



Fruit and Tree Nuts Outlook: July 2024

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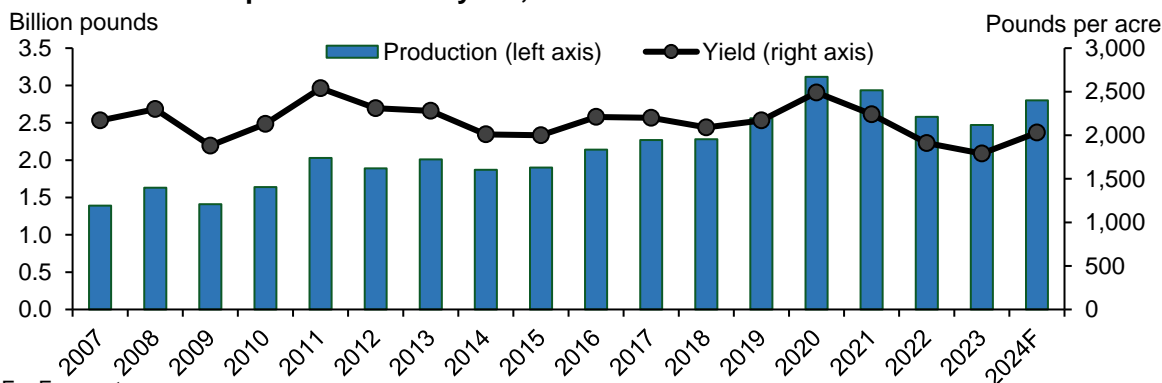
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Almonds Set for Near-Record Production in 2024

The *2024 California Almond Objective Measurement Report* forecasts that 2.8 billion pounds of almonds will be harvested this fall. If so, the 2024 crop would be the third largest on record and 13 percent larger than the crop produced last year. The increase in production is due to a 13-percent year-over-year increase in yield. USDA, National Agricultural Statistics Service (NASS) projects the 2024 almond yield at 2,030 pounds per acre. This yield estimate is higher than the previous two seasons, but close to the 10-year average of 2,111 pounds per acre. Preliminary 2024 almond bearing acreage is unchanged from a year ago. If the bearing acreage estimate is realized, 2024 will mark the first year since 1995 that almond acreage does not increase year-over-year. In part, a slowdown in almond acreage is due to historically low almond prices that have tightened producers' margins.

California almond production and yield, 2007–24F



F = Forecast.

Note: Production is in shelled equivalents.

Source: USDA, Economic Research Service using data from the USDA, National Agricultural Statistics Service *2024 California Almond Objective Measurement Report*.

Noncitrus Fruit Outlook

California Peaches: Production Forecast Up in 2024

The USDA, NASS May *Crop Production* forecast for California peach production in 2024 is 510,000 tons, a 6 percent increase from 2023. California is the top peach-producing State, with peaches categorized as either freestone or clingstone varieties. The current 2024 forecast is up for both clingstone peaches (4 percent) and freestone peaches (8 percent) compared to 2023. On average, about 70 percent of freestone peaches enter the fresh market, while clingstone peaches are grown almost exclusively for the processing market (primarily canned and frozen).

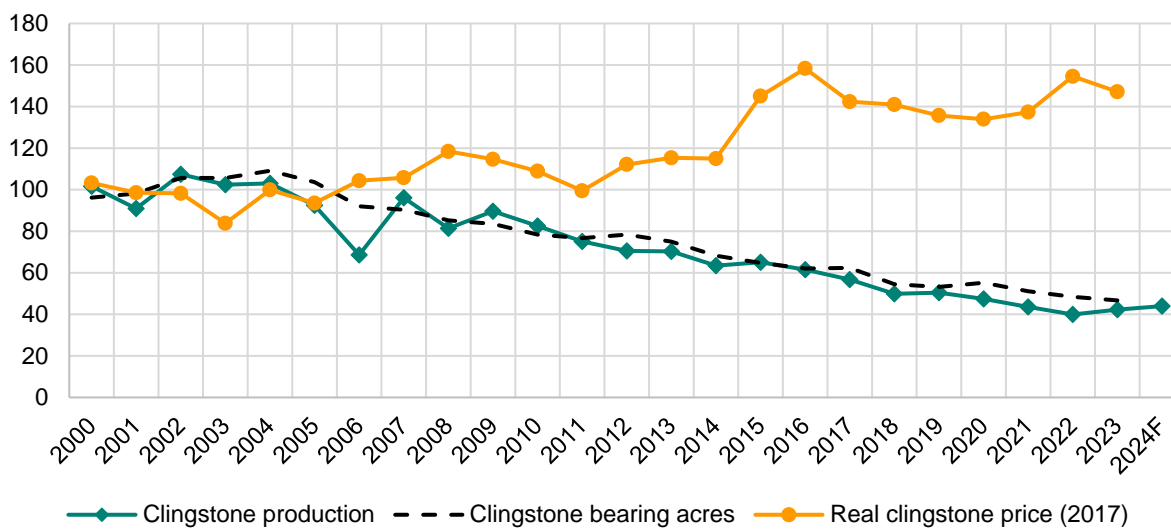
A larger California peach crop is expected in 2024 despite a warm winter resulting in the second lowest chill hour accumulation in the last 50 years. Growers reported abundant fruit set and generally good spring weather conditions. However, persistent high summer temperatures in the Central Valley may negatively impact fruit quality, sizing, and lead to increased fruit drop. USDA, NASS will release another peach production forecast for California and seven additional States in its August *Crop Production* report.

California clingstones: The USDA, NASS May forecast for California clingstone peaches is 230,000 tons. This is a 4 percent (9,000-ton) increase from 2023 but is 56 percent below average production volume in 2000–2002 (figure 1). Bearing acreage and production has decreased in the past 20 years. During the same period, real (inflation-adjusted) grower prices increased by approximately 50 percent but have remained relatively flat over the last 9 years (2015–23). Average grower prices during the 2024 season for clingstone peaches are expected to continue this trend. In March 2024, the California Canning Peach Association, the cooperative bargaining association in the industry, reported its ratified 2024 base price agreement with processors at \$635 per ton, the same as 2023. According to the Association, canned and plastic-packaged peaches (including mixed fruit products like fruit cocktail) are primarily produced by two processing companies in California.

Figure 1

California clingstone peach production, acres, and grower price in the 21st Century

Percent of 2000–2002



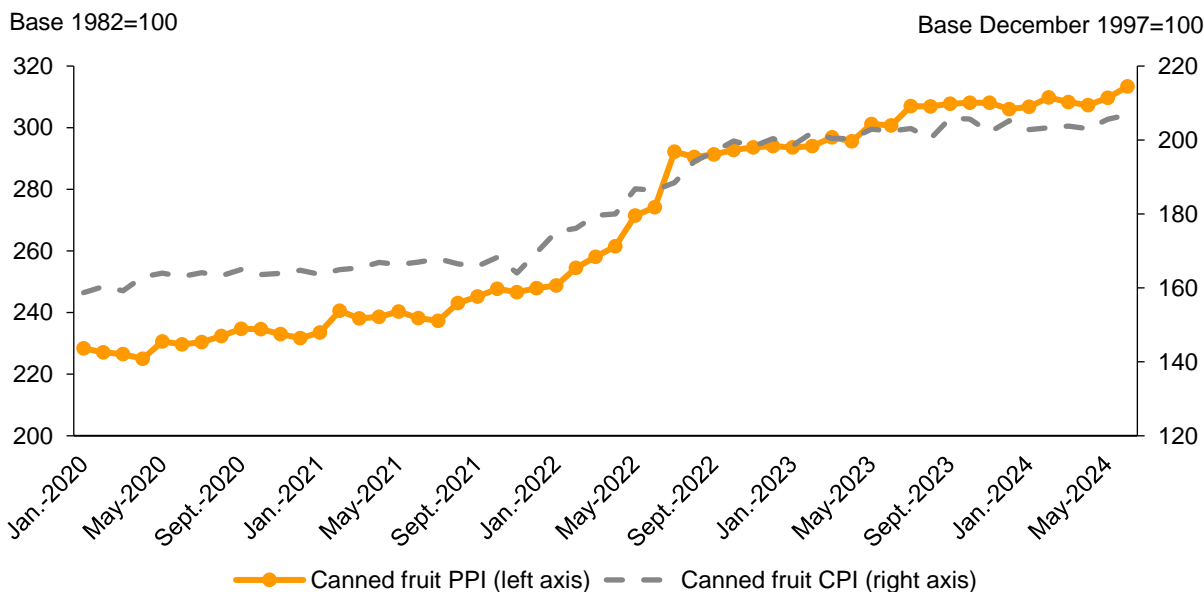
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service and U.S. Bureau of Labor Statistics, gross domestic product (implicit price deflator), index 2017=100, annual, not seasonally adjusted.

After the first week of July 2024, year-to-date California cling peach deliveries amounted to 4,958 tons, almost double the volume compared to the same time last year, based on reports issued by the California League of Food Producers. This represents 2 percent of the season’s total expected delivery volume (242,074 tons) to all processors according to the California Canning Peach Association’s *Block-by-Block* 2024 estimate. California clingstone peach deliveries usually reach the halfway point by early August and continue through early September.

Canned fruit prices: USDA, ERS estimates that approximately 75 percent of annual U.S. processed peach production is canned. After climbing sharply in 2022, the producer price index (PPI) and consumer price index (CPI) for canned fruit have remained flat in the last 12 months (figure 2). Like the broader food price category, increases in the canned fruit monthly PPI and CPI slowed in 2023 as economy-wide inflationary pressures, supply chain issues, and wholesale food prices eased from 2022. In June 2024, the canned fruit PPI (excludes baby food) was 4 percent above a year earlier and 14 percent above the same month 2 years ago. Similarly, consumer prices for canned fruit averaged 2 percent above a year earlier and 11 percent above the same month 2 years ago.

