

Milk Production

Released January 17, 2003, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. For information on "Milk Production" call Ty Kalaus at 202-690-3236, office hours 7:00 a.m. to 4:30 p.m. ET.

December Milk Production Up 1.8 Percent

Milk production in the 20 major States during December totaled 12.2 billion pounds, up 1.8 percent from December 2001. November revised production, at 11.7 billion pounds, was up 1.4 percent from November 2001. The November revision represented a decrease of 0.4 percent or 43 million pounds from last month's preliminary production estimate.

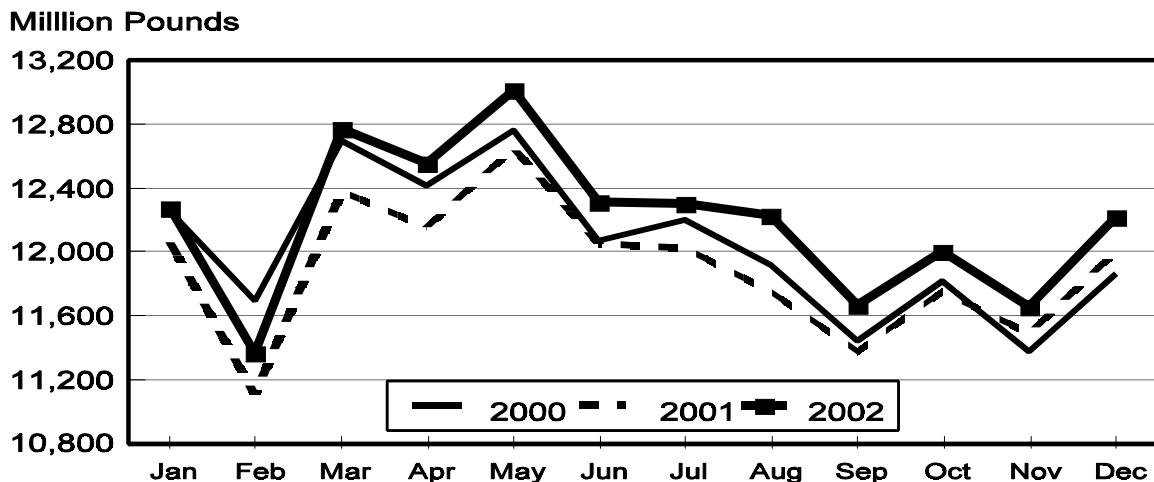
Production per cow in the 20 major States averaged 1,567 pounds for December, 18 pounds above December 2001.

The number of cows on farms in the 20 major States was 7.80 million head, 47,000 head more than December 2001, and 6,000 head more than November 2002.

October-December Milk Production Up 1.7 Percent

The quarterly production of milk for the U.S. was 41.5 billion pounds, 1.7 percent above the October-December period last year. The average number of milk cows in the U.S. during the quarter was 9.15 million head, 43,000 head more than the same period last year.

Monthly Milk Production 20 States



Milk Cows and Production: By Quarter, United States, 2001-2002 ¹

Quarter	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2001	2002	2001	2002	2001	2002	Change From 2001 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>
Jan-Mar	9,143	9,109	4,514	4,639	41,267	42,256	2.4
Apr-Jun	9,114	9,145	4,683	4,806	42,681	43,954	3.0
Jul-Sep	9,098	9,155	4,459	4,571	40,570	41,845	3.1
Oct-Dec	9,105	9,148	4,483	4,538	40,818	41,511	1.7
Annual	9,115	9,139	18,139	18,554	165,336	169,566	2.6

