

# Milk Production

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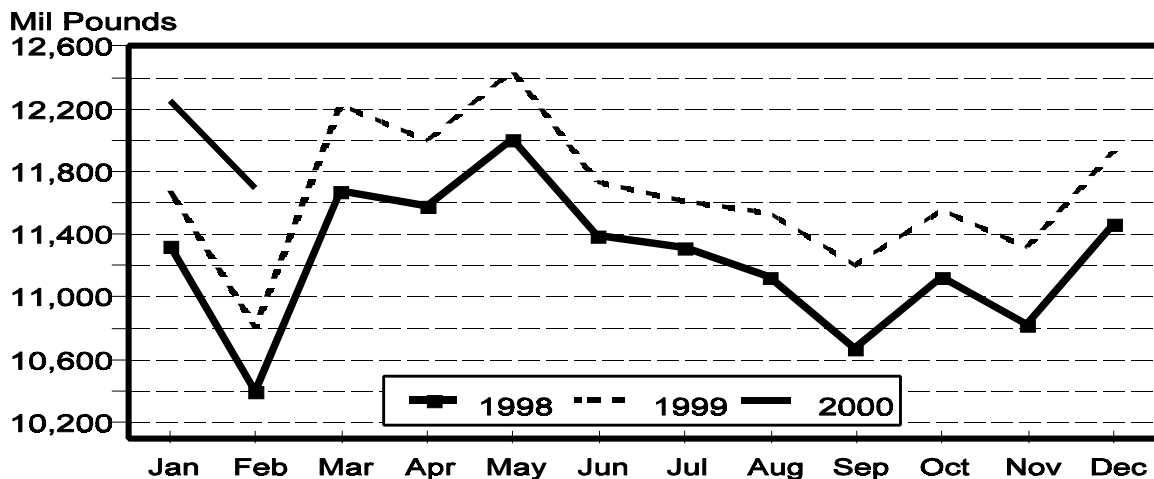
## February Milk Production Up 8.2 Percent

**Milk production** in the 20 major States during February totaled 11.7 billion pounds, up 8.2 percent from production in these same States in February 1999. However, adjusting production for the additional day due to the leap year causes February milk production to be up 4.5 percent on a per day basis. January revised production, at 12.3 billion pounds was up 4.9 percent from January 1999. The January revision represented an increase of 0.2 percent or 24 million pounds from last months preliminary production estimate.

**Production per cow** in the 20 major States averaged 1,505 pounds for February, 101 pounds above February 1999 without adjusting for the extra day.

**The number of cows** on farms in the 20 major States was 7.77 million head, 72,000 head more than February 1999 and 3,000 head more than January 2000.

## Monthly Milk Production 20 States



**Milk Cows and Production: By Quarter, United States, 1999-2000<sup>1</sup>**

| Quarter | Milk Cows <sup>2</sup> |                   | Milk Per Cow <sup>3</sup> |               | Milk Production <sup>3</sup> |                       |                  |
|---------|------------------------|-------------------|---------------------------|---------------|------------------------------|-----------------------|------------------|
|         | 1999                   | 2000              | 1999                      | 2000          | 1999                         | 2000                  | Change From 1999 |
|         | <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 | 9,128                  |                   | 4,437                     |               | 40,505                       |                       |                  |
| Apr-Jun | 9,155                  |                   | 4,591                     |               | 42,029                       |                       |                  |
| Jul-Sep | 9,171                  |                   | 4,337                     |               | 39,771                       |                       |                  |
| Oct-Dec | 9,170                  |                   | 4,406                     |               | 40,406                       |                       |                  |
| Annual  | 9,156                  |                   | 17,771                    |               | 162,711                      |                       |                  |

<sup>1</sup> May not add due to rounding.

<sup>2</sup> Includes dry cows, excludes heifers not yet fresh.

<sup>3</sup> Excludes milk sucked by calves.