Figure 2

Canned fruit PPI and CPI, 2020–24



Note: Canned fruit PPI (series ID WPU024101) excludes baby food.
 Source: USDA, Economic Research Service using data from U.S. Bureau of Labor Statistics.

Fresh-market peach domestic shipments ahead of last year: Fresh peach shipment volumes from May through mid-July are 42 percent higher than last year according to data from USDA, Agricultural Marketing Service (AMS), *Market News*. Higher year-over-year shipments and lower free-on-board (FOB) prices in the southeast indicate regional peach production in 2024 is larger than last year’s freeze-impacted crop. More than 88 percent of South Carolina’s crop and 99 percent of Georgia’s peach crop was reported in good-to-excellent condition by USDA, NASS at the end of June 2024. By July 21, 2024, peach harvest in South Carolina and Georgia was nearly complete (80 and 84 percent, respectively), which is ahead of last year’s harvest and in line with the 5-year average.

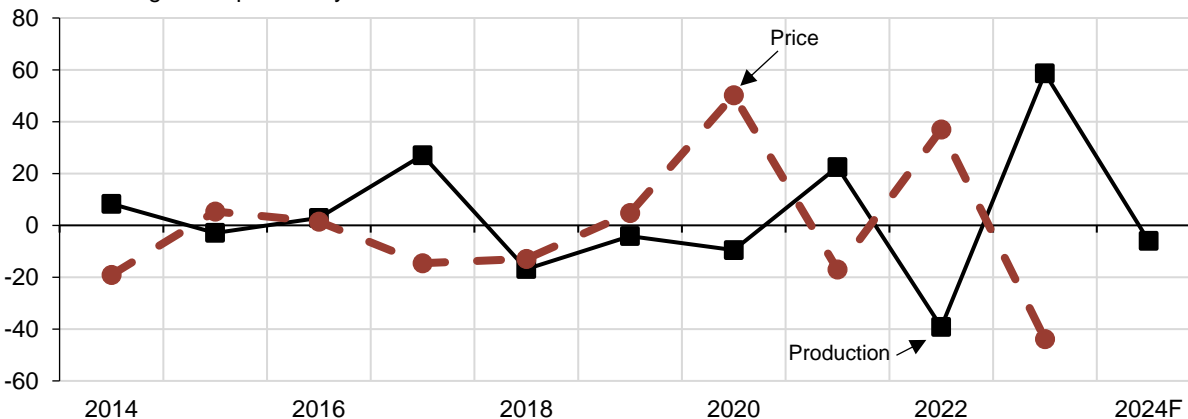
Sweet Cherry Forecast Down Slightly on West Coast

The 2024 USDA, NASS June *Crop Production* forecast for sweet cherries in the top three producing States (Oregon, Washington, and California) is 333,000 tons (666 million pounds), down 6 percent from a year ago (figure 3). An increase in Oregon production (up 11 percent) was not enough to offset declines in Washington (down 11 percent) and California (down 2 percent). Top State Washington, which accounts for 52 percent of the 2024 U.S. production forecast, is expected to decline by 23,000 tons year-over-year. Michigan was included in the USDA, NASS 2024 sweet cherry forecast, representing 6 percent (22,000 tons) of U.S. production based on four surveyed States.

Figure 3

U.S. sweet cherries: year-to-year change in total production in top three States¹ and fresh season-average grower price, 2014-2024F

Percent change from previous year



F = Forecast.

¹States included in production total are California, Oregon, Washington.

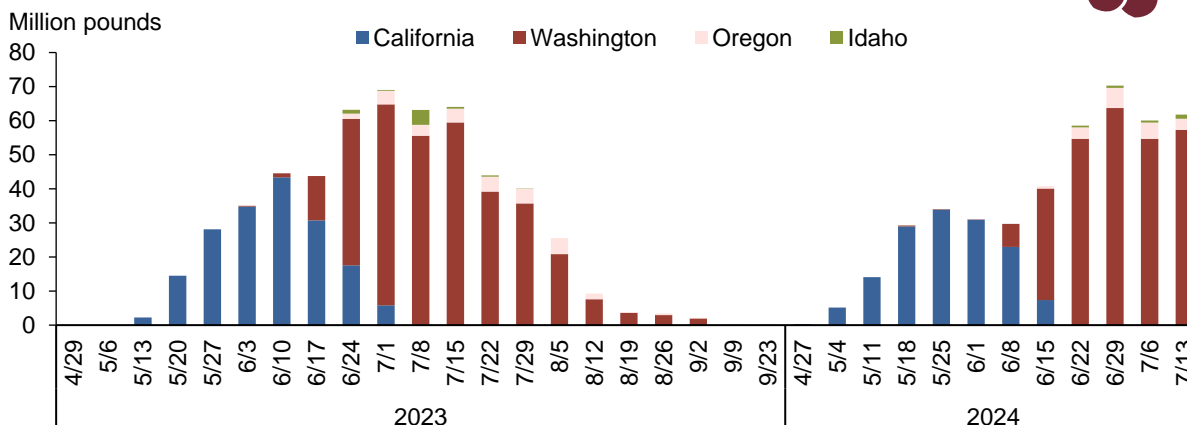
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts Summary*, various issues and *Crop Production* (June 2024).

Weather impacts Washington sweet cherries: In January 2024, Washington experienced a hard freeze that reportedly damaged cherry trees in some orchards. The freeze may result in lower end-of-season shipment volumes from the more heavily affected northern counties. The 2024 sweet cherry season in Washington follows a 2023 season that received a USDA disaster designation. In 2023, Washington sweet cherry growers experienced extreme weather that compressed the harvest season and resulted in an increase in unharvested cherries. The shortened sweet cherry season in Washington, along with overlap from a late California crop, put downward pressure on grower prices for the highly perishable fruit. As a result, Washington’s average sweet cherry grower price per ton for 2023 was 50 percent lower than in 2022—the largest year-over-year price decline since 2009.

Seasonal summer shipments in 2024: The majority of commercial sweet cherry production is concentrated on the West Coast. Regional domestic shipment volumes of fresh sweet cherries are seasonal with production typically starting in California in late April and shifting north to end in Washington in September. In 2024, fresh cherry shipments from Central California started 2 weeks earlier than last year due to more favorable spring weather conditions (figure 4). According to USDA, AMS shipment data, small volumes of early-season cherry varieties from Washington began the first week of June. Total domestic shipment volume from late April through mid-July was running 2 percent ahead of last year with average weekly FOB prices trending higher than last season but lower than 2022.

Figure 4

Washington is the primary fresh sweet cherry supplier in July



Note: Domestic shipments only.

Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service, *Market News*.

Fresh sweet cherry exports and imports recap: Boosted by increased production in the 2023 season, U.S. fresh sweet cherry export volumes totaled 177.5 million pounds, the largest volume since 2019. Most exports (85 percent by volume) were shipped in June and July. Organic sweet cherry export volume reached a record 11.5 million pounds, which represented 6 percent of total fresh sweet cherry exports.

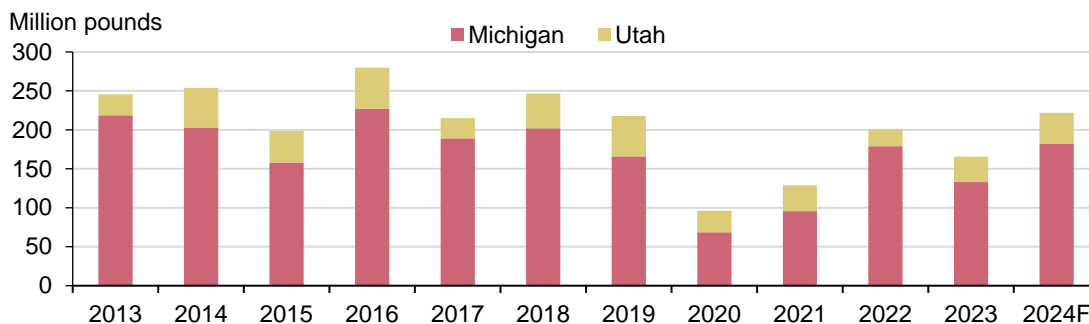
Fresh sweet cherry imports generally represent less than 10 percent of available domestic supply. Chile and Argentina are the primary fresh sweet cherries suppliers to the United States outside of the peak domestic summer season. Between October 2023 and March 2024, the United States imported 31.1 million pounds of fresh sweet cherries from Chile and 5.1 million pounds from Argentina, which accounted for 85 percent of total import volume for that period. Imports from Canada in 2023 totaled 10.2 million pounds with 79 percent of total volume occurring in August 2023.

Michigan Tart Cherry Production Forecast Higher in 2024

Tart cherries (*Prunus cerasus*), also known as sour cherries, are a distinct species of stone fruit that is closely related to sweet cherries (*Prunus avium*). Similar to sweet cherries, the harvesting of tart cherries is also highly seasonal and runs from June through mid-August. The USDA, NASS June *Crop Production* forecast for the 2024 tart cherry crop is 222 million pounds in the top two producing States, up 34 percent from the previous year (figure 5). Michigan, the largest producing State, is forecast at 182 million pounds—37 percent higher than last season. Michigan experienced a mild winter followed by a period of cold spring weather that resulted in freeze damage in some orchards. Industry reports say areas of Michigan have cherry leaf spot pressure consistent with the warm wet summer months, which may negatively affect fruit

quality. The 2024 production forecast is up 22 percent in Utah year-over-year. If realized, the 2024 tart cherry crop in Utah would be the largest since 2019.

Figure 5
Tart cherry production in Michigan and Utah, 2013–24F



F = Forecast.

Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts Summary*, various issues and *Crop Production* (June 2024 issue).

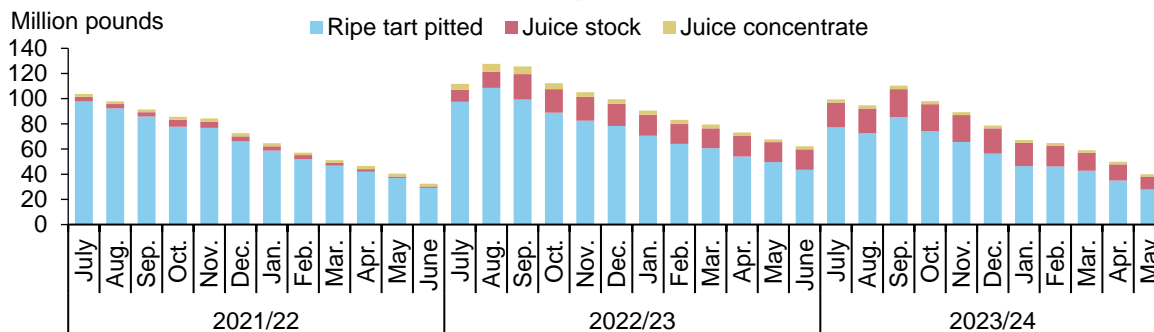
Starting in 2024, USDA, NASS no longer reports tart cherry production estimates for Washington, New York, or Wisconsin, which typically represented about 19 percent of annual U.S. production (2019–23), or 39 million pounds. However, the initial Cherry Industry Administrative Board (CIAB) 2024 production estimate for these States totals 40.5 million pounds with a decline in Washington offset by increases in Wisconsin and New York.

Carry-in inventory lower in 2024/25: On average, 99 percent of U.S. tart cherry production is destined for processing (e.g., canned pie filling, juice concentrate, dried). CIAB¹ reports raw-product equivalent carry-in inventory volume for each marketing year (July–June). For 2024/25 MY, carry-in volume was 93.1 million pounds, 44.1 million pounds lower than 2023/24 MY. If the CIAB 2024/25 crop estimate is realized, total available supply (production plus carry-in volume) will be 1 percent lower than last season. For the 2023/24 MY, CIAB voted to restrict 6 percent of domestic crop volume grown in the seven States regulated under the Federal marketing order. CIAB has voted to restrict a portion of crop volume in 7 of the last 10 years. CIAB will vote on whether to implement volume control restrictions to manage supply for the 2024/25 crop this fall.

Cold storage stocks: USDA, NASS total frozen tart cherry stocks in cold storage in May 2024 were lower in all three categories (ripe tart pitted, juice stock, and juice concentrate) compared with the same month last year (figure 6). The last two seasons mark the largest volume of frozen tart cherry juice stock in storage since reporting began in 2010.

¹ CIAB, composed of producer and handler members, along with one public member, administers the tart cherry Federal marketing order under USDA oversight authority. The marketing order authorizes volume control authority in the form of a reserve pool in times of heavy tart cherry supplies.

Figure 6
U.S. frozen tart cherry stocks in cold storage, 2021/22–2023/24



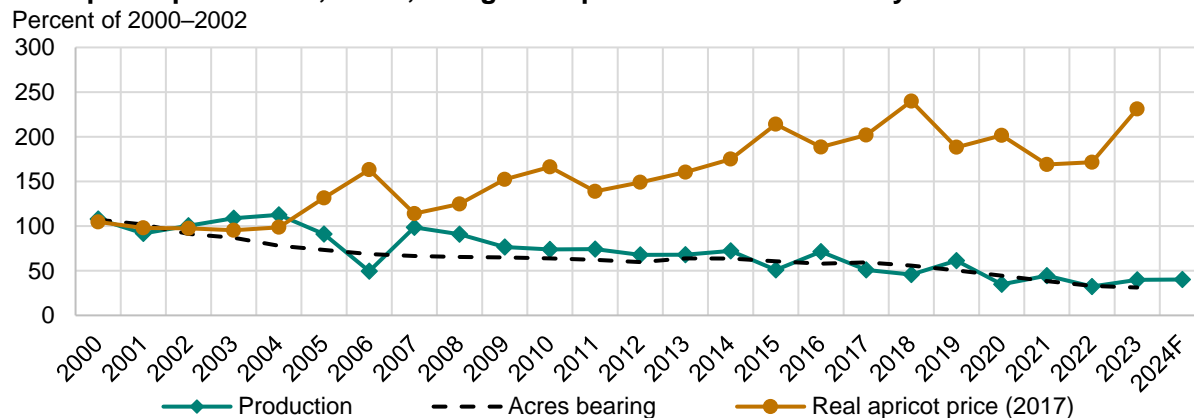
Note: Tart cherry marketing year begins in July and ends in June of the following year.
 Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, *Cold Storage*.

Harvest underway in 2024: By mid-July, tart cherry harvest was in full swing in northwest and west-central Michigan, Wisconsin, Washington, and New York and beginning in Utah according to CIAB’s *Weekly Raw Product Report*. Tart cherry harvest in southwest Michigan was completed by mid-July with delivered tonnage lower (11.4 million pounds total) than the industry estimate of 18 million pounds for the 2024/25 season. However, lower than expected production in southwest Michigan may be offset by larger expected year-over-year production in northwest Michigan (90 million pounds) and west-central Michigan (61 million pounds) this season.

2024 Apricot Production Forecast Up Slightly

The USDA, NASS July *Crop Production* forecast 2024 U.S. apricot production at 36,000 tons, up 1 percent from last year, but less than half the average production in 2000–2002 (figure 7). California apricot production is expected to account for 34,000 tons (94 percent) of the total U.S. crop. Washington apricot production is expected lower in 2024 (down 43 percent) compared to last year. At 2,000 tons, 2024 Washington apricot production is the lowest in 4 years.

Figure 7
U.S. apricot production, acres, and grower price in the 21st Century

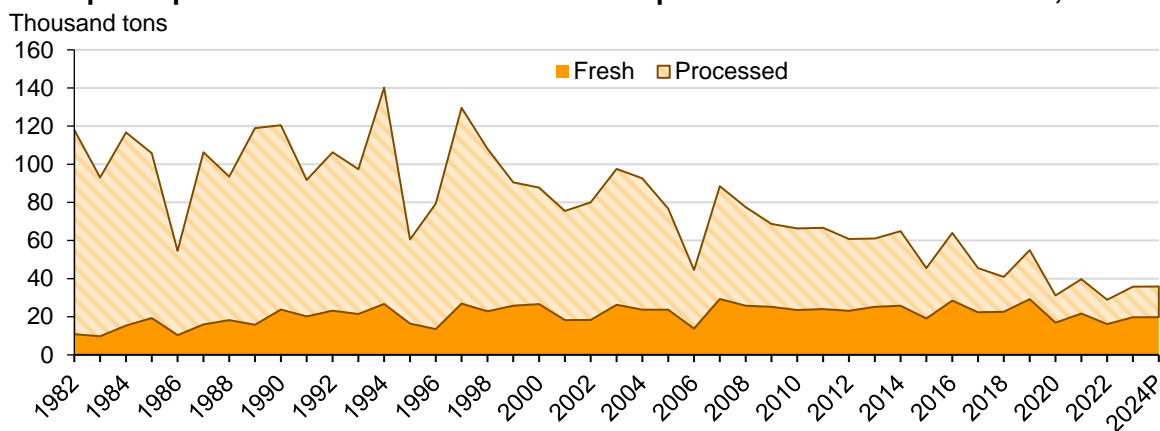


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service and U.S. Bureau of Labor Statistics, gross domestic product (implicit price deflator), index 2017=100, annual, not seasonally adjusted.

U.S. apricot bearing acreage and production has declined in the past 20 years as demand decreased for domestically processed apricots. During the same period, season average grower prices rose as higher priced fresh-market apricots made up a larger share of utilized production volume (figure 8). During the 1980s, about 90 percent of the U.S. apricot crop was processed as canned, dried, or frozen products. During the last three seasons (2021–23), processed utilization represented only 45 percent of the average annual apricot crop. This reflects increased year-round availability of other fresh fruits, increased competition from processed apricot imports, higher returns for alternative crops, and a downward trend in canned apricot consumption. Canned apricot per capita availability has steadily decreased from about 1 pound per person (product-weight equivalent) in 1980/81 to less than one-tenth of a pound in 2023/24.

Figure 8

U.S. apricot production trends lower as share of processed utilization declines, 1982–2024P



P = Preliminary.

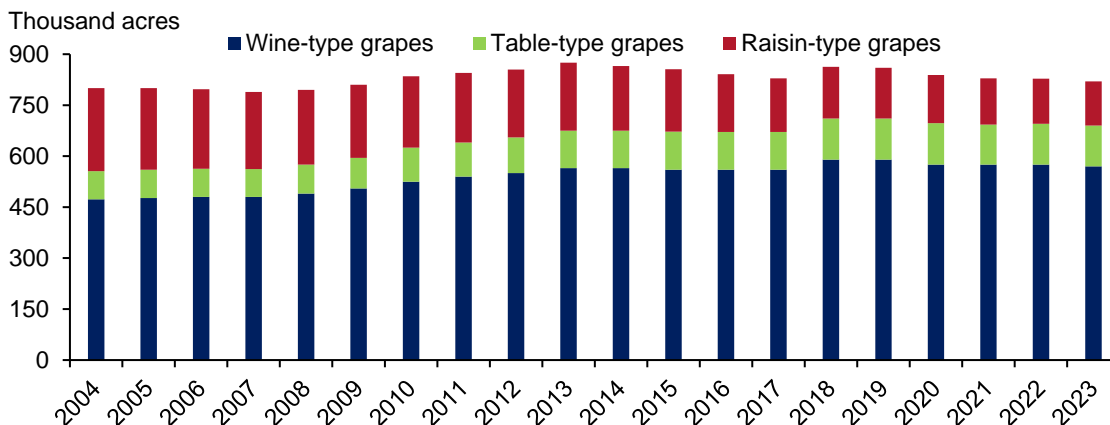
Source: USDA, Economic Research Service using data from the USDA, National Agricultural Statistics Service.

