PGIM REAL ESTATE

AGRICULTURAL FINANCE & INVESTMENTS

U.S. AGRICULTURE & TIMBER MARKET UPDATE

2025

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EASTERN

CENTRAL

WESTERN

TIMBER

COMMODITIES

REF ID 018383

EXECUTIVE SUMMARY

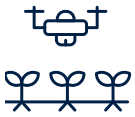
The American farm economy continues to endure the headwinds experienced over the past few years. While farmers have faced several challenges, including adverse weather conditions, lower commodity prices, weaker international demand for some products, trade barriers and a glut in supplies of major world commodities, U.S. growers continue to manage their operations well, enhance the use of new technologies to reduce costs, work with marketers to develop higher consumption of agricultural products in domestic markets and expand access to new international markets. While 2025 is expected to bring increased market volatility for the farming community, the U.S. agricultural sector remains resilient and is positioned for strong long-term growth.

Our latest annual publication explores some of the recent developments in the sector.

Healthier habits for a new generation of Americans will continue to have long-term benefits for ag producers of fresh produce as well as tree nuts. New diets are driving consumers to purchase more fruits, vegetables and plant-based products throughout the year. Imports for fresh produce during the off-season continue to rise. The development of new genetics to enhance varieties with new flavors, colors and longer shelf life for multiple commodities such as citrus, grapes, berries and kiwis among many others will support the expansion of future demand.

U.S. tariffs imposed on major trading partners are expected to escalate a trade war that is certain to have an impact for various agricultural sectors such as grains, tree nuts and fresh fruits and vegetables. The potential retaliation from other countries with their own tariffs could slow down years of work developing new markets for U.S. commodities that rely heavily on exports.

Changes in climatic conditions continue to intensify. Government safety net programs, including crop insurance and direct financial aid supports, will continue to expand to support the agricultural sector. Drastic weather conditions have pushed a wave of new researchers to evaluate food genetics, the development of new breeding techniques and production of improved seeds and hybrids to support growing food products in areas where growing conditions are forecasted to change across the world in future decades.



Capital investments in new ag technologies are expected to continue growing in areas such as ag biotech, including plant biotech, plant data and analysis, animal biotech and biomaterials; agrifinance and e-commerce, including agribusiness marketplaces and finance/insurance; and animal ag, including aquaculture, pollination tech and insect farming; as well as precision ag, including farm management software, robotics and smart field equipment, drones and satellite imagery. The development and fast implementation of artificial intelligence in the United States will bring new competitive advantages to American farmers.

Farmland real estate values in some geographic regions of the United States could continue trending down in 2025, but at a lower pace. Valuations will be dependent on commodity prices like annual row crops (i.e. corn, soybeans) and tree nuts among others. Long-term buyers of agricultural land remain cautious but optimistic with the potential to acquire farmland at more reasonable prices compared to prior years. Institutional investors' appetite for natural capital, which includes farmland and timberland, remains strong as farmland valuations decline in some key geographic regions of the United States and across the world.

More farming operations that rely on manual labor to harvest their crops have already started looking at the use of the guest worker visa known as H2A as new and tougher policies to deter illegal immigration are implemented by the current administration.

EXECUTIVE SUMMARY (CONTINUED)

- **The NCREIF Farmland Index** (NFI), an index published by the National Council of Real Estate Investment Fiduciaries (NCREIF) that tracks the returns of the farmland assets owned by major agricultural institutional managers, ended 2024 with a total market value of $16 billion across 1,023 properties. Annual cropland properties accounted for 60% of the total value of the index, with a market value of $9.73 billion for 653 properties. The remaining 40% of the value of the index is allocated to the 370 properties in the permanent cropland category.

  Over the past 15 years, farmland investments have generated total returns of 8.90%, comprised of 5.30% in income returns and 3.49% in appreciation returns (**Figure 1**). During this period, the NFI has outperformed the NCREIF Property Index (NPI) by 111 basis points (bps) and the NCREIF Timberland Index by 335 bps.

  In 2024, the NFI posted total returns of -1.03%, which included an income return of 2.49%, but a negative appreciation of -3.26% (**Figure 2**). This is the first year with negative total returns since the inception of the index. While total farmland returns experienced challenges in 2024, driven mainly by lower valuations and weaker commodity prices, the long-term returns for this asset class continue to be positive. Annual cropland generated a total return of 5.66%, consisting of an income and appreciation return of 3.02% and 2.58%, respectively (**Figure 3**). Permanent cropland posted a -10.18% return, which included an -11.77% appreciation return and a positive income return of 1.70% (**Figure 4**). Annual cropland returns continued to outperform the permanent cropland category for the fifth consecutive year. Lower returns have not deterred local growers, private investors, private funds and institutional investors from acquiring high-quality farmland in key growing regions across the United States.

- **The NCREIF Timberland Index** (NTI), an index that tracks the performance of the timberland sector managed by institutional managers, ended 2024 with a market value of approximately $27.8 billion, 12.57 million acres across 437 major investments and an average value of $2,218 per acre. The index divides the regions into four major areas: the South, which accounts for 64% of the total value of the NTI, the Northwest at 26%, the Northeast at 5% and Lake States at 4%. The average market value per acre in the Northwest continues to exceed the value in other regions at $3,491 per acre in 2024, whereas the value in the South, Northeast and Lake States ended at estimated values of $2,237, $1,607 and $704 per acre, respectively.

  Total annualized NTI returns for 2024 ended at 6.97%, consisting of EBITDDA return of 1.86% and appreciation return of 5.04%. Last year was the fourth consecutive year the NTI exceeded the returns of the NCREIF Farmland Index, which was driven mainly by stronger appreciation returns (**Figure 5**). Over the past 15 years, NTI has posted total returns of 5.55%, consisting of EBITDDA and appreciation returns of 2.74% and 2.76%, respectively.

FIGURE 1. Fifteen-Year Annualized Returns Against Volatility for Selected Indexes, 2010-24

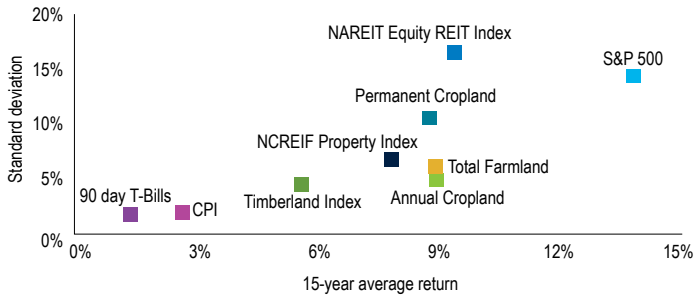


FIGURE 2. Historical NFI Total Returns, 2000-24

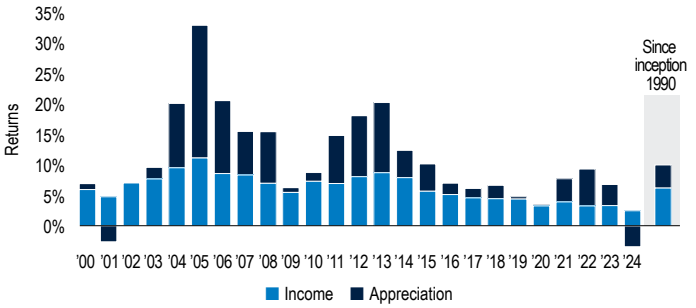
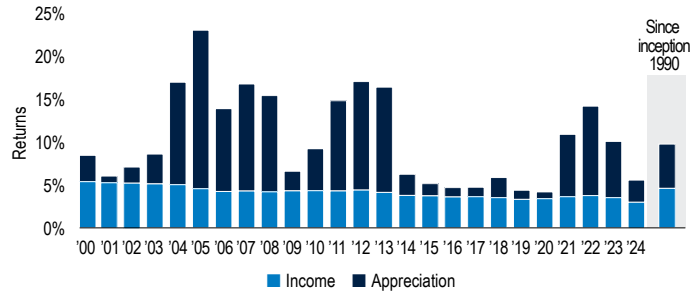


FIGURE 3. Historical NFI Total Returns – Annual Row Crops, 2000-24



EXECUTIVE SUMMARY (CONTINUED)

- **Farmland values** for high-quality properties in key geographic areas with superior soils, water and optimal microclimatic conditions across the United States remain at record levels despite weaker commodity pricing conditions and compressed income returns. Valuations for these types of farms are not growing as fast as in prior years. The supply of lower quality farmland has expanded. Weaker market conditions have impacted values more for these types of properties compared to "Class A" farms. Landowners with established and well-operated farms continue to strategically add farmland, taking advantage of opportunities that may present in the marketplace. Institutional investors' appetite for natural capital, which includes farmland and timberland, remains strong in key geographic regions of the United States and across the world. Farmland investors that used high leverage to buy properties continue to offload properties as loans mature and higher interest rates exceed the potential income returns in some agricultural sectors. Competition to acquire farmland is not expected to slow down in 2025 and beyond.

- **U.S. agricultural trade** is forecast to have a deficit balance of $45.5 billion in fiscal year 2025 (**Figure 6**). This would be the third consecutive year of negative net trade as diversion between agricultural imports and exports widens. Total ag exports are projected to decline $4.4 billion from the prior year to an estimated $170 billion. Nonetheless, this figure is in line with the five-year average. Ag imports are projected to surge 4.5% from the prior fiscal year to a record $215.5 billion. Canada and Mexico continue to be the largest agricultural trade partners with the United States. The trade deficit with both of these countries has expanded significantly over the past decade. Net trade with Canada is projected at -$13.3 billion in 2025 compared to -$0.97 in 2015. On the other side of the U.S. border, net trade with Mexico has grown from -$4.9 billion in 2015 to a projected -$20 billion in 2025. The last time the United States had a positive net trade with both of these countries was in 2012 (**Figure** 7).

  U.S. agricultural exports have grown from $133.7 billion in 2016 to the projected $170 billion in fiscal year 2025, reflecting an annual growth rate of 2.7% during the past decade (**Figure 8**). For the third consecutive year, Mexico is expected to be the top market for U.S. agricultural products with a total value of $29.9 billion, or 17.6% of total ag exports, followed by Canada at 17.2%, China at 13.7%, the European Union at 7.4% and Japan at 6.8%. These countries and regions are forecast to account for 63% of total U.S. agricultural exports in fiscal year 2025. The biggest decline in ag exports have been to China, which has declined by 8.6% over the past five years. A strong dollar against most major currencies, continued inflationary pressures in service industries abroad and a glut of major grain commodities are driving the value of ag exports to lower for the fourth consecutive year.

FIGURE 4. Historical NFI Total Returns – Permanent Row Crops, 2000-24

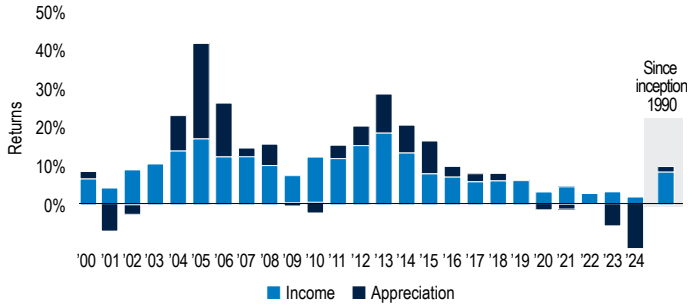


FIGURE 5. Historical Total Returns for NTI vs. NFI, 2004-24

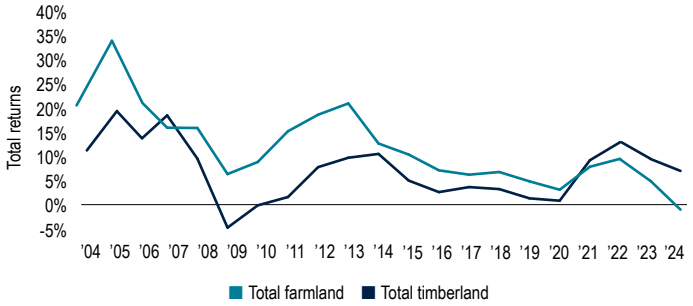
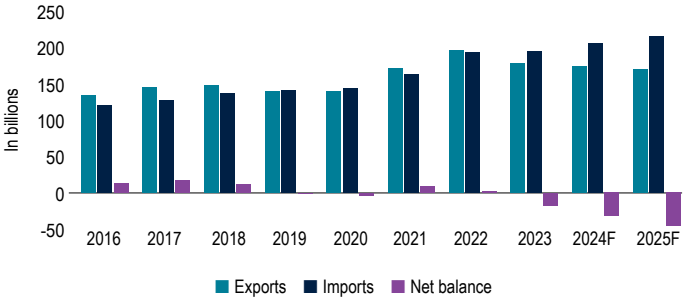


FIGURE 6. U.S. Agricultural Exports, Imports and Net Trade Balance, 2016-25F



EXECUTIVE SUMMARY (CONTINUED)

- **U.S. agricultural imports** continue to break new records every year. An estimated $215.5 billion in value of agricultural products are projected to enter the United States for fiscal year 2025, up $9.3 billion (+4.5%) from the prior year. In the past decade, agricultural imports have grown at an annual rate of 6.6% or close to 1.5x higher than the rate for agricultural exports. Ag imports from Mexico, Canada and the European Union are forecast to account for 61% of total U.S. agricultural imports. Mexico continues to be the top trading agricultural partner for the United States. In 2025, Mexico is projected to supply an estimated $49.9 billion in agricultural products (23% of total) followed by Canada at 20% and the European Union at 17%. Over the past decade, the annual growth rate of agricultural imports from Mexico has grown at a rate of 9.2% compared to 7.9% for Canada and 6.7% for the European Union (**Figure 9**). A strong U.S. economy, the weaker Mexican peso, cheaper labor, lower costs of production and retailers looking to improve their food margins are fueling agricultural exports to the United States from south of the border. This trend is expected to continue despite the potential trade obstacles that both countries may experience in the short term.

  The biggest growth in terms of volume of imports from 2023 to 2024 was in the beef and cattle segment, growing by 24% from 1,154 to 1,429 thousand metric tons. The vegetable oil industry also posted strong growth with an annual increase of 23%. While the volume of imports for fresh fruits and vegetables increased just under 1%, the value of these products increased by 6% and 7%, respectively. The biggest declines in imports were observed in cocoa products (-6%) and wine (-2.4%).

- **Prices for major agricultural commodities,** energy and metals posted mixed performance results in 2024. Cocoa prices continued the upward pricing trend that began in 2023 and reached record prices of over $12,000 per metric ton compared to $2,400 just two years ago as supply disruptions continued in Africa where the largest producers are located. Coffee increased 72% on an annual basis followed by lean hogs (24%), lumber (18%) and live cattle (13%). The contraction of U.S. cattle inventory for the sixth year in a row in 2024 has been the main driver of higher prices. Soybeans had the worst performance in 2024, with prices down by 21% as global supplies exceed demand. Other commodities with declining prices were cotton (-14%), wheat (-10%), world sugar (-6%) and corn (-1%). In the energy and metals sectors, natural gas led the highest price increase in 2024 at 32%, followed by gold (29%), silver (25%) and copper (4%). Palladium and platinum had the lowest price declines at -16% and -8%, respectively (**Figure 10**).