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, 2001-2002

Month	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2001	2002	2001	2002	2001	2002	Change From 2001 Change
	<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	7,784	7,745	1,549	1,585	12,059	12,272	1.8
Feb	7,764	7,744	1,431	1,468	11,108	11,365	2.3
Mar	7,743	7,744	1,599	1,649	12,384	12,771	3.1
Apr	7,740	7,754	1,571	1,619	12,156	12,555	3.3
May	7,749	7,764	1,632	1,677	12,647	13,021	3.0
Jun	7,751	7,779	1,555	1,583	12,052	12,315	2.2
Jul	7,746	7,783	1,552	1,581	12,025	12,306	2.3
Aug	7,735	7,790	1,520	1,570	11,754	12,232	4.1
Sep	7,730	7,785	1,472	1,498	11,376	11,663	2.5
Oct	7,726	7,792	1,522	1,541	11,756	12,004	2.1
Nov	7,739	7,791	1,485	1,496	11,492	11,654	1.4
Dec	7,750	7,797	1,549	1,567	12,008	12,220	1.8
Annual	7,746	7,772	18,438	18,834	142,817	146,378	2.5

¹ 2002 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, 2001-2002 ¹

Month	Milk Cows ²		Milk Per Cow ³		Milk Production ³		
	2001	2002	2001	2002	2001	2002	Change From 2001 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>
Jan	9,169	9,110	1,527	1,564	13,998	14,245	1.8
Feb	9,143	9,109	1,410	1,448	12,894	13,190	2.3
Mar	9,117	9,109	1,577	1,627	14,375	14,821	3.1
Apr	9,110	9,129	1,545	1,595	14,078	14,564	3.5
May	9,116	9,145	1,607	1,652	14,646	15,105	3.1
Jun	9,117	9,161	1,531	1,559	13,957	14,285	2.4
Jul	9,109	9,159	1,523	1,553	13,877	14,224	2.5
Aug	9,096	9,159	1,491	1,544	13,564	14,139	4.2
Sep	9,088	9,146	1,445	1,474	13,129	13,482	2.7
Oct	9,086	9,150	1,498	1,518	13,611	13,889	2.0
Nov	9,106	9,145	1,461	1,474	13,305	13,483	1.3
Dec	9,122	9,148	1,524	1,546	13,902	14,139	1.7
Annual	9,115	9,139	18,139	18,554	165,336	169,566	2.6

¹ 2002 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

Milk Cows and Production: By State, December 2001-2002

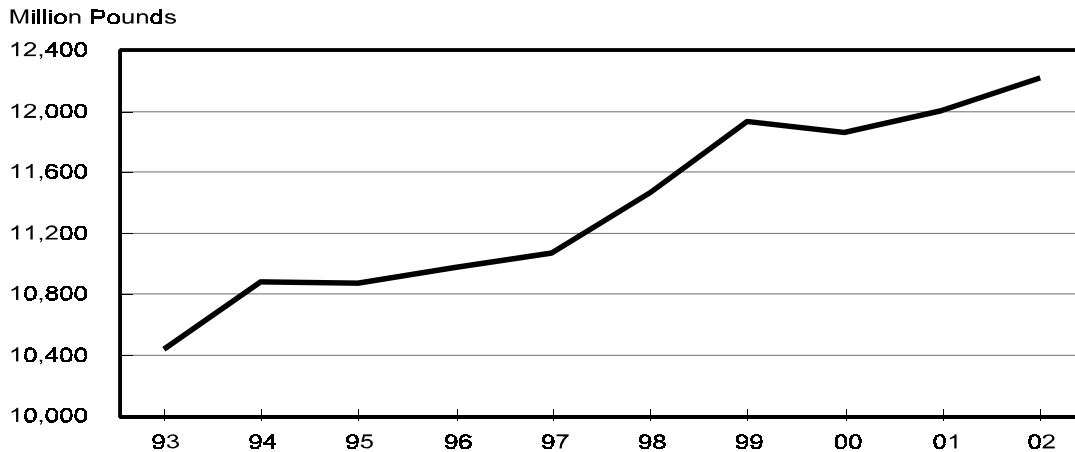
State	Milk Cows ¹		Milk Per Cow ²		Milk Production ²		Change From 2001
	2001	2002	2001	2002	2001	2002	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AZ ³	140	150	1,730	1,915	242	287	18.6
CA	1,618	1,676	1,740	1,750	2,815	2,933	4.2
FL	152	147	1,320	1,315	201	193	-4.0
ID	377	390	1,750	1,740	660	679	2.9
IL	115	115	1,490	1,505	171	173	1.2
IN	155	146	1,395	1,475	216	215	-0.5
IA	206	208	1,550	1,550	319	322	0.9
KY	125	120	1,130	1,100	141	132	-6.4
MI	298	301	1,635	1,675	487	504	3.5
MN	500	480	1,460	1,465	730	703	-3.7
MO	141	134	1,145	1,180	161	158	-1.9
NM	288	309	1,700	1,710	490	528	7.8
NY	675	675	1,450	1,470	979	992	1.3
OH	258	260	1,450	1,440	374	374	
PA	592	590	1,540	1,515	912	894	-2.0
TX	310	311	1,385	1,465	429	456	6.3
VT	154	153	1,490	1,470	229	225	-1.7
VA	119	119	1,335	1,310	159	156	-1.9
WA	247	247	1,845	1,890	456	467	2.4
WI	1,280	1,266	1,435	1,445	1,837	1,829	-0.4
20-State Total	7,750	7,797	1,549	1,567	12,008	12,220	1.8

