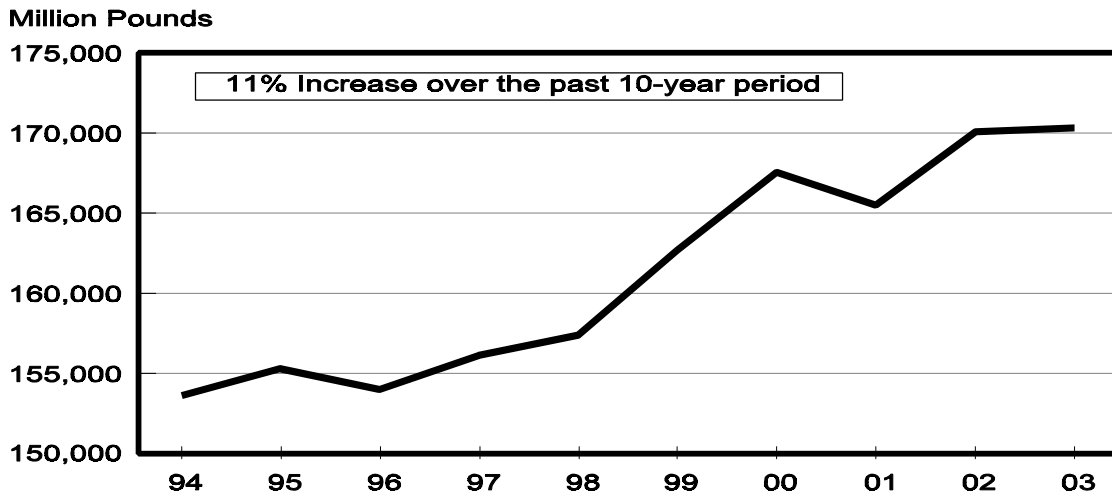
Year	Milk Cows ² <i>1,000 Head</i>	Production per Cow ³		Milk Production ³
		Milk <i>Pounds</i>		Total <i>Million Pounds</i>
1994	9,494	16,179	153,602	
1995	9,466	16,405	155,292	
1996	9,372	16,433	154,006	
1997	9,252	16,871	156,091	
1998	9,154	17,189	157,348	
1999	9,156	17,772	162,716	
2000	9,206	18,201	167,559	
2001	9,114	18,159	165,497	
2002	9,139	18,608	170,063	
2003	9,084	18,749	170,312	

¹ May not add due to rounding.

² Average number during year, excluding heifers not yet fresh.

³ Excludes milk sucked by calves.

