

Milk Production



United States
Department of
Agriculture

Washington, D.C.

Released October 15, 1993, by the Agricultural Statistics Board.

September Milk Production Down 1 Percent

Milk production in the 21 major States during September totaled 10.1 billion pounds, 1 percent below production in these same States in September 1992. August revised production, at 10.6 billion pounds, was down 1 percent from August 1992.

Production per cow in the 21 major States averaged 1,250 pounds for September, 4 pounds above September 1992.

The number of cows on farms in the 21 major States was 8.11 million head, 125,000 below September 1992 and 8,000 below August 1993.

During the July-September period the 21 major States produced 31.7 billion pounds of milk, 84.4 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 13.0 billion pounds for July, 12.5 billion pounds for August, and 12.0 billion pounds for September.

July-September Milk Production Down Slightly

The quarterly production of milk for the U.S. was 37.5 billion, slightly below the July-September period last year. The average number of milk cows in the U.S. during the July-September quarter was 9.71 million head, 116,000 less than the same period last year.

Grain and Other Concentrates Fed

Grain and other concentrates fed to milk cows on October 1, 1993, averaged 17.8 pounds per cow, 0.4 pound more than October 1, 1992.

Value of Grain and Other Concentrates

The value of grain and other concentrates fed to cows on October 1, averaged \$7.92 per hundredweight, \$0.27 more than October 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, 1992-93

Month	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		--- Pounds ---		Million Pounds		Percent
Jan-Mar	9,863	9,777	3.852	3.862	37.989	37,763	99
Apr-Jun	9,841	9,739	3.971	4.068	39.077	39,614	101
Jul-Sep	9,826	9,710	3.818	3.862	37.515	37,498	100
Oct-Dec	9,827		3,782		37.166		
Annual	9,839		15,423		151,747		

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

2/ Excludes milk sucked by calves.

Milk Cows and Production: By State, August 1992-93 1/

States	Milk Cows <u>2/</u>		Milk Per Cow <u>3/</u>		Milk Production <u>3/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		--- Pounds ---		Million Pounds		Percent
CA	1,157	1,174	1,590	1,660	1,840	1,949	106
FL	180	179	1,020	1,035	184	185	101
ID	186	192	1,520	1,490	283	286	101
IL	185	176	1,210	1,270	224	224	100
IN	146	145	1,320	1,290	193	187	97
IA	306	304	1,160	1,160	355	353	99
KY	184	178	955	1,010	176	180	102
MD	99	98	1,190	1,165	118	114	97
MI	340	339	1,350	1,345	459	456	99
MN	655	645	1,205	1,190	789	768	97
MO	229	225	1,070	1,035	245	233	95
NY	750	753	1,285	1,255	964	945	98
NC	96	94	1,210	1,200	116	113	97
OH	323	310	1,200	1,240	388	384	99
PA	650	649	1,310	1,295	852	840	99
TN	190	182	950	950	181	173	96
TX	375	386	1,150	1,170	431	452	105
VT	164	163	1,265	1,260	207	205	99
VA	136	132	1,205	1,225	164	162	99
WA	251	261	1,640	1,645	412	429	104
WI	1,641	1,535	1,275	1,260	2,092	1,934	92
21 State:							
Total	8,243	8,120	1,295	1,302	10,673	10,572	99

1/ 1992 and 1993 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, 1992-93

Month	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		--- Pounds ---		Million Pounds		Percent
Jan	8,298	8,215	1,291	1,310	10,715	10,760	100
Feb	8,278	8,196	1,238	1,216	10,251	9,965	97
Mar	8,257	8,178	1,344	1,356	11,096	11,087	100
Apr	8,255	8,153	1,314	1,344	10,850	10,956	101
May	8,250	8,148	1,367	1,404	11,280	11,443	101
Jun	8,250	8,144	1,321	1,354	10,897	11,024	101
Jul	8,247	8,134	1,322	1,346	10,900	10,948	100
Aug	8,243	8,120	1,295	1,302	10,673	10,572	99
Sep	8,237	8,112	1,246	1,250	10,263	10,144	99
Oct	8,238		1,278		10,532		
Nov	8,235		1,237		10,184		
Dec	8,247		1,292		10,659		
Annual	8,253		15,546		128,300		

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

2/ Excludes milk sucked by calves.

