
U.S. milk production during 2004 increased $0.2 \%$ compared with 2003, climbing to a record 170.8 billion pounds. The 2004 total is 410 million pounds greater than the previous record of 170.4 billion pounds produced during 2003. Milk production has exceeded year earlier levels during seven of the last eight years, with the lone exception occurring during 2001. Production in the U.S. has increased by 8.1 billion pounds over the past five years (2004 versus 1999), a gain of $5.0 \%$.

Seventeen states registered annual milk production increases during 2004, with the percentage increases averaging $3.5 \%$. Wyoming recorded the largest percentage gain, with milk production increasing by $17.4 \%$ compared with the previous year. Texas ( $+6.7 \%$ ) was the only other state that registered an annual milk production increase of $5.0 \%$ or more. Conversely, 12 states reported annual decreases of $5.0 \%$ or more, with Alaska's $12.6 \%$ decrease being the largest milk production loss. Other states posting declines of more than $10.0 \%$ were Hawaii ( $-12.5 \%$ ), Rhode Island ( $-11.3 \%$ ), Massachusetts ( $-10.8 \%$ ), Mississippi ( $-10.4 \%$ ), West Virginia ( $-10.2 \%$ ), and Arkansas ( $-10.2 \%$ ). In total, thirty-two states posted production decreases during 2004, with the percentage decreases averaging $-5.1 \%$. (Virginia's 2004 production was unchanged compared with 2003.)

The map on this page ranks milk production by state for 2004, with the top ten milk producing states shaded.
The graphics on page 4


> 2004 Milk Production Ranking Top Ten States Highlighted only other states to post double digit increases compared with 1999 were California ( $+19.7 \%$ ), Michigan ( $+15.8 \%$ ), Montana ( $+14.5 \%$ ), and Nevada ( $+11.6 \%$ ).

Thirty-four states recorded production decreases between 1999 and 2004, with an average percentage decline of $17.2 \%$. Seventeen of these states recorded decreases greater than the average percentage loss. These were:

| Arkansas | $-38.9 \%$ | Rhode Island | $-36.8 \%$ | Alabama | $-34.8 \%$ | Hawaii | $-32.8 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Louisiana | $-32.6 \%$ | Mississippi | $-31.3 \%$ | Massachusetts | $-29.5 \%$ | West Virginia | $-29.5 \%$ |
| New Jersey | $-28.6 \%$ | Delaware | $-25.4 \%$ | Connecticut | $-24.6 \%$ | North Dakota | $-23.7 \%$ |
| South Carolina | $-22.2 \%$ | Wyoming | $-20.6 \%$ | Tennessee | $-18.5 \%$ | Missouri | $-17.4 \%$ |

The graph at the right depicts annual milk production since 1990 for the nation's top five milk producing states. Idaho ( $+3.6 \%$ ) and California (+2.9\%) posted increases during 2004 compared with the previous year, while Wisconsin ( $-0.8 \%$ ), New York ( $-2.5 \%$ ) and Pennsylvania (-2.7\%) registered production losses. California was the only state to record a production increase each year during this period-increasing production by $74.1 \%$ compared with 1990, while Idaho posted the largest percentage gain (+208.3\%). New York ( $+5.3 \%$ ) and Pennsylvania (+1.3\%) also posted increases compared with 1990, while Wisconsin $(-9.5 \%)$ recorded the lone decrease in milk production during this time period.
The map on page 6 provides a ranking of states based on 2004 milk production per cow. California, Idaho, Michigan, New Mexico, and Washington are the only states ranked in the top ten in both total milk production and production per cow. Idaho ( $21,446 \mathrm{lbs} . / \mathrm{cow}$ ) and California ( $21,139 \mathrm{lbs} . / \mathrm{cow}$ ) were the only top five states with production per cow above the 2004 national average of 18,957 pounds.