**Milk Cows and Production: By Month, 20 Selected States, 1999-2000**

| Month  | Milk Cows <sup>1</sup> |                   | Milk Per Cow <sup>2</sup> |               | Milk Production <sup>2</sup> |                       |                  |
|--------|------------------------|-------------------|---------------------------|---------------|------------------------------|-----------------------|------------------|
|        | 1999                   | 2000              | 1999                      | 2000          | 1999                         | 2000                  | Change From 1999 |
|        | <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    | 7,694                  | 7,765             | 1,518                     | 1,578         | 11,679                       | 12,256                | 4.9              |
| Feb    | 7,696                  | 7,768             | 1,404                     | 1,505         | 10,804                       | 11,692                | 8.2              |
| Mar    | 7,713                  |                   | 1,585                     |               | 12,228                       |                       |                  |
| Apr    | 7,720                  |                   | 1,554                     |               | 11,998                       |                       |                  |
| May    | 7,733                  |                   | 1,610                     |               | 12,447                       |                       |                  |
| Jun    | 7,740                  |                   | 1,516                     |               | 11,737                       |                       |                  |
| Jul    | 7,751                  |                   | 1,498                     |               | 11,610                       |                       |                  |
| Aug    | 7,755                  |                   | 1,487                     |               | 11,534                       |                       |                  |
| Sep    | 7,753                  |                   | 1,445                     |               | 11,200                       |                       |                  |
| Oct    | 7,746                  |                   | 1,491                     |               | 11,549                       |                       |                  |
| Nov    | 7,756                  |                   | 1,459                     |               | 11,315                       |                       |                  |
| Dec    | 7,757                  |                   | 1,538                     |               | 11,928                       |                       |                  |
| Annual | 7,735                  |                   | 18,103                    |               | 140,029                      |                       |                  |

<sup>1</sup> Includes dry cows, excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

**Estimated Milk Cows and Production: By Month, United States, 1999-2000**

| Month  | Milk Cows <sup>1</sup> |                   | Milk Per Cow <sup>2</sup> |               | Milk Production <sup>2</sup> |                       |                  |
|--------|------------------------|-------------------|---------------------------|---------------|------------------------------|-----------------------|------------------|
|        | 1999                   | 2000              | 1999                      | 2000          | 1999                         | 2000                  | Change From 1999 |
|        | <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    | 9,121                  | 9,184             | 1,494                     | 1,557         | 13,628                       | 14,301                | 4.9              |
| Feb    | 9,123                  | 9,188             | 1,382                     | 1,485         | 12,607                       | 13,643                | 8.2              |
| Mar    | 9,141                  |                   | 1,561                     |               | 14,270                       |                       |                  |
| Apr    | 9,143                  |                   | 1,524                     |               | 13,938                       |                       |                  |
| May    | 9,157                  |                   | 1,579                     |               | 14,458                       |                       |                  |
| Jun    | 9,166                  |                   | 1,487                     |               | 13,633                       |                       |                  |
| Jul    | 9,167                  |                   | 1,467                     |               | 13,444                       |                       |                  |
| Aug    | 9,174                  |                   | 1,456                     |               | 13,357                       |                       |                  |
| Sep    | 9,171                  |                   | 1,414                     |               | 12,970                       |                       |                  |
| Oct    | 9,162                  |                   | 1,464                     |               | 13,412                       |                       |                  |
| Nov    | 9,174                  |                   | 1,432                     |               | 13,140                       |                       |                  |
| Dec    | 9,175                  |                   | 1,510                     |               | 13,854                       |                       |                  |
| Annual | 9,156                  |                   | 17,771                    |               | 162,711                      |                       |                  |

<sup>1</sup> Includes dry cows, excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

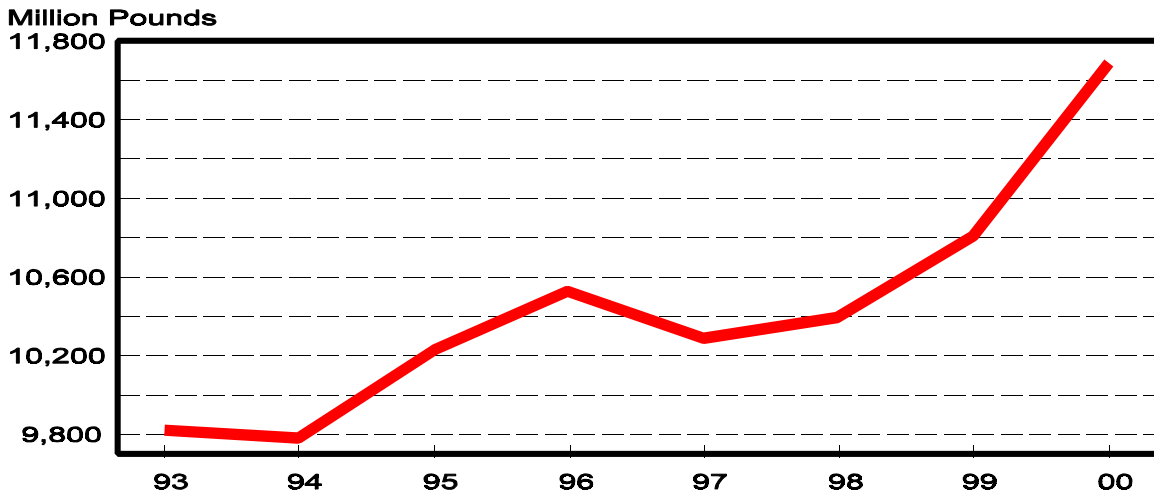
**Milk Cows and Production: By State, February 1999-2000**