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ Preliminary revisions for Arizona indicate milk production at 267 million pounds for December 2001. This preliminary revision is not included in the 20-State total. Annual revisions will be published in February 2003.

**December Milk Production, 1993-2002
20 States**



Milk Cows and Production: By State, November 2001-2002 ¹

State	Milk Cows ²		Milk per Cow ³		Milk Production ³		
	2001	2002	2001	2002	2001	2002	Change From 2001
	<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 ⁴	140	150	1,660	1,795	232	269	15.9
CA	1,614	1,670	1,685	1,685	2,720	2,814	3.5
FL	152	147	1,170	1,155	178	170	-4.5
ID	372	390	1,730	1,690	644	659	2.3
IL	115	115	1,375	1,420	158	163	3.2
IN	155	148	1,350	1,400	209	207	-1.0
IA	206	208	1,485	1,470	306	306	
KY	125	120	1,050	1,020	131	122	-6.9
MI	301	301	1,575	1,610	474	485	2.3
MN	500	480	1,365	1,360	683	653	-4.4
MO	141	135	1,080	1,110	152	150	-1.3
NM	280	307	1,665	1,640	466	503	7.9
NY	674	675	1,430	1,420	964	959	-0.5
OH	256	260	1,370	1,350	351	351	
PA	596	591	1,460	1,460	870	863	-0.8
TX	312	309	1,275	1,350	398	417	4.8
VT	154	153	1,405	1,380	216	211	-2.3
VA	119	119	1,285	1,235	153	147	-3.9
WA	247	247	1,780	1,800	440	445	1.1
WI	1,280	1,266	1,365	1,390	1,747	1,760	0.7
20-State Total	7,739	7,791	1,485	1,496	11,492	11,654	1.4

¹ 2002 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

⁴ Preliminary revisions for Arizona indicate milk production at 250 million pounds for November 2001. This preliminary revision is not included in the 20-State total. Annual revisions will be published in February 2003.