## 2004 Per Capita Milk Production

Per capita milk production is a data series presented annually in this Bulletin. A

## Annual Milk Production

Top Five Dairy States


1990 through 2004 may reflect the aggregate supply and demand balance for individual states and regions throughout the U.S. The table on page 7 details and compares per capita milk production by state for 2004, 2003, and 1999. This table lists the states in descending order based on 2004 per capita comparison of this series to per capita consumption data production. The states with per capita production of more than 600 pounds are inside the shaded area of the table. Six of the top ten states in total production are also in the top ten in per capita production. These six are California, Idaho, Minnesota, New Mexico, Washington, and Wisconsin.

Data used in these calculations indicates that per capita production for 2004 was down 4.4 pounds ( $-0.8 \%$ ) compared with 2003. Fourteen states reported annual per capita increases during 2004, the largest being Wyoming with a gain of $16.4 \%$. Texas ( $+4.9 \%$ ), Kansas ( $+3.6 \%$ ), and Oregon ( $+3.4 \%$ ) were the only other states with an increase of three percent or greater. Alaska recorded the largest per capita production decline during 2004, with a loss of $13.5 \%$. Thirteen additional states recorded decreases of five percent or more compared with 2003. Hawaii (-13.5\%), Rhode Island (-11.7\%), Mississippi ($11.0 \%$ ), Arkansas ( $-11.0 \%$ ), South Carolina ( $-10.8 \%$ ), Massachusetts ( $-10.8 \%$ ), and West Virginia ( $-10.4 \%$ ) were other states with double-digit percentage decreases in per capita production comparing 2004 with 2003.

Per capita production for the U.S. decreased by 15.1 pounds, or $-2.5 \%$, between 1999 and 2004. Twelve states recorded increases in per capita milk production, led by Kansas's gain of $53.0 \%$. New Mexico (+29.8\%), Indiana (+29.2\%), Idaho $(+26.6 \%)$, Oregon ( $+25.8 \%$ ), Michigan ( $+12.9 \%$ ), Colorado ( $+11.4 \%$ ), and California ( $+10.6 \%$ ) were the other states to post per capita increases of ten percent or more comparing 2004 with 1999. Arkansas, Rhode Island, and Alabama recorded the largest decreases, with per capita production falling by $43.3 \%, 42.0 \%$, and $37.2 \%$, respectively. Fifteen additional states posted declines of more than $20 \%$, while 12 states reported decreases between 10 and $20 \%$.
The map on the top of page 3 depicts per capita milk production by state for 2004. The 300 and 600 pound levels of per capita production are arbitrary divisions selected for this map. The 600 pound level approximates total annual per capita dairy consumption on a milk equivalent basis, while the 300 pound level reflects average annual consumption of Class I and Class II products (fluid and soft manufactured products), plus reserve requirements. A cursory analysis of regional milk supply conditions can be performed by examining the shading patterns prevalent in the individual regions.

The map at the bottom of page 3 displays the percentage change in per capita milk production by state between 1999 and 2004. The data represented by this map reflects changes in production combined with population changes. The graphics on page 5 depict the states with the largest percentage increases and decreases from 1999 to 2004.

The graph on page 6 provides a ranking of the top five milk producing states in total milk production, production per cow, and production per capita. The graph on the last page of this Bulletin depicts milk production per capita for the U.S. over the last 25 years.

| Percentage $\mathbf{2 0 0 4}$ U.S. Totals |  |  |
| :--- | :---: | :---: |
|  | U.S. Milk <br> Production | U. S. <br> Population <br> Estimate |
| California | 21.35 | 12.22 |
| Wisconsin | 12.93 | 1.88 |
| New York | 6.82 | 6.55 |
| Pennsylvania | 5.89 | 4.22 |
| Idaho | 5.32 | 0.47 |
| 5-State Total | $\mathbf{5 2 . 3 1}$ | $\mathbf{2 5 . 3 5}$ |

