

Milk Production



National
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Statistics
Service

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Department of
Agriculture

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December Milk Production Up 3 Percent

Milk production in the 21 major States during December totaled 10.7 billion pounds, up 3 percent from production in these same States in December 1991. November revised production, at 10.2 billion pounds, was up 3 percent from November 1991.

Production per cow in the 21 major States averaged 1,298 pounds for December, 46 pounds above December 1991.

The number of cows on farms in the 21 major States was 8.25 million head, 69,000 below December 1991 and 1,000 below November 1992.

During the October-December period, the 21 major States produced 31.5 billion pounds of milk, 84.5 percent of the U.S. production. If the remaining 29 States not surveyed monthly followed the same pattern as the 21 States, the U.S. production would be 12.5 billion for October, 12.1 billion pounds for November, and 12.7 billion for December.

October-December Milk Production Up 3 Percent

The quarterly production of milk for the U.S. was 37.3 billion pounds, 3 percent above the October-December period last year. The average number of milk cows in the U.S. during the October-December quarter was 9.84 million head, 76,000 less than the same period last year.

Grain and Other Concentrates Fed

Grain and other concentrates fed to milk cows on January 1, 1993, averaged 18.4 pounds per cow, 0.4 pounds more than on January 1, 1992.

Value of Grain and Other Concentrates

The value of grain and other concentrates fed to cows on January 1, 1993, averaged \$7.67 per hundredweight, \$0.02 less than January 1, 1992.

For information, call Daniel Buckner at (202) 720-4448. Office hours are 8:00 a.m. to 4:30 p.m. ET.

Milk Cows and Production: By Quarter, United States, 1991-92

Month	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1992 as % of 1991
	1991	1992	1991	1992	1991	1992	
	---- 1,000 ----		---- Pounds ----		Million Pounds		Percent
Jan-Mar	10,101	9,858	3,705	3,850	37,425	37,958	101
Apr-Jun	9,999	9,851	3,864	3,966	38,633	39,067	101
Jul-Sep	9,940	9,846	3,647	3,829	36,255	37,700	104
Oct-Dec	9,918	9,842	3,651	3,792	36,212	37,319	103
Annual	9,990	9,849	14,867	15,437	148,526	152,045	102

1/ Includes dry cows. Excludes heifers not yet fresh.

2/ Excludes milk sucked by calves.

Milk Cows and Milk Production : By States, November 1991-92 1/

State	Milk Cows <u>2/</u>		Milk Per Cow <u>3/</u>		Milk Production <u>3/</u>		1992 as % of 1991
	1991	1992	1991	1992	1991	1992	
	---- 1,000 ----		---- Pounds ----		Million Pounds		Percent
CA	1,158	1,159	1,495	1,570	1,731	1,820	105
FL	176	181	1,100	1,105	194	200	103
ID	178	185	1,300	1,370	231	253	110
IL	187	182	1,190	1,250	223	228	102
IN	144	143	1,250	1,270	180	182	101
IA	303	308	1,130	1,180	342	363	106
KY	191	186	885	935	169	174	103
MD	104	100	1,095	1,130	114	113	99
MI	340	340	1,220	1,260	414	428	103
MN	675	655	1,120	1,175	756	770	102
MO	220	230	1,025	1,060	225	244	108
NY	756	753	1,155	1,180	873	889	102
NC	98	96	1,270	1,300	124	125	101
OH	335	322	1,090	1,200	365	386	106
PA	670	655	1,240	1,260	831	825	99
TN	197	191	890	950	175	181	103
TX	374	378	1,130	1,195	423	452	107
VT	164	164	1,190	1,200	195	197	101
VA	140	135	1,195	1,250	167	169	101
WA	236	251	1,525	1,560	360	392	109
WI	1,683	1,640	1,090	1,125	1,834	1,845	101
21 State:							
Total	8,329	8,254	1,192	1,240	9,926	10,236	103

1/ 1991 and 1992 revised.