**Milk Production, 1994-2003
United States**



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

State	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		Change From 2002
	2002	2003	2002	2003	2002	2003	
	<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>
AL	20	18	13,850	14,000	277	252	-9.0
AK	1.3	1.3	13,600	12,846	17.68	16.70	-5.5
AZ	147	155	23,333	22,284	3,430	3,454	0.7
AR	32	29	12,281	12,138	393	352	-10.4
CA	1,648	1,688	21,277	20,993	35,065	35,437	1.1
CO	100	100	21,590	21,770	2,159	2,177	0.8
CT	24	22	18,625	18,773	447	413	-7.6
DE	9.0	8.3	16,667	16,386	150.0	136.0	-9.3
FL	150	142	15,387	15,218	2,308	2,161	-6.4
GA	85	85	17,294	16,988	1,470	1,444	-1.8
HI	6.6	6.5	14,667	14,154	96.8	92.0	-5.0
ID	388	404	21,018	21,718	8,155	8,774	7.6
IL	115	111	17,835	18,441	2,051	2,047	-0.2
IN	151	149	17,603	19,758	2,658	2,944	10.8
IA	209	201	18,201	18,806	3,804	3,780	-0.6
KS	107	111	18,972	19,054	2,030	2,115	4.2
KY	122	116	13,230	12,621	1,614	1,464	-9.3
LA	48	43	12,063	12,070	579	519	-10.4
ME	37	35	17,730	17,829	656	624	-4.9
MD	81	78	16,062	15,795	1,301	1,232	-5.3
MA	21	19	17,190	17,474	361	332	-8.0
MI	301	302	20,332	21,060	6,120	6,360	3.9
MN	487	473	17,368	17,459	8,458	8,258	-2.4
MS	34	31	14,059	13,645	478	423	-11.5
MO	137	129	14,204	14,620	1,946	1,886	-3.1
MT	18	18	18,944	19,222	341	346	1.5
NE	67	64	17,418	17,641	1,167	1,129	-3.3
NV	25	26	20,040	18,654	501	485	-3.2
NH	18	16	18,222	19,063	328	305	-7.0
NJ	13	13	18,154	16,615	236	216	-8.5
NM	301	317	20,983	21,028	6,316	6,666	5.5
NY	675	671	18,101	17,812	12,218	11,952	-2.2
NC	64	61	17,766	17,115	1,137	1,044	-8.2
ND	40	36	14,825	15,389	593	554	-6.6
OH	262	260	17,080	17,269	4,475	4,490	0.3
OK	84	82	15,560	16,000	1,307	1,312	0.4
OR	114	119	18,360	18,294	2,093	2,177	4.0
PA	585	575	18,419	17,979	10,775	10,338	-4.1
RI	1.4	1.3	16,357	16,923	22.9	22.0	-3.9
SC	20	19	18,200	16,737	364	318	-12.6
SD	86	82	14,988	16,159	1,289	1,325	2.8
TN	88	79	14,943	15,253	1,315	1,205	-8.4
TX	317	319	16,719	17,649	5,300	5,630	6.2
UT	93	91	17,914	17,747	1,666	1,615	-3.1
VT	154	149	17,552	17,698	2,703	2,637	-2.4
VA	119	113	15,891	15,319	1,891	1,731	-8.5
WA	247	245	22,753	22,780	5,620	5,581	-0.7
WV	16	15	15,188	14,800	243	222	-8.6
WI	1,271	1,256	17,367	17,728	22,074	22,266	0.9
WY	4.4	3.8	14,409	14,211	63.4	54.0	-14.8
US ³	9,139	9,084	18,608	18,749	170,063	170,312	0.1

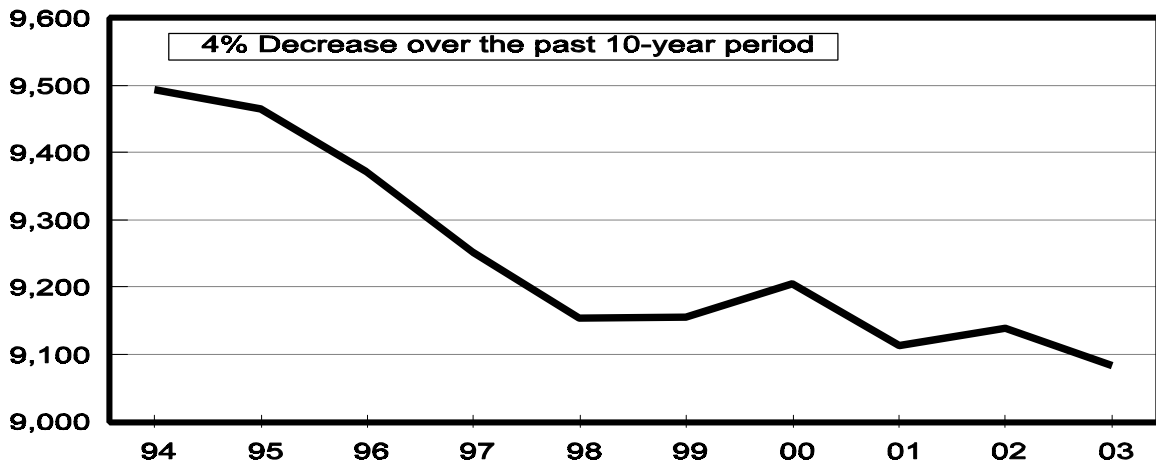
¹ Average number during year, excluding heifers not yet fresh.

² Excludes milk sucked by calves.

³ May not add due to rounding.