- **The Consumer Price Index (CPI)** for 2024 ended at +2.9%, down from 3.4% in the prior year and over half the rate experienced two years ago at 3.3%. In 2024, the CPI for food, which accounts for an estimated 13.5% of the total CPI, ended at 2.3%, down from 5.8% in 2023, and significantly lower than the 9.9% observed in 2022. For 2025, USDA Economic Research Service estimates CPI-Food at a range of -0.4% to 4.9%, with a midpoint of 2.2%, which is in line with the prior year's annual change and below the 2.9% average for the prior 20-year average (2005-24) (**Figure 11**). This year, the food away from home index is projected at an annual change of 3.6% (2% to 5.1% interval) down from 4.1% in 2024. The food at home

FIGURE 7. Historical Agricultural Net Trade Balance with Canada and Mexico, 2010-25F

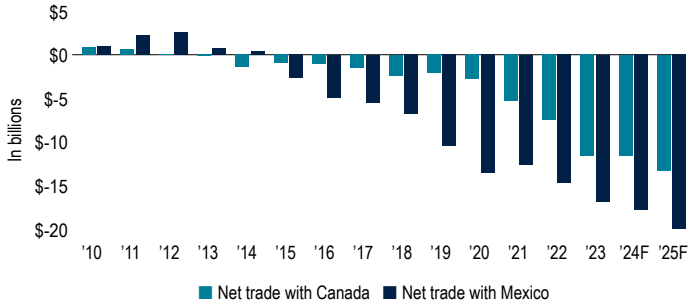


FIGURE 8. Historical Value of U.S. Agricultural Exports to Major Trading Partners, 2016-25F

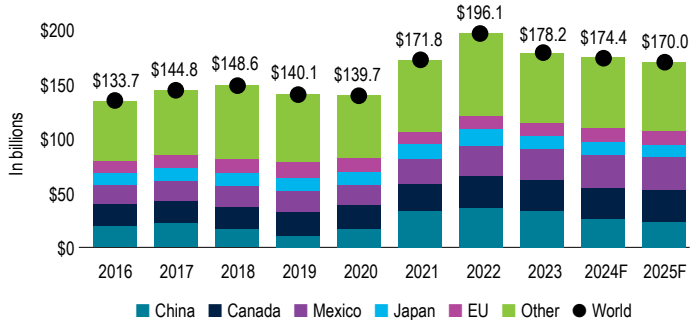
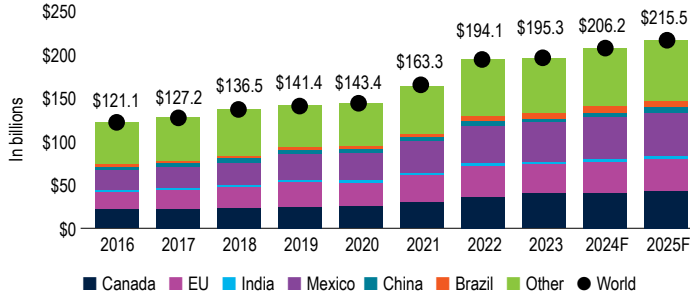


FIGURE 9. Historical Value of U.S. Agricultural Imports from Major Trading Partners, 2016-25F



EXECUTIVE SUMMARY (CONTINUED)

index is forecast at 1.3% (-2.7% to 5.5% interval) and slightly higher than the 1.2% in 2024. In 2025, most food products are expected to have lower increases compared to 2024. The largest increase in the index is projected for eggs as the avian influenza may continue to impact chicken flocks infected by the H1N1 Virus.

- On December 21, 2024, Congress extended, for the second time, the 2018 **Farm Bill,** which expired on September 30, 2024. That extension averted the possibility that the USDA would have been required to purchase many crops at very high prices based on formulas established in the 1930s and using 1910-14 commodity prices. The current extension of this bill also left various programs without funding in areas like research ($49 million), conservation ($26 million), bioenergy ($10 million), horticulture ($10 million) and miscellaneous programs ($74 million), which included approximately $25 million for the Emergency Citrus Disease Research and Extension Program. The new one-year Farm Bill extension included $31 billion in natural and economic disaster relief for farmers affected by recent catastrophic weather events. This financial package is available to support growers' losses of revenue as well as reduced quality of production of crops, trees, bushes and vines resulting from major droughts, wildfires, floods, hurricanes and other events that occurred in 2023 and 2024. Approximately $2 billion in block grants will be administered by the USDA to support various agricultural sectors such as timber, citrus, pecans, poultry infrastructure and other growers affected by lack of water resources and delivery from Mexico to the United States under the 1944 Water Treaty.

  An estimated $10 billion will be used for one-time direct payments to growers, within 90 days of enactment, for eligible commodities. According to the American Farm Bureau Federation, economic aid payments ($/acre) for major commodity sectors are estimated as follows: cotton ($84.78), oats ($78.42), peanuts ($76.30), rice ($69.52), corn ($43.80), sorghum ($41.85), wheat ($31.80) and soybeans ($30.61). Other direct payments are also available for producers of lentils, chickpeas, canola, dry peas, sunflowers and many others. The top 10 states expected to receive 67% of the $10 billion in aid will be Texas ($965 million), Iowa ($846 million), Illinois ($790 million), Kansas ($787 million), North Dakota ($672 million), Nebraska ($627 million), Minnesota ($619 million), South Dakota ($505 million), Indiana ($400 million) and Missouri ($392 million). In terms of commodities, most payments will be directed to corn farmers ($3.8 billion), soybean growers ($2.5 billion), wheat growers ($1.5 billion), cotton producers ($0.9 billion), sorghum growers ($248 million), rice growers ($216 million), oat growers ($147 million), peanut farmers ($137 million) and barley producers ($49 million). Together these growers are expected to account for 92% of total payments.

- **Major global currencies** experienced significant devaluation against the U.S. dollar from YE 2023 to YE 2024 (**Figure 12**). During this period, the Brazilian real devalued 27%, the Mexican peso 23%, the Japanese yen 12%, the Canadian dollar 9%, the euro 7%, the Indian rupee 3%, Chinese yuan 3% and the British pound 2%. Financial markets are adjusting to new federal monetary policies as various central banks moved to cut interest rates.

FIGURE 10. Selected Agricultural Commodities and Metals Price Changes, 1/1/22-1/1/25

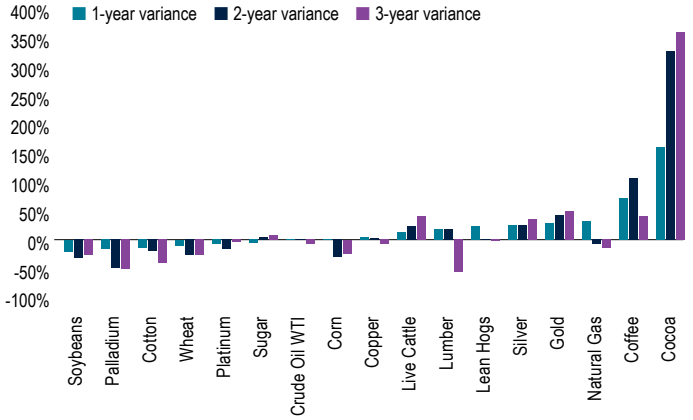
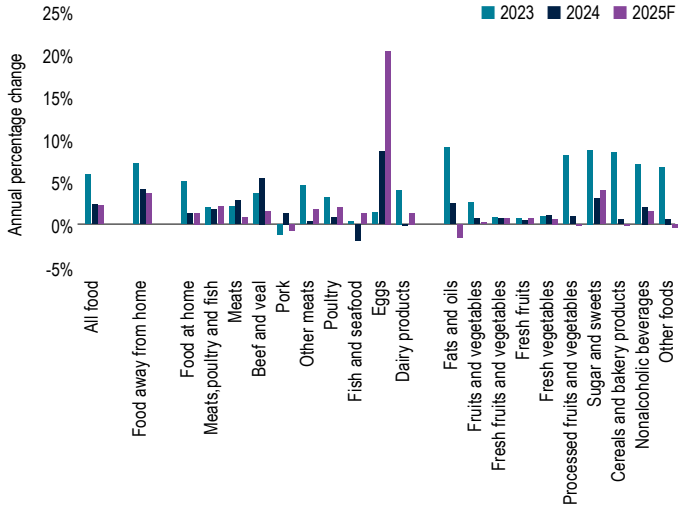


FIGURE 11. Changes in Annual Consumer Price Index – Food, 2023-25F



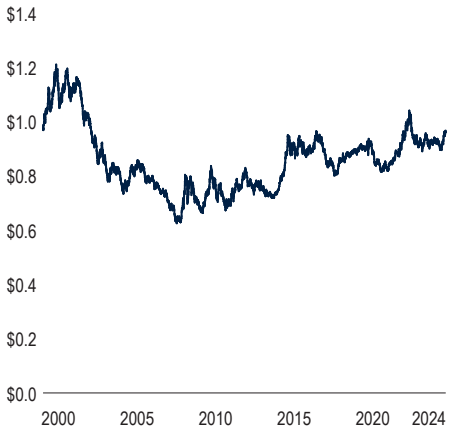
EXECUTIVE SUMMARY (CONTINUED)

FIGURE 12. Historical Currency Exchange for Selected Currencies Against the U.S. Dollar

MEXICAN PESO per U.S. Dollar

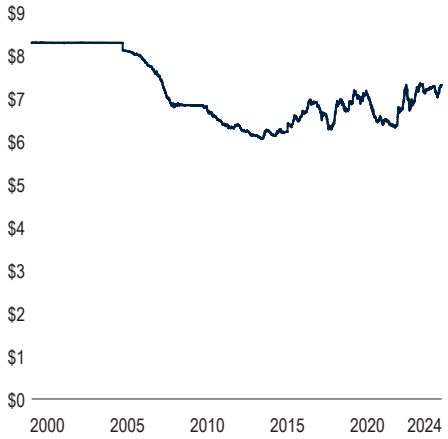
CANADIAN DOLLAR per U.S. Dollar

EURO per U.S. Dollar



UK POUND per U.S. Dollar

CHINESE YUAN per U.S. Dollar



JAPANESE YEN per U.S. Dollar

INDIAN RUPEE per U.S. Dollar

BRAZILIAN REAL per U.S. Dollar

EASTERN REGION

Our Overview of the Agricultural Real Estate Market

The 2024 Atlantic hurricane season had 18 named storms with two major hurricanes, Milton and Helene, significantly impacting agricultural production in the region. Hurricanes Milton and Helene in 2024 caused damage particularly to citrus and pecan crops in Florida and Georgia. Hurricane Helene is estimated to cost Georgia growers $5.5 billion in agricultural losses[1] alone, with Milton estimated at causing $190 million in crop losses.[2] These storms have exacerbated existing challenges such as citrus greening in Florida, leading to historically low production levels partially offset by record high prices for processed citrus due to the diminished supplies.

Consumption trends across blueberries, sugar and pecans show growing demand. For sugarcane, U.S. demand remains steady with a 1% annual growth rate. Blueberry consumption has seen a significant rise over the past 20 years, with per capita consumption increasing by 395%. Pecan consumption is also strong, with growing demand both domestically and globally, particularly in China.

Over the past year, transactions for farmland assets in Florida and Georgia have been very limited. Some of the major sellers of farmland in Florida continue to be publicly traded institutional investors. Buyers for these types of row cropland have been both institutional companies seeking to expand and diversify their holdings throughout the United States as well as local growers. Farmland values for high-quality cropland remain strong and in high demand. According to the latest USDA land values report, average real estate values in the Southeast continue to see an increase year-over-year, with Florida experiencing the highest increase in land values at 13.4%, appreciating to an average cropland value of $8,300 /acre.

Citrus producers are tasked with the decision to continue farming or selling their land for its potential in non-agricultural developments. With the headwinds in the Florida citrus industry, large producers continue to seek alternative income streams on their properties through the conversion of previous citrus ground into row cropland, strategic dispositions for higher and better land use, conservation easements or entering solar leases with renewable energy companies. Large publicly traded companies like NextEra, through its subsidiary Florida Power & Light (FPL), have been very active throughout the central and southern portions of the state of Florida, acquiring or securing tens of thousands of acres under options to lease or buy at prices above core agricultural values.

PROCESSED CITRUS

Supply

- The Florida citrus industry continues to experience lower production driven by the multi-year impact of Hurricanes (Irma 2017, Ian 2022, Milton 2024, Helene 2024) coupled with farmer's ongoing challenges managing the endemic citrus "greening" disease. Despite all these challenges, growers remain resilient.
- Florida, primarily an orange juice producing state, is projected to produce 13.5 million (M) boxes of citrus for the 2024-25 season, down 36% from the prior season's 20.2M boxes.[3] Total production includes 11.5M boxes of oranges, 1.1M boxes of grapefruit, and 0.3M boxes of tangerines and other citrus. Forecasted production for the 2024-25 season is down 95% from the 291M boxes produced during the 2003-04 season which was the largest crop on record in the 2000s.
- Orange juice imports, mainly from Brazil and Mexico, continue to offset the declines in the domestic production. The share of U.S. imports as percentage of total orange juice supply has doubled over the past decade and stands at an estimated 60%.

Demand

- Domestic orange juice (OJ) consumption has been on the decline for the past decades driven mainly by lower supplies, higher retail prices, changes in diets and increased competition from other beverage products. For the 2023-24 season, the United States is expected to consume 689 million (M) gallons of OJ while only producing 155M gallons of juice, down 11% from the 778M gallons consumed just five seasons ago (2019-20).[4] OJ per capita consumption stood at 2.05 gallons for the 2023-24 season compared to 3.07 gallons ten years ago and 4.9 gallons two decades ago.

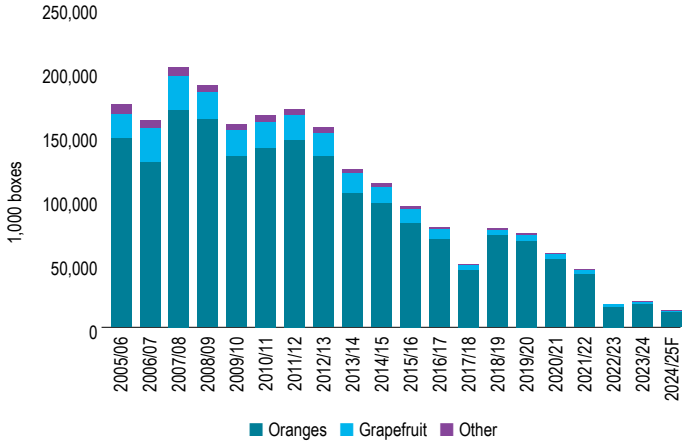
Prices

- OJ prices reached record levels for the 2023-24 season due to lower domestic supplies. The 2023-24 final price for early-mid oranges was $3.37 per pound solid (pps) and for valencia oranges was $3.59 pps, up 6% and 2%, respectively from the prior season, but over 35% higher than the prior 5-year average.[5]
- Growers are reporting contract floor prices offered by processors for the 2024-25 and next three seasons at or above $4.30 pps for early-mids and $4.50 pps for valencias.

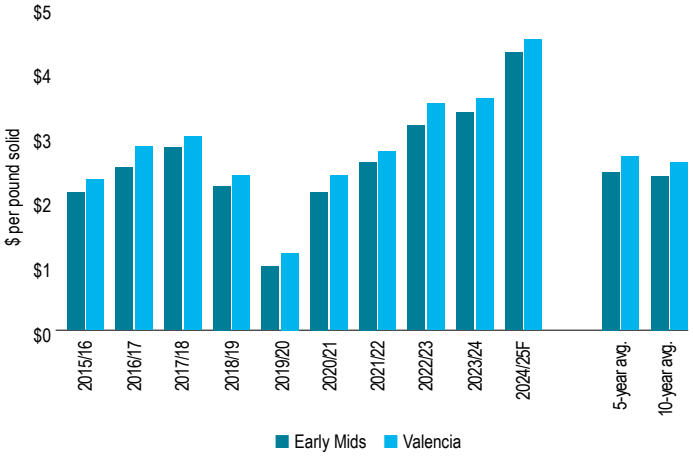
General Outlook

- Citrus production across the state of Florida will remain suppressed as growers continue to battle the citrus greening disease and new large developments remain stagnant. OJ prices are expected to stay near record highs for the foreseeable future as processors compete for the limited supply of fruit available on the market. Juice processors will continue to rely on higher quality OJ imports to blend their formulas with domestic supplies. In addition, consumers could expect to see more OJ brands shrinking their packages to balance supply and demand while maintaining higher prices to support the economics of growing citrus.

CITRUS Historical and Projected Florida Citrus Production, 2005-06 to 2024-25F



CITRUS Historical Orange Juice Prices, 2015-16 to 2024-25F



Sources: Sources: PGIM Real Estate Agricultural Research, Florida Citrus Mutual, USDA.

SUGARCANE

Supply

- Global sugar production is estimated to increase to 186.6 million metric tons (MMT), up 2% from the prior season and 4% higher than the 10-year average of 178.8 MMT. Higher sugar production from India (+4% YOY), the EU (+5%) and Thailand (+16%) is expected to offset the projected decline from Brazil (-6%) during the 2024-25 season. Brazil and India continue to be the major sugar producing countries in the world, accounting for an estimated 42% of total production.
- For the 2024-25 season, U.S. sugar production is estimated at 8.50 MMT, up 0.6% from the prior season and relatively stable compared to the prior five seasons. Beet sugar is forecast at 4.85 MMT (57% of sugar production), while the remaining 3.66 MMT are projected to be harvested from cane sugar in Florida and Louisiana.[6] The 2024-25 harvest in Florida started in October of last year and was relatively slow early in the season due to rainy conditions, which could impact sugar yields.

Demand

- World consumption of sugar is projected at a record 179 MMT in 2024-25, up 1% from the prior season and 7% higher than a decade ago. Global consumption has grown at a rate of 0.8% over the past decade. Overall world sugar surplus is projected at 6.9 MMT or 11% higher than the 2023-24 season.[7]
- U.S. sugar demand remains steady, with a 1% annual growth rate over the past two decades. Sugar consumption is forecast at 11.3 MMT, down 2.8% from the prior season. Ending stocks are projected at 1.7 MMT and stocks-to-use ratio at 15%, in line with the average for the prior two seasons. U.S. sugar imports are projected at 2.6 MMT, down 24% from the 2023-24 season. An estimated 53% of sugar imports rely on minimum quotas established under multilateral and bilateral trade agreements.