California Grape Bearing Acreage Down in 2023

California is the leading grape-producing State, accounting for about 94 percent of the U.S. crop surveyed by USDA, NASS. Bearing acreage for all grapes in 2023 was down 1 percent in 2023 with year-over-year declines for wine-type grapes (down 1 percent) and raisin-type grapes (down 2 percent). While 2023 marked the fifth consecutive year of declining grape bearing acreage in the Golden State, it is 3 percent higher than the 2004–06 average with increases in wine and table-type acreage offsetting declines in raisin-type acreage (figure 9). The share of California grape bearing acreage in raisin-type grapes declined from 30 percent (2004–06) to 16 percent in 2023. Compared to the 2004–06 average, 2023 wine-type bearing acres were 20 percent higher (up approximately 93,000 acres) and table-type grape bearing acres were 45 percent higher (up approximately 37,000 acres) in the State.

Figure 9

California grape bearing acreage by type, 2004 to 2023



Source: USDA, Economic Research Service based on data from USDA, National Agricultural Statistics Service.

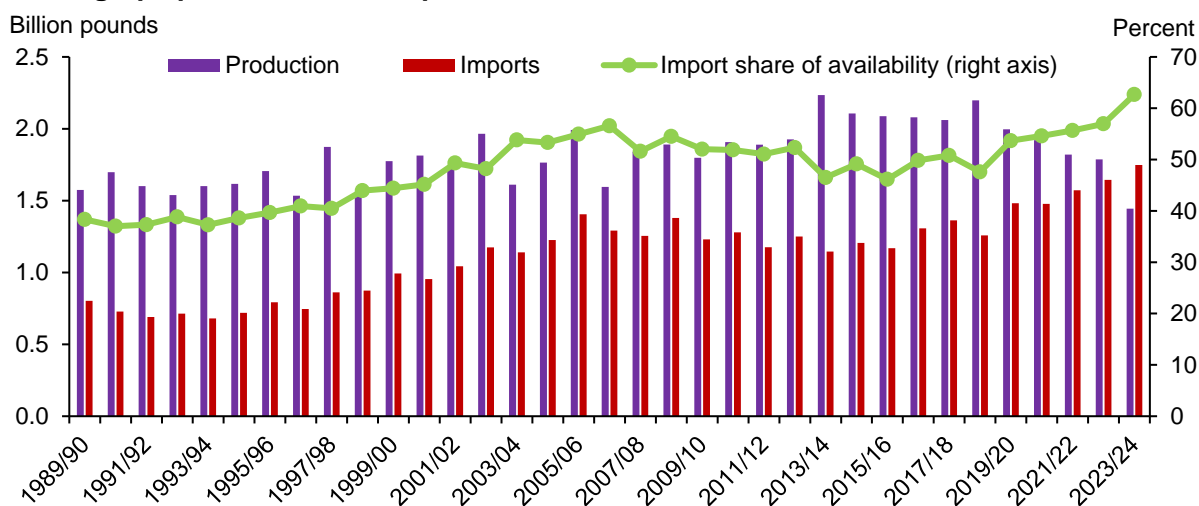
Wine-type grape acreage by variety: Wine-type grape acreage has made up almost 70 percent of California’s grape acreage in recent years. Total acreage in wine-type grapes in California was estimated at 610,000 acres in 2023 according to the *California Grape Acreage Report, 2023 Summary*, a decrease of 5,000 acres from 2022. Most of the acreage (93 percent or 570,000 acres) is bearing age, or at an age it can normally be expected to produce a commercially significant quantity of grapes (approximately 3 years). In 2023, Chardonnay continued to be the leading white-wine grape varietal with 85,879 bearing acres in California, more than the next three most prevalent varieties combined (Sauvignon Blanc, French Colombard, and Pinot Gris). For red wine, Cabernet Sauvignon continued to be top grape varietal with 92,364 acres in California, followed by Pinot Noir (46,134 acres) and Zinfandel (37,601 acres). Of non-bearing wine acreage, the top two wine-type grape varietals accounted for almost half (19 percent for Chardonnay and 29 percent for Cabernet Sauvignon).

Table-type grape acreage declined in 2023: Table-type grape acreage has made up almost 15 percent of California’s grape acreage in recent years. Table-type grape acreage was estimated at 125,000 acres in 2023, a decrease of 2,000 acres from 2022. Bearing acreage was 120,000 acres, or 96 percent of total acreage. Flame Seedless was the leading table-type variety with 12,139 acres in California. Flame Seedless is an early-season red seedless grape variety developed in Fresno, California in the 1970s. Since then, it has become a widely planted and recognized grape cultivar. Acreage in Flame Seedless is concentrated in four counties in the southern half of the State that are well suited to early-season varieties: Kern, Riverside, Tulare, and Fresno Counties. From 2020–23, one-quarter of grape shipments from Southern California on average were of the Flame Seedless variety. Other popular table-type varieties

include Scarlet Royal (6,417 acres), a mid-season red seedless variety, and Autumn King (6,413 acres), a late-season white seedless variety available in the fall.

Fresh table grape imports reach record high in 2023/24, exceed domestic production for the first time: Fresh grape imports for the 2023/24 marketing year were 1.75 billion pounds, exceeding the 2022/23 record volume of 1.64 billion pounds. Imports continue to make up an increasingly larger share of fresh grape availability, accounting for 56 percent of fresh table grape supply on average in 2020/21–2022/23. The share of imports has trended upward for 5 consecutive years, reaching a record high (63 percent) in 2023/24 as imports exceeded domestic production volume for the first time (figure 10).

Figure 10
Fresh grape production and imports, 1989/90 to 2023/24



Source: USDA, Economic Research Service based on data from USDA, National Agricultural Statistics Service and U.S. Department of Commerce, Bureau of the Census.

In 2023/24, Chile reclaimed the top spot for fresh table grape imports to the United States. Chile was the top source of fresh grapes to the United States each year since the 1989/90 season but was surpassed by Peru in 2022/23. The United States is the top destination for fresh grapes from Chile, followed by China and the Netherlands. In 2023/24, 62 percent of Chile’s fresh grape exports were destined for the United States, above the 3-year average of 50 percent (2020/21–2022/23).

USDA, Foreign Agricultural Service’s *Fresh Deciduous Fruit Semi-Annual* report for Chile indicates that planted acreage in table grapes has decreased for over a decade. Low prices for older varieties and competition from other suppliers have pressured small table grape exporters to exit the market or pivot to more profitable crops like walnuts, cherries, or citrus. In Peru, acreage and commercial production for fresh table grapes have increased, and a higher share

of fresh grapes are destined for the United States (44 percent on average from 2021–23, up from 32 percent from 2016–18).

Looking ahead to the 2024/25 season: The 2024 table grape season has begun in California, starting in Southern California in the Coachella Valley in May and moving into Central California mid-summer. USDA, NASS production forecasts for the season will be released in August 2024. USDA, AMS movement data shows early season volumes from Southern California up 19 percent year-over-year through mid-July. Initial estimates from the California Table Grape Commission indicate that 2024 production in California will be down slightly from the 2020–22 average but above the 2023 season that was affected by Hurricane Hilary. California fresh-market grape production in 2023/24 was the lowest since the 1987/88 season largely due to the hurricane making landfall during peak table grape harvest. Excess rain can cause grapes to crack, drop from the vine, or develop mildew.

Tropical Fruit Imports Mixed in Early 2024

The 2022 Census of Agriculture from USDA, NASS reported that relatively little acreage was used for tropical fruit production in the United States. Tropical fruit bearing acres tend to be in States with hot or tropical climates like California, Florida, Hawaii, and Texas. NASS does not report annual production data for some tropical fruits like bananas, pineapples, and mangoes. Despite limited domestic production, the popularity of tropical fruits (as represented by per capita availability) has increased dramatically in recent decades (table 1). Import shipments of these tropical commodities largely originate from Mexico and countries throughout Central and South America.

Table 1. Selected tropical fruit average per capita availability, 1980–2023

Commodity	1980s	1990s	2000s	2010s	2020–23
Tropical fruit, total	25.4	30.8	33.1	38.3	39.8
Bananas, fresh	23.2	27.1	25.7	27.4	26.8
Pineapples, fresh	1.6	2.2	4.4	6.9	7.9
Mangoes, fresh	0.4	1.1	2.0	2.8	3.7
Papayas, fresh	0.2	0.4	0.9	1.2	1.4

Source: USDA, Economic Research Service calculations.

From January–May 2024, combined import volume for four major tropical commodities (bananas, pineapples, mangoes, and papayas) totaled 5.77 billion pounds, down 1 percent from the same period in 2023 (table 2). Bananas represented most import volume (67 percent), followed by pineapples (22 percent), mangoes (8 percent), and papayas (4 percent). Higher banana and pineapple imports were offset by slightly lower volumes of papayas (down 5 percent) and much lower mango imports (down 22 percent).

Table 2. Selected tropical fruit import volume in billion pounds, 2020–May 2024

Commodity	2020	2021	2022	2023	Jan.–May 2023	Jan.–May 2024
Tropical fruit, total	13.08	13.27	13.39	13.53	5.83	5.77
Bananas, fresh	9.03	8.97	8.92	9.00	3.83	3.86
Pineapples, fresh	2.42	2.63	2.74	2.81	1.20	1.26
Mangoes, fresh	1.21	1.23	1.27	1.22	0.58	0.45
Papayas, fresh	0.42	0.44	0.47	0.50	0.22	0.21

Note: Import volume for fresh bananas represent imports for consumption minus re-exports.