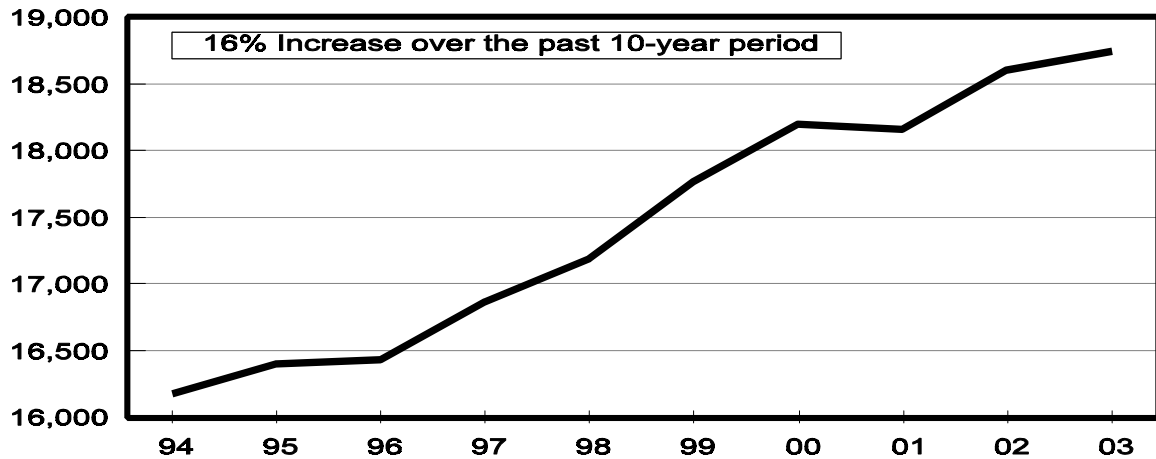
Milk Cows, 1994-2003 United States

Thousand Head



Rate per Cow, 1994-2003 United States

Pounds



Milk Cows: Number by Month, State, and 20 State Total, 2002 ¹

State	Jan	Feb	Mar	Apr	May	Jun	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	
AZ	140	142	143	144	145	145	
CA	1,624	1,628	1,633	1,638	1,642	1,646	
FL	152	152	151	151	151	150	
ID	380	381	381	382	387	391	
IL	115	115	115	115	115	115	
IN	155	155	155	154	153	152	
IA	206	208	209	209	209	210	
KY	123	123	123	123	123	123	
MI	300	301	301	301	301	300	
MN	495	495	490	490	490	490	
MO	140	139	138	138	137	137	
NM	290	290	293	295	296	298	
NY	674	672	675	680	680	680	
OH	260	260	261	262	263	264	
PA	587	583	581	581	580	582	
TX	315	316	316	316	316	317	
VT	154	154	154	154	154	154	
VA	120	120	120	120	120	119	
WA	247	247	247	247	247	248	
WI	1,279	1,278	1,276	1,275	1,272	1,270	
20-Sts	7,756	7,759	7,762	7,775	7,781	7,791	
	Jul	Aug	Sep	Oct	Nov	Dec	Annual Avg. ²
AZ	148	150	151	152	153	154	147
CA	1,652	1,656	1,662	1,664	1,666	1,667	1,648
FL	149	149	148	147	147	147	150
ID	392	395	392	391	390	390	388
IL	115	115	115	115	115	115	115
IN	151	147	147	147	147	146	151
IA	210	210	209	208	208	208	209
KY	123	122	120	120	120	120	122
MI	301	302	302	302	302	301	301
MN	485	485	480	480	480	480	487
MO	137	136	136	136	135	134	137
NM	303	305	307	310	311	313	301
NY	678	673	672	672	673	675	675
OH	263	263	262	262	261	260	262
PA	584	585	587	591	591	590	585
TX	317	318	319	319	320	320	317
VT	154	154	153	153	153	153	154
VA	119	119	118	118	117	117	119
WA	248	248	247	247	247	247	247
WI	1,265	1,265	1,268	1,268	1,266	1,266	1,271
20-Sts	7,794	7,797	7,795	7,802	7,802	7,803	7,785

¹ Includes dry cows, excludes heifers not yet fresh.

² Average based on monthly totals.