**December Milk Cows, 1993-2002
20 States**



**Milk Cows and Production: By State and United States,
Revised July-September, 2001-2002**

State	Jul-Sep Milk Cows ¹		Jul-Sep Milk Production ²		Change From 2001
	2001	2002	2001	2002	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	21	20	63	59	-6.3
AK	1.1	1.3	3.61	4.94	36.8
AZ ⁴	140	149	673	789	17.2
AR	34	32	95	88	-7.4
CA	1,598	1,652	8,349	8,790	5.3
CO	92	102	489	550	12.5
CT	24	24	108	108	
DE	9.0	9.0	37.0	35.0	-5.4
FL	153	149	517	519	0.4
GA	86	85	315	330	4.8
HI	7.4	6.5	26.0	24.1	-7.3
ID	370	393	2,015	2,111	4.8
IL	115	115	475	480	1.1
IN	154	150	624	633	1.4
IA	207	210	908	923	1.7
KS	91	104	375	500	33.3
KY	128	122	387	371	-4.1
LA	54	50	131	125	-4.6
ME	38	37	166	164	-1.2
MD	82	80	317	324	2.2
MA	21	20	89	89	
MI	303	301	1,463	1,489	1.8
MN	507	483	2,093	2,003	-4.3
MS	35	34	102	101	-1.0
MO	144	136	434	444	2.3
MT	19	18	88	87	-1.1
NE	70	67	275	283	2.9
NV	25	25	122	125	2.5
NH	18	17	79	79	
NJ	14	13	57	56	-1.8
NM	268	304	1,407	1,605	14.1
NY	673	677	2,981	3,061	2.7
NC	67	64	281	270	-3.9
ND	46	39	166	145	-12.7
OH	258	264	1,066	1,101	3.3
OK	89	88	315	316	0.3
OR	93	117	433	536	23.8
PA	598	585	2,655	2,634	-0.8
RI	1.4	1.4	5.7	5.6	-1.8
SC	20	20	80	80	
SD	99	96	393	346	-12.0
TN	90	87	305	300	-1.6
TX	321	308	1,113	1,202	8.0
UT	93	93	419	437	4.3
VT	152	154	667	665	-0.3
VA	118	119	447	448	0.2
WA	247	248	1,417	1,432	1.1
WV	16	15	63	60	-4.8
WI	1,284	1,266	5,464	5,501	0.7
WY	4.5	4.4	16.2	16.3	0.6
US ³	9,098	9,155	40,570	41,845	3.1

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ May not add due to rounding.

⁴ Preliminary revisions for Arizona indicate milk production at 719 million pounds for the July - September 2001 quarter. This preliminary revision is not included in the 20-State total. Annual revisions will be published in February 2003.

**Milk Cows and Production: By State and United States,
Preliminary October-December, 2001-2002**

State	Oct-Dec Milk Cows ¹		Oct-Dec Milk Production ²		Change From 2001
	2001	2002	2001	2002	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
AL	21	19	70	63	-10.0
AK	1.2	1.3	3.72	4.36	17.2
AZ ⁴	140	150	708	818	15.5
AR	33	31	96	87	-9.4
CA	1,614	1,670	8,343	8,676	4.0
CO	92	99	501	540	7.8
CT	24	23	110	107	-2.7
DE	9.0	9.0	37.0	36.0	-2.7
FL	152	147	549	526	-4.2
GA	86	85	342	346	1.2
HI	7.4	6.6	23.2	22.7	-2.2
ID	373	390	1,976	2,026	2.5
IL	115	115	487	500	2.7
IN	155	148	637	634	-0.5
IA	206	208	930	936	0.6
KS	94	105	425	520	22.4
KY	125	120	402	377	-6.2
LA	54	49	145	128	-11.7
ME	38	36	162	157	-3.1
MD	81	80	320	334	4.4
MA	21	20	88	87	-1.1
MI	300	301	1,444	1,484	2.8
MN	500	480	2,111	2,023	-4.2
MS	34	33	113	107	-5.3
MO	141	135	466	460	-1.3
MT	19	18	87	85	-2.3
NE	69	66	273	290	6.2
NV	25	25	120	125	4.2
NH	18	17	80	78	-2.5
NJ	14	13	56	55	-1.8
NM	280	307	1,434	1,565	9.1
NY	674	675	2,932	2,958	0.9
NC	66	63	285	267	-6.3
ND	44	38	154	140	-9.1
OH	257	261	1,080	1,093	1.2
OK	88	88	316	316	
OR	105	117	463	520	12.3
PA	595	591	2,676	2,641	-1.3
RI	1.4	1.4	5.5	5.4	-1.8
SC	20	20	88	83	-5.7
SD	98	95	393	336	-14.5
TN	89	84	320	305	-4.7
TX	312	310	1,218	1,290	5.9
UT	93	92	408	416	2.0
VT	154	153	667	654	-1.9
VA	119	119	464	453	-2.4
WA	247	247	1,355	1,374	1.4
WV	16	15	61	57	-6.6
WI	1,280	1,267	5,377	5,390	0.2
WY	4.5	4.4	16.2	15.4	-4.9
US ³	9,105	9,148	40,818	41,511	1.7

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

³ May not add due to rounding.