| State          | Milk Cows <sup>1</sup> |                   | Milk Per Cow <sup>2</sup> |               | Milk Production <sup>2</sup> |                       |                  |
|----------------|------------------------|-------------------|---------------------------|---------------|------------------------------|-----------------------|------------------|
|                | 1999                   | 2000              | 1999                      | 2000          | 1999                         | 2000                  | Change From 1999 |
|                | <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             | 132                    | 137               | 1,835                     | 1,935         | 242                          | 265                   | 9.5              |
| CA             | 1,447                  | 1,496             | 1,555                     | 1,710         | 2,250                        | 2,558                 | 13.7             |
| FL             | 158                    | 157               | 1,365                     | 1,425         | 216                          | 224                   | 3.7              |
| ID             | 306                    | 332               | 1,490                     | 1,620         | 456                          | 538                   | 18.0             |
| IL             | 125                    | 120               | 1,310                     | 1,480         | 164                          | 178                   | 8.5              |
| IN             | 136                    | 141               | 1,300                     | 1,380         | 177                          | 195                   | 10.2             |
| IA             | 219                    | 215               | 1,380                     | 1,500         | 302                          | 323                   | 7.0              |
| KY             | 135                    | 130               | 985                       | 1,070         | 133                          | 139                   | 4.5              |
| MI             | 292                    | 298               | 1,405                     | 1,510         | 410                          | 450                   | 9.8              |
| MN             | 545                    | 540               | 1,385                     | 1,475         | 755                          | 797                   | 5.6              |
| MO             | 162                    | 157               | 1,140                     | 1,220         | 185                          | 192                   | 3.8              |
| NM             | 223                    | 238               | 1,615                     | 1,730         | 360                          | 412                   | 14.4             |
| NY             | 702                    | 700               | 1,320                     | 1,370         | 927                          | 959                   | 3.5              |
| OH             | 260                    | 259               | 1,310                     | 1,400         | 341                          | 363                   | 6.5              |
| PA             | 615                    | 617               | 1,375                     | 1,475         | 846                          | 910                   | 7.6              |
| TX             | 341                    | 350               | 1,430                     | 1,470         | 488                          | 515                   | 5.5              |
| VT             | 162                    | 159               | 1,290                     | 1,365         | 209                          | 217                   | 3.8              |
| VA             | 122                    | 120               | 1,205                     | 1,330         | 147                          | 160                   | 8.8              |
| WA             | 248                    | 246               | 1,695                     | 1,785         | 420                          | 439                   | 4.5              |
| WI             | 1,366                  | 1,356             | 1,300                     | 1,370         | 1,776                        | 1,858                 | 4.6              |
| 20-State Total | 7,696                  | 7,768             | 1,404                     | 1,505         | 10,804                       | 11,692                | 8.2              |

<sup>1</sup> Includes dry cows, excludes heifers not yet fresh.

<sup>2</sup> Excludes milk sucked by calves.