Milk Cows: Number by Month, State, and 20 State Total, 2003¹

State	Jan	Feb	Mar	Apr	May	Jun	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	
AZ	155	155	155	155	155	155	
CA	1,672	1,676	1,681	1,685	1,685	1,684	
FL	147	146	145	144	143	142	
ID	392	394	395	397	400	407	
IL	114	114	113	111	110	110	
IN	146	147	147	148	148	148	
IA	207	204	203	203	203	202	
KY	120	120	120	120	119	118	
MI	302	302	302	301	301	302	
MN	480	480	480	475	475	475	
MO	134	133	131	130	130	130	
NM	314	314	315	315	315	315	
NY	675	677	680	679	677	675	
OH	260	260	260	261	261	261	
PA	590	588	585	582	580	578	
TX	320	320	320	320	320	320	
VT	153	152	151	150	149	148	
VA	116	116	116	116	115	115	
WA	248	248	248	248	244	244	
WI	1,265	1,265	1,263	1,260	1,257	1,256	
20-Sts	7,810	7,811	7,810	7,800	7,787	7,785	
	Jul	Aug	Sep	Oct	Nov	Dec	Annual Avg. ²
AZ	155	155	155	155	155	155	155
CA	1,690	1,693	1,695	1,698	1,694	1,697	1,688
FL	141	140	139	140	140	140	142
ID	408	411	413	412	412	412	404
IL	110	110	109	109	109	109	111
IN	148	152	155	155	151	145	149
IA	201	200	200	198	197	196	201
KY	115	112	111	111	112	112	116
MI	304	304	304	303	300	300	302
MN	475	470	470	465	465	465	473
MO	129	128	127	126	125	124	129
NM	316	317	318	318	320	324	317
NY	673	671	668	665	660	657	671
OH	260	260	259	259	258	258	260
PA	574	571	566	562	560	562	575
TX	320	320	320	317	317	317	319
VT	148	147	147	147	146	146	149
VA	114	112	111	109	108	106	113
WA	244	244	244	244	243	241	245
WI	1,255	1,254	1,253	1,250	1,249	1,247	1,256
20-Sts	7,780	7,771	7,764	7,743	7,721	7,713	7,775

¹ Includes dry cows, excludes heifers not yet fresh.

² Average based on monthly totals.

**Milk Produced per Cow: by Month,
State, and 20 States, 2002¹**

State	Jan	Feb	Mar	Apr	May	Jun	
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	
AZ	2,085	1,970	2,250	2,195	2,200	1,985	
CA	1,755	1,625	1,835	1,800	1,880	1,810	
FL	1,410	1,335	1,515	1,455	1,450	1,345	
ID	1,750	1,590	1,760	1,740	1,820	1,770	
IL	1,550	1,440	1,620	1,610	1,630	1,470	
IN	1,480	1,360	1,530	1,535	1,565	1,435	
IA	1,560	1,430	1,615	1,585	1,630	1,510	
KY	1,170	1,100	1,245	1,240	1,230	1,080	
MI	1,680	1,575	1,770	1,720	1,785	1,675	
MN	1,515	1,385	1,560	1,510	1,540	1,445	
MO	1,210	1,150	1,335	1,325	1,315	1,170	
NM	1,740	1,610	1,830	1,815	1,910	1,810	
NY	1,530	1,405	1,565	1,520	1,605	1,535	
OH	1,480	1,365	1,500	1,470	1,550	1,425	
PA	1,570	1,460	1,630	1,600	1,650	1,535	
TX	1,465	1,370	1,570	1,550	1,535	1,385	
VT	1,510	1,375	1,530	1,495	1,570	1,500	
VA	1,390	1,290	1,450	1,410	1,425	1,310	
WA	1,880	1,735	1,930	1,910	2,005	1,925	
WI	1,460	1,350	1,510	1,475	1,525	1,450	
20-Sts	1,592	1,474	1,656	1,623	1,680	1,587	
	Jul	Aug	Sep	Oct	Nov	Dec	Annual Avg.
AZ	1,850	1,785	1,650	1,730	1,765	1,875	23,333
CA	1,815	1,815	1,705	1,770	1,695	1,770	21,277
FL	1,250	1,190	1,045	1,055	1,100	1,265	15,387
ID	1,810	1,830	1,730	1,760	1,690	1,780	21,018
IL	1,420	1,395	1,365	1,430	1,420	1,505	17,835
IN	1,400	1,415	1,370	1,470	1,480	1,600	17,603
IA	1,495	1,480	1,425	1,480	1,470	1,550	18,201
KY	1,035	1,025	990	1,025	1,020	1,075	13,230
MI	1,725	1,705	1,615	1,680	1,650	1,740	20,332
MN	1,415	1,410	1,340	1,390	1,380	1,485	17,368
MO	1,120	1,090	1,050	1,120	1,125	1,210	14,204
NM	1,810	1,765	1,685	1,725	1,620	1,685	20,983
NY	1,540	1,510	1,465	1,495	1,420	1,500	18,101
OH	1,390	1,390	1,360	1,410	1,350	1,405	17,080
PA	1,525	1,515	1,460	1,495	1,460	1,515	18,419
TX	1,315	1,250	1,220	1,310	1,305	1,425	16,719
VT	1,480	1,450	1,400	1,425	1,380	1,470	17,552
VA	1,285	1,250	1,235	1,270	1,260	1,315	15,891
WA	1,965	1,965	1,855	1,870	1,800	1,890	22,753
WI	1,455	1,470	1,405	1,420	1,385	1,465	17,367
20-Sts	1,580	1,571	1,497	1,542	1,498	1,581	18,881

