

Milk Production

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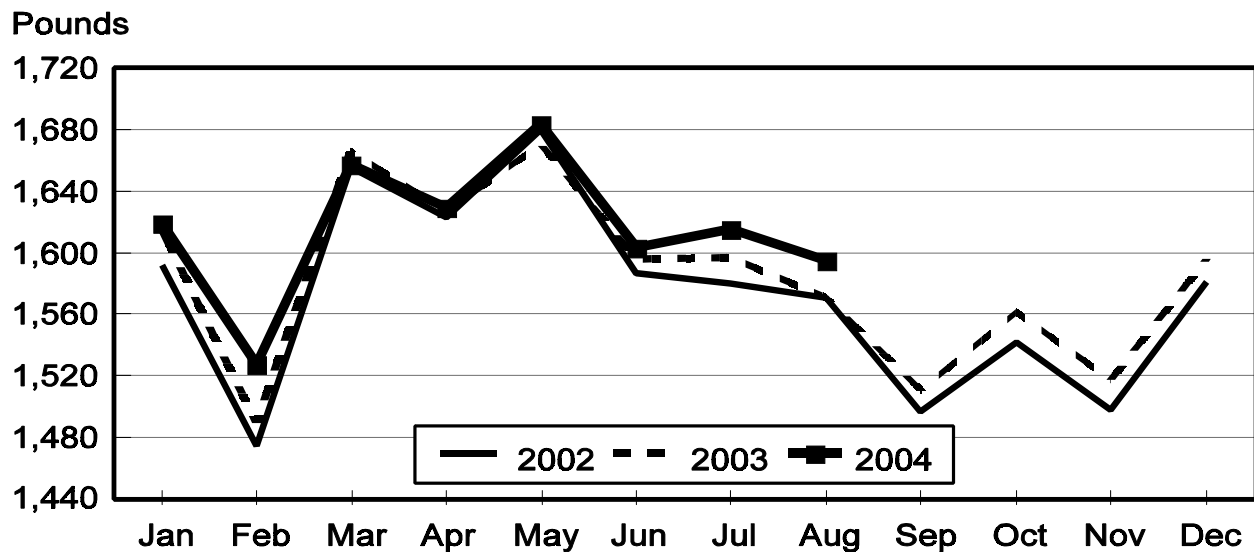
August Milk Production Up 1.5 Percent

Milk production in the 20 major States during August totaled 12.4 billion pounds, up 1.5 percent from August 2003. July revised production, at 12.5 billion pounds, was up 1.0 percent from July 2003. The July revision represented an increase of 36 million pounds or 0.3 percent from last month's preliminary production estimate.

Production per cow in the 20 major States averaged 1,595 pounds for August, 24 pounds above August 2003.

The number of milk cows on farms in the 20 major States was 7.77 million head, 5,000 head less than August 2003, but 7,000 head more than July 2004.

Monthly Milk per Cow 20 States



Milk Cows and Production: By Quarter, United States, 2003-2004¹

| 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 | 8,990 | 4,710 | 4,750 | 43,069 | 42,701 | -0.9 |
| Apr-Jun | 9,109 | 8,997 | 4,827 | 4,858 | 43,965 | 43,703 | -0.6 |
| 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, 2003-2004¹

| | 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 | 7,716 | 1,615 | 1,619 | 12,616 | 12,491 | -1.0 |
| Feb | 7,811 | 7,716 | 1,489 | 1,528 | 11,628 | 11,787 | 1.4 |
| Mar | 7,810 | 7,717 | 1,666 | 1,658 | 13,014 | 12,798 | -1.7 |
| Apr | 7,800 | 7,721 | 1,627 | 1,630 | 12,693 | 12,588 | -0.8 |
| May | 7,787 | 7,722 | 1,671 | 1,684 | 13,013 | 13,007 | |
| Jun | 7,785 | 7,742 | 1,596 | 1,603 | 12,428 | 12,410 | -0.1 |
| Jul | 7,780 | 7,759 | 1,597 | 1,616 | 12,421 | 12,541 | 1.0 |
| Aug | 7,771 | 7,766 | 1,571 | 1,595 | 12,207 | 12,387 | 1.5 |
| 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 2004 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- 2004¹

| 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 | 14,387 | -1.4 |
| Feb | 9,145 | 8,989 | 1,470 | 1,510 | 13,441 | 13,575 | 1.0 |
| Mar | 9,141 | 8,987 | 1,646 | 1,640 | 15,044 | 14,739 | -2.0 |
| Apr | 9,125 | 8,991 | 1,604 | 1,610 | 14,634 | 14,476 | -1.1 |
| May | 9,104 | 8,989 | 1,648 | 1,664 | 15,003 | 14,957 | -0.3 |
| Jun | 9,097 | 9,012 | 1,575 | 1,583 | 14,328 | 14,270 | -0.4 |
| Jul | 9,087 | 9,033 | 1,570 | 1,590 | 14,263 | 14,363 | 0.7 |
| Aug | 9,072 | 9,042 | 1,545 | 1,569 | 14,015 | 14,183 | 1.2 |
| 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 2004 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