2/ Includes dry cows. Excludes heifers not yet fresh.

3/ Excludes milk sucked by calves.

Milk Cows and Production: By Month, 21 Selected States, 1991-92

Month	Milk Cows 1/		Milk Per Cow 2/		Milk Production 2/		1992 as % of 1991
	1991	1992	1991	1992	1991	1992	
	--- 1,000 ---		--- Pounds ---		Million Pounds		Percent
Jan	8,510	8,296	1,251	1,288	10,645	10,684	100
Feb	8,484	8,273	1,169	1,237	9,922	10,230	103
Mar	8,460	8,262	1,310	1,343	11,084	11,092	100
Apr	8,416	8,254	1,297	1,316	10,918	10,866	100
May	8,396	8,262	1,339	1,363	11,240	11,258	100
Jun	8,372	8,260	1,262	1,316	10,567	10,868	103
Jul	8,353	8,259	1,254	1,324	10,472	10,939	104
Aug	8,358	8,265	1,239	1,301	10,352	10,756	104
Sep	8,350	8,254	1,189	1,248	9,927	10,300	104
Oct	8,346	8,250	1,224	1,281	10,212	10,569	103
Nov	8,329	8,254	1,192	1,240	9,926	10,236	103
Dec	8,322	8,253	1,252	1,298	10,418	10,711	103
Annual	8,392	8,262	14,977	15,555	125,683	128,509	102

1/ Includes dry cows. Excludes heifers not yet fresh.

2/ Excludes milk sucked by calves.

Milk Cows and Production: By State, December 1991-92

State	Milk Cows 1/		Milk Per Cow 2/		Milk Production 2/		1992 as % of 1991
	1991	1992	1991	1992	1991	1992	
	--- 1,000 ---		--- Pounds ---		Million Pounds		Percent
CA	1,159	1,159	1,535	1,600	1,779	1,854	104
FL	179	180	1,240	1,240	222	223	100
ID	178	185	1,330	1,400	237	259	109
IL	189	182	1,230	1,310	232	238	103
IN	146	143	1,290	1,310	188	187	99
IA	302	308	1,090	1,190	329	367	112
KY	190	186	940	995	179	185	103
MD	102	100	1,170	1,190	119	119	100
MI	338	340	1,280	1,320	433	449	104
MN	675	655	1,210	1,270	817	832	102
MO	220	230	1,070	1,100	235	253	108
NY	755	755	1,240	1,270	936	959	102
NC	98	96	1,330	1,375	130	132	102
OH	330	319	1,160	1,270	383	405	106
PA	673	659	1,275	1,290	858	850	99
TN	196	190	910	940	178	179	101
TX	375	378	1,240	1,280	465	484	104
VT	163	167	1,270	1,260	207	210	101
VA	140	135	1,265	1,305	177	176	99
WA	238	251	1,590	1,610	378	404	107
WI	1,676	1,635	1,155	1,190	1,936	1,946	101
21 State:							
Total	8,322	8,253	1,252	1,298	10,418	10,711	103

1/ Includes dry cows. Excludes heifers not yet fresh.

2/ Excludes milk sucked by calves.

Milk Cows and Production: By State and United States,
Revised July-September 1991-92