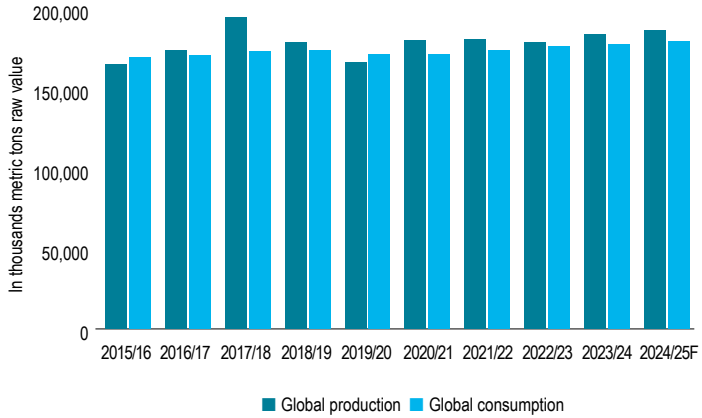
Prices

- Strong U.S. sugar pricing continued in 2024, driven by a strong domestic sugar policy that implements marketing allotments, tariff-rate quotas and indirect price supports, as well as stable consumption and lower inventory levels. The 2024 average price for raw sugar (#16 contract) ended at a record 39.65 cents per pound, up 2% from the prior season, while U.S. refined sugar in the retail market surged 11% to 98.7 cents per pound.[8] Raw and refined sugar prices have increased by more than 60% over the past decade. Prices in 2025 are expected to remain in line with 2024.

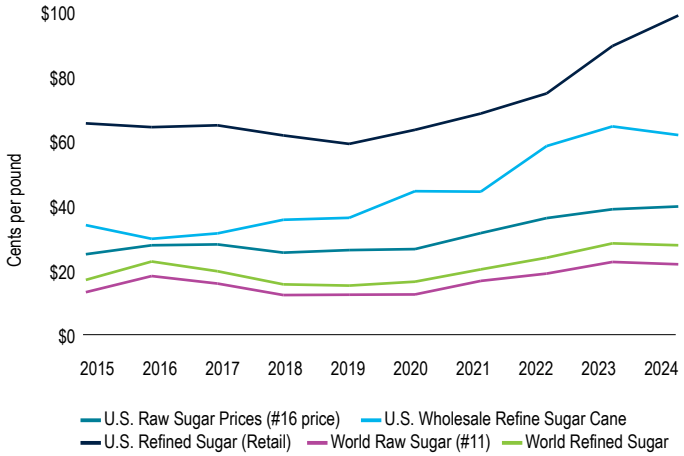
General Outlook

- Higher sugar prices may reduce global consumption in the short term, but long-term demand for sugar could grow at the same pace as the prior decade (~1%). Consumers with higher incomes, especially in emerging markets, will continue buying more confectionary items and beverages. The domestic sugar policy should restrain higher imports and growth in supplies, which could benefit U.S. growers' returns.

SUGARCANE Historical World Sugar Supply and Demand, 2015-16 to 2024-25F



SUGARCANE Historical U.S. Sugar Prices by Type, 2015-24



Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service, Foreign Agricultural Service.

PECANS

Supply

- In 2024, U.S. pecan growers produced an estimated 256 million pounds (in-shell), down 16% from the prior season and 7% below the 275 million in-shell pounds average produced over the past decade. Supplies of U.S. pecans have remained relatively stable compared to other tree nuts.[9]
- Georgia pecan growers expected an "on-year" crop in 2024; however, Hurricane Helene crossed over the southern portion of the state in late September, causing significant damage to the current crop, orchards planted with old mature and young trees and general infrastructure for some operators. According to the University of Georgia, 23%-34% of the total 180,000 acres planted in this state were impacted by this major hurricane.[10] Based on preliminary estimates, Georgia growers produced 99 million in-shell pounds of pecans in 2024, down 24% from the initial estimate of 130 million pounds.

Demand

- Demand for pecans has remained stable in both the domestic and global markets driven by leveled supplies. For the crop year ending August 2024, the U.S. shipped 419 million in-shell pounds of pecans, up 3% from the prior season and 14% higher from two seasons ago.[11] U.S. per capita consumption of pecans has ranged from 0.50-0.67 pounds in the past five seasons.
- During the 2023-24 season, the U.S. exported over 145 million pounds (shelled basis) of pecans, up 89% from the 2022-23 season. China continues to be the largest market for U.S. pecans and accounted for 35% of all exports in 2023-24. Exports to China rebounded during the 2023-24 season to pre-Trump administration tariff levels reaching over 50 million pounds, up 136% from the prior season and up 22% from its peak of 41 million pounds during the 2020-21 season.[12]

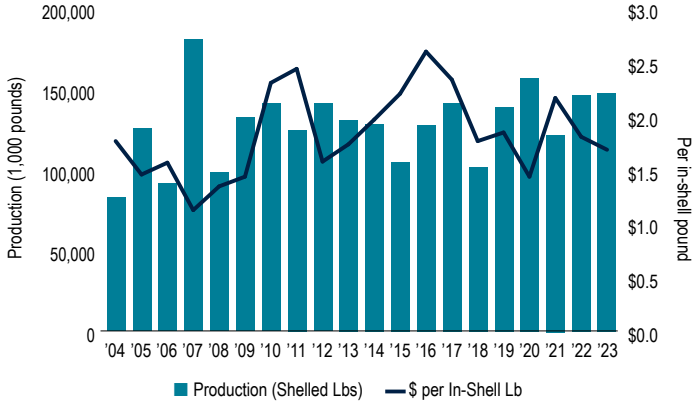
Prices

- Pecan pricing generally fluctuates with the alternate bearing cycles; however, suppressed pricing in the broader nut category has also resulted in low prices for pecans over the past two crop seasons. The final price for pecans during the 2023 crop season was $1.68 per pound, below the six-year average of $1.78 per pound.[13] The 2024 crop, harvested in the fourth quarter of 2024, will be marketed and sold over the coming year. Initial prices for this season remain similar to 2023.

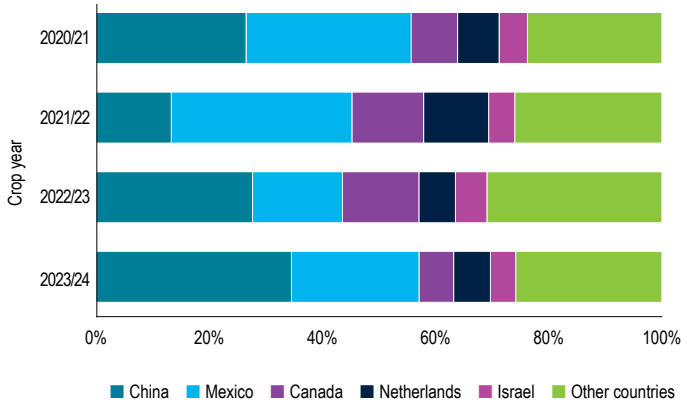
General Outlook

- Consumption for pecans is expected to rise as this nut transitions from primarily a baking to a snack nut and more awareness is built across markets. India remains a key market for U.S. pecan marketers after a steep reduction in tariffs from 100% to 30% in 2023. New retaliatory tariffs remain a high concern.
- Pecan production in Georgia is likely to stay suppressed over the coming years as growers recover from the impacts of Hurricane Helene. Limited supplies could create a more favorable pricing environment.

PECANS Historical U.S. Production and Prices, 2004-23



PECANS Historical Export Share of Shipments of Pecans by Selected Country, 2020-21 to 2023-24



Sources: PGIM Real Estate Agricultural Research, American Pecan Council, USDA.

BLUEBERRIES

Supply

- Final 2024 production of blueberries is expected to fall in line with the last two season's average at 380 million pounds. Domestic blueberry production averaged 385 million pounds over the 2019-23 period. Over this same five-year period, the United States imported over 585 million pounds on average for domestic consumption.[14]
- U.S. imports of blueberries from countries like Peru, Mexico and Chile continue to expand as high quality and availability from these countries are ideal for retailers' programs. Peru continues to have the largest share of U.S. imports at 53%, followed by Mexico at 22% and Chile at 13%. Imports are expected to surpass 590 million pounds for 2024, up 8% from the prior year's 487 million pounds of imports and the second largest record in the past decade.[15]

Demand

- Blueberries have become one of the most loved healthy snacks by U.S. consumers. U.S. per capita consumption has been on the rise over the past 20 years. In 2023, the United States consumed over 2.6 pounds of blueberries per capita, compared to 0.53 pounds of berries in 2004, representing a 395% increase or an 8.7% compound annual growth rate.[16] The United States utilizes an estimated 80% of its production for domestic use and the remaining production is exported mainly to Canada (95% of total exports).
- Food retailers and food service providers recognize the potential to expand the berry category and continue to provide significant shelf space to this highly popular produce item.

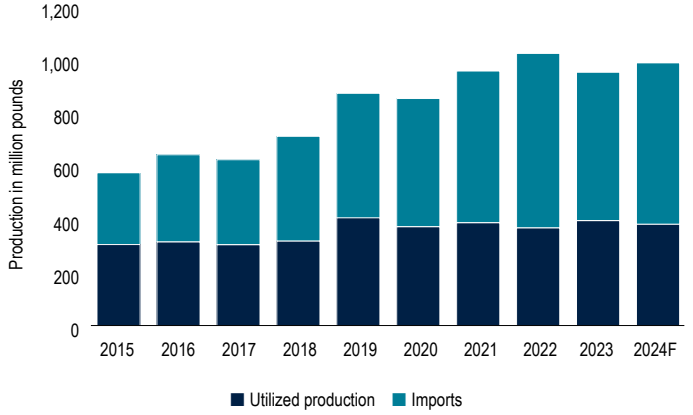
Prices

- Blueberry pricing is sensitive to supply, and pricing fell in 2024 as a result of an above-average domestic crop. Through November 2024, fresh blueberry exports averaged $1.90 a pound, compared to $2.35 per pound averaged during the prior three seasons, representing a 19% decline in pricing.
- Despite lower export pricing, the price of imported blueberries continues to trend upwards. For 2024, blueberry imports have averaged $3.30 per pound, reaching a record high, up 13% from the prior three-year average price of $2.91 per pound.[17]

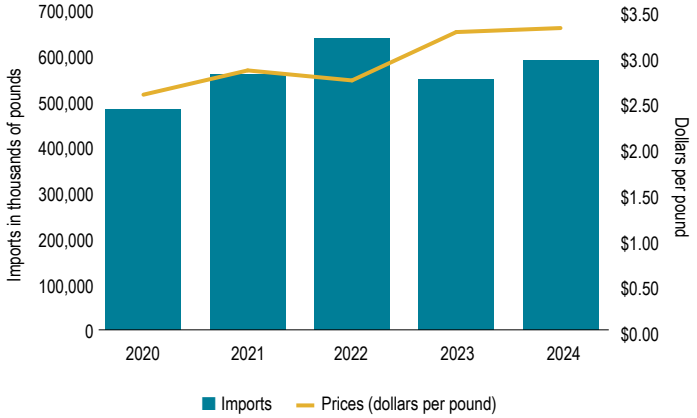
General Outlook

- Blueberries and the berry category in general will continue to be a popular snack in the United States given their taste, convenience and health benefits. The fundamentals of this commodity sector remain strong and continue to show room for growth. Blueberry imports could be expected to expand to satisfy strong year-round demand and a consumer willing to pay premium prices for high-quality produce items.

BLUEBERRIES Historical Production and Imports, 2015-24F



BLUEBERRIES Historical U.S. Imports and Prices, 2020-24



Sources: PGIM Real Estate Agricultural Research, USDA, U.S. Highbush Blueberry Council.

CENTRAL REGION

Our Overview of the Agricultural Real Estate Market

Farmers and institutional investors' appetite to acquire farmland in the Central region of the United States remained stable despite high valuations and further compression of income returns experienced over the past year. While demand for the highest quality land across the corn belt region remained strong, cropland values continued to see tempered growth in 2024. In the Corn Belt region, cropland values in Ohio increased 9.7% to an average of $9,270, the largest percentage increase in this region, according to the USDA's Land Values Summary Report. Cropland in Iowa experienced a 4.1% increase from 2023 to 2024 with average cropland values achieving a Corn Belt high of $9,800 per acre. Based on the NCREIF Farmland Index, institutional returns in 2024 posted the second weakest return in more than a decade at 1.71%, which includes income returns of 2.19% and negative appreciation of -0.47%. The rates producers pay to rent cropland (cash rents) showed a slight increase at the national level. In the Central region, Iowa had the highest average cash rent per acre at $276, up from $269 in 2023, followed closely by Illinois at $269 per acre, up from $259 in 2023.[18] Despite lower corn and soybean prices, farmers in this region remain committed to leasing high-quality land with the prospect that better market conditions could improve in the near future.

The Lake States saw moderate appreciation in 2024 compared to the prior year, with Michigan cropland values increasing by 8.3% to $5,870 per acre. For this region, the NFI posted total returns of 4.22% (income returns of 3.11% and appreciation of 1.08%) in 2024 compared to 10.74% in the prior year.

Cropland values in the Great Plains states also increased considerably, with Kansas's values increasing by 7.1% to an average value of $3,300 per acre and Nebraska's land values increasing by 6.3% to $6,540 per acre.[19] Last year, total NFI returns for the Northern and Southern Plains ended at 10.63% and 6.63%, respectively. These regions posted some of the strongest returns in the Central region last year.

Cropland in the Delta states of Arkansas, Louisiana and Mississippi also increased from 2023 to 2024, although at a slower pace than Corn Belt cropland. The highest cropland value per acre across the Delta states continued to be in Mississippi at $3,880 per acre, up 3.2% in 2023-24. Louisiana saw the highest percentage increase in land value at 4.5% to $3,480 per acre, and Arkansas cropland values increased 4.0% to $3,600. Total NFI returns for the Delta states region ended at 6.6% in 2024, down from 11.29% the prior year.

The average cropland value across the United States rose steadily to $5,570 in 2024, an increase of $250 per acre over the 2023 value of $5,320 per acre. This is a new all-time high and a 4.7% annual increase. Land sales in the central region continued to be strong, although farm incomes, inflation and interest rates may continue to affect values.

CORN

Supply

- Global corn supplies are forecast at 1,212 MMT for the 2024-25 season, down 1% from the prior season but still 2% higher than the five-year average. Lower production is projected to be down due to lower consumption growth. Corn is grown on 515 million acres across the world. This season, the United States is forecast to account for 31% of the total world's corn production, followed by China at 24% and Brazil at 10%.
- In the United States, corn growers harvested 82.9 million acres in 2024, down 4% from the prior season, but in line with the five-year average. Total corn production declined to 14.86 billion bushels (378 MMT) or 3% lower than in 2023 due to lower acreage harvested, which was partially offset by record yields of 179 bushels per acre. Corn trade globally for 2024-25 is projected to see an 8% decrease in imports at 181 MMT compared to 197 MMT in the past season.

Demand

- Global corn consumption is projected to increase again for the 2024-25 season by 1.5% to 1,237 billion MMT.
- In the United States, corn consumption is projected at a record 15.11 billion bushels for the 2024-25 season, up 1% from 2023-24. Domestic use includes 6.85 billion bushels for food, alcohol and industrial use (41% of supply) and 5.77 billion bushels for feed and residual use (35%). Exports of 2.45 billion bushels, the third largest in the past two decades, are projected to increase by 7% from the prior season and account for 15% of total corn supply.