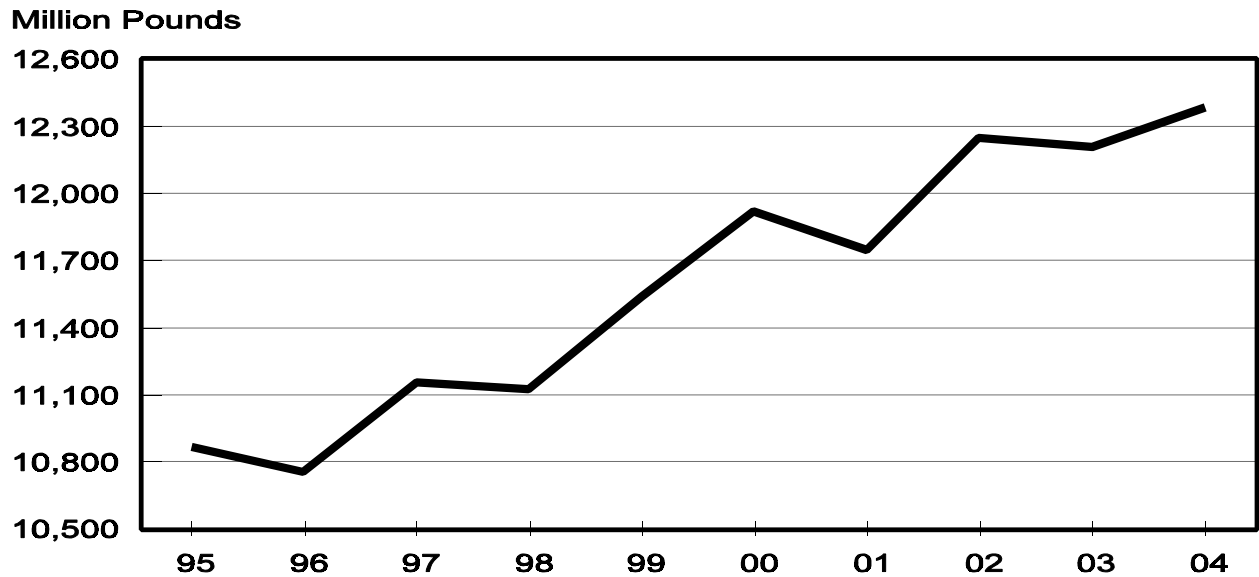
Milk Cows and Production: By State, August 2003-2004

| State | Milk Cows ¹ | | Milk Per Cow ² | | Milk Production ² | | |
|----------------|------------------------|-------------------|---------------------------|---------------|------------------------------|-----------------------|------------------|
| | 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 | 163 | 1,610 | 1,740 | 250 | 284 | 13.6 |
| CA | 1,693 | 1,733 | 1,755 | 1,775 | 2,971 | 3,076 | 3.5 |
| FL | 140 | 138 | 1,120 | 1,225 | 157 | 169 | 7.6 |
| ID | 411 | 431 | 1,860 | 1,860 | 764 | 802 | 5.0 |
| IL | 110 | 107 | 1,480 | 1,490 | 163 | 159 | -2.5 |
| IN | 152 | 149 | 1,610 | 1,610 | 245 | 240 | -2.0 |
| IA | 200 | 190 | 1,540 | 1,545 | 308 | 294 | -4.5 |
| KY | 112 | 110 | 975 | 1,045 | 109 | 115 | 5.5 |
| MI | 304 | 303 | 1,805 | 1,755 | 549 | 532 | -3.1 |
| MN | 470 | 465 | 1,420 | 1,440 | 667 | 670 | 0.4 |
| MO | 128 | 121 | 1,125 | 1,210 | 144 | 146 | 1.4 |
| NM | 317 | 330 | 1,750 | 1,740 | 555 | 574 | 3.4 |
| NY | 671 | 654 | 1,475 | 1,500 | 990 | 981 | -0.9 |
| OH | 260 | 266 | 1,420 | 1,440 | 369 | 383 | 3.8 |
| PA | 571 | 560 | 1,480 | 1,475 | 845 | 826 | -2.2 |
| TX | 320 | 320 | 1,310 | 1,465 | 419 | 469 | 11.9 |
| VT | 147 | 145 | 1,470 | 1,495 | 216 | 217 | 0.5 |
| VA | 112 | 104 | 1,190 | 1,350 | 133 | 140 | 5.3 |
| WA | 244 | 237 | 1,960 | 1,925 | 478 | 456 | -4.6 |
| WI | 1,254 | 1,240 | 1,495 | 1,495 | 1,875 | 1,854 | -1.1 |
| 20-State Total | 7,771 | 7,766 | 1,571 | 1,595 | 12,207 | 12,387 | 1.5 |

¹ Includes dry cows, excludes heifers not yet fresh.

² Excludes milk sucked by calves.

