# Crop Production

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**Released January 12, 2024, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).**

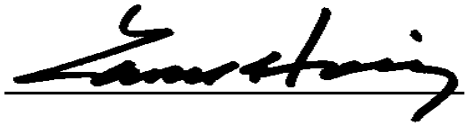
## Orange Production Up 2 Percent from December Forecast

**The United States all orange** forecast for the 2023-2024 season is 2.80 million tons, up 2 percent from the previous forecast and up 12 percent from the 2022-2023 final utilization. The Florida all orange forecast, at 20.5 million boxes (923,000 tons), is unchanged from the previous forecast but up 30 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 7.50 million boxes (338,000 tons), unchanged from the previous forecast but up 22 percent from last season's final utilization. The Florida Valencia orange forecast, at 13.0 million boxes (585,000 tons), is unchanged from the previous forecast but up 35 percent from last season's final utilization.

The California all orange forecast is 45.8 million boxes (1.83 million tons), is up 3 percent from previous forecast and up 6 percent from last season's final utilization. The California Navel orange forecast is 38.0 million boxes (1.52 million tons), up 3 percent from the previous forecast and up 4 percent from last season's final utilization. The California Valencia orange forecast is 7.80 million boxes (312,000 tons), up 4 percent from the previous forecast and up 16 percent from last season's final utilization. The Texas all orange forecast, at 950,000 boxes (41,000 tons) up 19 percent from the previous forecast but down 16 percent from last season's final utilization.

This report was approved on January 12, 2024.

Secretary of Agriculture
Designate
Robert Bonnie



Agricultural Statistics Board
Acting Chairperson
Lance Honig

## Contents

## Utilized Production of Citrus Fruits by Crop – States and United States: 2022-2023 and Forecasted January 1, 2024

[The crop year begins with the bloom of the first year shown and ends with the completion of harvest the following year]

| Crop and State | Utilized production boxes [1] | | Utilized production ton equivalent | |
|---|---|---|---|---|
| | 2022-2023 | 2023-2024 | 2022-2023 | 2023-2024 |
| | (1,000 boxes) | (1,000 boxes) | (1,000 tons) | (1,000 tons) |
| **Oranges** | | | | |
| California, all | 43,200 | 45,800 | 1,728 | 1,832 |
| Early, mid, and Navel [2] | 36,500 | 38,000 | 1,460 | 1,520 |
| Valencia | 6,700 | 7,800 | 268 | 312 |
| Florida, all | 15,800 | 20,500 | 711 | 923 |
| Early, mid, and Navel [2] | 6,150 | 7,500 | 277 | 338 |
| Valencia | 9,650 | 13,000 | 434 | 585 |
| Texas, all | 1,130 | 950 | 48 | 41 |
| Early, mid, and Navel [2] | 570 | 600 | 24 | 26 |
| Valencia | 560 | 350 | 24 | 15 |
| United States, all | 60,130 | 67,250 | 2,487 | 2,796 |
| Early, mid, and Navel [2] | 43,220 | 46,100 | 1,761 | 1,884 |
| Valencia | 16,910 | 21,150 | 726 | 912 |
| **Grapefruit** | | | | |
| California | 4,000 | 3,800 | 160 | 152 |
| Florida | 1,810 | 2,400 | 77 | 102 |
| Texas | 2,250 | 2,350 | 90 | 94 |
| United States | 8,060 | 8,550 | 327 | 348 |
| **Tangerines and mandarins** [3] | | | | |
| California | 23,700 | 22,000 | 948 | 880 |
| Florida | 480 | 550 | 23 | 26 |
| United States | 24,180 | 22,550 | 971 | 906 |
| **Lemons** | | | | |
| Arizona | 1,400 | 900 | 56 | 36 |
| California | 26,500 | 20,000 | 1,060 | 800 |
| United States | 27,900 | 20,900 | 1,116 | 836 |

[1] Net pounds per box: oranges in California-80, Florida-90, Texas-85; grapefruit in California-80, Florida-85, Texas-80; tangerines and mandarins in California-80, Florida-95; lemons-80.
[2] Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas.
[3] Includes tangelos and tangors.