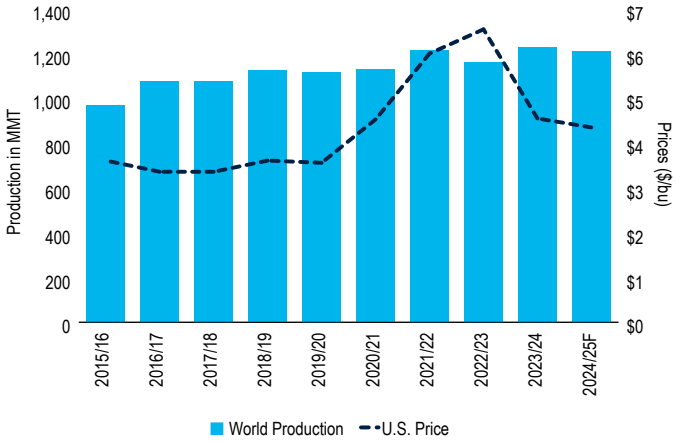
Prices

- Prices for the 2024-25 season are projected at $4.35 per bushel, down 4% from $4.55 in 2023-24, 33% lower than two seasons ago, but in line with the 10-year average. The decrease in corn prices in the United States is driven by the increase in corn yields and production.[20]

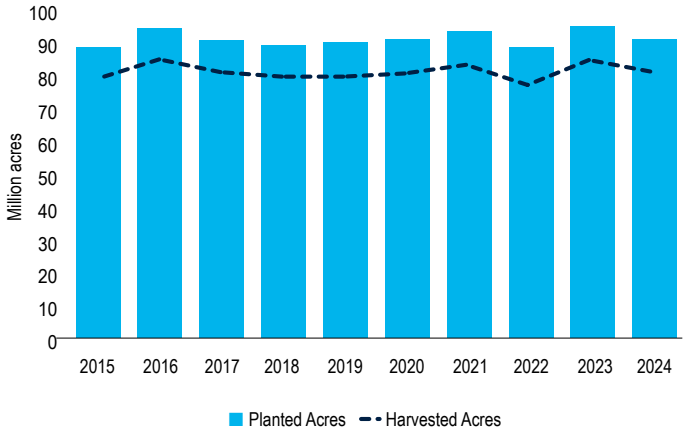
General Outlook

- While global corn production and inventories are projected to decline, prices may remain subdued due to strong competition and trade from other major corn exporters like Brazil and Argentina.
- The outlook for corn in the United States remains encouraging, with strong feed use, increased ethanol production, exports and consumption, despite the lower projected corn prices.

CORN Historical Global Corn Production and U.S. Prices, 2015-16 to 2024-25F



CORN Historical U.S. Planted and Harvested Corn Acres, 2015-24



Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service.

SOYBEANS

Supply

- For the third consecutive year, global soybean production is expected to reach a new record in 2024-25 at 421 million metric tons (MMT), up 7% from the prior year. Over the past decade, global soybean production has grown at an annual rate of 3.3%. Brazil, the world's largest soybean producer, has grown at an annual rate of 6.4% and now accounts for 40% of total production, followed by the U.S. at 28% and Argentina at 12%. Global inventories are projected to increase to 124 MMT, up 10% from the prior season and 23% higher than just two crop seasons ago.
- U.S. soybean production for the 2024-25 season is estimated to end at 4.37 billion bushels (119 MMT), up 5% from the last crop year, due to higher acres harvested. Soybean planted acreage surged 4% from 83.6 million acres in 2023 to 87.1 million acres in 2024. The 86.1 million harvested acres in 2024 is 3.8 million acres above the 2023 harvest of 82.3 million acres. U.S. soybean acres harvested in 2024 were above corn-harvested acres again after falling below for the first time in four years in 2023.

Demand

- Domestic crush continues to be a growth area for soybeans with the push for renewable diesel increasing demand.[21] U.S. soybean crushing for oil and meal is projected to set a record at 2.4 billion bushels, up 123 million bushels (+5%) from last year's record. Crush now accounts for 51% of total soybean supply.
- U.S. soybean exports for the 2024-25 season are projected to rebound 7.7% from last season to 1.82 billion bushels. The highest volume of U.S. soybean exports was reached in the 2020-21 season at 2.26 billion bushels.

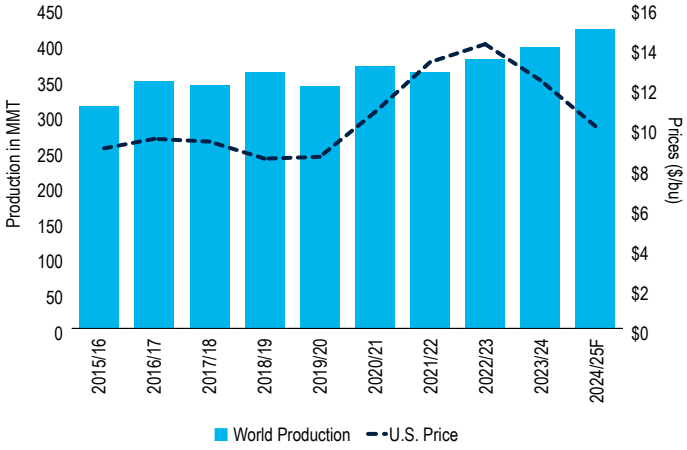
Prices

- U.S. soybean prices for 2024-25 are forecast at an average of $10.10 per bushel, an 18% decrease from 2023-24, but in line with the 10-year average prices. The continued decline in price in the United States is driven by increased production both domestically and by major exporting countries. Ending stocks are projected to rise 11%, from 342 million bushels in 2023 to an estimated 380 million bushels in 2024. In 2024-25, the domestic stocks-to-use ratio is projected to be 8.0%, a slight increase from 7.7% in 2023-24, which was caused by near-record production offsetting gains in the crush and export markets.

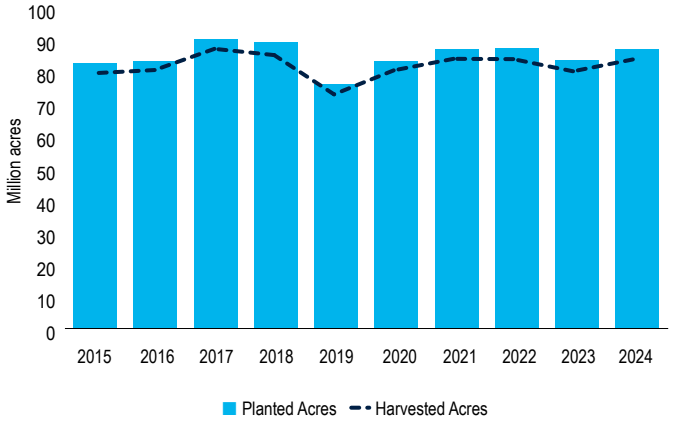
General Outlook

- Planted acreage for soybeans will be watched closely by the market throughout the spring as prices hinge on projected supply and anticipated export demand under new policies. Margins are expected to remain tight in a well-supplied market. Brazil's production and exports coupled with trade policy uncertainties and biofuel demand are additional factors that may affect crop profitability in 2025.

SOYBEANS Historical Global Soybeans Production and U.S. Prices, 2015-16 to 2024-25F



SOYBEANS Historical U.S. Planted and Harvested Soybean Acres, 2015-24



Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service.

WHEAT

Supply

- Global wheat production is projected at a record 794 MMT for the 2024-25 season, which is in line with the 790 MMT from the prior year and 1.8% higher than the prior five-year average. Weaker projected production in major producing regions such as the European Union (-10%) and Russia (-11%) is expected to be offset by higher production in the United States (+9%), Argentina (+12%) and Australia (+23%). The top five major wheat-producing regions continue to be China (18% of total supplies), followed by the EU (15%), India (14%), Russia (10%) and the United States (7%).
- U.S. wheat production for the 2024-25 season is forecast to increase by 9% from the prior season to 1.97 billion bushels (53.7 MMT). An estimated 38.5 million acres were harvested in the last U.S. crop season. Higher production was driven by both an increase in acreage harvested and higher yield per acre (+5%) at 51.2 bushels.

Demand

- Global consumption for wheat is projected to stay flat compared to the prior season. Wheat trade is expected to be lower as China's demand for wheat is expected to slow down. For the 2024-25 season, China is projected to import 8 MMT of wheat, down 40% from the prior two seasons.
- Total domestic wheat use is projected to grow to 2.0 billion bushels, up 10% from the prior season. Domestic wheat demand for the 2024-25 season is projected at 1.15 billion bushels, up 7% from the prior season. While wheat for food is projected to remain at stable levels as in prior seasons, feed and residual are projected to grow by 41%. In addition, U.S. wheat exports are projected to grow to 850 million bushels, up 20% from the 2023-24 crop season.

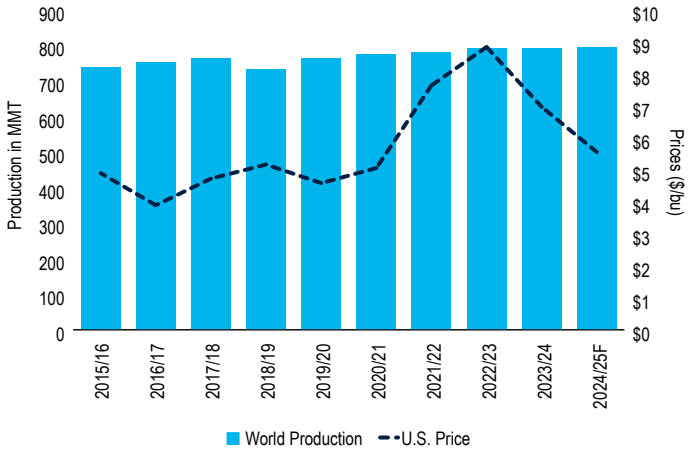
Price

- U.S. wheat prices for the 2024-25 season are projected at $5.50 per bushel, down 21% from $6.96 per bushel during the prior season, 37% lower than two years ago when the Russia-Ukraine war began to impact wheat prices, and 17% lower than the prior five-year average. While U.S. consumption is projected to increase, ending inventories are projected to remain at high levels (794 million bushels), estimated at 29% of total supply.[22]

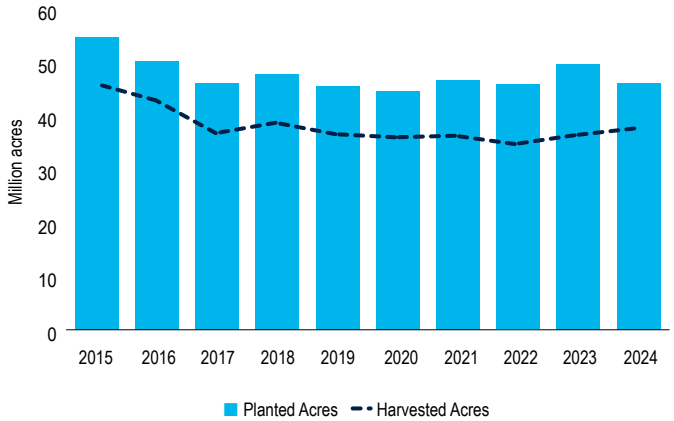
General Outlook

- Ample wheat supplies around major importing countries, lower trade and higher domestic inventories are expected to keep wheat prices lower in the short term.
- In the domestic market, higher carry-over levels will need to decline faster to see higher prices.
- Long-term consumption of wheat is expected to continue growing with higher global food demand.

WHEAT Historical Global Wheat Production and U.S. Prices, 2015-16 to 2024-25F



WHEAT Historical U.S. Planted and Harvested Wheat Acres, 2015-24



Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service.

RICE

Supply

- Global rice production is projected at a record of 532 million metric tons (MMT), up 2% from the prior season. Over the past 10 years, rice production has grown by 10%. China and India continue to be the major rice producing countries, accounting for a share of 27% each during the 2024-25 season. The United States accounts for just 1% of the world's rice production.
- U.S. rice production is projected at 222 million hundred weight (CWT) for the 2024-25 season or 2% higher than last season. The increase in U.S. production is primarily driven by increased demand for rice globally. Yield per harvested acre increased from 7,641 to 7,748 pounds, up 1.4% from the previous year. An estimated 2.87 million acres were projected to be harvested in the United States for the 2024-25 season, which is in line with the prior year's 2.85 million harvested acres.

Demand

- According to the USDA, global rice consumption continues to increase year after year at a rate of 1%-2% on average. For the 2024-25 season, rice consumption across the world is projected at 530 MMT, slightly higher than the 523 MMT in the prior year.
- Total rice consumption in the U.S. is projected at 166 million CWT for the 2024-25 season, up 7% from the prior crop. Domestic use has increased 47% over the past decade, with imports growing at a 7.7% annual rate during this period.[23]

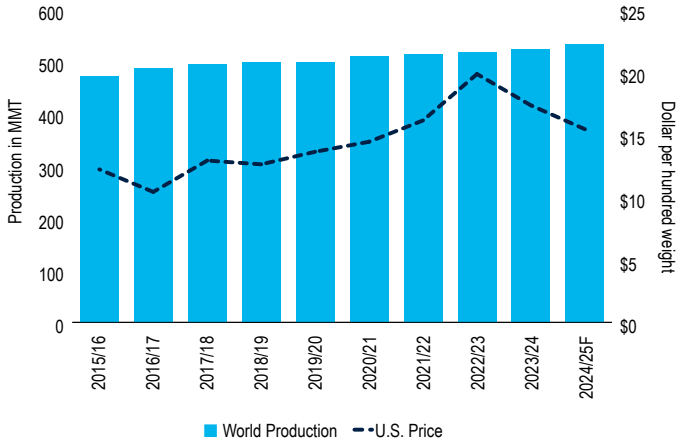
Prices

- The 2024-25 U.S. all-rice marketing-year average price is estimated at $15.60 per CWT, down 11% from the $17.30 per CWT in the prior year and 4% lower than the five-year average. While rice consumption is increasing, ending stocks are projected to increase by 18% compared to the prior year and the highest record in the past decade.
- U.S. long-grain rice is projected at $14 per CWT, down 12% from the prior season. U.S. medium- and short-grain rice are projected to have a 14% decline year-over-year from $17.20 in 2023-24 to $14.80 in the 2024-25 crop season.[24]

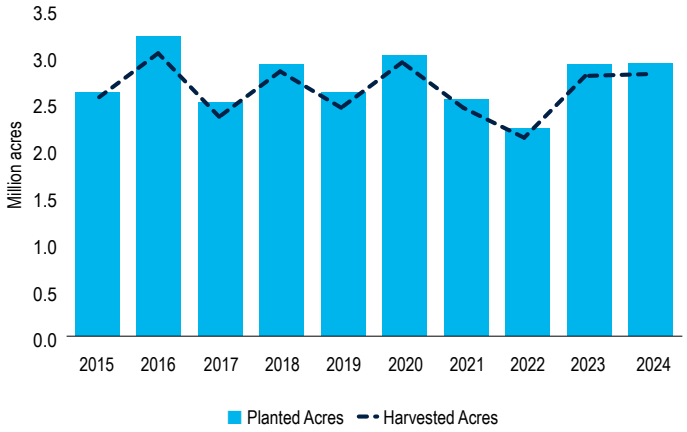
General Outlook

- U.S. rice production and planted acreage is forecast to be lower than prior years at 197 million CWT and 2.5 million acres, respectively. Rice imports are expected to continue growing due to changes in demographics and consumer trends, which have favored aromatic rice varieties like jasmine and basmati varieties.

RICE Historical Global Rice Production and U.S. Prices, 2015-16 to 2024-25F



RICE Historical U.S. Planted and Harvested Rice Acres, 2015-24



Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service.

COTTON

Supply

- Global cotton production is forecast to increase to 120.5 million bales* for the 2024-25 season, up 7% from the last season and 5% higher than the prior five-year average due to larger crops in China (+13%), Brazil (+17%) and the United States (+19%). For the past five years, cotton production has been trending sideways, ranging from 111 to 120 million bales. China, India and Brazil continue to be the top cotton producers, with a share of 26%, 21% and 14%, respectively, for the 2024-25 season.
- The United States is projected to account for 12% of the world's cotton production and projected to have a 26% share of total cotton exports. For the 2024-25 season, cotton planted and harvested acreage is forecast to end at 11.1 and 8.2 million acres, respectively. Harvested acreage was up 28% from the prior season as environmental conditions were optimal in key growing states like Texas and Arkansas. U.S. yields for 2024-25 are projected to be 836 pounds per acre, which is a 7% decrease from the 2023-24 estimate of 899 pounds per acre.

Demand

- Global cotton use is projected to be lower for the 2024-25 season, with lower exports and ending stocks increasing by 6% from 2023-24. China, the largest importer of cotton, is expected to import 7.3 million bales, or 51% lower than the prior season.
- Domestic use for cotton is expected to decline in 2024-25 to 1.7 million pounds, down 9% from the 2023-24 season and 17% lower than two seasons ago. U.S. cotton exports are also projected to decline by 6% from last season as overall global trade is projected to decline due to higher production and weaker economic conditions for major importing countries.

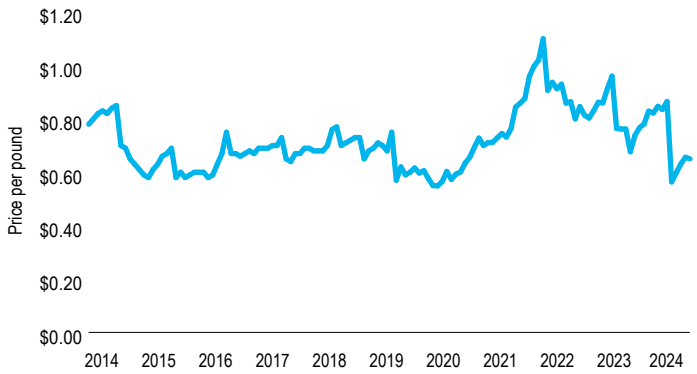
Prices

- Since the 2021-22 season, prices for U.S. cotton growers have been trending down as inventories have grown due to larger production levels across the world.
- The U.S. cotton price for the 2024-25 season is projected at 63.5 cents per CWT, down 17% from the 2023-24 season. Some factors contributing to lower prices includes interest rates remaining high and consumer spending on discretionary items tightening due to slow economic growth.