Source: USDA, Economic Research Service based on data from U.S. Department of Commerce, Bureau of the Census.

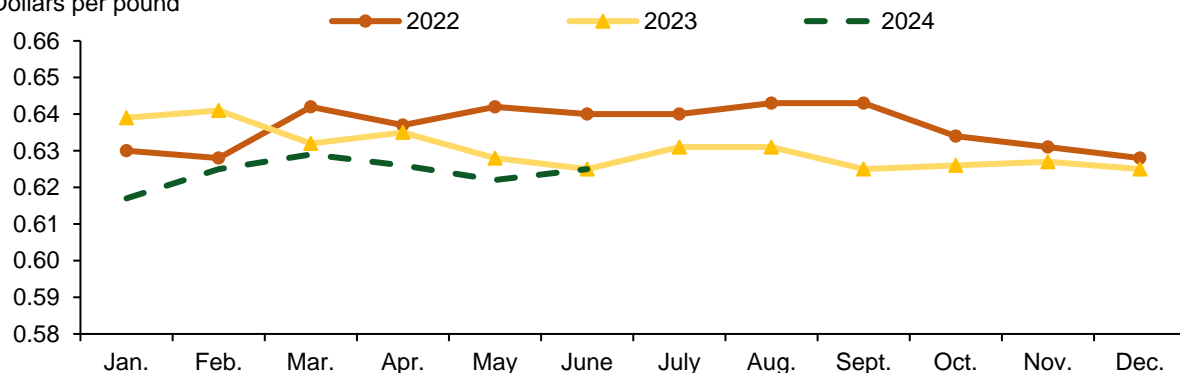
Banana import volume up in 2023 but still below 5-year average: The United States is the top importer of fresh bananas by volume. In 2023, total fresh banana imports (imports minus re-exports) to the United States increased to 9 billion pounds, up 1 percent from 2022 but below the 5-year average (2018–22). Because domestic availability of bananas is highly import-dependent, preliminary per capita availability of fresh bananas was estimated at 26.7 pounds per person in 2023, a slight year-over-year increase of one-tenth of a pound.

In the first 5 months of 2024, fresh banana import volume was up 1 percent over the same period a year ago, with higher volumes from Costa Rica (up 8 percent) and Ecuador (up 26 percent). Imports from Guatemala, the top source for bananas in the U.S. market, were down 6 percent in early 2024 from early 2023—the year annual import volume of fresh bananas from Guatemala set a record high of 4.38 billion pounds. From January–June 2024, national-level retail prices for bananas averaged lower than a year prior at 62.4 cents per pound, and 2 percent lower than 2022 (figure 11).

Figure 11

Monthly average consumer prices for bananas

Dollars per pound



Note: Includes organic and non-organic fresh bananas.

Source: USDA, Economic Research Service using data from the U.S. Department of Labor, Bureau of Labor Statistics.

Five countries export more than 3 billion pounds of fresh bananas every year and supply the bulk of the world’s bananas: Ecuador, Guatemala, the Philippines, Colombia, and Costa Rica. Shipment volume from four of the five countries was lower in 2023 than the 3-year average (2020–22), except for Guatemala. Based on data from Trade Data Monitor, cumulative exports

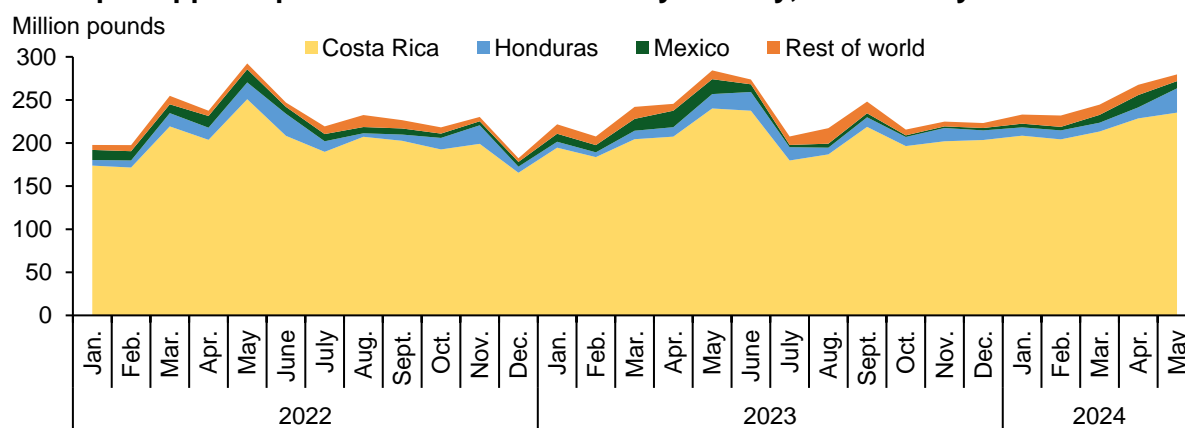
from these five major countries have fallen from an estimated 38.9 billion pounds in 2020 to 33.9 billion pounds in 2023. Lower supply coupled with supply chain issues have put upward pressure on global banana prices in recent years.

U.S. pineapple imports set a record in 2023: Fresh pineapple import volume hit a record high of 2.8 billion pounds in 2023, up 2.7 percent from 2022. The United States has been the top world importer of fresh pineapples by volume each year since 1997. Over the last three decades, imports of fresh pineapple to the United States have increased tenfold, from 263 million pounds on average (1990–93) to 2.65 billion pounds on average (2020–23). Record imports pushed fresh pineapple per capita availability to a record high of 8.35 pounds per person in 2023.

In the first 5 months of 2024, fresh pineapple imports were 4.7 percent higher than the same period in 2023. Costa Rica is the main source of fresh pineapples for the United States, with an average share of 86 percent of import volume in the 2020s thus far. Imports to the United States typically peak in May or June following the harvest season in Costa Rica, though Costa Rica exports fresh pineapple to the United States year-round (figure 12).

Figure 12

Fresh pineapple imports to the United States by country, 2022 to May 2024



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

Mango imports down in 2023 from 2022 record high: Fresh mango import volume decreased to 1.22 billion pounds in 2023, down 3.6 percent from the 2022 record high of 1.27 billion pounds but above the 5-year average (2018–22). Despite the decrease year-over-year, 2023 marked the third highest import volume on record, lower than 2021 and 2022. According to data from the FAO, the United States has been the top importer of mangoes (including guavas and mangosteens) by volume since 1975. Fresh mango per capita availability in 2023 was 3.61 pounds per person, 0.15 pounds below the previous year’s record of 3.76 pounds.

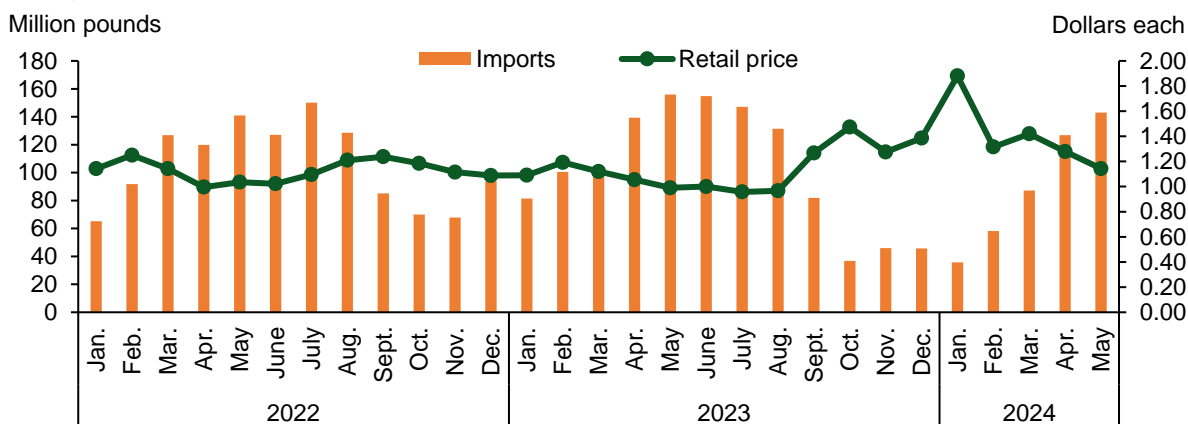
Slow start for fresh mango imports puts upward pressure on prices in early 2024: Import volume declined in the last quarter of 2023 and remained low into the first quarter of 2024. In the first 5 months of 2024, fresh mango imports were down 22 percent compared to the same period in 2023. This was largely due to lower volume from Peru (down 71 percent), the second largest mango exporter to the United States and a key supplier during the winter months. Peru experienced warm temperatures due in part to adverse effects from El Niño during flowering that decreased production substantially.

Volumes from top exporter Mexico enter the United States from January to October and typically peak in June or July. Fresh mangoes from Mexico accounted for 64 percent of import shipments on average (2019–23). From January–May 2024, import volumes from Mexico are down 5 percent from a year ago but are expected to pick up as summer continues. The National Mango Board anticipates shipments this season from Mexico to be slightly lower than last year, down approximately 3 percent. In June 2024, U.S. inspections of mango and avocado shipments from the Mexican State of Michoacán were briefly suspended due to security and inspector safety concerns.

Lower import volumes in late 2023 and early 2024 put upward pressure on retail mango prices (figure 13). USDA, AMS U.S. advertised retail prices for conventional mangoes averaged \$1.53 each in the first quarter and \$1.18 each in the second quarter of 2024, both higher than same periods the year before. Prices continued to fall by mid-July to \$1.12 each.