¹ Excludes milk sucked by calves.

**Milk Produced per Cow: by Month,
State, and 20 States, 2003¹**

State	Jan	Feb	Mar	Apr	May	Jun	
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	
AZ	1,970	1,850	2,085	2,045	2,055	1,900	
CA	1,790	1,655	1,850	1,800	1,835	1,765	
FL	1,360	1,290	1,435	1,415	1,385	1,290	
ID	1,800	1,650	1,850	1,800	1,870	1,840	
IL	1,580	1,485	1,670	1,610	1,650	1,525	
IN	1,710	1,525	1,720	1,685	1,700	1,610	
IA	1,595	1,480	1,640	1,610	1,640	1,575	
KY	1,115	1,000	1,135	1,140	1,125	1,015	
MI	1,765	1,590	1,800	1,730	1,790	1,750	
MN	1,520	1,385	1,540	1,500	1,530	1,465	
MO	1,240	1,150	1,340	1,325	1,345	1,220	
NM	1,720	1,605	1,835	1,810	1,890	1,795	
NY	1,515	1,400	1,540	1,505	1,570	1,500	
OH	1,445	1,360	1,500	1,490	1,560	1,450	
PA	1,540	1,430	1,600	1,575	1,600	1,480	
TX	1,505	1,410	1,610	1,600	1,600	1,470	
VT	1,495	1,370	1,535	1,495	1,565	1,500	
VA	1,365	1,235	1,360	1,355	1,370	1,235	
WA	1,910	1,750	1,950	1,895	1,975	1,910	
WI	1,500	1,370	1,530	1,480	1,540	1,505	
20-Sts	1,615	1,489	1,666	1,627	1,671	1,596	
	Jul	Aug	Sep	Oct	Nov	Dec	Annual Avg.
AZ	1,750	1,610	1,605	1,735	1,775	1,895	22,284
CA	1,755	1,755	1,670	1,720	1,665	1,740	20,993
FL	1,215	1,120	1,020	1,105	1,180	1,355	15,218
ID	1,880	1,860	1,780	1,820	1,740	1,800	21,718
IL	1,490	1,480	1,420	1,495	1,485	1,585	18,441
IN	1,625	1,610	1,575	1,650	1,620	1,700	19,758
IA	1,580	1,540	1,490	1,540	1,515	1,580	18,806
KY	1,005	975	975	1,035	1,025	1,070	12,621
MI	1,830	1,805	1,755	1,790	1,675	1,765	21,060
MN	1,455	1,420	1,355	1,410	1,390	1,485	17,459
MO	1,150	1,125	1,090	1,200	1,190	1,250	14,620
NM	1,795	1,750	1,705	1,745	1,670	1,730	21,028
NY	1,515	1,475	1,430	1,455	1,410	1,480	17,812
OH	1,450	1,420	1,380	1,420	1,370	1,440	17,269
PA	1,500	1,480	1,415	1,455	1,420	1,480	17,979
TX	1,395	1,310	1,305	1,420	1,440	1,575	17,649
VT	1,505	1,470	1,430	1,450	1,415	1,505	17,698
VA	1,210	1,190	1,175	1,245	1,260	1,335	15,319
WA	1,965	1,960	1,865	1,890	1,810	1,900	22,780
WI	1,515	1,495	1,430	1,465	1,410	1,485	17,728
20-Sts	1,597	1,571	1,511	1,561	1,517	1,596	19,017

¹ Excludes milk sucked by calves.