## 2004 Per Capita Milk Production



## Percent Change In Per Capita Milk Production 2004 vs 1999



Page 3

## Milk Production: 2004 vs 1999

U.S. Average = +5.0\%

## Largest Production Increases



## Largest Production Decreases



## Per Capita Milk Production: 2004 vs 1999

U.S. Average = -2.5\%

## Largest Per Capita Increases



## Largest Per Capita Decreases



## 2004 Milk Production: Top Five States

State Rankings


Total Production $\square$ Production/Cow $\square$ Production/Capita

## 2004 Milk Production Per Cow Ranking Top Ten States Highlighted



Page 6

## Per Capita Milk Production

2004 versus 2003 \& 1999 - By State

| States |  | Per Capita Milk Production |  |  | Change In Per Capita Milk Production |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $2004$ | 2003 | 1999 | 2004 vs 2003 |  | 2004 vs 1999 |  |
|  |  | Pounds |  |  | Percent | Pounds | Percent |
| 1 | Idaho |  | 6,526.4 | 6,418.3 | 5,155.4 | 108.1 | 1.7 | 1,371.0 | 26.6 |
| 2 | Vermont | 4,158.4 | 4,257.7 | 4,564.3 | -99.3 | -2.3 | -405.9 | -8.9 |
| 3 | Wisconsin | 4,008.9 | 4,067.4 | 4,394.1 | -58.5 | -1.4 | -385.2 | -8.8 |
| 4 | New Mexico | 3,525.5 | 3,548.5 | 2,715.2 | -23.0 | -0.6 | 810.3 | 29.8 |
| 5 | South Dakota | 1,747.3 | 1,738.8 | 2,055.6 | 8.5 | 0.5 | -308.3 | -15.0 |
| 6 | Minnesota | 1,588.3 | 1,630.7 | 1,984.7 | -42.4 | -2.6 | -396.4 | -20.0 |
| 7 | lowa | 1,300.7 | 1,295.0 | 1,325.0 | 5.7 | 0.4 | -24.3 | -1.8 |
| 8 | California | 1,015.9 | 999.3 | 919.0 | 16.6 | 1.7 | 96.9 | 10.5 |
| 9 | Washington | 873.0 | 910.2 | 961.5 | -37.2 | -4.1 | -88.5 | -9.2 |
| 10 | North Dakota | 829.2 | 821.0 | 1,087.3 | 8.2 | 1.0 | -258.1 | -23.7 |
| 11 | Pennsylvania | 811.0 | 835.7 | 911.4 | -24.7 | -3.0 | -100.4 | -11.0 |
| 12 | Kansas | 810.1 | 781.7 | 529.4 | 28.4 | 3.6 | 280.7 | 53.0 |
| 13 | Utah | 673.5 | 689.6 | 759.7 | -16.1 | -2.3 | -86.2 | -11.3 |
| 14 | Arizona | 634.8 | 636.6 | 613.4 | -1.8 | -0.3 | 21.4 | 3.5 |
| 15 | Oregon | 631.5 | 610.8 | 502.1 | 20.7 | 3.4 | 129.4 | 25.8 |
| 16 | Michigan | 624.5 | 632.3 | 553.0 | -7.8 | -1.2 | 71.5 | 12.9 |
| 17 | New York | 605.9 | 622.1 | 664.0 | -16.2 | -2.6 | -58.1 | -8.8 |
| 18 | Nebraska | 601.5 | 649.8 | 683.7 | -48.3 | -7.4 | -82.2 | -12.0 |
| 19 | Indiana | 474.9 | 474.1 | 367.7 | 0.8 | 0.2 | 107.2 | 29.2 |
| 20 | Colorado | 474.6 | 473.4 | 426.0 | 1.2 | 0.3 | 48.6 | 11.4 |
| 21 | Maine | 464.6 | 476.6 | 549.9 | -12.0 | -2.5 | -85.3 | -15.5 |