Figure 13

Mango import volume and advertised retail price, 2022 to May 2024



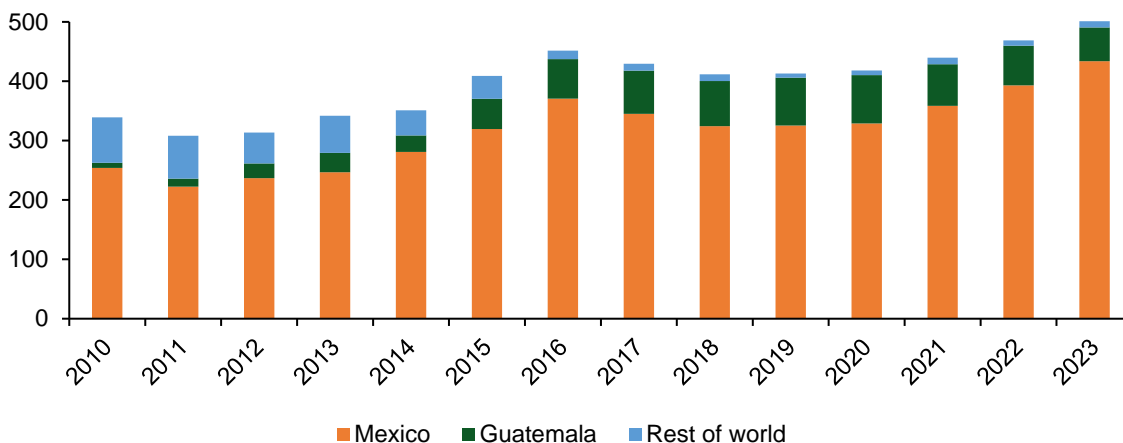
Note: U.S. advertised retail price per conventional mango.
 Source: USDA, Economic Research Service based on data from U.S. Department of Commerce, Bureau of the Census and USDA, Agricultural Marketing Service, *Market News*.

Papaya imports reach record highs in 2023: Fresh papaya imports surpassed the half a billion-pounds mark for the first time in 2023, setting a record of 501.2 million pounds (figure 14). This marked the fifth consecutive year of increased volumes and follows a decades-long trend of higher imports for fresh papayas. Higher imports pushed per capita availability to a new high of 1.51 pounds per person, doubling from the 2000–2002 average of 0.75 pounds.

Figure 14

Fresh papaya imports to the United States by country, 2010 to 2023

Million pounds



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

Fresh papaya imports down, prices up in early 2024: In the first 5 months of 2024, fresh papaya imports were down 4.8 percent from the same period in 2023, largely due to lower volumes from Guatemala, the second largest exporter to the United States. The top source of fresh papayas to the United States is Mexico, accounting for 82 percent of volume on average over the last 5 years (2019–23). While import volumes from Mexico from January–May are down only 1 percent from last year, shipments from Guatemala are down 37 percent. According to FAO’s *Major Tropical Fruits Market Review*, papaya production in Guatemala suffers lingering effects from damage caused by torrential rainfall, flooding, and mudslides from a tropical storm in October 2022.

USDA, AMS U.S. advertised retail prices for Maradol and Tainung papaya varieties from Mexico and Central America averaged \$1.09 per pound from January to June 2024, 12 percent higher than the same period in 2023. Solo-type varieties from Brazil averaged 98 cents per pound in the first half 2024, lower than the same period in 2023 and likely due to higher import volume from Brazil in the first 5 months of 2024 (up 31 percent year-over-year).

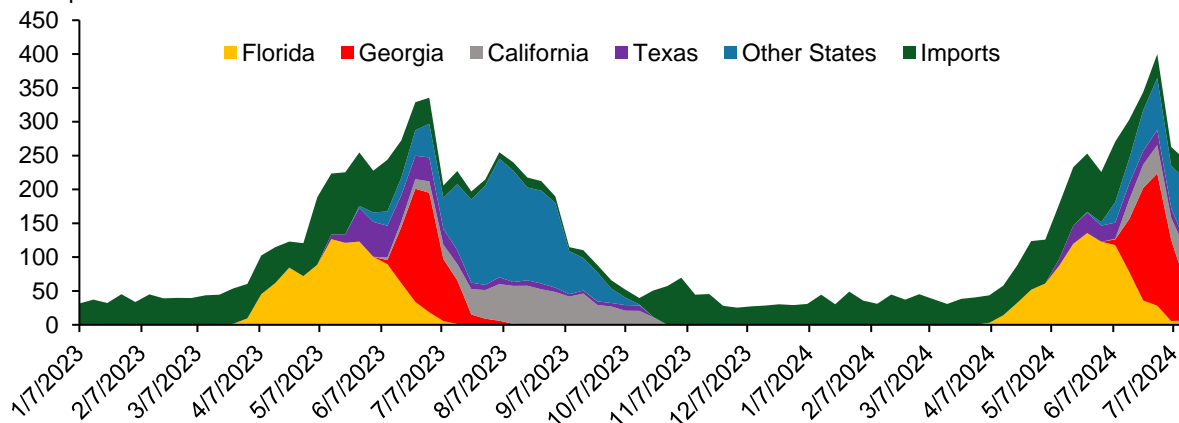
Melons Outlook

Watermelon: Watermelon production in the United States is concentrated in Florida, Georgia, California, and Texas, where temperatures are well suited for the warm-season crop. Florida and Texas start off the spring harvesting season in April and May, followed by California and Georgia during the summer months (figure 15).

Figure 15

Weekly watermelon shipments, January 2023 to mid-July 2024

Million pounds



Note: "Other States" include Arizona, Delaware, Indiana, Maryland, Michigan, Missouri, North Carolina, and Oklahoma. Imports include shipments from Brazil, Canada, Costa Rica, Dominican Republic, Guatemala, Honduras, Mexico, and Panama. Source: USDA, Economic Research Service from USDA, Agricultural Marketing Service, *Market News*.

Florida watermelon shipments down year-over-year: USDA, AMS movement data indicates that watermelon shipments through mid-July from top producing State Florida were 14 percent lower than the same period last year. University of Florida Extension reported that spring growth was slower than expected, due in part to relatively cool weather and low soil temperatures. USDA, NASS *Crop Progress* indicated that the northern half of Florida received moderate to heavy rainfall accompanied by some flooding and strong winds that halted field work early in the season.

Watermelon shipment volume is up year-over-year in other major producing States, California and Georgia, but down in Texas by mid-July. In California, producers began harvesting watermelons in the Imperial Valley and San Joaquin Valley in June. Shipments from Central California began 2 weeks earlier than last year, and volumes from the Imperial Valley started off strong. In Texas, producers began harvesting in the Lower Valley and South Texas in mid-May and in the Trans-Pecos and Southern High Plains in June. In Southeast Texas, watermelon harvest was delayed due to wet conditions.

Fresh watermelon imports higher through May 2024: With domestic supply peaking in the summer months, year-round availability of fresh watermelon relies on imports during the late fall

and winter months. More than 80 percent of fresh watermelon imports have originated in Mexico on average (2021–23). Fresh watermelon import volume was down 6 percent in the first 3 months of 2024. Lower volumes from Mexico (down 20 percent) more than offset higher volumes from Guatemala (up 17 percent), putting upward pressure on prices in the first quarter. In April and May 2024, increased fresh watermelon imports from Mexico pushed year-to-date (January–May) volume up 3.6 percent year-over-year.

Watermelon summer prices lower: Conventional red flesh seedless type watermelon FOB shipping point prices were higher in the first 3 months of 2024 than in early 2023, before dropping in the second quarter as domestic production increased. FOB prices for watermelon were \$165 per 24-inch bin (approximately 35-count) by mid-June, almost half of the January–March average. U.S. advertised retail prices for conventional red flesh seedless watermelons averaged \$7.28 each in the first quarter and \$6.09 each in the second quarter of 2024, both higher than the same periods in 2023. In the first 2 weeks of July, prices fell to \$5.09 each for conventional red flesh seedless watermelon. Retail prices for conventional red flesh seedless miniature watermelons averaged \$4.24 each and \$4.27 each in the first 2 quarters of 2024, before dropping to \$3.30 each by mid-July.

Cantaloupe domestic shipments in 2024: The 2024 domestic cantaloupe season started in Florida in late March, then progressed to other major growing areas in May (Arizona, Georgia, and California’s Imperial Valley) and in June (Southern California, North Carolina, South Carolina, and Indiana). Central California is the largest domestic cantaloupe producing region, accounting for 46 percent of domestic shipment volume on average (2021–23). Shipments from Central California typically begin early July and continue into the fall. Through mid-July, year-to-date domestic shipments were down 4 percent. While shipments were higher from Arizona (up 2 percent) and Georgia (up 16 percent) as of mid-July, Florida volumes ended the 2024 season down 18 percent year-over-year. Shipments from California’s Imperial Valley (May through mid-July) were down 11 percent from the same period last year.

Honeydew domestic shipments in 2024: The domestic honeydew season starts in Arizona and California’s Imperial Valley in May, then shifts to Southern California in June and Central California in July. Through mid-July, year-to-date domestic shipments were 6 percent higher than the same period in 2023. Volumes were up in Arizona (42 percent) and California’s Imperial Valley (up 20 percent).

Tree Nuts Outlook

The USDA, *NASS 2024 California Almond Objective Measurement Report* predicts that approximately 2.8 billion pounds of almonds will be produced in 2024. If so, the 2024 crop would be the third largest on record, smaller than the 3.1 billion pounds produced in 2020 and the 2.9 billion pounds produced in 2021. Almond exports were higher during Aug-May of the 2023/2024 marketing year (August–July), compared to last year. Though a bumper crop in 2024 is expected to put downward pressure on prices, sustained increases in export demand could help offset some of this pressure.