## Hay Stocks on Farms – States and United States: May 1 and December 1, 2022 and 2023

| State | May 1 | | December 1 | |
|---|---|---|---|---|
| | 2022 | 2023 | 2022 | 2023 |
| | (1,000 tons) | (1,000 tons) | (1,000 tons) | (1,000 tons) |
| Alabama | 240 | 160 | 1,300 | 1,100 |
| Arizona | 20 | 20 | 260 | 460 |
| Arkansas | 260 | 200 | 1,440 | 1,550 |
| California | 280 | 325 | 1,155 | 1,550 |
| Colorado | 580 | 170 | 1,350 | 1,650 |
| Connecticut | 5 | 7 | 41 | 42 |
| Delaware | 2 | 2 | 11 | 13 |
| Florida | 75 | 30 | 450 | 470 |
| Georgia | 190 | 120 | 950 | 930 |
| Idaho | 530 | 460 | 2,500 | 2,550 |
| Illinois | 260 | 240 | 980 | 860 |
| Indiana | 240 | 220 | 770 | 850 |
| Iowa | 720 | 380 | 2,480 | 2,140 |
| Kansas | 670 | 720 | 4,100 | 3,600 |
| Kentucky | 960 | 630 | 3,100 | 3,000 |
| Louisiana | 180 | 90 | 610 | 560 |
| Maine | 30 | 29 | 142 | 157 |
| Maryland | 66 | 49 | 300 | 295 |
| Massachusetts | 8 | 11 | 39 | 40 |
| Michigan | 270 | 230 | 980 | 870 |
| Minnesota | 330 | 560 | 2,190 | 1,330 |
| Mississippi | 180 | 110 | 800 | 710 |
| Missouri | 1,100 | 820 | 4,650 | 4,700 |
| Montana | 450 | 450 | 3,250 | 3,850 |
| Nebraska | 1,270 | 530 | 3,000 | 3,850 |
| Nevada | 52 | 105 | 560 | 770 |
| New Hampshire | 5 | 6 | 41 | 40 |
| New Jersey | 14 | 15 | 77 | 84 |
| New Mexico | 30 | 30 | 200 | 250 |
| New York | 550 | 490 | 1,400 | 845 |
| North Carolina | 150 | 125 | 990 | 930 |
| North Dakota | 520 | 860 | 3,300 | 4,250 |
| Ohio | 360 | 350 | 1,350 | 1,120 |
| Oklahoma | 600 | 400 | 3,000 | 5,900 |
| Oregon | 220 | 230 | 1,410 | 1,200 |
| Pennsylvania | 340 | 380 | 1,630 | 1,540 |
| Rhode Island | 1 | 1 | 5 | 5 |
| South Carolina | 80 | 70 | 380 | 460 |
| South Dakota | 1,090 | 1,250 | 4,350 | 5,400 |
| Tennessee | 530 | 400 | 2,650 | 2,750 |
| Texas | 1,600 | 940 | 5,000 | 5,500 |
| Utah | 290 | 480 | 1,250 | 1,360 |
| Vermont | 34 | 33 | 175 | 150 |
| Virginia | 280 | 320 | 1,700 | 1,750 |
| Washington | 180 | 360 | 1,200 | 1,500 |
| West Virginia | 105 | 175 | 780 | 780 |
| Wisconsin | 630 | 560 | 2,165 | 1,520 |
| Wyoming | 200 | 190 | 1,300 | 1,490 |
| United States | 16,777 | 14,333 | 71,761 | 76,721 |

## Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

| Crop | Area planted | | Area harvested | |
|---|---|---|---|---|
| | 2023 | 2024 | 2023 | 2024 |
| | (1,000 acres) | (1,000 acres) | (1,000 acres) | (1,000 acres) |
| **Grains and hay** | | | | |
| Barley | 3,101 | | 2,555 | |
| Corn for grain [1] | 94,641 | | 86,513 | |
| Corn for silage | (NA) | | 6,471 | |
| Hay, all | (NA) | | 52,821 | |
| Alfalfa | (NA) | | 15,634 | |
| All other | (NA) | | 37,187 | |
| Oats | 2,555 | | 831 | |
| Proso millet | 619 | | 572 | |
| Rice | 2,894 | | 2,854 | |
| Rye | 2,293 | | 322 | |
| Sorghum for grain [1] | 7,195 | | 6,115 | |
| Sorghum for silage | (NA) | | 384 | |
| Wheat, all | 49,575 | | 37,272 | |
| Winter | 36,699 | 34,425 | 24,683 | |
| Durum | 1,676 | | 1,604 | |
| Other spring | 11,200 | | 10,985 | |
| **Oilseeds** | | | | |
| Canola | 2,344.5 | | 2,319.2 | |
| Cottonseed | (X) | | (X) | |
| Flaxseed | 178 | | 160 | |
| Mustard seed | 245.0 | | 238.1 | |
| Peanuts | 1,645.0 | | 1,574.0 | |
| Rapeseed | 13.2 | | 10.1 | |
| Safflower | 129.5 | | 126.0 | |
| Soybeans for beans | 83,600 | | 82,356 | |
| Sunflower | 1,315.0 | | 1,267.5 | |
| **Cotton, tobacco, and sugar crops** | | | | |
| Cotton, all | 10,230.0 | | 7,064.6 | |
| Upland | 10,083.0 | | 6,924.8 | |
| American Pima | 147.0 | | 139.8 | |
| Sugarbeets | 1,137.4 | | 1,127.3 | |
| Sugarcane | (NA) | | 931.5 | |
| Tobacco | (NA) | | 187.6 | |
| **Dry beans, peas, and lentils** | | | | |
| Chickpeas | 372.4 | | 359.2 | |
| Dry edible beans | 1,180.0 | | 1,156.9 | |
| Dry edible peas | 966.0 | | 941.0 | |
| Lentils | 546.0 | | 523.0 | |
| **Potatoes and miscellaneous** | | | | |
| Hops | (NA) | | 54.3 | |
| Maple syrup | (NA) | | (NA) | |
| Mushrooms | (NA) | | (NA) | |
| Peppermint oil | (NA) | | 31.3 | |
| Potatoes | 965.0 | | 960.2 | |
| Spearmint oil | (NA) | | 12.2 | |