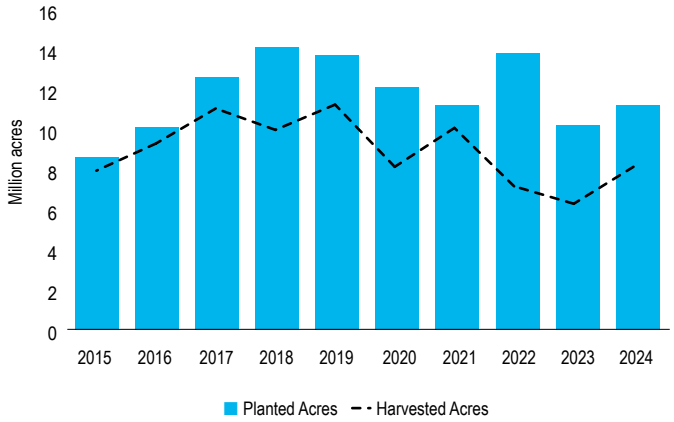
General Outlook

- Higher global cotton production coupled with higher inventories and a slowdown in trade for this commodity is supporting weaker prices in the near future. The outlook for cotton in the United States shows that 2025 could be a challenging year due to high interest rates, high input costs and cotton prices remaining fairly low.

COTTON Historical Cotton Prices, 2014-24



COTTON Historical Planted and Harvested Cotton Acres in the United States, 2015-24



Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service.

*One cotton bale is approximately 480 pounds.

WESTERN REGION

Our Overview of the Agricultural Real Estate Market

The 2024 farmland real estate market in the Western region was challenging. Across most agricultural sectors, commodity prices were down for the second or third consecutive year. Many growers faced declining crop income with higher input costs, resulting in significantly reduced profit margins and potential financial strain. In addition, the California Department of Water Resources started approving or denying groundwater sustainability plans, materially impacting expectations for available future groundwater. The critical importance of water security in agricultural land values continued to recalibrate the long-term value of farmland.

Agriculture lending institutions and investors were forced to evaluate their oustanding loans and investing space. After several years of depressed commodity prices, institutions revisited their exposure and their policies of acceptable leverage levels of their growers. Furthermore, we saw an increase of significant distressed assets, bankruptcies and large land offerings that helped contribute to declining land values, especially in permanent crops.

Growing conditions throughout the year were generally good, with adequate water for most commodity production. Most sectors continued to work through surplus supplies. In the tree nut sector, marketers were able to work through surplus inventories, helping prices recover moving into the 2025 marketing year. Most fresh fruit in California had an average or slightly better year, with continued strong demand from domestic retailers. Many vineyards throughout California and Washington State that did not have their vines contracted struggled to sell their grapes, or sold at steep discounts. It is estimated that over 40,000 acres of lower quality California vines were removed from production. Washington apple and cherry production continues to grow, with some indications that the market may be saturated, adding downward pressure on prices.

For 2025, California growers are closely monitoring winter precipitation and expecting potentially higher water costs as initial water allocations are lower than expected and energy costs are increasing across the state, which will impact growers' pumping costs. While commodity prices have improved across the board, growers are mindful of policies that may trigger retaliatory tariffs, impacting exports. The California Department of Water Resources is expected to continue approving or denying groundwater management plans. As plans are implemented or the state takes control, water availability will continue to play a critical role in land values. Furthermore, there are additional expectations that we will continue to see large land offerings entering the market, which may create opportunities for investors to capitalize on what continues to be a "buyers' market."

ALMONDS

Supply

- California remains the largest supplier of almonds in the world, with an estimated 76% market share for the 2024-25 season. 2024 California almond production is projected to end at 2.76 billion pounds, up 13% from the prior season. Total supplies for the 2024-25 marketing year are forecast at 3.2 billion pounds, which includes 500 million pounds in carryover from the prior season. Beginning inventory for the 2024-25 season was down 37% from the prior 800 million pounds during the 2023-24 crop year and the lowest figure since the 2021-22 season.[25]

Demand

- Total shipments for the 2024-25 season are forecasted at 2.7 billion pounds, which is in line with last year's results. For this crop season, U.S. almond export shipments, which are forecasted at 1.97 billion pounds, will account for close to 73% of all shipments. For the first six months of the current season (August 2024 through January 2025), international almond shipments reached 850 million pounds with no change from the same period in 2023-24. Stronger shipments to the Middle East/Africa (+19%) and the Americas (+14%) have been offset by lower imports in Europe (-1%) and the Asia-Pacific region (-12%). Exports to India, the largest export market for U.S. almonds, are down -18% for the first half of the season, with a total of 196 million pounds.
- Domestic demand for almonds has remained stable over the past four seasons and has accounted for approximately 28% of all almond shipments. Shipments for this season are slightly down from the last season at -1%.

Prices

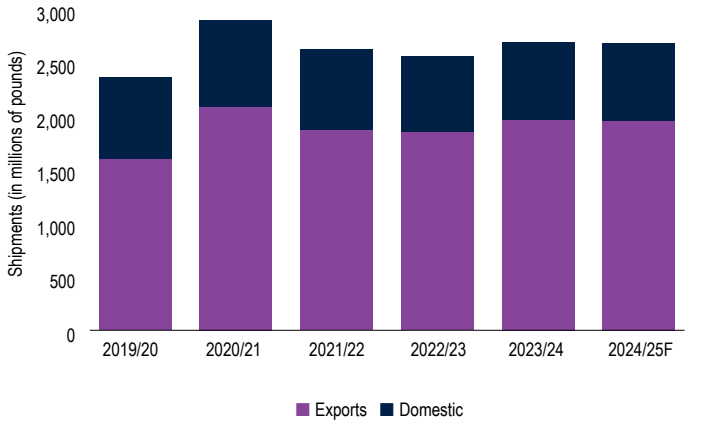
- Almond prices for the 2024-25 season have been trending up in recent months, bolstered by the reduction in carryover from the 2023 crop and strong shipments. Prices are expected to recover above $2.00 per pound this season, which would be the highest prices since 2019.

General Outlook

- The potential for future lower almond production in the United States, as old orchards are removed and new plantings remain subdued, could support better pricing fundamentals.
- While Australia's almond production has doubled over the past decade and now accounts for 10% of the world's almond supply, some Asian markets can shift some of their U.S. almond imports to this country.
- The Almond Board of California forecasts a favorable future for the industry, emphasizing growth in new international markets, reducing trade barriers and advancing marketing, innovation and research will be crucial for expanding its influence.

ALMONDS Historical Production and Prices for California Almonds, 2016-24F

ALMONDS Historical and Projected U.S. Almond Shipments, 2019-20 to 2024-25F



Sources: PGIM Real Estate Agricultural Research, California Almond Board.

PISTACHIOS

Supply

- The United States continues to lead the world's pistachio production, with an estimated 60% share of total production, followed by Turkey and Iran. In 2024, the California pistachio crop reached 1.1 billion pounds, down 26% from the prior season due to the industry experiencing an "off year" because of the alternate-bearing characteristics of this tree nut. As of the end of August 2024, carryover from the 2023 crop totaled 184 million pounds, 12.3% higher than the previous crop year. With the new crop, the total estimated marketable inventory was projected to be 1.29 billion pounds.[26]
- 2024 bearing acreage increased by 27,530 acres (+6%) to a total of 488,530 bearing acres. An additional 124,000 acres are estimated as non-bearing and expected to add new supplies over the next decade.

Demand

- Exports continue to account for the bulk of annual pistachio shipments, approximately 80% of all shipments during the 2023-24 season. For the prior crop marketing year, international demand for U.S.-grown pistachios increased to a new record of 931 million pounds in shipments, up 43% from the prior season. Last marketing season, five countries accounted for 60% of total pistachio shipments, including China (33%), followed by Germany (11%), Turkey (7%), Spain (4%) and Vietnam (4%).
- Lower supplies have resulted in less domestic and international shipments versus past years. Domestic shipments for the past four seasons have averaged 250 million pounds as Americans build more awareness of this healthy and convenient snack product. Shipments for the current 2024-25 season (Sep 2024 through Feb 2025) have declined 30% from last year's same period. Total shipments from September 2024 to February 2025 reached 412 million pounds, 29% lower than the same period last season. Lower shipments this season-to-date compared with last year have been observed in Asia (-40%), driven by China (-47%), and the Middle East/Africa (-35%), driven by Turkey (-54%).

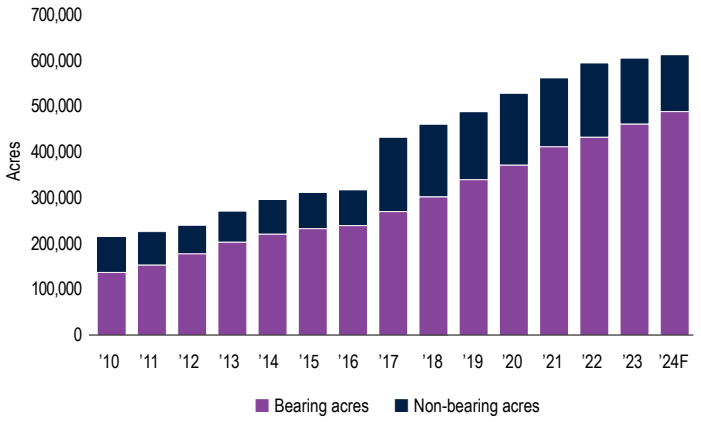
Prices

- The 2024 crop is an off year, and production is shorter than anticipated. If shipments continue, it could put upward pressure on the 2024 price growers receive. Based on pistachio processors, long-term prices should stabilize at $2.00 per pound back to the growers.

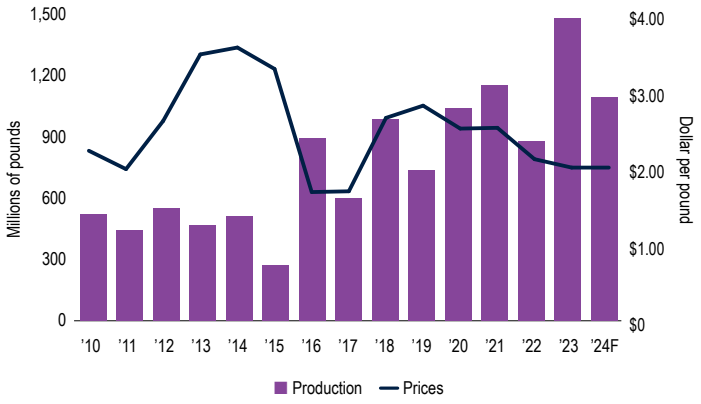
General Outlook

- U.S. pistachio supplies will continue growing with new acreage entering the productive stage. Price volatility for pistachios could also increase based on overall annual supplies, which may be adjusted up or down with the alternate bearing cycle and the rate of growth in international demand. North America and many regions across the world are still nascent markets for U.S. pistachios.

PISTACHIOS U.S. Historical Pistachio Acreage, 2010-24F



PISTACHIOS Historical Pistachio Production and Prices, 2010-24F



Sources: PGIM Real Estate Agricultural Research, Administrative Committee for Pistachios.

WALNUTS

Supply

- California's 2024 walnut production is estimated to end at 670,000 tons, down 19% from the previous year. This projection is based on 370,000 bearing acres harvested, which were lower (-4%) than last season. Milder winter temperatures through February 2024 resulted in a decrease in chill hours of up to 50% in some areas. In addition, record high temperatures in the summer led to below average yields.[27,28]
- China remains the top global producer of walnuts at 1.65 million short tons, followed by the United States and Chile at 670,000 tons and 214,000 tons, respectively.[29] China is projected to account for 56% of the world's walnut production for the 2024-25 season, up from 49% a decade ago. Production in the U.S. and Chile both slowed due to harsh weather conditions and water scarcity following a market peak in 2023.[30]

Demand

- During the 2023-24 season, walnut marketers shipped a record 925.5 million pounds, up 18% from the prior season. Both domestic and export shipments topped initial forecasts and accounted for 30% and 70% of total shipments, respectively. Last season, shipments to Europe and the Middle East/Africa region were almost identical at over 240 million pounds. These two regions took 37% each of total U.S. walnut export shipments, followed by Asia/Pacific Rim at 21%. The top five international markets for U.S. walnuts last season accounted for 53% of total export shipments and included Turkey (20%), Germany (12%), Italy (8%), Spain (7%) and UAE (6%).[31]
- For the past two seasons, domestic walnut shipments have averaged 258 million pounds or 30% higher than the prior five-year average.[32]
- For the 2024-25 season to date (August 2024 through January 2025), walnut shipments have declined in the domestic (-28%) and export markets (-30%) due to lower supplies and harvested production in 2024.

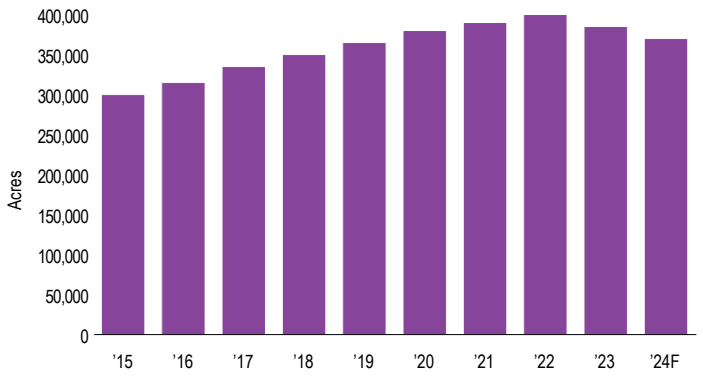
Prices

- After several years of record low walnut prices in 2022 and 2023, the past season brought some relief to growers. Walnut prices in 2022 and 2023 averaged $0.30 and $0.42 per pound, respectively, according to the USDA. Through the 2023-24 season, prices have been on an upward trend to account for the lower supply levels. Industry estimates place the current 2024 price at approximately $0.85 per pound.

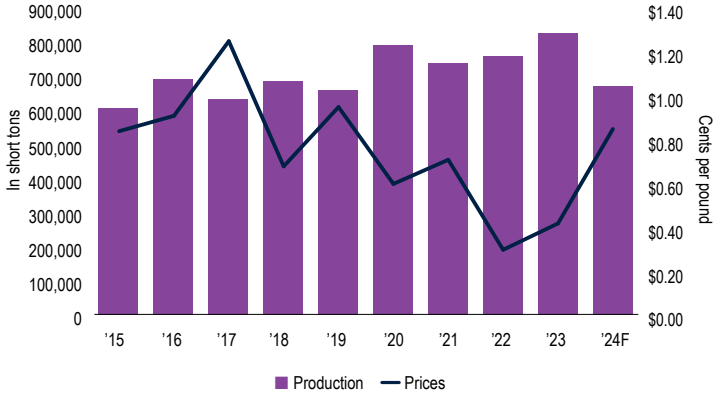
General Outlook

- California walnut growers are seeing a much needed rebound in prices, following some of the most challenging years in the industry, due to higher quality crops, tighter inventories and overall reduced production. This elevated pricing is expected to continue through the first quarter of 2025.[33]
- China and Chile's growing walnut production and export expansion could increase price volatility.

WALNUTS Historical Bearing Acres for Walnuts in California, 2015-24F



WALNUTS Historical Walnut Production and Seasonal Prices, 2015-24F



Sources: PGIM Real Estate Agricultural Research, Walnut Board Commission.

HAZELNUTS

Supply

- Global supply of hazelnuts is reported to be growing for the 2024-25 season from the prior crop year. Turkey, which is responsible for 70% of global production, had a total supply of 785,000 tons, up 21% from the previous year. The second-largest producer, Italy, is also expected to have a much larger crop, which is projected at 139,500 tons or 60% higher than the previous year.
- In the U.S., hazelnut supply continues to expand with the growth in bearing acres, which stood at an estimated 76,000 acres compared to 30,000 acres a decade ago. Oregon hazelnut growers produced approximately 95,000 tons in 2024, or 1% higher than the previous year, and account for almost all hazelnut production in the U.S. Over the past decade, domestic hazelnut production has grown at an annual rate of 13%.