**Milk Production: Total by Month, State,
and 20 States, 2002¹**

State	Jan	Feb	Mar	Apr	May	Jun	
	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	
AZ	292	280	322	316	319	288	
CA	2,850	2,646	2,997	2,948	3,087	2,979	
FL	214	203	229	220	219	202	
ID	665	606	671	665	704	692	
IL	178	166	186	185	187	169	
IN	229	211	237	236	239	218	
IA	321	297	338	331	341	317	
KY	144	135	153	153	151	133	
MI	504	474	533	518	537	503	
MN	750	686	764	740	755	708	
MO	169	160	184	183	180	160	
NM	505	467	536	535	565	539	
NY	1,031	944	1,056	1,034	1,091	1,044	
OH	385	355	392	385	408	376	
PA	922	851	947	930	957	893	
TX	461	433	496	490	485	439	
VT	233	212	236	230	242	231	
VA	167	155	174	169	171	156	
WA	464	429	477	472	495	477	
WI	1,867	1,725	1,927	1,881	1,940	1,842	
20-Sts	12,351	11,435	12,855	12,621	13,073	12,366	
	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total ²
AZ	274	268	249	263	270	289	3,430
CA	2,998	3,006	2,834	2,945	2,824	2,951	35,065
FL	186	177	155	155	162	186	2,308
ID	710	723	678	688	659	694	8,155
IL	163	160	157	164	163	173	2,051
IN	211	208	201	216	218	234	2,658
IA	314	311	298	308	306	322	3,804
KY	127	125	119	123	122	129	1,614
MI	519	515	488	507	498	524	6,120
MN	686	684	643	667	662	713	8,458
MO	153	148	143	152	152	162	1,946
NM	548	538	517	535	504	527	6,316
NY	1,044	1,016	984	1,005	956	1,013	12,218
OH	366	366	356	369	352	365	4,475
PA	891	886	857	884	863	894	10,775
TX	417	398	389	418	418	456	5,300
VT	228	223	214	218	211	225	2,703
VA	153	149	146	150	147	154	1,891
WA	487	487	458	462	445	467	5,620
WI	1,841	1,860	1,782	1,801	1,753	1,855	22,074
20-Sts	12,316	12,248	11,668	12,030	11,685	12,333	146,981

¹ Excludes milk sucked by calves.

² Total milk production for year.

**Milk Production: Total by Month, State,
and 20 States, 2003¹**

State	Jan	Feb	Mar	Apr	May	Jun	
	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	
AZ	305	287	323	317	319	295	
CA	2,993	2,774	3,110	3,033	3,092	2,972	
FL	200	188	208	204	198	183	
ID	706	650	731	715	748	749	
IL	180	169	189	179	182	168	
IN	250	224	253	249	252	238	
IA	330	302	333	327	333	318	
KY	134	120	136	137	134	120	
MI	533	480	544	521	539	529	
MN	730	665	739	713	727	696	
MO	166	153	176	172	175	159	
NM	540	504	578	570	595	565	
NY	1,023	948	1,047	1,022	1,063	1,013	
OH	376	354	390	389	407	378	
PA	909	841	936	917	928	855	
TX	482	451	515	512	512	470	
VT	229	208	232	224	233	222	
VA	158	143	158	157	158	142	
WA	474	434	484	470	482	466	
WI	1,898	1,733	1,932	1,865	1,936	1,890	
20-Sts	12,616	11,628	13,014	12,693	13,013	12,428	
	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total ²
AZ	271	250	249	269	275	294	3,454
CA	2,966	2,971	2,831	2,921	2,821	2,953	35,437
FL	171	157	142	155	165	190	2,161
ID	767	764	735	750	717	742	8,774
IL	164	163	155	163	162	173	2,047
IN	241	245	244	256	245	247	2,944
IA	318	308	298	305	298	310	3,780
KY	116	109	108	115	115	120	1,464
MI	556	549	534	542	503	530	6,360
MN	691	667	637	656	646	691	8,258
MO	148	144	138	151	149	155	1,886
NM	567	555	542	555	534	561	6,666
NY	1,020	990	955	968	931	972	11,952
OH	377	369	357	368	353	372	4,490
PA	861	845	801	818	795	832	10,338
TX	446	419	418	450	456	499	5,630
VT	223	216	210	213	207	220	2,637
VA	138	133	130	136	136	142	1,731
WA	479	478	455	461	440	458	5,581
WI	1,901	1,875	1,792	1,831	1,761	1,852	22,266
20-Sts	12,421	12,207	11,731	12,083	11,709	12,313	147,856

¹ Excludes milk sucked by calves.