See footnote(s) at end of table.

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## Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2023 and 2024 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

| Crop | Yield per acre | | Production | |
|---|---|---|---|---|
| | 2023 | 2024 | 2023 | 2024 |
| | | | (1,000) | (1,000) |
| **Grains and hay** | | | | |
| Barley ..... bushels | 72.4 | | 185,036 | |
| Corn for grain ..... bushels | 177.3 | | 15,341,595 | |
| Corn for silage ..... tons | 20.1 | | 129,994 | |
| Hay, all ..... tons | 2.25 | | 118,769 | |
| Alfalfa ..... tons | 3.19 | | 49,916 | |
| All other ..... tons | 1.85 | | 68,853 | |
| Oats ..... bushels | 68.6 | | 57,045 | |
| Proso millet ..... bushels | 34.2 | | 19,572 | |
| Rice [2] ..... cwt | 7,649 | | 218,291 | |
| Rye ..... bushels | 32.2 | | 10,375 | |
| Sorghum for grain ..... bushels | 52.0 | | 317,745 | |
| Sorghum for silage ..... tons | 13.0 | | 4,981 | |
| Wheat, all ..... bushels | 48.6 | | 1,811,977 | |
| Winter ..... bushels | 50.6 | | 1,247,748 | |
| Durum ..... bushels | 37.0 | | 59,329 | |
| Other spring ..... bushels | 46.0 | | 504,900 | |
| **Oilseeds** | | | | |
| Canola ..... pounds | 1,793 | | 4,157,420 | |
| Cottonseed ..... tons | (X) | | 3,788.0 | |
| Flaxseed ..... bushels | 18.5 | | 2,961 | |
| Mustard seed ..... pounds | 627 | | 149,305 | |
| Peanuts ..... pounds | 3,742 | | 5,890,020 | |
| Rapeseed ..... pounds | 2,003 | | 20,230 | |
| Safflower ..... pounds | 1,036 | | 130,570 | |
| Soybeans for beans ..... bushels | 50.6 | | 4,164,677 | |
| Sunflower ..... pounds | 1,786 | | 2,263,520 | |
| **Cotton, tobacco, and sugar crops** | | | | |
| Cotton, all [2] ..... bales | 845 | | 12,434.0 | |
| Upland [2] ..... bales | 841 | | 12,127.0 | |
| American Pima [2] ..... bales | 1,054 | | 307.0 | |
| Sugarbeets ..... tons | 31.2 | | 35,226 | |
| Sugarcane ..... tons | 35.4 | | 32,956 | |
| Tobacco ..... pounds | 2,305 | | 432,452 | |
| **Dry beans, peas, and lentils** | | | | |
| Chickpeas [2] ..... cwt | 1,315 | | 4,722 | |
| Dry edible beans [2] ..... cwt | 2,067 | | 23,910 | |
| Dry edible peas [2] ..... cwt | 1,922 | | 18,086 | |
| Lentils [2] ..... cwt | 1,098 | | 5,742 | |
| **Potatoes and miscellaneous** | | | | |
| Hops ..... pounds | 1,915 | | 104,042.5 | |
| Maple syrup ..... gallons | (NA) | | 4,179 | |
| Mushrooms ..... pounds | (NA) | | 666,647 | |
| Peppermint oil ..... pounds | 90 | | 2,811 | |
| Potatoes ..... cwt | 459 | | 440,750 | |
| Spearmint oil ..... pounds | 126 | | 1,541 | |

(NA) Not available.
(X) Not applicable.
[1] Area planted for all purposes.
[2] Yield in pounds.

## Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

| Crop | Area planted | | Area harvested | |
|---|---|---|---|---|
| | 2023 | 2024 | 2023 | 2024 |
| | (hectares) | (hectares) | (hectares) | (hectares) |
| **Grains and hay** | | | | |
| Barley | 1,254,940 | | 1,033,980 | |
| Corn for grain [1] | 38,300,270 | | 35,010,950 | |
| Corn for silage | (NA) | | 2,618,750 | |
| Hay, all [2] | (NA) | | 21,376,130 | |
| Alfalfa | (NA) | | 6,326,920 | |
| All other | (NA) | | 15,049,210 | |
| Oats | 1,033,980 | | 336,300 | |
| Proso millet | 250,500 | | 231,480 | |
| Rice | 1,171,170 | | 1,154,990 | |
| Rye | 927,950 | | 130,310 | |
| Sorghum for grain [1] | 2,911,740 | | 2,474,680 | |
| Sorghum for silage | (NA) | | 155,400 | |
| Wheat, all [2] | 20,062,510 | | 15,083,610 | |
| Winter | 14,851,720 | 13,931,450 | 9,988,960 | |
| Durum | 678,260 | | 649,120 | |
| Other spring | 4,532,530 | | 4,445,520 | |
| **Oilseeds** | | | | |
| Canola | 948,800 | | 938,560 | |
| Cottonseed | (X) | | (X) | |
| Flaxseed | 72,030 | | 64,750 | |
| Mustard seed | 99,150 | | 96,360 | |
| Peanuts | 665,720 | | 636,980 | |
| Rapeseed | 5,340 | | 4,090 | |
| Safflower | 52,410 | | 50,990 | |
| Soybeans for beans | 33,832,080 | | 33,328,650 | |
| Sunflower | 532,170 | | 512,940 | |
| **Cotton, tobacco, and sugar crops** | | | | |
| Cotton, all [2] | 4,139,980 | | 2,858,970 | |
| Upland | 4,080,490 | | 2,802,400 | |
| American Pima | 59,490 | | 56,580 | |
| Sugarbeets | 460,290 | | 456,210 | |
| Sugarcane | (NA) | | 376,970 | |
| Tobacco | (NA) | | 75,930 | |
| **Dry beans, peas, and lentils** | | | | |
| Chickpeas | 150,710 | | 145,360 | |
| Dry edible beans | 477,530 | | 468,190 | |
| Dry edible peas | 390,930 | | 380,810 | |
| Lentils | 220,960 | | 211,650 | |
| **Potatoes and miscellaneous** | | | | |
| Hops | (NA) | | 21,980 | |
| Maple syrup | (NA) | | (NA) | |
| Mushrooms | (NA) | | (NA) | |
| Peppermint oil | (NA) | | 12,670 | |
| Potatoes | 390,530 | | 388,580 | |
| Spearmint oil | (NA) | | 4,940 | |

See footnote(s) at end of table.

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## Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2023 and 2024 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

| Crop | Yield per hectare | | Production | |
|---|---|---|---|---|
| | 2023 | 2024 | 2023 | 2024 |
| | (metric tons) | (metric tons) | (metric tons) | (metric tons) |
| **Grains and hay** | | | | |
| Barley | 3.90 | | 4,028,680 | |
| Corn for grain | 11.13 | | 389,694,460 | |
| Corn for silage | 45.03 | | 117,928,570 | |
| Hay, all [2] | 5.04 | | 107,745,420 | |
| Alfalfa | 7.16 | | 45,283,030 | |
| All other | 4.15 | | 62,462,390 | |
| Oats | 2.46 | | 828,010 | |
| Proso millet | 1.92 | | 443,890 | |
| Rice | 8.57 | | 9,901,510 | |
| Rye | 2.02 | | 263,540 | |
| Sorghum for grain | 3.26 | | 8,071,090 | |
| Sorghum for silage | 29.08 | | 4,518,690 | |
| Wheat, all [2] | 3.27 | | 49,313,930 | |
| Winter | 3.40 | | 33,958,140 | |
| Durum | 2.49 | | 1,614,670 | |
| Other spring | 3.09 | | 13,741,130 | |
| **Oilseeds** | | | | |
| Canola | 2.01 | | 1,885,770 | |
| Cottonseed | (X) | | 3,436,420 | |
| Flaxseed | 1.16 | | 75,210 | |
| Mustard seed | 0.70 | | 67,720 | |
| Peanuts | 4.19 | | 2,671,670 | |
| Rapeseed | 2.25 | | 9,180 | |
| Safflower | 1.16 | | 59,230 | |
| Soybeans for beans | 3.40 | | 113,343,930 | |
| Sunflower | 2.00 | | 1,026,720 | |
| **Cotton, tobacco, and sugar crops** | | | | |
| Cotton, all [2] | 0.95 | | 2,707,180 | |
| Upland | 0.94 | | 2,640,340 | |
| American Pima | 1.18 | | 66,840 | |
| Sugarbeets | 70.05 | | 31,956,490 | |
| Sugarcane | 79.31 | | 29,897,180 | |
| Tobacco | 2.58 | | 196,160 | |
| **Dry beans, peas, and lentils** | | | | |
| Chickpeas | 1.47 | | 214,190 | |
| Dry edible beans | 2.32 | | 1,084,540 | |
| Dry edible peas | 2.15 | | 820,370 | |
| Lentils | 1.23 | | 260,450 | |
| **Potatoes and miscellaneous** | | | | |
| Hops | 2.15 | | 47,190 | |
| Maple syrup | (NA) | | 20,900 | |
| Mushrooms | (NA) | | 302,390 | |
| Peppermint oil | 0.10 | | 1,280 | |
| Potatoes | 51.45 | | 19,992,090 | |
| Spearmint oil | 0.14 | | 700 | |