STATE	Jul-Sep Milk Cows ^{1/}		Jul-Sep Milk Production ^{2/}		1992 as % of 1991
	1991	1992	1991	1992	
	----- 1,000 -----		--- Million Pounds ---		Percent
AL	40	40	107	105	98
AK	0.9	0.7	3.11	3.28	105
AZ	93	99	385	393	102
AR	68	65	198	192	97
CA	1,156	1,157	5,445	5,576	102
CO	77	79	333	357	107
CT	33	34	127	133	105
DE	9.2	9.5	29.4	31.4	107
FL	177	180	528	551	104
GA	104	102	302	330	109
HI	10.8	11.0	34.8	35.1	101
ID	178	186	775	835	108
IL	190	184	691	724	105
IN	145	145	546	573	105
IA	304	306	1,020	1,066	105
KS	97	88	295	295	100
KY	193	183	517	514	99
LA	79	79	200	209	105
ME	42	40	156	164	105
MD	102	99	336	343	102
MA	30	30	112	118	105
MI	340	340	1,327	1,377	104
MN	680	657	2,271	2,374	105
MS	60	59	159	170	107
MO	225	229	678	729	108
MT	24	24	87	86	99
NE	99	97	320	327	102
NV	19.0	20	87.0	89	102
NH	20	20	77	80	104
NJ	25	25	81	91	112
NM	95	113	500	556	111
NY	751	751	2,715	2,860	105
NC	97	96	347	346	100
ND	81	77	255	246	96
OH	336	328	1,151	1,216	106
OK	99	95	304	299	98
OR	100	104	429	442	103
PA	664	648	2,444	2,521	103
RI	2.2	2.3	8.1	7.9	98
SC	31	29	87	87	100
SD	136	130	409	420	103
TN	194	189	539	548	102
TX	377	376	1,211	1,292	107
UT	80	83	327	344	105
VT	164	164	589	623	106
VA	139	136	482	484	100
WA	237	249	1,141	1,235	108
WV	23	23	67	69	103
WI	1,703	1,655	5,995	6,208	104
WY	8.6	7.7	27.5	25.8	94
US ^{3/}	9,940	9,846	36,255	37,700	104

^{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 1991-92

STATE	Oct-Dec Milk Cows 1/		Oct-Dec Milk Production 2/		1992
	1991	1992	1991	1992	as % of 1991
	----- 1,000 -----		Million Pounds		Percent
AL	42	40	129	128	99
AK	0.8	0.7	2.83	2.90	102
AZ	95	98	441	449	102
AR	68	64	201	188	94
CA	1,158	1,159	5,286	5,550	105
CO	77	79	332	348	105
CT	33	34	130	138	106
DE	9.4	9.8	32.3	33.9	105
FL	177	181	600	615	103
GA	104	102	361	376	104
HI	10.5	11.1	32.7	33.0	101
ID	178	185	714	778	109
IL	188	182	686	704	103
IN	145	143	554	561	101
IA	303	308	1,019	1,093	107
KS	96	88	305	290	95
KY	191	185	524	540	103
LA	79	80	224	229	102
ME	41	40	153	159	104
MD	103	100	348	348	100
MA	30	30	114	119	104
MI	339	340	1,281	1,329	104
MN	677	655	2,338	2,381	102
MS	60	60	175	183	105
MO	221	229	695	746	107
MT	24	24	83	86	104
NE	99	97	316	322	102
NV	19.0	20.0	82.0	87.0	106
NH	21	20	81	85	105
NJ	25	25	86	91	106
NM	95	120	502	558	111
NY	755	754	2,700	2,778	103
NC	98	96	378	382	101
ND	79	76	241	236	98
OH	334	321	1,128	1,190	105
OK	99	95	304	309	102
OR	100	104	409	425	104
PA	672	655	2,536	2,514	99
RI	2.2	2.3	8.1	8.1	100
SC	33	29	102	99	97
SD	134	128	405	390	96
TN	196	191	535	545	102
TX	374	377	1,312	1,391	106
UT	78	82	312	336	108
VT	164	165	600	612	102
VA	140	135	513	515	100
WA	236	251	1,112	1,204	108
WV	23	23	66	70	106
WI	1,683	1,640	5,697	5,740	101
WY	8.5	7.6	26.4	24.5	93
US 3/	9,918	9,842	36,212	37,319	103

1/ Includes dry cows, excludes heifers not yet fresh.
2/ Excludes milk sucked by calves.
3/ Milk cows will not add due to rounding.