² Total milk production for year.

**Milk Cows and Production: Number and Milk Produced
by Quarter, State, and United States, 2002**

State	Milk Cows ¹				Milk Production ²			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>
AL	20	20	20	19	79	76	59	63
AK	1.2	1.2	1.3	1.3	4.02	4.36	4.94	4.36
AZ	142	145	150	153	894	923	791	822
AR	33	33	32	31	107	111	88	87
CA	1,628	1,642	1,657	1,666	8,493	9,014	8,838	8,720
CO	97	102	102	99	521	548	550	540
CT	24	24	24	23	116	117	107	107
DE	9.0	9.0	9.0	9.0	41.0	40.0	34.0	35.0
FL	152	151	149	147	646	641	518	503
GA	85	85	85	85	395	401	330	344
HI	6.7	6.7	6.5	6.6	24.5	25.7	23.9	22.7
ID	381	387	393	390	1,942	2,061	2,111	2,041
IL	115	115	115	115	530	541	480	500
IN	155	153	148	147	677	693	620	668
IA	208	209	210	208	956	989	923	936
KS	102	107	109	111	485	520	505	520
KY	123	123	122	120	432	437	371	374
LA	51	49	46	45	170	160	123	126
ME	38	38	37	36	164	171	164	157
MD	81	81	81	80	328	343	315	315
MA	21	21	20	20	91	94	89	87
MI	301	301	302	302	1,511	1,558	1,522	1,529
MN	493	490	483	480	2,200	2,203	2,013	2,042
MS	34	34	34	33	139	133	101	105
MO	139	137	136	135	513	523	444	466
MT	18	18	18	18	83	86	87	85
NE	68	67	67	66	297	298	282	290
NV	25	25	25	25	128	120	128	125
NH	18	18	17	17	84	85	80	79
NJ	13	13	13	13	60	61	58	57
NM	291	296	305	311	1,508	1,639	1,603	1,566
NY	674	680	674	673	3,031	3,169	3,044	2,974
NC	65	65	64	63	298	302	270	267
ND	41	40	39	38	152	156	145	140
OH	260	263	263	261	1,132	1,169	1,088	1,086
OK	84	84	84	83	332	337	321	317
OR	105	115	117	117	486	538	540	529
PA	584	581	585	591	2,720	2,780	2,634	2,641
RI	1.4	1.4	1.4	1.4	5.8	6.1	5.6	5.4
SC	20	20	20	20	102	99	80	83
SD	87	86	85	84	333	333	311	312
TN	90	90	87	84	350	360	300	305
TX	316	316	318	320	1,390	1,414	1,204	1,292
UT	93	92	93	92	391	423	436	416
VT	154	154	154	153	681	703	665	654
VA	120	120	119	117	496	496	448	451
WA	247	247	248	247	1,370	1,444	1,432	1,374
WV	16	16	15	15	62	64	60	57
WI	1,278	1,272	1,266	1,267	5,519	5,663	5,483	5,409
WY	4.5	4.6	4.4	4.1	15.8	17.0	16.3	14.3
US ³	9,113	9,148	9,154	9,142	42,485	44,089	41,846	41,643

¹ Quarterly average 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: Number and Milk Produced
by Quarter, State, and United States, 2003**