Milk Cows and Production: By State, September 1992-93

State	Milk Cows <u>1/</u>		Milk Per Cow <u>2/</u>		Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	1992	1993	
	---- 1,000 ----		--- Pounds ---		Million Pounds		Percent
CA	1,158	1,176	1,570	1,600	1,818	1,882	104
FL	180	179	970	985	175	176	101
ID	186	192	1,430	1,430	266	275	103
IL	183	175	1,200	1,200	220	210	95
IN	144	145	1,280	1,250	184	181	98
IA	306	304	1,150	1,140	352	347	99
KY	184	178	940	980	173	174	101
MD	100	96	1,130	1,145	113	110	97
MI	340	339	1,310	1,310	445	444	100
MN	655	645	1,145	1,130	750	729	97
MO	228	222	1,015	1,020	231	226	98
NY	755	753	1,225	1,210	925	911	98
NC	96	94	1,230	1,205	118	113	96
OH	319	308	1,180	1,230	376	379	101
PA	648	651	1,250	1,225	810	797	98
TN	188	182	950	950	179	173	97
TX	376	386	1,117	1,150	420	444	106
VT	164	164	1,225	1,230	201	202	100
VA	136	132	1,200	1,205	163	159	98
WA	252	261	1,595	1,585	402	414	103
WI	1,639	1,530	1,185	1,175	1,942	1,798	93
21 State:							
Total	8,237	8,112	1,246	1,250	10,263	10,144	99

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 April-June, 1992-93

State	Apr-Jun Milk Cows <u>1/</u>		Apr-Jun Milk Production <u>2/</u>		1993
	1992	1993	1992	1993	as % of 1992
	----- 1,000 -----		----- Million Pounds -----		Percent
AL	40	39	129	135	105
AK	0.7	0.7	3.21	3.16	98
AZ	98	102	464	500	108
AR	65	64	207	204	99
CA	1,157	1,164	5,611	5,791	103
CO	80	80	360	371	103
CT	34	34	139	134	96
DE	9.1	10.0	35.5	34.2	96
FL	182	177	686	675	98
GA	101	100	392	400	102
HI	11.0	11.0	39.7	38.5	97
ID	183	187	799	803	101
IL	186	178	666	687	103
IN	144	144	593	589	99
IA	307	305	1,058	1,089	103
KS	90	83	315	280	89
KY	182	179	545	569	104
LA	80	81	252	255	101
ME	41	42	167	180	108
MD	98	100	369	364	99
MA	30	30	122	123	101
MI	338	340	1,364	1,397	102
MN	660	650	2,558	2,601	102
MS	59	60	199	205	103
MO	228	227	791	818	103
MT	23	23	84	83	99
NE	97	95	312	314	101
NV	20.0	20.0	90.0	88.0	98
NH	21	21	86	89	103
NJ	25	25	91	96	105
NM	108	132	551	659	120
NY	743	745	3,018	3,024	100
NC	97	95	378	382	101
ND	79	70	261	242	93
OH	329	311	1,220	1,215	100
OK	98	98	319	319	100
OR	102	100	442	465	105
PA	652	646	2,688	2,661	99
RI	2.3	2.4	9.1	8.9	98
SC	30	28	98	95	97
SD	131	126	440	426	97
TN	194	188	569	559	98
TX	376	384	1,450	1,560	108
UT	83	83	345	347	101
VT	163	164	647	647	100
VA	137	132	512	506	99
WA	249	257	1,228	1,272	104
WV	23	23	70	70	100
WI	1,649	1,575	6,277	6,214	99
WY	7.9	7.4	27.5	25.8	94
US <u>3/</u>	9,841	9,739	39,077	39,614	101