**February Milk Production, 1993-2000  
20 States**



**Milk Cows and Production: By State, January 1999-2000 <sup>1</sup>**

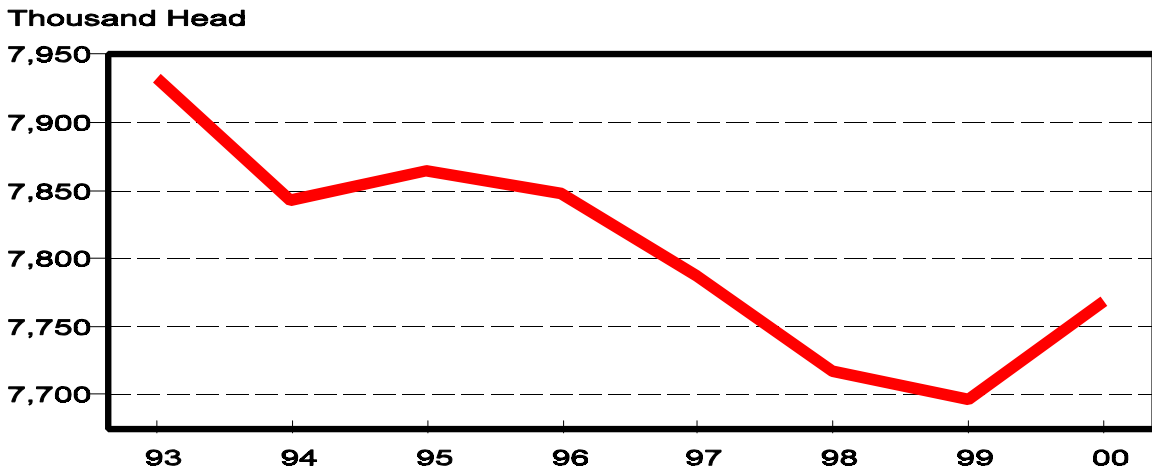
| State          | Milk Cows <sup>2</sup> |                   | Milk per Cow <sup>3</sup> |               | Milk Production <sup>3</sup> |                       |                  |
|----------------|------------------------|-------------------|---------------------------|---------------|------------------------------|-----------------------|------------------|
|                | 1999                   | 2000              | 1999                      | 2000          | 1999                         | 2000                  | Change From 1999 |
|                | <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             | 132                    | 137               | 1,925                     | 1,965         | 254                          | 269                   | 5.9              |
| CA             | 1,444                  | 1,492             | 1,690                     | 1,815         | 2,440                        | 2,708                 | 11.0             |
| FL             | 158                    | 156               | 1,415                     | 1,440         | 224                          | 225                   | 0.4              |
| ID             | 304                    | 332               | 1,660                     | 1,730         | 505                          | 574                   | 13.7             |
| IL             | 125                    | 120               | 1,430                     | 1,500         | 179                          | 180                   | 0.6              |
| IN             | 137                    | 139               | 1,360                     | 1,425         | 186                          | 198                   | 6.5              |
| IA             | 220                    | 215               | 1,515                     | 1,555         | 333                          | 334                   | 0.3              |
| KY             | 135                    | 130               | 1,050                     | 1,130         | 142                          | 147                   | 3.5              |
| MI             | 291                    | 299               | 1,520                     | 1,600         | 442                          | 478                   | 8.1              |
| MN             | 545                    | 540               | 1,505                     | 1,545         | 820                          | 834                   | 1.7              |
| MO             | 164                    | 158               | 1,230                     | 1,240         | 202                          | 196                   | -3.0             |
| NM             | 220                    | 237               | 1,740                     | 1,780         | 383                          | 422                   | 10.2             |
| NY             | 702                    | 700               | 1,430                     | 1,450         | 1,004                        | 1,015                 | 1.1              |
| OH             | 260                    | 259               | 1,430                     | 1,470         | 372                          | 381                   | 2.4              |
| PA             | 617                    | 617               | 1,475                     | 1,520         | 910                          | 938                   | 3.1              |
| TX             | 340                    | 350               | 1,480                     | 1,500         | 503                          | 525                   | 4.4              |
| VT             | 162                    | 160               | 1,410                     | 1,485         | 228                          | 238                   | 4.4              |
| VA             | 122                    | 120               | 1,295                     | 1,425         | 158                          | 171                   | 8.2              |
| WA             | 248                    | 246               | 1,845                     | 1,900         | 458                          | 467                   | 2.0              |
| WI             | 1,368                  | 1,358             | 1,415                     | 1,440         | 1,936                        | 1,956                 | 1.0              |
| 20-State Total | 7,694                  | 7,765             | 1,518                     | 1,578         | 11,679                       | 12,256                | 4.9              |

<sup>1</sup> 2000 revised.

<sup>2</sup> Includes dry cows, excludes heifers not yet fresh.

<sup>3</sup> Excludes milk sucked by calves.

**February Milk Cows, 1993-2000  
20 States**



## 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.

**Estimation Procedures:** State offices prepare these estimates using 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 1.3 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 9.17 million head by more than 1.3 percent. Chances are 9 out of 10 that the difference will not exceed 2.3 percent.

**Reliability of October-December Milk Estimates <sup>1</sup>**

| 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><br>0.6<br><i>Percent</i> | <i>Percent</i><br>1.1<br><i>Percent</i> | <i>Million Pounds</i><br>444<br><i>1,000 Head</i> | <i>Million Pounds</i><br>187<br><i>1,000 Head</i> | <i>Million Pounds</i><br>1<br><i>1,000 Head</i> | <i>Million Pounds</i><br>385<br><i>1,000 Head</i> | <i>Number</i><br>10<br><i>Number</i> | <i>Number</i><br>0<br><i>Number</i> |
| All Milk Cows   | 1.3                                     | 2.3                                     | 211   | 103   | 2   | 195   | 9                                    | 1                                   |

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

The next "Milk Production" report will be released at 3 p.m. ET on April 17, 2000.

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