The first NASS forecasts for the 2024 walnut crop will be published this September in the *2024 California Walnut Objective Measurement Report*. However, the California Walnut Board's estimates (published in the *Land IQ 2024 Standing Acreage* report) suggest that walnut acreage will not change much in 2024. Because walnuts require a relatively large number of chill hours, and because the 2023/2024 winter was mild, USDA, ERS economists expect walnut yields to decrease relative to 2023. Decreases in yields should reduce production and may put upward pressure on walnut prices.

Almonds Set for Large Crop in 2024

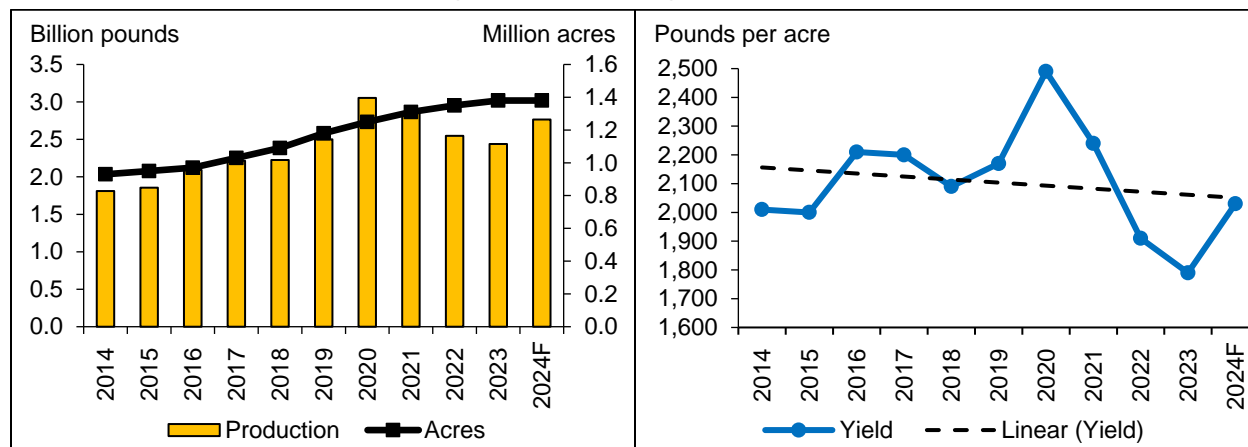
The United States produces approximately 80 percent of the world almond supply and supplies approximately 85 percent of the global export market. Virtually all commercially relevant U.S. almond production takes place in California. Consequently, the size of the California almond crop has both domestic and global implications.

The *NASS 2024 California Almond Objective Measurement Report* forecasts that almond production will reach 2.8 billion pounds this fall (figure 16). If realized, the 2024 crop would be approximately 13 percent larger than the 2023 almond crop (2.47 billion pounds) and 16 percent larger than the 10-year average (2.41 billion pounds).

Increases in the size of the 2024 crop are due to increases in yields, not acreage (which NASS forecasts will be unchanged from 2023). In 2024, NASS forecasts that almonds yields will be approximately 2,030 pounds per acre (figure 16). This estimate is close to the 10-year average yield (2,111 pounds per acre) but is an increase from the 1,910 pounds per acre recorded in 2022 (when California was in a prolonged and severe drought) and the 1,790 pounds per acre recorded in 2023 (when almond pollination was disrupted by storms).

Figure 16

Almond production is forecast higher in 2024, largely due to increases in yields



F=Forecast.

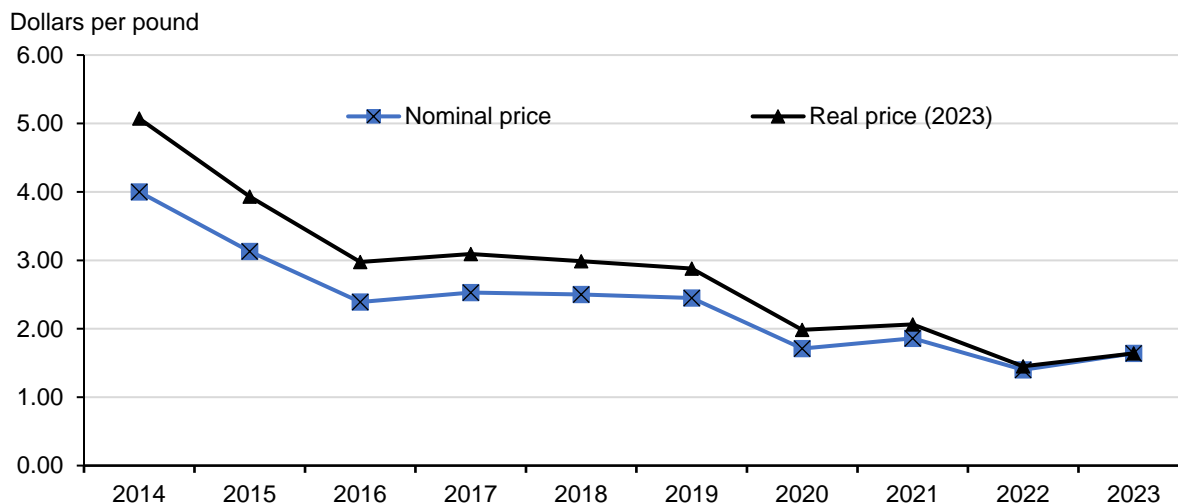
Note: Production and yields are in shelled equivalents.

Source: USDA, Economic Research Service using data from the USDA, National Agricultural Statistics Service.

The preliminary 2024 almond bearing acreage forecast marks the first year since 1995 that acreage does not increase year-over-year. In part, this slowdown is due to historically low almond prices, which have shrunk producers' margins (figure 17).

Figure 17

Nominal and inflation-adjusted almond prices have fallen over the last decade



Note: The implicit price deflator has been rescaled such that the base year is 2023. Prices are in dollars per pound of shelled equivalents. Prices are marketing season average; USDA, NASS defines the marketing season for almonds as August 5 through November 15.

Source: USDA, Economic Research Service using data from the USDA, National Agricultural Statistics Service and the U.S. Department of Labor, Bureau of Labor Statistics, gross domestic product (implicit price deflator), index 2017=100, annual, not seasonally adjusted.

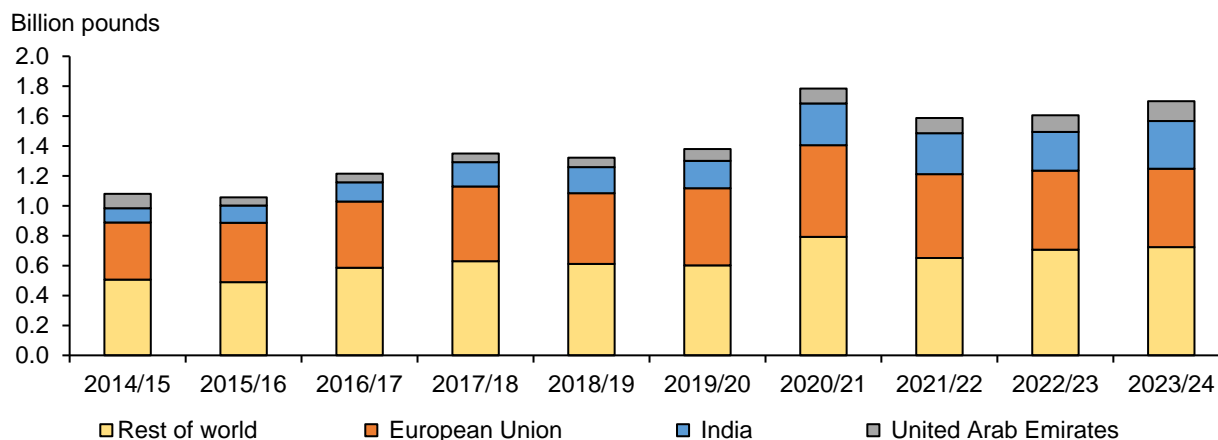
The break-even price for almonds (i.e., the price at which producers cover their costs) depends on growers' input use decisions, input prices, and yields. A 2024 costs and returns study conducted by the UC Davis Department of Agricultural and Resource Economics suggests that the break-even price (for almond growers producing 2,200 pounds per acre) is \$2.00 per pound.

Average almond prices have been below this level since 2020. Though a bumper crop in 2024 is expected to put downward pressure on domestic and global prices for almonds, increases in foreign demand for almonds (for instance, due to ongoing marketing campaigns by the California Almond Board, the relaxation of tariffs, or changes in exchange rates) could help offset some of this downward pressure.

2023/24 year-to-date almond exports second highest on record: Recent trade data indicates that marketing year-to-date (August–May) exports are approximately 1.7 billion pounds (shelled equivalent), 6 percent higher than they were in 2022/23 and 11 percent higher than the 5-year average (figure 18). This increase has been driven by a surge in exports to the United States’ second-largest trade partner, India, which regularly imports over a fifth of U.S. almond exports. Year-to-date exports to India are 23 percent higher than in 2022/23 and 36 percent higher than the 5-year average. Exports to the United Arab Emirates (the United States third largest partner) are 20 percent higher.

Figure 18

Higher year-to-date exports to India have driven increases in total year-to-date exports



Note: These export statistics are partial marketing year totals, reflecting volumes traded from August through May. Export volumes are shelled equivalents. In-shell (HS 802110000) and preserved (HS 2008194000) almond volumes were converted to shelled equivalents using the conversion factors 0.6 and 0.7, respectively.

Source: USDA, Economic Research Service using data from the U.S. Department of Commerce, Bureau of the Census.