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 July-September, 1992-93

State	Jul-Sep Milk Cows <u>1/</u>		Jul-Sep Milk Production <u>2/</u>		1993 as % of 1992
	1992	1993	1992	1993	
	----- 1,000 -----		--- Million Pounds ---		Percent
AL	40	38	104	110	106
AK	0.7	0.7	3.28	3.12	95
AZ	99	104	394	434	110
AR	65	62	190	186	98
CA	1,157	1,173	5,550	5,808	105
CO	79	81	357	377	106
CT	34	34	132	127	96
DE	9.5	9.8	35.4	36.3	103
FL	180	179	551	559	101
GA	102	101	330	338	102
HI	11.1	11.0	35.0	34.5	99
ID	186	192	837	851	102
IL	184	176	670	659	98
IN	145	145	573	565	99
IA	306	304	1,066	1,062	100
KS	88	80	295	265	90
KY	183	178	520	529	102
LA	79	79	210	200	95
ME	40	41	165	173	105
MD	99	98	346	343	99
MA	30	30	119	119	100
MI	340	339	1,370	1,369	100
MN	657	647	2,374	2,323	98
MS	59	59	166	165	99
MO	229	226	723	712	98
MT	23	22	82	79	96
NE	96	94	307	315	103
NV	20	20.0	89	89.0	100
NH	21	21	80	87	109
NJ	25	25	91	95	104
NM	113	139	557	677	122
NY	751	750	2,875	2,831	98
NC	96	94	348	341	98
ND	77	70	246	235	96
OH	323	309	1,166	1,151	99
OK	95	98	299	309	103
OR	102	100	442	430	97
PA	648	650	2,521	2,510	100
RI	2.3	2.4	8	8.4	105
SC	29	28	84	84	100
SD	130	125	420	418	100
TN	189	183	541	522	96
TX	375	386	1,292	1,380	107
UT	83	83	344	346	101
VT	164	163	621	617	99
VA	136	132	485	476	98
WA	252	261	1,237	1,279	103
WV	23	23	69	68	99
WI	1,641	1,538	6,170	5,777	94
WY	7.7	7.3	25.8	25.8	100
US <u>3/</u>	9.826	9.710	37,515	37,498	100

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, October 1, 1992-93

State	Grain and Other Concentrates : Value per 100 Pounds of Concentrate		Fed Daily Per Milk Cow : Ration Fed to Milk Cows	
	1992	1993	1992	1993
	----- Pounds -----		----- Dollars -----	
AL	17.3	17.3	8.20	8.30
AK	19.0	19.0	13.00	13.50
AZ	21.8	25.0	7.10	7.60
AR	17.6	17.6	7.85	7.90
CA	19.5	20.5	7.35	7.50
CO	24.0	20.0	6.60	6.70
CT	17.1	16.5	8.70	8.70
DE	15.2	15.8	7.86	8.55
FL	25.0	26.0	6.70	7.30
GA	20.6	20.0	7.85	7.90
ID	21.0	22.0	6.50	6.70
IL	16.7	17.5	7.20	9.00
IN	17.0	17.2	7.19	7.40
IA	16.1	16.8	7.55	7.90
KS	19.2	18.8	7.45	6.65
KY	15.5	16.0	8.55	8.45
LA	17.0	16.5	8.30	8.45
ME	16.2	15.0	8.90	8.80
MD	15.3	14.3	8.55	9.00
MA	15.2	16.0	8.90	8.70
MI	16.4	16.5	6.90	6.75
MN	16.9	16.4	7.30	7.70
MS	16.4	17.4	8.10	8.15
MO	17.0	17.5	7.35	7.70
MT	16.5	16.6	7.15	7.20
NE	16.1	16.3	7.00	7.10
NV	19.0	20.0	7.50	8.50
NH	15.3	17.0	8.80	8.70
NJ	14.0	13.5	9.15	8.80
NM	25.0	25.0	6.10	6.50
NY	14.9	14.3	8.90	9.30
NC	17.7	17.4	8.50	8.90
ND	15.9	15.2	5.10	5.75
OH	16.3	17.8	7.90	7.60
OK	17.9	17.7	7.45	7.60
OR	18.0	18.0	8.55	9.10
PA	14.2	16.7	8.90	9.50
RI	15.4	14.5	8.90	8.20
SC	18.0	18.5	8.10	8.10
SD	15.0	15.7	6.20	6.50
TN	15.0	16.0	9.00	9.20
TX	21.4	21.2	7.40	7.60
UT	17.5	17.4	7.00	7.30
VT	14.2	15.5	8.70	8.50
VA	16.1	15.7	9.20	9.00
WA	19.5	21.0	7.70	7.85
WV	14.0	15.0	8.90	8.80
WI	16.4	16.5	7.30	7.60
WY	12.2	12.0	6.25	6.05
US	17.4	17.8	7.65	7.92

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 0.7 percent. This means that chances are 2 out of 3 that the final estimate will not be above or below the current estimate of 9.71 million head by more than 0.6 percent, or about 58,000 head. Chances are 9 out of 10 that the difference will not exceed 1.0 percent, or about 97,000 head (the 90 percent confidence level).

Reliability of July-September 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	Above Final	Below Final	
	- Percent -		----- Mil Lbs. -----			- Number -		
Milk Production	0.7	1.2	450	-158	-4	-538	9	1
			----- 1,000 Head -----					
All Milk Cows	0.6	1.0	97	-43	0	-135	9	0

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 November 16, 1993.