(NA) Not available.
(X) Not applicable.
[1] Area planted for all purposes.
[2] Total may not add due to rounding.

## Fruits and Nuts Production in Domestic Units – United States: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2023 crop year, except citrus which is for the 2023-2024 season. Blank data cells indicate estimation period has not yet begun]

| Crop | | Production | |
|---|---|---|---|
| | | 2023 | 2024 |
| **Citrus** [1] | | | |
| Grapefruit | 1,000 tons | 327 | 348 |
| Lemons | 1,000 tons | 1,116 | 836 |
| Oranges | 1,000 tons | 2,487 | 2,796 |
| Tangerines and mandarins | 1,000 tons | 971 | 906 |
| **Noncitrus** | | | |
| Apples, commercial | million pounds | 9,910.0 | |
| Apricots | tons | 32,400 | |
| Avocados | tons | | |
| Blueberries, Cultivated | 1,000 pounds | | |
| Blueberries, Wild (Maine) | 1,000 pounds | | |
| Cherries, Sweet | tons | 371,000 | |
| Cherries, Tart | million pounds | 203.0 | |
| Coffee (Hawaii) | 1,000 pounds | | |
| Cranberries | barrel | 7,620,000 | |
| Dates | tons | | |
| Grapes | tons | 6,285,000 | |
| Kiwifruit (California) | tons | | |
| Nectarines (California) | tons | | |
| Olives (California) | tons | | |
| Papayas (Hawaii) | 1,000 pounds | | |
| Peaches | tons | 543,000 | |
| Pears | tons | 645,000 | |
| Plums (California) | tons | | |
| Prunes (California) | tons | | |
| Raspberries, all | 1,000 pounds | | |
| Strawberries | 1,000 cwt | | |
| **Nuts and miscellaneous** | | | |
| Almonds, shelled (California) | 1,000 pounds | 2,600,000 | |
| Hazelnuts, in-shell (Oregon) | tons | | |
| Macadamias (Hawaii) | 1,000 pounds | | |
| Pecans, in-shell | 1,000 pounds | 251,500 | |
| Pistachios (California) | 1,000 pounds | | |
| Walnuts, in-shell (California) | tons | 760,000 | |

[1] Production years are 2022-2023 and 2023-2024.

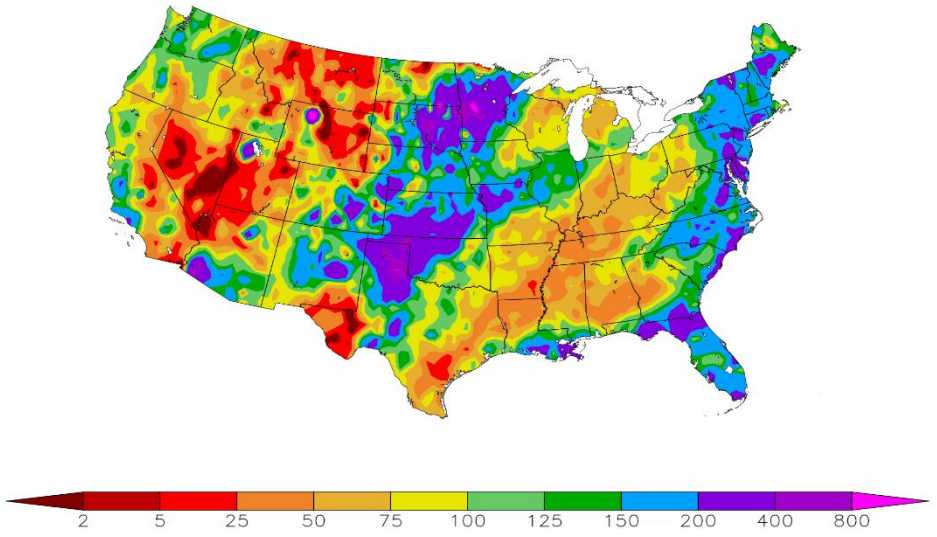
## Fruits and Nuts Production in Metric Units – United States: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2023 crop year, except citrus which is for the 2023-2024 season. Blank data cells indicate estimation period has not yet begun]