| 22 | Ohio | 397.9 | 392.6 | 394.4 | 5.3 | 1.4 | 3.5 | 0.9 |
| 23 | Montana | 374.4 | 375.8 | 343.2 | -1.4 | -0.4 | 31.2 | 9.1 |
| 24 | Oklahoma | 358.4 | 374.2 | 371.9 | -15.8 | -4.2 | -13.5 | -3.6 |
| 25 | Kentucky | 343.2 | 355.7 | 416.8 | -12.5 | -3.5 | -73.6 | -17.7 |
| 26 | Missouri | 321.0 | 329.8 | 409.1 | -8.8 | -2.7 | -88.1 | -21.5 |
| 27 | Texas | 267.2 | 254.7 | 280.3 | 12.5 | 4.9 | -13.1 | -4.7 |
| 28 | New Hampshire | 232.4 | 236.7 | 267.2 | -4.3 | -1.8 | -34.8 | -13.0 |
| 29 | Virginia | 232.0 | 235.0 | 272.5 | -3.0 | -1.3 | -40.5 | -14.9 |
| 30 | Nevada | 218.0 | 216.3 | 252.0 | 1.7 | 0.8 | -34.0 | -13.5 |
| 31 | Maryland | 209.1 | 220.4 | 263.9 | -11.3 | -5.1 | -54.8 | -20.8 |
| 32 | Tennessee | 195.7 | 206.2 | 258.4 | -10.5 | -5.1 | -62.7 | -24.3 |
| 33 | Georgia | 160.4 | 166.4 | 186.0 | -6.0 | -3.6 | -25.6 | -13.8 |
| 34 | Illinois | 155.6 | 161.8 | 167.3 | -6.2 | -3.8 | -11.7 | -7.0 |
| 35 | Delaware | 153.5 | 161.3 | 226.9 | -7.8 | -4.8 | -73.4 | -32.3 |
| 36 | Mississippi | 130.6 | 146.7 | 199.4 | -16.1 | -11.0 | -68.8 | -34.5 |
| 37 | Florida | 129.5 | 127.1 | 158.7 | 2.4 | 1.9 | -29.2 | -18.4 |
| 38 | Wyoming | 125.2 | 107.5 | 166.4 | 17.7 | 16.5 | -41.2 | -24.8 |
| 39 | North Carolina | 117.8 | 124.0 | 158.9 | -6.2 | -5.0 | -41.1 | -25.9 |
| 40 | Arkansas | 115.5 | 129.8 | 203.8 | -14.3 | -11.0 | -88.3 | -43.3 |
| 41 | Connecticut | 111.9 | 118.4 | 158.4 | -6.5 | -5.5 | -46.5 | -29.3 |
| 42 | West Virginia | 106.9 | 119.2 | 152.2 | -12.3 | -10.3 | -45.3 | -29.8 |
| 43 | Louisiana | 106.1 | 115.5 | 162.6 | -9.4 | -8.1 | -56.5 | -34.7 |
| 44 | South Carolina | 68.4 | 76.6 | 95.0 | -8.2 | -10.7 | -26.6 | -28.0 |
| 45 | Hawaii | 63.7 | 73.7 | 101.0 | -10.0 | -13.6 | -37.3 | -36.9 |
| 46 | Alabama | 54.1 | 56.0 | 86.0 | -1.9 | -3.4 | -31.9 | -37.1 |
| 47 | Massachusetts | 46.1 | 51.7 | 68.0 | -5.6 | -10.8 | -21.9 | -32.2 |
| 48 | New Jersey | 23.0 | 25.0 | 34.4 | -2.0 | -8.0 | -11.4 | -33.2 |
| 49 | Alaska | 22.3 | 25.8 | 21.9 | -3.5 | -13.6 | 0.4 | 1.8 |
| 50 | Rhode Island | 18.1 | 20.5 | 31.3 | -2.4 | -11.7 | -13.2 | -42.2 |
|  | U.S. Totals | 581.6 | 586.0 | 596.7 | -4.4 | -0.8 | -15.1 | -2.5 |

## Data Sources:

Milk Production : Milk Production, February 2005, National Agricultural Statistics Service, Agriculture Statistics Board, USDA.
Population : U.S. Census Bureau, Department of Commerce. (July 1st population estimates for each year.)



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