Increases in exports to India may have been spurred by last summer’s reductions in retaliatory tariffs. In June 2023, India announced that it would remove a 7 rupee per kg (approximately 5 cents per pound) tariff on in-shell almonds, and a 20 rupee per kg (11 cents per pound) tariff on shelled almonds. These tariffs were a small percentage of the total almond price, but their removal appears to have made U.S. almonds substantially more competitive in India.

Historically, increases in net almond exports (exports minus imports) have coincided with decreases in almond inventories. Currently, the Almond Board of California forecasts that

carryout for the 2023/24 marketing season will be 625 million pounds. This would be a 22 percent decrease from 2022/23, and similar to carryout following the record-breaking harvest in 2020/21.

2024 Walnut Production Expected To Fall Following a Record-Breaking 2023

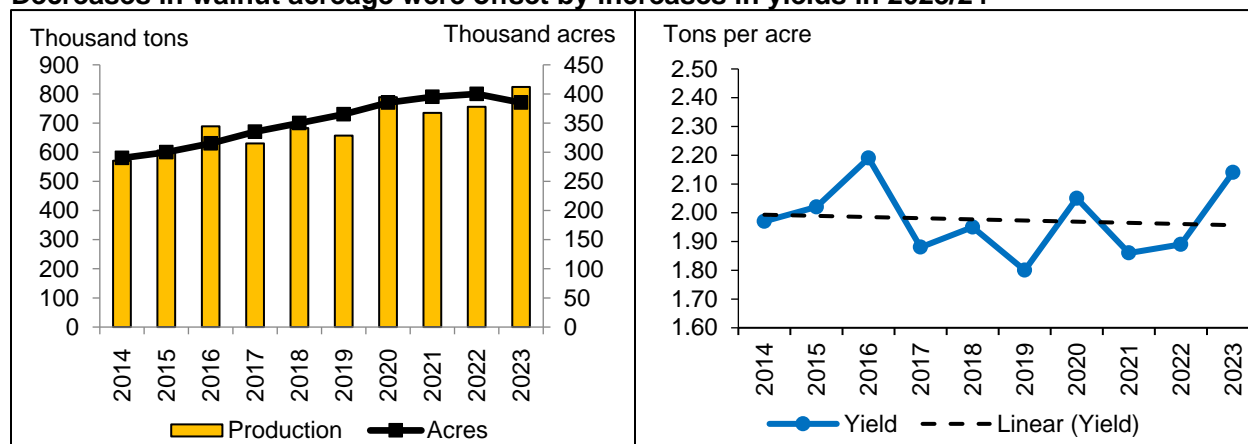
The USDA, NASS *2024 California Walnut Objective Measurement Report* will provide the first authoritative government estimates for this year's walnut crop when it is published on September 4, 2024. In the meantime, information from industry sources can provide useful insight into how walnut acreage, yields, and production will change from 2023 to 2024.

In 2023 and 2024, the California Walnut Board hired Land IQ (a consulting company specializing in remote sensing) to estimate walnut acreage. The *2024 Standing Acreage* report (released April 2024) suggests that 13.5 thousand new walnut acres came into production this season and that 11.7 thousand acres were removed. These changes are expected to result in about a 2,000 acre (0.5 percent) increase in bearing acreage from 2023 to 2024. However, the number of walnut producing acres (which Land IQ calculates by subtracting high stress/abandoned acreage from bearing acreage) could decrease over the course of the growing season as changes in weather and market conditions affect growers' expectations about profits and yields.

Walnut yields depend on many factors, including growers' input use decisions and weather. In 2022/23, cool winter temperatures helped ensure that walnut trees' chill hour requirements were met, and a wet spring provided enough soil moisture to support kernel development. These conditions helped boost walnut yields to 2.14 tons per acre in 2023/24—the second highest yield recorded, lower only than the 2.19 tons per acre produced in 2016 (figure 19). Following a warm winter in water year 2023/24, USDA, ERS economists expect 2024/25 walnut yields to be approximately 2 tons per acre (just above the 5-year average).

Figure 19

Decreases in walnut acreage were offset by increases in yields in 2023/24



Note: Production and yields are in-shell equivalents.

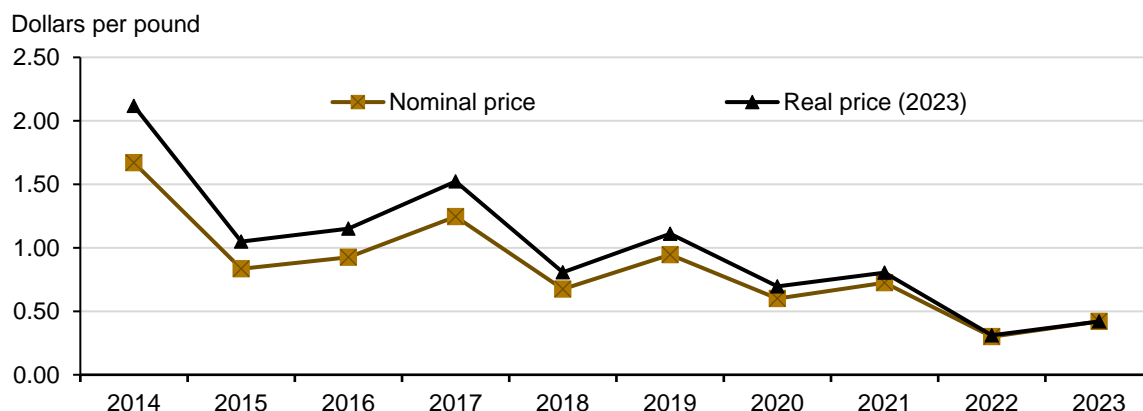
Source: USDA, Economic Research Service using data from the USDA, National Agricultural Statistics Service.

If yields fall to 2 tons per acre and bearing acreage remains steady, then USDA, ERS economists expect 2024/25 walnut production to fall to 770 thousand tons in 2024. This would be a 6 percent decrease from the record-breaking 824 thousand tons produced in 2023.

A decrease in the size of the 2024 crop would put upward pressure on walnut prices. Although it is too early to forecast how prices will change in 2024/25, the USDA, NASS *Noncitrus Fruits and Nuts 2023 Summary* (May 2024) indicates that walnut prices increased in 2023, from 30 cents per pound in 2022 to 42 cents per pound in 2023 (figure 20). Sustained increases in walnut prices will depend on changes in the global supply of walnuts, the quality of domestic production, and how demand for U.S. exports changes in the coming year.

Figure 20

Nominal and inflation-adjusted walnut prices have fallen over the last decade

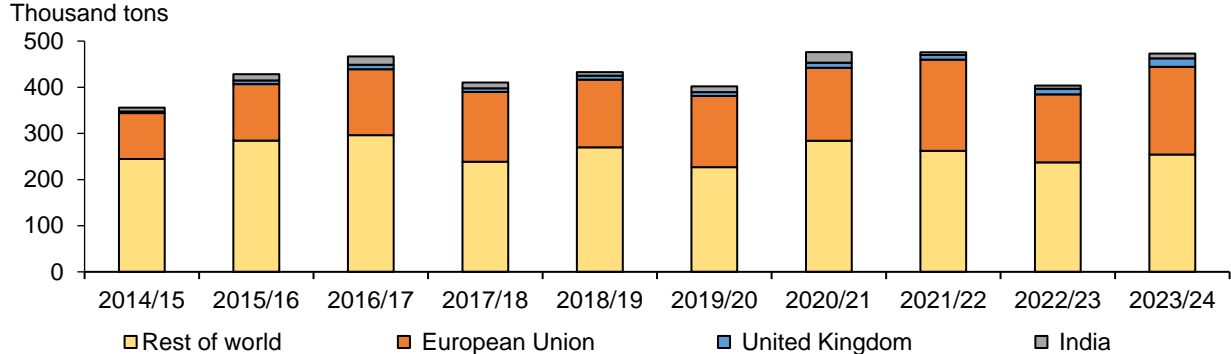


Note: The implicit price deflator has been rescaled such that the base year is 2023. Prices are in dollars per pound of in-shell equivalents. USDA, NASS defines the marketing season for walnuts as September 15 through November 10. Source: USDA, Economic Research Service using data from the USDA, National Agricultural Statistics Service and the U.S. Department of Labor, Bureau of Labor Statistics, gross domestic product (implicit price deflator), index 2017=100, annual, not seasonally adjusted.

Walnuts exports in 2023/24: Unlike in the almond market, U.S. walnut growers account for only 25 percent of global production and 45 percent of global exports by volume. China, Chile, Turkey, and Ukraine account for over half of the export market, though small quantities are also exported by the European Union and Moldova. Recently collected trade data suggests that the marketing year-to-date (September–May) volume of global walnut exports (excluding the United States) are approximately 4 percent lower than the same period last year.

By contrast, the marketing year-to-date volume (in-shell equivalent) of U.S. exports is 17 percent higher than it was in 2022/23 (figure 21). The largest volume increases were in shipments to the European Union which increased by approximately 43 thousand tons (29 percent). Smaller volumes of walnut exports are destined for the United Kingdom and India, but exports to these countries increased by 50 percent and 48 percent, respectively, from 2023 to 2024. Increases in exports to India have been driven by the removal of a 20 percent tariff on in-shell walnuts.

Figure 21
Year-to-date walnut exports in 2023/24 are 17 percent higher than in 2022/23



Note: These export statistics are partial marketing year totals, reflecting volumes traded from September through May. Export volumes are in-shell equivalents. Shelled walnut volumes were converted to in-shell equivalents using conversion factors that varied from 2.4 to 2.5 from 2014/15 to 2023/24.

Source: USDA, Economic Research Service using data from the U.S. Department of Commerce, Bureau of the Census.

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