Demand

- Hazelnuts are used most often as an ingredient nut, incorporated in desserts, Nutella® and other similar products for which consumer demand continues to grow. Demand for hazelnuts is robust. China continues to be the largest importer of U.S.-grown hazelnuts, consuming approximately 80% of U.S. exports. The remaining production is consumed domestically or exported to Canada. For the 2023-24 season, exports of hazelnuts reached 51% of total U.S. supply compared to a 42% average for the past five seasons.

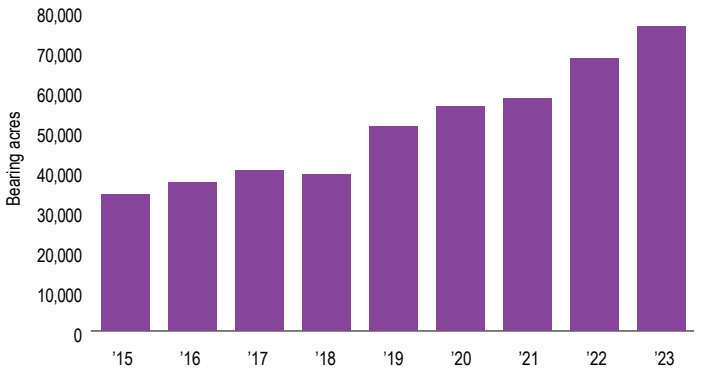
Prices

- Prices for the 2023-24 marketing year finalized between $0.70 and $1.00 per pound depending on the variety. These prices are 60% or higher than the minimum prices set by the Hazelnut Bargaining Association (HBA) in September 2023. The HBA has negotiated minimum 2024 pricing between $0.75 and $0.90 per pound depending on the specific varietal. Early indications are that international supply is expected to increase, which may limit growers' upside. At the current level, with good growing conditions and strong yields, most growers should be profitable at the HBA minimum prices.
- Export prices for hazelnuts during the 2024-25 season (July-August) have started much stronger than prior years, with monthly increases ranging from 25%-75% from July through August.

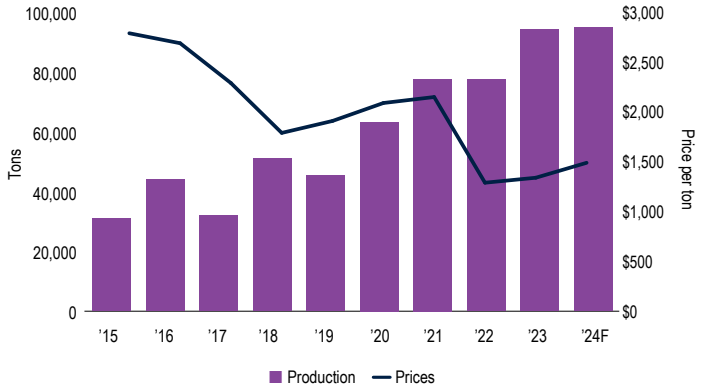
General Outlook

- The growth in global supplies could put downward pressure on hazelnut prices. Global production may increase as Chilean growers increase production on new acres, which stands at over 90,000 acres and is projected to increase to over 123,000 acres in the next few years. At that scale, Chile would rival Italy as the world's second-largest producer.
- Domestically, the industry has experienced slower growth as pricing during the past couple of seasons has accelerated the removal of older, less productive trees and growers have limited inputs.[34]

HAZELNUTS Historical Bearing Acreage in the US, 2015-23



HAZELNUTS Historical US Hazelnut Production, 2015-24F



Sources: PGIM Real Estate Agricultural Research, USDA.

VALENCIA ORANGES

Supply

- The U.S. Valencia orange supply is projected to decrease to 15.7 million boxes (80 pounds) for the 2024-25 season, down 25% from the prior crop year due to unfavorable weather and disease pressure with the California and Florida crops. California production for Valencia oranges is projected at 8.4 million boxes (80 pounds) for the 2024-25 season, a 10% decrease from the prior season, but in line with the prior four-year average.[35]
- For the first time, California is projected to overtake Florida as the largest producer of Valencia oranges as Florida continues to see decreased production from hurricane damage and citrus greening. As reported in the 2024 California Citrus Acreage report, Valencia orange acreage in California has decreased by 3.5% since 2022 from 26,225 acres to 25,297 acres and now accounts for an estimated 10% of total citrus acreage in the state.[36]

Demand

- Fresh consumption for citrus remains strong. Supply and demand for Valencia oranges appears to be balanced. California Valencia oranges are primarily used for the fresh market. Demand for oranges from the food institutional sector (i.e. hotels, restaurants, cruises, farmer's markets) as well as the retail sector remain stable.

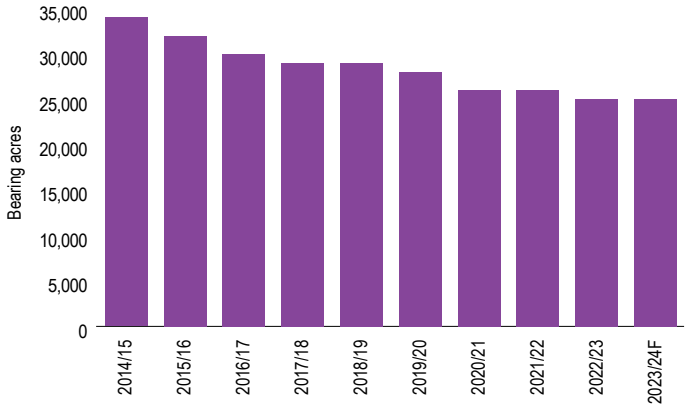
Prices

- As Brazil and Florida experience historically low volumes of juice production due to the low production of Valencias, orange juice prices have skyrocketed. Due to the limited supply and high prices in the juice market, fresh market pricing has been forced to align with the high pricing environment to maintain supply from the fresh market growers in California.
- The higher juice prices supplement returns for California's growers for fruit that does not meet grade standards for the fresh market.

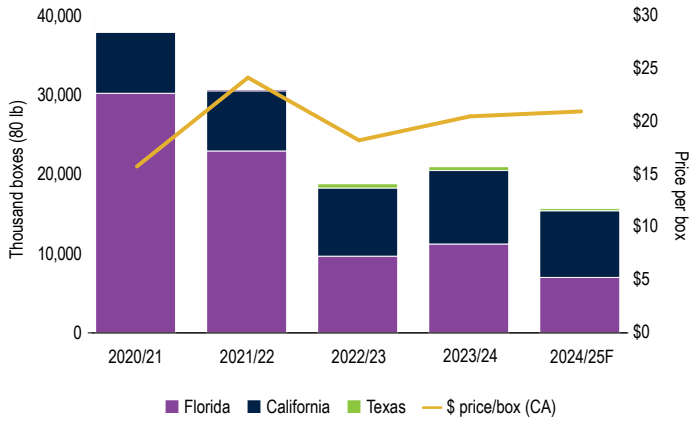
General Outlook

- Global consumption of fresh oranges in general is expected to rise with increased consumer awareness for the health benefits of this commodity, growing demand for natural flavors used in the food and beverage industries and overall consumption of fresh and functional foods.
- With the fast reduction in the nation's supply of Valencia oranges and an orange juice market shrinking driven by production losses in Florida, long-term prices for fresh oranges from California growers should perform better in the near future.

VALENCIA Historical Bearing Acres for Valencia Oranges in California, 2014-15 to 2023-24F



VALENCIA U.S. Historical Production and Prices in California, 2020-21 to 2024-25F



Sources: PGIM Real Estate Agricultural Research, California Citrus Mutual, USDA.

NAVEL ORANGES

Supply

- The 2024-25 California navel orange crop is forecast to be 78 million cartons (39 million boxes), which would be an increase of 2% from the 76.4 million cartons utilized for the 2023-24 crop and the highest production over the past four seasons.[37] Due to prolonged heatwaves toward the end of the summer months, fruit size growth has been limited, which has resulted in an excess of small sized fruit for the 2024-25 crop.[38]
- Over the past eight years, navel production has been relatively stable with a high of 86 million cartons to a low of 63 million cartons as navel orange acres stopped declining over this period. Navel orange bearing acres were estimated at 110,000 in 2024 or 42% of the 259,000 citrus acres planted in California.

Demand

- Demand for navel oranges has been relatively slow during the first half of the harvest season, which was at the 50% mark at the end of February. However, overall consumption for this citrus variety has remained relatively consistent over the past years. Demand for large sized fruit remains unmet, which is the exact opposite position of what the industry experienced last year.

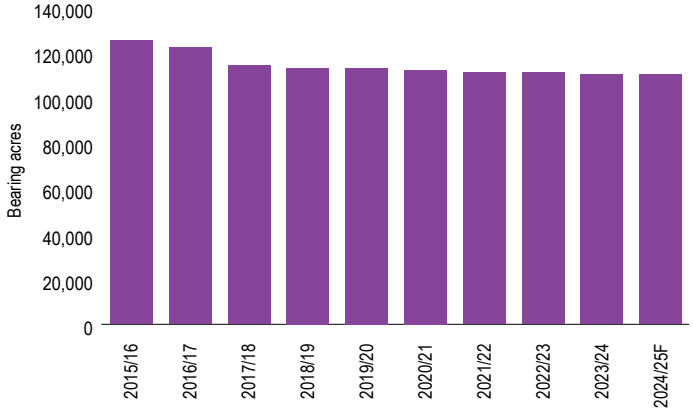
Prices

- At the beginning of the 2025 calendar year, California navel orange pricing was 16% lower than the prior year, due mainly to the excess of small sized fruit.[39]
- Orange juice prices are at record highs around $340/ton, which has acted as a price floor for the orange market overall. Lower grade navel oranges are being processed and sold for juice content at a historical premium due to the decreased production of orange juice from Florida and Brazil. This trend is expected to continue as Florida is not expected to return to its historical levels of production.

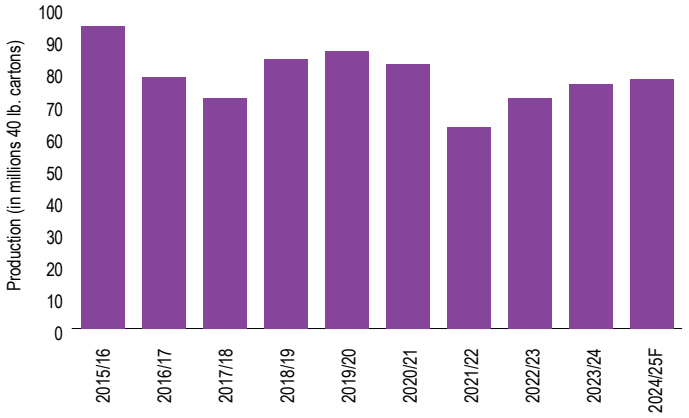
General Outlook

- The outlook for the 2024-25 navel orange harvest is expected to improve in the second half of the season and as exports ramp up. The latter part of the harvest should bring larger sized fruit to the markets and help stabilize pricing.

NAVEL Historical Bearing Acres for California Navel Oranges, 2015-16 to 2024-25F



NAVEL Historical and Projected Production for California Navel Oranges, 2015-16 to 2024-25F



Sources: PGIM Real Estate Agricultural Research, California Citrus Mutual, USDA.

LEMONS

Supply

- The 2024-25 California lemon crop is forecast to be at a new record of 26.0 million boxes (52 million cartons), up 5% from the prior year's 24.6 million boxes (49.2 million cartons; 1 box is approximately 2 cartons) and 23% higher than a decade ago.[40] Lemons in California are grown on an estimated 48,000 bearing acres.
- During the current season, the lemon market is oversupplied with small sized lemons due to the extended heatwaves in the latter part of the summer months.[41] All districts have reported being impacted by these dry weather conditions through the early winter. Some rains in February could help to increase sizes for the harvest later in the season.

Demand

- Overall lemon demand has not varied significantly over the past five years. Per capita consumption has ranged from 4.9 to 5.2 pounds during this period. Demand for larger sized lemons remains unmet due to lack of supply, and demand for smaller sized lemons has been fully met due to the oversupply of small sized fruit.

Prices

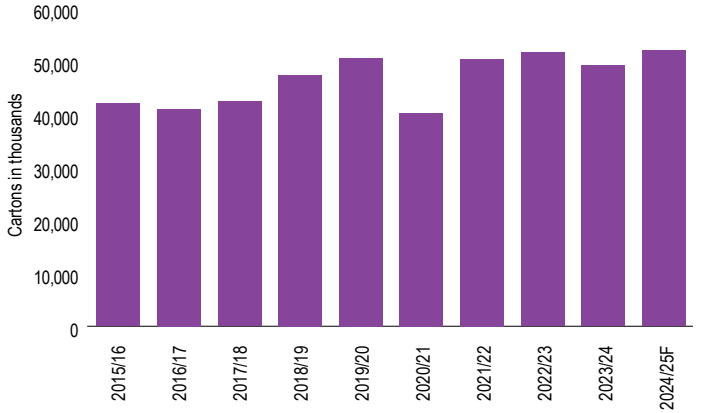
- California lemon pricing has struggled to recover over the past three seasons. Imports at the beginning of the season overlapped with District 3 and created supply/demand imbalances and impacted prices. Low pricing in all three districts (Central Valley, Coastal and Desert) are the result of oversupply and poor quality due to increased pest pressure and volatile weather events (i.e. wind).
- In the beginning of the 2025 calendar year, lemon import pricing was 16% lower than the year prior.[42]

General Outlook

- The California lemon market is expected to improve slightly as the 2024-25 season continues, as fruit sizing is expected to increase and help bring some price stability to the market in the short term.
- In the intermediate term, expectations for the lemon market are tempered as there have been large amounts of lemon orchards planted in the Central Valley, as well as higher imports from Argentina, which could negatively impact domestic prices. With the increase in retail shelf space for limes and higher imports in recent years, domestic lemons could have more competition in the future as consumers substitute them for limes for some occasions.

LEMONS Historical Lemon Bearing Acreage in California, 2014-15 to 2023-24

LEMONS Historical and Projected Lemon Production in California, 2015-16 to 2024-25F



Sources: PGIM Real Estate Agricultural Research, California Citrus Mutual, USDA.

MANDARINS

Supply

- The crop season for mandarins started in mid-October and should end by May. The current forecast for 2024-25 California mandarin production is estimated at 25 million boxes (80 pounds per box), or a 9% decrease from the previous year. Despite the lower forecast, mandarin fruit set per tree was up 12% based on the California Mandarin Objective Measurement Report.[43,44] Mandarin and hybrid bearing acres were estimated at 69,000 in 2024 or 25% of the 259,000 citrus acres planted in California. Clementines accounted for 22% of this citrus category.[45]
- Tangerines and mandarin imports in the United States are forecasted at approximately 475,000 metric tons for the 2024-25 season, up 4% from the prior season and the second all-time high for the United States. Imports have grown over 20% compared to just five seasons ago. Chile, Peru and Morocco are the largest import origins for the United States.

Demand

- Domestic demand is forecasted to be 1.0 million metric tons for the 2024-25 season, remaining steady as the harvest season progresses. Retailers continue to grow shelf space for various citrus during the domestic season, which is expected to keep demand steady.
- The Korean mandarin crop expects a lighter season, which provides a potential opportunity for U.S. mandarins in Asian markets. Forecasted production in South Korea for mandarins is 2.6% lower, declining from 580,000 metric tons to 565,000 metric tons.

Prices

- The current season pricing for mandarins during the early part of the season has been higher for retailers, but growers' returns are expected to be in line with the past two seasons. Pricing has varied greatly across the mandarin supply as high-quality fruit has received premiums, but other fruit has experienced large discounts.

General Outlook

- Global consumption for fresh mandarins has stabilized over the past four seasons. Domestic demand for mandarins is expected to remain high with imports supporting long-term consumption trends in the United States.

MANDARINS Historical and Projected California Mandarin Production and Prices, 2019-20 to 2024-25F

69K

ACRES IN 2024

MANDARIN ACREAGE IN CALIFORNIA

Over the past decade, mandarin acreage has had an annual growth rate of 2%, growing from 57,000 acres in 2015-16 to an estimated 69,000 acres (94% bearing and 6% non-bearing) for the 2024-25 season.

-9%

FROM 2023-24

CALIFORNIA MANDARIN PRODUCTION

Total mandarin production in California is projected at 25 million boxes, which is down from the prior season but in line with the last two-year average.

Sources: PGIM Real Estate Agricultural Research, California Citrus Mutual, USDA.