| Crop | Production | |
|---|---|---|
| | 2023 | 2024 |
| | (metric tons) | (metric tons) |
| **Citrus** [1] | | |
| Grapefruit | 296,650 | 315,700 |
| Lemons | 1,012,420 | 758,410 |
| Oranges | 2,256,170 | 2,536,490 |
| Tangerines and mandarins | 880,880 | 821,910 |
| **Noncitrus** | | |
| Apples, commercial | 4,495,100 | |
| Apricots | 29,390 | |
| Avocados | | |
| Blueberries, Cultivated | | |
| Blueberries, Wild (Maine) | | |
| Cherries, Sweet | 336,570 | |
| Cherries, Tart | 92,080 | |
| Coffee (Hawaii) | | |
| Cranberries | 345,640 | |
| Dates | | |
| Grapes | 5,701,660 | |
| Kiwifruit (California) | | |
| Nectarines (California) | | |
| Olives (California) | | |
| Papayas (Hawaii) | | |
| Peaches | 492,600 | |
| Pears | 585,130 | |
| Plums (California) | | |
| Prunes (California) | | |
| Raspberries, all | | |
| Strawberries | | |
| **Nuts and miscellaneous** | | |
| Almonds, shelled (California) | 1,179,340 | |
| Hazelnuts, in-shell (Oregon) | | |
| Macadamias (Hawaii) | | |
| Pecans, in-shell | 114,080 | |
| Pistachios (California) | | |
| Walnuts, in-shell (California) | 689,460 | |

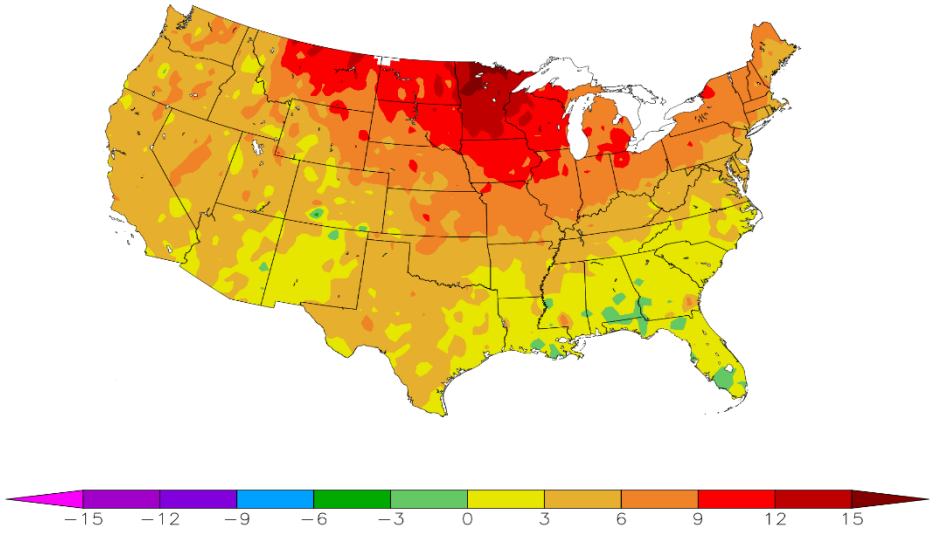
[1] Production years are 2022-2023 and 2023-2024.

Percent of Normal Precipitation (%)
12/1/2023 – 12/31/2023




NOAA Regional Climate Centers

Departure from Normal Temperature (F)
12/1/2023 – 12/31/2023




NOAA Regional Climate Centers

## December Weather Summary

As December began, producers had completed most harvest activities for 2023 crops. By November 26, only 4 percent of the Nation's corn acreage had not been harvested, compared to the 5-year average of 5 percent. On the same date, the national cotton harvest was 83 percent complete, ahead of the 5-year average of 79 percent. Thereafter, December featured periods of significant precipitation in several areas of the country, including large sections of the Plains, upper Midwest, and Atlantic Coast States. However, drier-than-normal December weather dominated the mid-South and interior sections of the western United States. In the latter region, mountain snowpack was slow to build, due to a combination of mild weather and lack of storminess. According to the California Department of Water Resources, the average water equivalency of the Sierra Nevada snowpack stood at 2.5 inches by month's end, approximately one quarter of the end-of-December average.