Grain and Other Concentrates: Quantity Fed Daily and Value
by State and United States, January 1, 1992-93

State	Grain and Other Concentrates: Value Per 100 Pounds of Concentrates		Fed Daily Per Milk Cow : Ration Fed to Milk Cows	
	1992	1993	1992	1993
	Pounds		Dollars	
AL	18.3	17.3	8.60	8.30
AK	17.0	19.0	13.00	13.50
AZ	21.1	21.9	6.90	7.00
AR	18.3	17.7	8.00	7.85
CA	19.0	21.1	7.30	7.30
CO	24.0	23.0	6.75	6.50
CT	16.8	16.0	8.90	8.95
DE	15.3	16.0	8.40	8.47
FL	26.6	26.0	7.10	7.50
GA	21.6	22.4	7.95	8.20
ID	16.7	21.0	6.40	6.60
IL	17.0	17.3	8.10	8.05
IN	18.0	17.1	7.60	7.74
IA	16.3	17.2	7.40	6.80
KS	20.4	19.3	7.65	7.50
KY	16.6	17.1	8.45	8.23
LA	17.5	18.5	8.20	8.30
ME	14.9	15.5	9.00	8.90
MD	15.4	15.8	8.60	8.75
MA	15.2	16.3	8.95	9.00
MI	17.5	16.4	6.90	6.90
MN	17.0	17.8	7.30	7.10
MS	16.8	18.3	8.00	8.10
MO	18.0	17.5	7.55	7.65
MT	17.0	16.5	7.20	7.15
NE	16.0	15.9	6.70	6.80
NV	21.0	22.0	7.60	7.90
NH	17.7	16.2	8.80	9.00
NJ	14.5	14.0	9.05	9.15
NM	24.0	24.0	6.40	6.50
NY	15.3	15.9	9.10	9.00
NC	17.9	18.1	8.65	8.90
ND	15.6	16.1	5.80	5.75
OH	16.6	17.6	8.20	8.20
OK	18.5	20.5	7.70	7.60
OR	17.0	17.5	8.70	8.70
PA	16.7	15.7	8.95	8.90
RI	16.3	15.5	9.20	9.05
SC	17.0	17.5	8.20	8.20
SD	15.0	16.2	6.30	6.10
TN	16.0	16.0	8.90	9.00
TX	23.2	22.7	7.70	7.50
UT	17.0	17.5	7.10	7.10
VT	14.8	15.0	8.95	8.85
VA	15.7	15.9	8.70	8.80
WA	20.0	20.5	8.00	8.15
WV	15.5	15.0	9.00	8.60
WI	17.7	17.7	7.00	7.05
WY	11.6	11.6	6.20	6.05
US	18.0	18.4	7.69	7.67

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. About 20,000 producers are sampled in January and data are collected from about 10,000 respondents. There are about 7,300 respondents in each of the remaining quarters. Generally, all larger producers and a sample of smaller 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, January 1, February 1, etc. Toward the end of the data collection period, statisticians review mail returns to ensure that each size group is adequately represented. If additional reports are needed in some size groups, statisticians obtain these by telephone.

Estimation Procedures: Each state statistician prepares their estimate by plotting survey estimates and averages on time series charts. The 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 reason for revisions, however, not all orders have data available in time for this revision. A second revision is made in February each year based on additional administrative data. In the event that some additional changes are necessary, a third revision is made in February the following year. Estimates are again reviewed after data for the five-year Census of Agriculture, conducted by the Department of Commerce are available.

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 in the table below. 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 0.6 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 9.84 million head by more than 0.6 percent, or about 59,000 head. Chances are 9 out of 10 that the difference will not exceed 1.1 percent, or about 108,000 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 Final Estimates <u>1/</u>			Number of Quarters	
			Average	Smallest	Largest	First Above Final	First Below Final
	- Percent -		----- Mil Lbs. -----			- Number -	
Milk Production	0.7	1.2	448	-132	0	-565	7 2
			----- 1,000 Head -----				
All Milk Cows	0.6	1.1	108	-45	0	-126	9 0

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

The next "Milk Production" report will be released on February 16, 1993 at 3:00 p.m. ET.