WINE GRAPES

Supply

- The 2024 California grape crush ended at 2.84 million tons, down 23% from the prior season and the lowest level since 2004. Both production of red and white grapes experienced double-digit declines at -27% and -18%, respectively.[46] Warmer conditions in California lead to smaller average cluster size, yet overall quality was acceptable.[47] In Washington State, wine grape production for 2024 is forecast at 155,000 tons, down 3% from 2023.[48]
- Higher supplies continue to outstrip demand in the wine sector, and wine inventories need to be depleted faster. During the last season, approximately 30 to 40 thousand acres of wine grapes (12% of California production) were removed from production, but more industry experts are calling for additional acres to be eliminated. Approximately 60% of all the removed acres were in California's Central Valley and the remaining 40% of the acres removed were located in the North and Central Coasts.[49]

Demand

- The slowing wine market continues to be plagued by price-sensitive shoppers and weaker demand stemming from a younger generation that drinks less overall and prefers a broader range of beverages.[50]
- Historically, there has been greater demand for red varietals; however, wineries are reporting increased demand for white varietals. Accordingly to the USDA, production splits between red and white varietals have shifted in the last 10 years. In 2014, red varietals accounted for 55% of all grape production, while 2024 data show red varietals accounting for just 51% of grape production.[51]

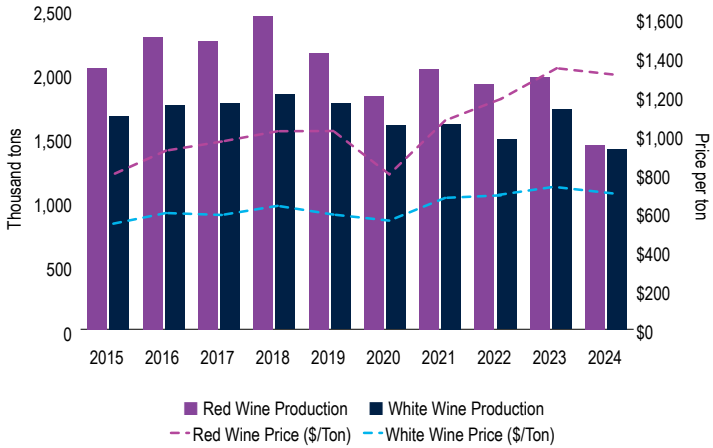
Prices

- Overall California wine prices in 2024 are estimated at $1,003 per ton, down 5% from the prior season. Prices for both white and red wine varieties declined by -4.4% and -2.4%, respectively, compared to 2023 prices. These declines in prices are the first ones since 2020. Softer prices are expected over upcoming seasons.

General Outlook

- The California wine industry faces challenges on multiple fronts entering 2025. Growers will continue to have difficulty negotiating optimal contract prices until overall wine retail sales improve. Taking into consideration the generally flat demand growth, current market conditions may extend through 2030 according to wine experts. More established labels may sell to competitors or shrink their size of production, among other actions, to help move more product and remain profitable.[52]
- Many growers are expected to remove more unprofitable vineyards. Other growers will continue grafting over young red blocks with white varietals to diversify and rebalance their vineyards, with hopes of securing winery contracts.

WINE GRAPES Historical Wine Production and Prices in California, 2015-24



-23%
DECLINE FROM 2023

CALIFORNIA WINE GRAPE PRODUCTION

The California wine grape crush is estimated at 2.84 million tons in 2024 compared to 3.68 million tons the prior year.

-5%
DECLINE FROM 2023

CALIFORNIA WINE GRAPE PRICES

The average price for all varieties ended at $1,003 per ton in 2024.

Sources: PGIM Real Estate Agricultural Research, USDA, Unified Wine Symposium.

TABLE GRAPES

Supply

- U.S. table grape production for the 2024-25 season is projected to be approximately 845,000 metric tons, a 29% increase from the previous season, which was the lowest production of the decade due to the damage caused by Hurricane Hilary.[53] With production numbers back to normal, the United States, the world's largest importer of table grapes, expects a 4.2% decrease in imports, falling from 793,000 metric tons to 760,000 metric tons. The United States imports over 20% more grapes than the European Union, the second largest importer.
- Imports from Chile are expected to be of higher quality as a new transportation system, which replaces methyl bromide with other mitigation measures, has been implemented. Eliminating fumigation helps reduce damage to the fruit, makes the fruit last longer and creates better fruit conditions for consumers.

Demand

- Overall world consumption of fresh table grapes is expected to increase 3.1% from the previous season to 28.3 million metric tons, which aligns with the expected increase in production.
- In the United States, domestic consumption is expected to increase by 7.5% this season to a record of 1,360 thousand metric tons. Full-year availability of table grapes at retail stores coupled with improved quality of imports supports the demand for domestically grown fruit during California's season.[54]

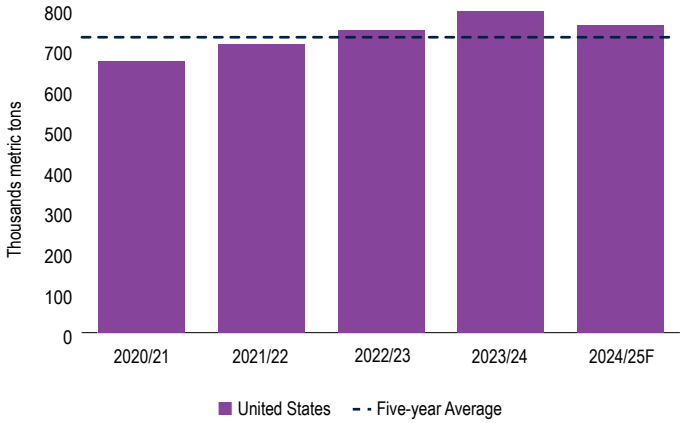
Prices

- During this season, prices for table grapes were lower than previous seasons due to a more balanced supply and demand. Prices in 2024 decreased approximately 11% year-over-year, falling from $1.73 per pound in 2023. However, prices remain above average despite the decrease year-over-year.[55]

General Outlook

- The consumption of table grapes is expected to be on a steady rise as consumers seek healthy, tasty and convenient fruit snacks. Imports are expected to continue growing from countries like Chile and Peru to supplement demand during the off-season. These countries are enhancing quality with the transportation of grapes under refrigerated warehouses of ships to boost demand and prices.[56]

TABLE GRAPES Historical U.S. Table Grape Imports, 2020-21 to 2024-25F



+29%
FROM 2023-24

TABLE GRAPE SUPPLY

U.S. table grapes supply is expected to increase from 1.26 MMT in 2023-24 to 1.36 MMT for the 2024-25 season.

-4.2%
FROM 2023-24

TABLE GRAPE IMPORTS

Imports of grapes are expected to decline from 793,000 metric tons for the 2023-24 crop marketing year to an estimated 760,000 metric tons in the 2024-25 season.

Sources: PGIM Real Estate Agricultural Research, USDA Economic Research Service.

AVOCADOS

Supply

- The 2024-25 California avocado crop is forecast to be 375 million pounds, 3% larger than the 2023-24 crop and 60% larger than the 2022-23 crop.[57] The 2024-25 crop may be negatively impacted by the November 2024 Ventura County Mountain Fire, in which over 500 acres were burned, and hundreds of other acres were negatively impacted. Some growers, who did not experience tree loss, have reported damage to irrigation infrastructure, as well as severe winds that caused damage to the fruit. These factors are expected to result in inferior fruit quality from the affected orchards.
- Bearing acres for the 2023-24 season were virtually unchanged at 48,000 acres.[58]
- The large California crop and smaller Peruvian crop has paved the way for marketers and retailers to highlight California avocados throughout the summer months.[59]

Demand

- A large California avocado crop, coupled with prolonged high pricing, has proven that there is sufficient demand in the market. Per capita consumption has more than tripled over the past two decades from 2.7 pounds for the 2003-04 season to an estimated 9.0 pounds for the 2023-24 crop year. This commodity has shifted from special occasions like the Super Bowl or Cinco de Mayo to become a staple in the diet for many Americans.

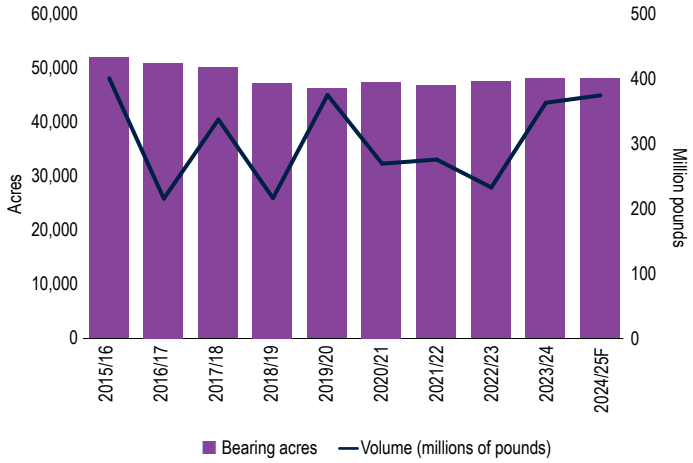
Prices

- Prices for the 2023-24 California avocado crop ended at $1.44 per pound, an increase of 42% from the 2022-23 crop and 10% higher than the 10-year average.
- The suspension of shipments from Mexico to the United States for a week during peak season helped support higher pricing for the 2023-24 California crop.[60]

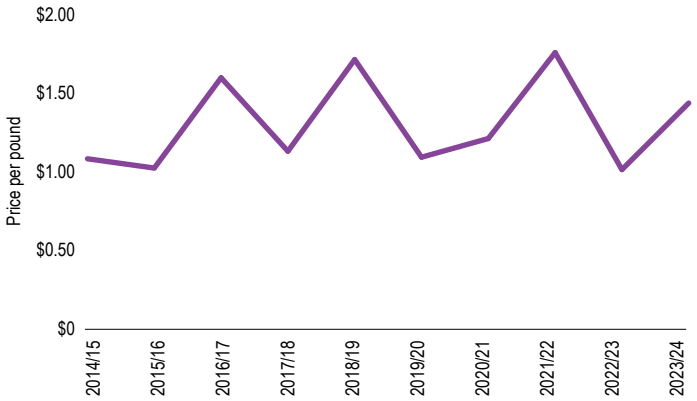
General Outlook

- The larger 2024-25 California avocado crop is expected to be met with good demand and should provide marketers with the ability to extend the season in the retail markets. Absent any U.S. tariffs on Mexico's key agricultural markets, avocado imports will continue to remain robust to meet the strong consumption patterns in the United States.

AVOCADOS Historical Bearing Acres and Production in California, 2015-16 to 2024-25F



AVOCADOS Historical Prices for California Avocados, 2014-15 to 2023-24



Sources: PGIM Real Estate Agricultural Research, Hass Avocado Board, California Avocado Commission.

APPLES

Supply

- World production for the 2023-24 crop year is estimated to be 4.4 billion bushels (42 pounds per bushel), or 33 million bushels higher than the previous year. Production levels in the United States and China more than offset losses from the European Union and Turkey.[61]
- The USDA and other private organizations, such as USApple, estimate that total 2024-25 U.S. apple production will be 288.8 million bushels, down 2.3% from the previous crop year.[62] Washington State is expected to retain most of the U.S. apple market share, with 179 million bushels or 63% of total production. Washington's apple production is forecast to be 2.6 million bushels lower (-1.4%) than the previous year. The relatively small production decrease is attributed to freezing temperatures during the 2024 blooming season. Nevertheless, favorable weather conditions during harvest contributed to acceptable crop quality across the state.

Demand

- Demand for organic apples continues to grow, but remains a small fraction of the overall apple production in Washington State at approximately 16%. New apple varieties such as Cosmic Crisp and Envy have gained more consumer interest due to their quality and flavor profiles. However, Gala apples continue to be the most produced variety in the United States, accounting for 17% of the nation's total production. Red Delicious apples are the second most produced variety with 12% of total production, followed by Honey Crisp (10%), Fuji (9%) and Granny Smith (8%).[63] Cosmic Crisp total production is expected to be 16.3 million bushels, or 52.3% higher than the previous year.
- Total apple exports increased by 16.0 million bushels, or 56% higher than the previous year. The increase of total exports is attributed to the elimination of tariffs on U.S. apples by the government of India.

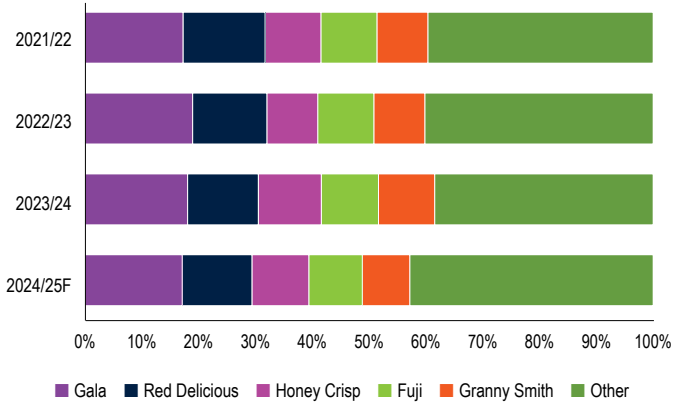
Prices

- Overall, U.S. apple prices decreased across most of the top produced varieties due to high inventory levels. Conventionally produced apples were affected the most with an average price of $1.58 per pound, 8% lower than the previous year. Prices for organically produced apples averaged $2.54 per pound, or 4% lower than last season.[64]

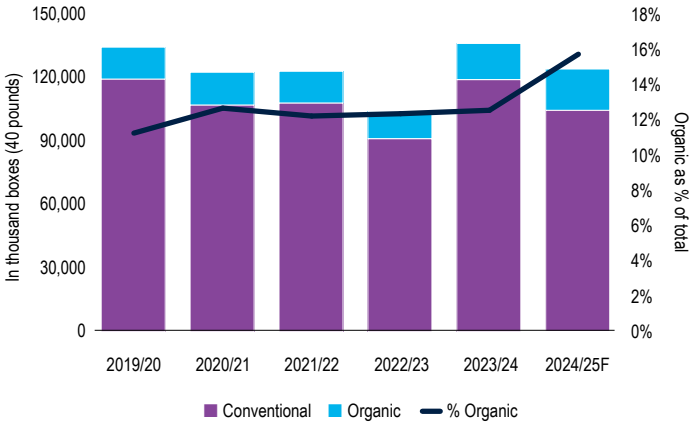
General Outlook

- Apple prices have been pressured downward due to higher inventory levels. Marketers are optimistic about decreasing inventory levels due to higher export levels. Potential retaliatory tariffs from Mexico and Canada, two of the largest apple export markets for Northwest producers, could reduce demand for apples. In addition, U.S. apple producers and marketers are expected to face strong competition in the Indian market from China, Turkey and Iran.

APPLES Historical and Projected U.S. Apple Production by Variety, 2021-22 to 2024-25F



APPLES Historical and Projected Packed Apple Production in Washington State, 2019-20 to 2024-25F



Sources: PGIM Real Estate Agricultural Research, Washington State Tree Fruit Association, USDA.

CHERRIES

Supply

- The 2024 season was projected to be an off year but ended up exceeding the prior season due to favorable growing conditions across the west. Late cherries in Washington were significantly reduced in 2024 due to winter damage and spring frost. The U.S. crop was grown on approximately 90,000 acres, of which 45% are in Washington and 40% are in California. Total production was an estimated 355,000 tons or 2.3% more than the prior season.[65] Washington, California and Oregon growers produced 52%, 30% and 8%, respectively, of the total crop.
- U.S. cherry imports account for approximately 10% to 20% of the total supply. Most of the imports come from Canada, Poland, Turkey or Chile. In 2024, nearly all U.S. imports were from Chile during the off-season.[66]

Demand

- The USDA reported that per capita consumption of fresh cherries during the past five years has been stable, fluctuating with available supply at approximately 1.2 pounds per person.[67]
- Given the increased supply, domestic shipments have increased by approximately 2.0% compared to last year.
- International demand for fresh U.S. cherries has remained stable, with Canada and South Korea importing the majority of the cherries produced in the United States. The United States exports a significant number of fresh cherries, historically ranging between 25% and 30% of total production, depending on the market timing.[68]

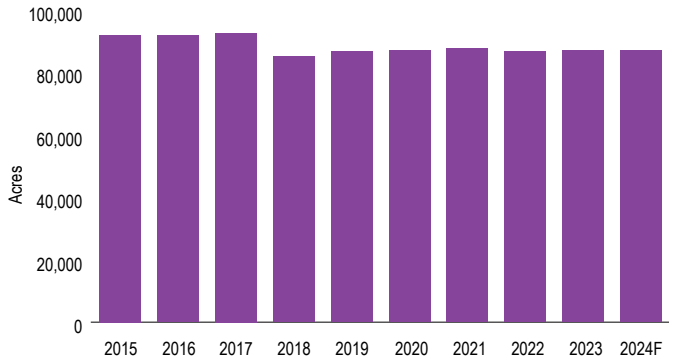
Prices

- The fresh cherry market is highly volatile and heavily impacted by individual grower varietals, quality and size of fruit produced. Fruit that is premium quality and large in size can be exported, which typically receives significant premium.
- The 2024 season was impacted by a back-to-back bumper crop and a moderate overlap between the California and Washington harvest seasons. Average grower returns in California and Washington were significantly lower than the 2023 season, with California growers receiving $0.60 to $0.80 per pound and average net returns to Washington growers at $0.80 to $1.00 per pound.[69]

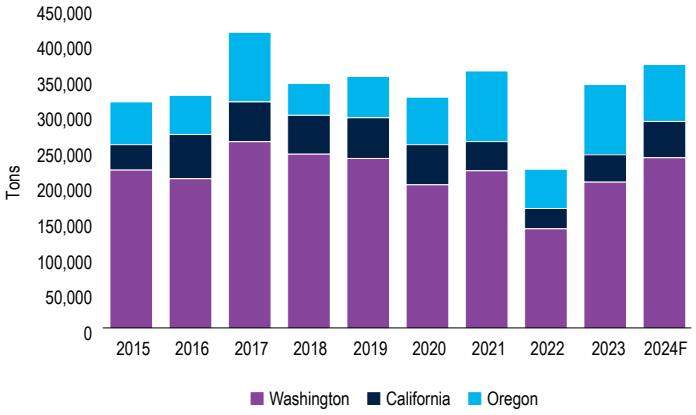
General Outlook

- Total planted acres in the United States have remained relatively static during the past five years; however, acres in California and Washington have grown, offsetting those acres being removed in other parts of the country. Annual domestic supplies are expected to have higher volatility with drastic changes in weather conditions.