Mild December weather covered not only the West, but also the remainder of the country. Characteristic of El Niño, which developed several months ago but only recently began to strongly influence North American weather patterns, the warmest weather—with temperatures averaging at least 6 to 12°F above normal—stretched from the northern and central Plains into the Northeast. Even relatively cooler areas, such as the lower Southeast, noted near- or slightly above-normal December temperatures. For parts of the northern Plains and upper Midwest, it was the warmest December on record. In South Dakota alone, it was the warmest December in dozens of communities, including Huron, Mitchell, Mobridge, Sioux Falls, Sisseton, and Watertown. In each of those locations, previous records for December warmth had been set in 1939 or earlier.

The mild weather, accompanied by periods of rain and snow, favored overwintering wheat, despite lingering pockets of drought. Based on *Drought Monitor*-derived statistics, drought covered 30 percent of the Nation's winter wheat production area on December 26, down from a recent (October 2023) peak of 49 percent. According to USDA/NASS, winter wheat rated in very poor to poor condition improved in a few key production states between November 26 and the end of December. For example, winter wheat rated very poor to poor in Kansas decreased from 32 to 21 percent during that 5-week period. At the same time, wheat rated good to excellent jumped from 53 to 67 percent in Oklahoma and from 32 to 43 percent in Kansas.

Nationally, drought coverage decreased from 36 to 32 percent between November 28 and December 26, according to the *Drought Monitor*. General improvement in the drought situation was noted across the central and southern Plains, upper Midwest, and Pacific Northwest, as well as an area stretching from the central Gulf Coast into the middle Atlantic States. Record-setting December wetness affected portions of the mid-Atlantic, including Richmond, Virginia, and Allentown, Pennsylvania. However, those improvements were partially offset by worsening conditions in a few areas, including the mid-South, lower Midwest, and portions of the northern Rockies and environs.

## December Agricultural Summary

Most of the Nation was warmer than normal during the month of December. Large parts of the Upper Midwest, Northern Plains, and Northern Rockies recorded temperatures 9°F or more above normal. Most of Minnesota recorded temperatures 12°F or more above normal. Most of the Great Basin and Northern Rockies, as well as large parts of the Great Lakes, Ohio Valley, South, and Southwest, remained drier than normal. In contrast, much of the Atlantic Coast, Gulf Coast, New England, and Great Plains recorded at least twice the normal amount precipitation for the month. Locations in the Rockies and Southwest also recorded at least twice the normal amount of precipitation.

Ninety-six percent of the 2023 corn acreage was harvested by November 26, three percentage points behind last year but 1 percentage point ahead of the 5-year average harvest pace.

Nationwide, 91 percent of the winter wheat acreage had emerged by November 26, one percentage point ahead of last year and 2 percentage points ahead of the 5-year average. As of November 26, fifty percent of the 2024 winter wheat acreage was reported in good to excellent condition, 16 percentage points above the same time last year.

By November 26, eighty-three percent of the Nation's cotton acreage was harvested, equal to last year but 4 percentage points ahead of the 5-year average.

Ninety-six percent of the Nation's peanut acreage was harvested as of November 26, one percentage point behind last year but 1 percentage point ahead of the 5-year average.

By November 26, eighty-six percent of this year's sunflower crop was harvested, 12 percentage points behind last year but 2 percentage points ahead of the 5-year average.

## Crop Comments

**Grapefruit:** The United States 2023-2024 grapefruit crop is forecast at 348,000 tons, up 5 percent from the previous forecast and up 6 percent from last season's final utilization. California's grapefruit forecast at 3.80 million boxes (152,000 tons), is up 9 percent from the previous forecast but down 5 percent from last season. The Texas grapefruit forecast at 2.35 million boxes (94,000 tons) is up 7 percent from the previous forecast and up 4 percent from the 2022-2023 season. The Florida forecast, at 2.40 million boxes (102,000 tons), is unchanged from previous forecast but up 33 percent from the last season.

**Lemons:** The 2023-2024 United States lemon crop is forecast at 836,000 tons, down 15 percent from previous forecast and down 25 percent from last season's final utilization. The California forecast, at 20.0 million boxes (800,000 tons), is down 13 percent from the previous forecast and down 25 percent from the 2022-2023 season. The Arizona forecast, at 900,000 boxes (36,000 tons), is down 40 percent from the previous forecast and down 36 percent from last year.

**Tangerines and mandarins:** The United States tangerine and mandarin crop is forecast at 906,000 tons, down 4 percent from the previous forecast and down 7 percent from the last season's final utilization. The California tangerine and mandarin forecast, at 22.0 million boxes (880,000 tons) is down 4 percent from last forecast and down 7 percent from last year.