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



Milk Cows and Production: By State, July 2003-2004 ¹

| 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 | 158 | 1,750 | 1,820 | 271 | 288 | 6.3 |
| CA | 1,690 | 1,729 | 1,755 | 1,780 | 2,966 | 3,078 | 3.8 |
| FL | 141 | 139 | 1,215 | 1,340 | 171 | 186 | 8.8 |
| ID | 408 | 427 | 1,880 | 1,860 | 767 | 794 | 3.5 |
| IL | 110 | 107 | 1,490 | 1,520 | 164 | 163 | -0.6 |
| IN | 148 | 150 | 1,625 | 1,640 | 241 | 246 | 2.1 |
| IA | 201 | 192 | 1,580 | 1,570 | 318 | 301 | -5.3 |
| KY | 115 | 111 | 1,005 | 1,055 | 116 | 117 | 0.9 |
| MI | 304 | 301 | 1,830 | 1,785 | 556 | 537 | -3.4 |
| MN | 475 | 465 | 1,455 | 1,460 | 691 | 679 | -1.7 |
| MO | 129 | 122 | 1,150 | 1,240 | 148 | 151 | 2.0 |
| NM | 316 | 330 | 1,795 | 1,770 | 567 | 584 | 3.0 |
| NY | 673 | 656 | 1,515 | 1,520 | 1,020 | 997 | -2.3 |
| OH | 260 | 266 | 1,450 | 1,460 | 377 | 388 | 2.9 |
| PA | 574 | 559 | 1,500 | 1,510 | 861 | 844 | -2.0 |
| TX | 320 | 320 | 1,395 | 1,540 | 446 | 493 | 10.5 |
| VT | 148 | 145 | 1,505 | 1,525 | 223 | 221 | -0.9 |
| VA | 114 | 103 | 1,210 | 1,380 | 138 | 142 | 2.9 |
| WA | 244 | 239 | 1,965 | 1,950 | 479 | 466 | -2.7 |
| WI | 1,255 | 1,240 | 1,515 | 1,505 | 1,901 | 1,866 | -1.8 |
| 20-State Total | 7,780 | 7,759 | 1,597 | 1,616 | 12,421 | 12,541 | 1.0 |

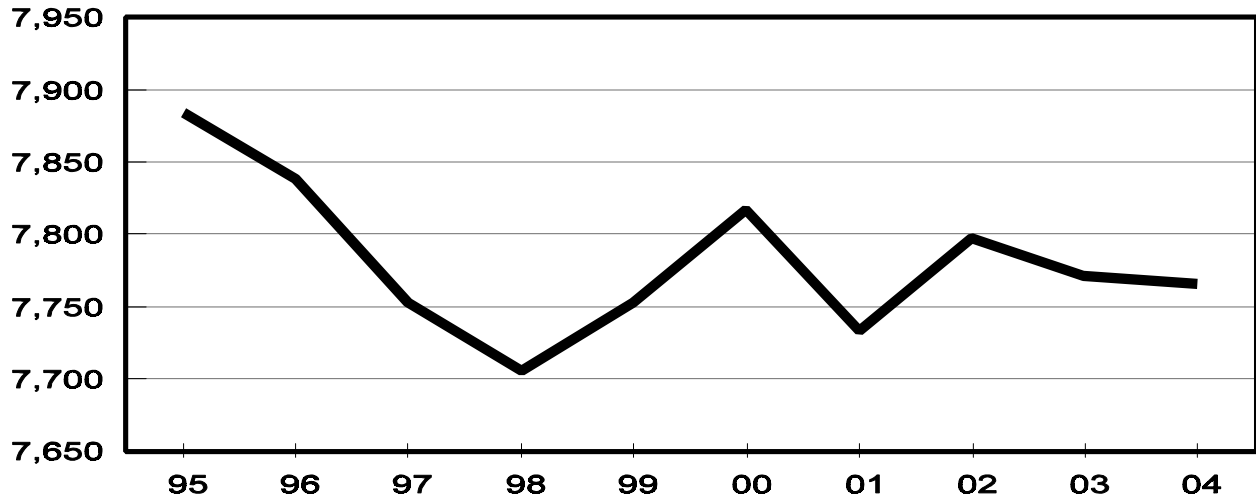
¹ 2004 revised.

² Includes dry cows, excludes heifers not yet fresh.

³ Excludes milk sucked by calves.

**August Milk Cows, 1995-2004
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. 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 April-June quarters is 0.5 percent. This means that chances are 2 out of 3 that the final April-June estimate will not be above or below the current estimate of 9.00 million head by more than 0.5 percent. Chances are 9 out of 10 that the difference will not exceed 1.0 percent.

Reliability of April-June 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> 0.3 | <i>Percent</i> 0.6 | <i>Million Pounds</i> 262 | <i>Million Pounds</i> 96 | <i>Million Pounds</i> 3 | <i>Million Pounds</i> 264 | <i>Number</i> 6 | <i>Number</i> 4 |
| All Milk Cows | <i>Percent</i> 0.5 | <i>Percent</i> 1.0 | <i>1,000 Head</i> 90 | <i>1,000 Head</i> 28 | <i>1,000 Head</i> 0 | <i>1,000 Head</i> 145 | <i>Number</i> 6 | <i>Number</i> 3 |

¹ Based on records for the past 10 April-June quarters.

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