State	Milk Cows ¹				Milk Production ²			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>
AL	18	18	18	18	70	69	53	60
AK	1.3	1.3	1.2	1.2	4.30	4.50	4.40	3.50
AZ	155	155	155	155	915	931	770	838
AR	30	29	28	28	96	97	79	80
CA	1,676	1,685	1,693	1,696	8,877	9,097	8,768	8,695
CO	101	100	100	99	547	545	545	540
CT	23	22	22	21	109	106	99	99
DE	8.5	8.5	8.0	8.0	37.0	36.0	31.0	32.0
FL	146	143	140	140	596	585	470	510
GA	85	85	85	84	399	389	319	337
HI	6.6	6.4	6.5	6.6	24.0	24.3	22.6	21.1
ID	394	401	411	412	2,087	2,212	2,266	2,209
IL	114	110	110	109	538	529	482	498
IN	147	148	152	150	727	739	730	748
IA	205	203	200	197	965	978	924	913
KS	112	111	110	110	540	540	505	530
KY	120	119	113	112	390	391	333	350
LA	44	43	42	41	149	143	109	118
ME	35	35	35	34	155	161	157	151
MD	79	78	77	77	319	318	294	301
MA	20	20	18	18	88	89	79	76
MI	302	301	304	301	1,557	1,589	1,639	1,575
MN	480	475	472	465	2,134	2,136	1,995	1,993
MS	32	31	30	29	122	118	87	96
MO	133	130	128	125	495	506	430	455
MT	18	18	18	18	86	87	87	86
NE	66	65	63	62	297	294	268	270
NV	26	26	26	26	122	120	123	120
NH	17	16	16	16	79	79	74	73
NJ	13	13	12	12	57	57	52	50
NM	314	315	317	321	1,622	1,730	1,664	1,650
NY	677	677	671	661	3,018	3,098	2,965	2,871
NC	62	61	60	59	279	272	243	250
ND	37	36	35	34	143	143	137	131
OH	260	261	260	258	1,120	1,174	1,103	1,093
OK	83	82	81	81	336	337	319	320
OR	117	120	120	118	526	561	555	535
PA	588	580	570	561	2,686	2,700	2,507	2,445
RI	1.4	1.3	1.3	1.3	5.8	5.9	5.3	5.0
SC	20	19	18	18	95	87	64	72
SD	84	83	82	80	333	339	332	321
TN	82	80	78	77	325	325	270	285
TX	320	320	320	317	1,448	1,494	1,283	1,405
UT	92	92	90	90	399	413	405	398
VT	152	149	147	146	669	679	649	640
VA	116	115	112	108	459	457	401	414
WA	248	245	244	243	1,392	1,418	1,412	1,359
WV	15	15	15	14	56	58	56	52
WI	1,264	1,258	1,254	1,249	5,563	5,691	5,568	5,444
WY	3.9	3.8	3.7	3.9	13.3	13.3	13.0	14.4
US ³	9,144	9,109	9,073	9,011	43,069	43,965	41,746	41,532

¹ Quarterly average 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 0.5 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 0.5 percent. Chances are 9 out of 10 that the difference will not exceed 0.9 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> 0.8	<i>Million Pounds</i> 332	<i>Million Pounds</i> 146	<i>Million Pounds</i> 1	<i>Million Pounds</i> 233	<i>Number</i> 6	<i>Number</i> 4
All Milk Cows	<i>Percent</i> 0.5	<i>Percent</i> 0.9	<i>1,000 Head</i> 81	<i>1,000 Head</i> 31	<i>1,000 Head</i> 2	<i>1,000 Head</i> 106	<i>Number</i> 7	<i>Number</i> 3

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

Index

Page

Estimated Milk Cows and Production: by Month, United States	2
Milk Cows and Production: by Month, 20 Selected States	2
Milk Cows and Production: by Quarter, United States	2
Milk Cows and Production: by State, January	3
Milk Cows and Production: by State, December	4
Milk Cows and Production: by State, and United States	6
Milk Cows and Production: United States, 1994-2003	5
Milk Cows: Number by Month, State, and 20 States, 2002	8
Milk Cows: Number by Month, State, and 20 States, 2003	9
Milk Produced per Cow: by Month, State, and 20 States, 2002	10
Milk Produced per Cow: by Month, State, and 20 States, 2003	11
Milk Production: Total by Month, State, and 20 States, 2002	12
Milk Production: Total by Month, State, and 20 States, 2003	13
Milk Cows and Production: Number and Milk Produced by Quarter, State, and United States, 2002	14
Milk Cows and Production: Number and Milk Produced by Quarter, State, and United States, 2003	15
Reliability Statement: Survey and Estimation Procedures, Revision Policy, and Reliability	16

The next "*Milk Production*" report will be released at 3 p.m. ET on March 16, 2004.

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