**Hay stocks on farms:** All hay stored on United States farms as of December 1, 2023, totaled 76.7 million tons, up 7 percent from December 1, 2022. Disappearance from May 1, 2023 - December 1, 2023, totaled 56.4 million tons, down 1 percent from the same period in 2022.

Record low December 1 hay stock levels were estimated in Minnesota, New York, Ohio, and Wisconsin.

## Statistical Methodology

**Survey procedures:** The orange objective yield survey for the January 1 forecast was conducted in Florida. In August and September, the number of bearing trees and the number of fruit per tree is determined. In August and subsequent months, fruit size measurement and fruit droppage surveys are conducted, which combined with the previous components are used to develop the current forecast of production. California and Texas conduct grower on a quarterly basis in October, January, April, and July. California conducts an objective measurement survey in September for Navel oranges and in March for Valencia oranges.

**Estimating procedures:** State level objective yield estimates for Florida oranges were reviewed for errors, reasonableness, and consistency with historical estimates. Reports from growers in California and Texas were also used for setting estimates. These three States submit their analyses of the current situation to the Agricultural Statistics Board (ASB). The ASB uses the survey data and the State analyses to prepare the published January 1 forecast.

**Revision policy:** The January 1 production forecasts will not be revised. A new forecast will be made each month throughout the growing season. End-of-season estimates will be published in the *Citrus Fruits Summary* released in August. The production estimates are based on all data available at the end of the marketing season, including information from marketing orders, shipments, and processor records. Allowances are made for recorded local utilization and home use.

**Reliability:** To assist users in evaluating the reliability of the January 1 production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the January 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of squared percentage deviations for the latest 20-year period is computed. The square root of the average becomes statistically the "Root Mean Square Error." Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

The "Root Mean Square Error" for the January 1 orange production forecast is 6.3 percent. This means that chances are 2 out of 3 that the current orange production forecast will not be above or below the final estimates by more than 6.3 percent. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 11.0 percent.

Changes between the January 1 orange forecast and the final estimates during the past 20 years have averaged 295,000 tons, ranging from 2,000 tons to 843,000 tons. The January 1 forecast for oranges has been below the final estimate 5 times and above 15 times. The difference does not imply that the January 1 forecast this year is likely to understate or overstate final production.

## Reliability of January 1 Crop Production Forecasts

[Based on data for the past twenty years]

| Crop | Root mean square error | 90 percent confidence interval | Difference between forecast and final estimate | | | | |
|---|---|---|---|---|---|---|---|
| | | | Production | | | Years | |
| | | | Average | Smallest | Largest | Below final | Above final |
| | (percent) | (percent) | (millions) | (millions) | (millions) | (number) | (number) |
| Oranges [1] ..... tons | 6.3 | 11.0 | 295 | 2 | 843 | 5 | 15 |

[1] Quantity is in thousands of units.

## USDA, National Agricultural Statistics Service Information Contacts

Listed below are the commodity statisticians in the Crops Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to nass@usda.gov

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- Natasha Bruton – Barley, Cotton System Consumption and Stocks, Grain Crushings ..... (202) 690-1042
- David Colwell – Fats and Oils, Flour Milling Products ..... (202) 720-8800
- Michelle Harder – County Estimates, Hay ..... (202) 690-8533
- James Johanson – Rye, Wheat ..... (202) 720-8068
- Greg Lemmons – Corn, Flaxseed, Proso Millet ..... (202) 720-9526
- Becky Sommer – Cotton, Cotton Ginnings, Sorghum ..... (202) 720-5944
- Travis Thorson – Sunflower, Other Oilseeds ..... (202) 720-7369
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- Bret Holliman – Apricots, Chickpeas, Nectarines, Peaches, Snap Beans, Sweet Corn, Tomatoes ..... (202) 720-7235
- Robert Little – Blueberries, Cabbage, Dry Beans, Lettuce, Macadamia, Maple Syrup, Pears, Raspberries, Spinach ..... (202) 720-3250
- Krishna Rizal – Artichokes, Asparagus, Celery, Grapefruit, Kiwifruit, Lemons, Mandarins and tangerines, Mint, Mushrooms, Olives, Oranges, Pistachios ..... (202) 720-5412
- Chris Singh – Apples, Cucumbers, Hazelnuts, Potatoes, Pumpkins, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes ..... (202) 720-4285
- Antonio Torres – Cantaloupes, Dry Edible Peas, Grapes, Green Peas, Honeydews, Lentils, Sweet Cherries, Tart Cherries, Walnuts, Watermelons ..... (202) 720-2157
- Chris Wallace – Avocados, Bell Peppers, Broccoli, Cauliflower, Chile Peppers, Dates, Floriculture, Hops, Papayas, Pecans ..... (202) 720-4215

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For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: nass@usda.gov.


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