⁴ Preliminary revisions for Arizona indicate milk production at 768 million pounds for the October - December 2001 quarter. This preliminary revision is not included in the 20-State total. Annual revisions will be published in February 2003.

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 0.9 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 9.15 million head by more than 0.9 percent. Chances are 9 out of 10 that the difference will not exceed 1.6 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> 0.5	<i>Percent</i> 0.9	<i>Million Pounds</i> 374	<i>Million Pounds</i> 150	<i>Million Pounds</i> 1	<i>Million Pounds</i> 385	<i>Number</i> 8	<i>Number</i> 2
All Milk Cows	<i>Percent</i> 0.9	<i>Percent</i> 1.6	<i>1,000 Head</i> 146	<i>1,000 Head</i> 60	<i>1,000 Head</i> 2	<i>1,000 Head</i> 164	<i>Number</i> 8	<i>Number</i> 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 14, 2003.

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D.C., 20250-9410, or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

ACCESS TO REPORTS!!

For your convenience, there are several ways to obtain NASS reports, data products, and services:

INTERNET ACCESS

All NASS reports are available free of charge on the worldwide Internet. For access, connect to the Internet and go to the NASS Home Page at: <http://www.usda.gov/nass/>. Select "Today's Reports" or Publications and then Reports Calendar or Publications and then Search, by Title or Subject.

E-MAIL SUBSCRIPTION

All NASS reports are available by subscription free of charge direct to your e-mail address. Starting with the NASS Home Page at <http://www.usda.gov/nass/>, click on **Publications**, then click on the **Subscribe by E-mail** button which takes you to the page describing e-mail delivery of reports. Finally, click on **Go to the Subscription Page** and follow the instructions.

AUTOFAX ACCESS

NASSFax service is available for some reports from your fax machine. Please call 202-720-2000, using the handset attached to your fax. Respond to the voice prompts. Document 0411 is a list of available reports.

PRINTED REPORTS OR DATA PRODUCTS

CALL OUR TOLL-FREE ORDER DESK: 800-999-6779 (U.S. and Canada)

Other areas, please call 703-605-6220 FAX: 703-605-6900

(Visa, MasterCard, check, or money order acceptable for payment.)

ASSISTANCE

For **assistance** with general agricultural statistics or further information about NASS or its products or services, contact the **Agricultural Statistics Hotline** at **800-727-9540**, 7:30 a.m. to 4:00 p.m. ET, or e-mail: nass@nass.usda.gov.

Competing in the 21st Century

Agricultural Outlook Forum 2003



February 20-21, 2003

Crystal Gateway

Marriott Hotel

Arlington, Virginia

**2003 Commodity Prospects
Emerging Export Competitors
Farming under New Programs
Coping with Regulations
Shifting consumer Preferences
Ensuring Food Safety
Impact of El Nino**

Sharpen your strategic focus at USDA's 79th annual Agricultural Outlook Forum. Note experts, industry leaders and producers will discuss many facets of competing in domestic and world markets.

The program will examine growing competition from Central and Eastern Europe, Brazil and Asia, as well as progress in WTO negotiations.

Focus sessions will highlight many challenges producers face in the competitive arena, ranging from the growing complexity and cost of regulation, to dealing with food safety and changing eating habits.

As always, leading analysts will be on hand to debate planting, trade and price prospects for farm commodities for the year ahead. Attendees will receive new 10-year commodity projections from USDA.

Networking opportunities abound at the Forum, which attracted 1,400 attendees last February. Register now for the best value. See full details at www.usda.gov/oce.

www.usda.gov/oce agforum@oce.usda.gov (877) 891-2208 toll free