CHERRIES Historical U.S. Bearing Acres, 2015-24F



CHERRIES Historical U.S. Fresh Cherry Production, 2015-24F



Sources: PGIM Real Estate Agricultural Research, USDA.

DATES

Supply

- Globally, more than 9.9 million tons of dates are produced annually with most of the production grown in the Middle East. Total world production is down less than 1% from the prior year.
- In the United States, dates are produced in California and Arizona on approximately 15,000 acres. U.S. growers represent a small fraction of the global market. U.S. date production has been steadily declining since 2021 due to a variety of factors such as decreasing prices, water availability, as challenges with the Colorado River play a key factor in reducing plantings, and higher production costs. California is the largest domestic producer of dates followed by Arizona, each producing 35,000 and 14,000 tons, respectively, in 2023. 2024 production is not yet available as the harvest period is typically from September to early December.
- The decline in supply was due to a 5% reduction in bearing acreage in California and a 20% drop in yield per acre.[70]

Demand

- Global consumption of dates has increased over the past several years, especially among health conscious consumers.
- Health and convenience are helping to drive international demand, which has caused many countries such as Iran, Saudi Arabia, Egypt and UAE to increase export volumes.

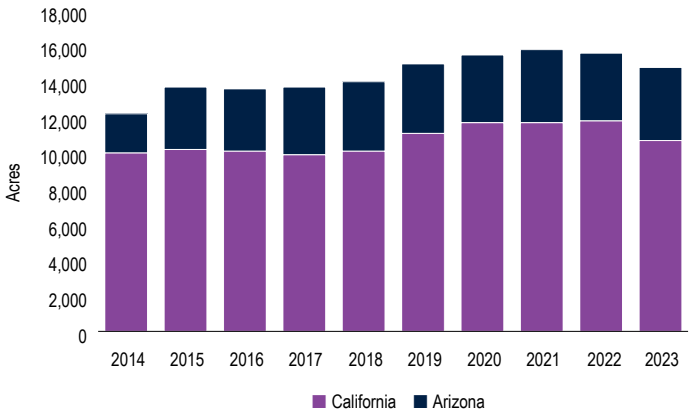
Prices

- The value of production for U.S.-grown dates fell approximately 13% from the previous year from $209 million to $181 million, largely due to the decrease in available supply.
- Prices in 2023-24 have seen an increase to $3,710 per ton from $3,250 in 2022-23.[71]

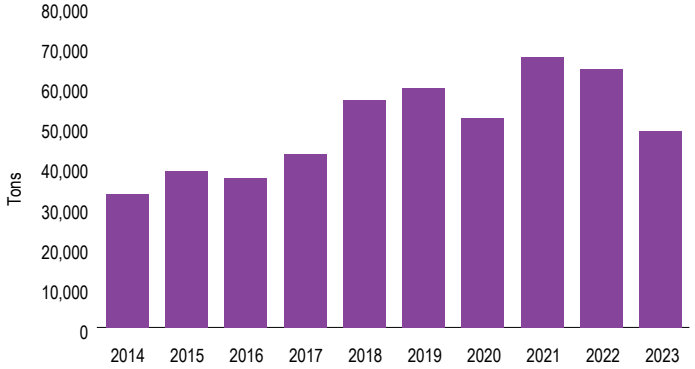
General Outlook

- U.S. production will likely stabilize or continue to slightly decrease following the trend of less acreage in production year after year and higher global production.
- As global demand continues to increase, U.S. date producers remain competitive through differentiation in quality and varieties grown.

DATES Historical Bearing Acres by State, 2014-23



DATES Historical U.S. Date Production, 2014-23



Sources: PGIM Real Estate Agricultural Research, USDA.

PEACHES & NECTARINES

Supply

- In 2024, there were an estimated 74,000 producing acres of peaches and 16,000 acres of nectarines in the United States. California accounts for 69% of all peach and 100% of nectarine acres. An estimated 600 million pounds of peaches were grown in California in 2024.[72] The 2024 season was impacted by the bankruptcy sale of one of the largest growers and packers of fresh peaches and nectarines in California. The sale of its approximately 13,000 producing acres impacted the total available supply. In addition, weather-related factors reduced total fresh supply.[73]
- In 2024, the United States imported approximately 70 million pounds of fresh peaches and nectarines, of which 95% were grown in Chile, with the remainder coming from Mexico and Argentina. During the past five years, total imports have decreased 5% per annum.

Demand

- U.S. per capita consumption of fresh peaches during the past five years remains relatively static at approximately 2.4 pounds per person. The reported consumption of processed peaches (canned and frozen) has declined 4% per annum during the past five years and is at a historic low of 2.3 pounds per person.
- During the past five years, U.S. exports have represented about 25% of total supply and have been relatively static, averaging approximately 140 million pounds per year.[74]
- In 2024, Canada, Mexico and Taiwan were responsible for importing 52%, 31% and 12%, respectively, of total U.S. fresh peach and nectarine production.

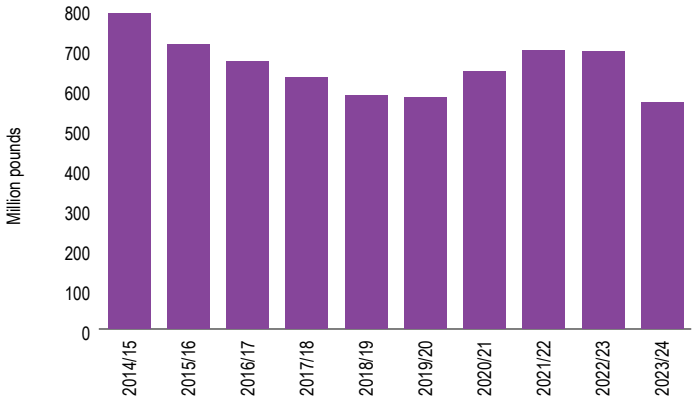
Prices

- The fresh peach and nectarine markets are highly volatile and heavily impacted by individual grower varietals, quality, time of harvest and size of fruit produced. Fruit that is of premium quality and largest size can be exported, which typically receives a significant price premium.
- During the 2024 season, California peaches returns to the grower were in line with the 2023 season. Net prices averaged $15 to $20 per 28-pound box.

General Outlook

- Marketers and packers expect the availability of fruit to be similar to the prior year if not slightly reduced as more acres are removed from production. Production in California's Central Valley will continue to be impacted as groundwater pumping regulations are implemented across the state, further reducing arable acres.
- Most growers that are planting new acres are shifting to higher densities trellis systems, which should produce better yields, helping to offset reduced acres.

PEACHES AND NECTARINES Historical U.S. Production for Fresh Peaches, 2014-15 to 2023-24



38K
ACRES IN 2023-24

CALIFORNIA PEACH BEARING ACREAGE

Peach acres in California have been trending down slightly over the past three seasons, driven by lower Clingstone peach acres.

+22%
FROM 2022-23

U.S. PEACH PRODUCTION

For the 2023-24 season, peach growers produced an estimated 719,000 tons, up from 588,000 tons in the prior season.

Sources: PGIM Real Estate Agricultural Research, USDA.

PLUMS

Supply

- Over 90% of total U.S. fresh plum production is grown in California's Central Valley. An estimated 180 million pounds were produced in 2023 and projected to be similar in size in 2024. Total production was grown on approximately 10,000 acres. During the past five years, planted acres have declined at an annual rate of 2.7%.[75]
- In 2024, the U.S. imported approximately 65 million pounds of fresh plums, with 81% shipped from Chile and 18% from South Africa. Over the past five years, total imports have increased 12% per annum.

Demand

- U.S. per capita consumption of plums and prunes during the past five years has been static at approximately 0.5 pounds.
- During the past five years, plum exports have been flat, averaging approximately 45 million pounds per year.[76] Chinese imports have declined 10% per annum, over the same period, while exports to Mexico and Central America have increased 26% per annum. In 2024, Canada, Mexico and China/HK/Taiwan imported 42%, 29% and 25%, respectively, of total U.S. fresh plums production.

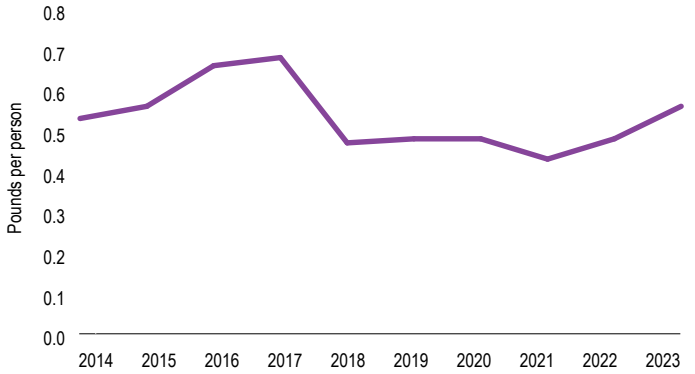
Prices

- The fresh plum market is highly volatile and heavily impacted by individual grower varietals, time of harvest, quality and size of fruit produced. Similar to other stone fruit, price premium is received for high-quality fruit with large sizes and it can be exported easier.
- For the 2024 season, California grower returns were slightly lower than the 2023 season. Net returns for plums are grower and ranch specific but had an average spread of $12-$19 per 28-pound box.

General Outlook

- Natural attrition in the plum industry continues as growers who are removing trees are more likely to diversify their holdings by planting other stone fruit, less labor-intensive crops or exiting farming altogether. Production will be further impacted as groundwater pumping regulations are implemented across the state, reducing arable acres.
- Exports represent about 20% of total U.S. fresh plum supply and utilization. The Canadian market is mature, while there looks to be potential growth opportunities in the Mexican and Central American markets. The growth of these and other markets can be heavily impacted by geopolitics and regulations.

PLUMS Historical per Capita Consumption, 2014-23



-40%
ACRES FROM 2014-15

CALIFORNIA PLUM BEARING ACREAGE

Over the past decade, acres planted to plums in California have declined from 16,500 in the 2014-15 season to less than 10,000 for the 2023-24 season.

+30%
FROM 2022-23

U.S. PLUM PRODUCTION

For the 2023-24 season, plum growers produced an estimated 85,000 tons, up from 66,000 tons in the prior season.

Sources: PGIM Real Estate Agricultural Research, USDA.

TIMBER

Our Overview of the Timber Market

The U.S. economy held strong in 2024 despite ongoing inflation. Gross Domestic Product (GDP) ended at a real rate of 2.8%, but higher interest rates have slowed housing construction, leading to lower demand for lumber. In 2024, housing starts ended at 1.36 million units, down 4.2% from the previous year and the third consecutive year of declines, which will have an impact on the timber markets. However, existing home sales in December 2024 equated to an adjusted annual rate of 4.24 million, an increase of 2.2% from the previous month, which is the highest since February 2024.[77] Remodeling and improvement activity reached a record of $356 billion, up 8% from 2023.

Timberland funds continue to be active in this sector. U.S. timberland transactions were estimated at 1.0 million acres in 2024, with over half of those acres trading in the South. Six transactions were more than 50,000 acres and two over 100,000 acres. Other transactions range from 5,000 to 34,000 acres. Average timberland prices for these transactions averaged $2,218 per acre, down 1% from the prior year, and ranged from just under $1,000 to as high as $3,581 per acre depending on the state and quality of the plantation.

In the southern United States, pine sawtimber prices have stayed flat over the past three years, while price declines have been observed during this same period (2022-24) for chip-n-saw (-5%), pine pulpwood (-14%), hardwood pulp (-14%) and pine sawtimber (-3%). Some areas, like Louisiana and Texas, are projected to see small price increases (+3%) for sawtimber.[78] However, areas such as Texas, Florida, South Carolina and Louisiana all experienced a decrease in pine pulpwood prices because of recent pulp mill closures, with further drops expected to come as the markets fully digest the mill closings. However, lower projected diesel costs will help to bring logging costs down by about 5%.

Meanwhile, in the Pacific Northwest (PNW), softwood log prices took a hit in 2023, falling 14% or more from the previous season. In 2024, markets in Washington began to stabilize, but Douglas-fir prices could drop another 3.8%. On the bright side, Douglas-fir exports remain stronger than domestic pricing.

The timber market is deeply influenced by both regional and global factors. Declining pulpwood prices reflect changes in the paper industry, while demand for pallets and panels remains steady due to consistent manufacturing activity. In the South, investments in wood-use capacity are driving growth, but high interest rates and rising production costs continue to create challenges. Adapting to these pressures through pricing strategies, efficient supply management and alignment with shifting policies will be critical for the industry's long-term success. Despite these obstacles, certain markets show resilience, highlighting opportunities for growth in key sectors.[79]

TIMBER: EASTERN REGION

Supply

- The U.S. South's timber supply has increased significantly over the past 30 years and is expected to continue growing over the next five years in most southern states, especially Alabama and Mississippi. In 2025, U.S. southern lumber production is forecast to grow by 2.9% for a total of 22.4 billion board feet (BBFT), and this rate is also expected to continue through 2030 with an expected production of 24.8 BBFT. Growth-to-drain (GTD) ratios in timber reflect the balance between annual growth and harvest volumes. In 2024, the GTD in this region was 1.4 and projected to decline to 1.2 in 2029, which will result in lower supplies, but still will be an oversupplied market. Rising inventories and deferred harvesting by landowners during and after the latest recession contributed to higher supplies, especially compared to the pace of new building projects.[80]
- Mill developments include 104 planned openings or expansions for a cost of over $2.5 billion, adding 3.5 BBFT of softwood lumber capacity in the U.S. South, primarily in sawmills and wood pellet mills. However, 32 mill closures/reductions have reduced capacity by 24 million tons, with pulp/paper mill closures accounting for 70% of southern wood use reductions.[81] Despite recent mill closures, the South remains a key region for timber supply and market dynamics.

Demand

- Timber demand in the U.S. South reached 222 million tons in 2023, matching levels from 2005. While pine grade demand rose post-recession, pulpwood demand dropped by 17% since peaking in 2017 due to feedstock shifts and pulp mill closures.

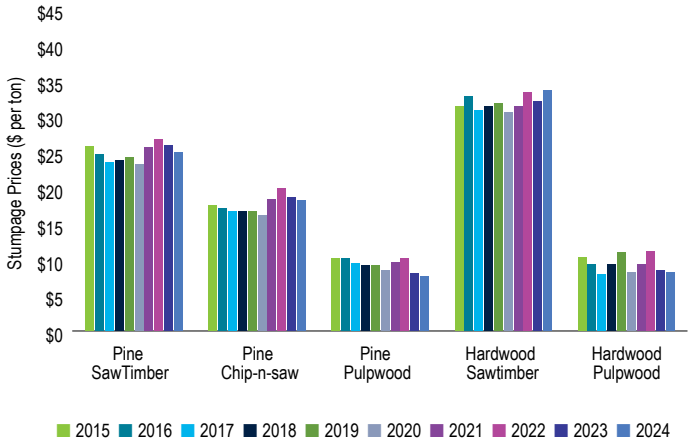
Prices

- In 2024, all timber product prices, with the exception of hardwood sawtimber, experienced the second consecutive year of declines. Stumpage prices in 2024 were down for four of the five major products. As of 4Q 2024, South-wide prices for pine sawtimber ended at $25.03 per ton, down 3% from last year; pine chip-n-saw was $18.19 per ton (-3%); pine pulpwood was $7.56 per ton (-7%); hardwood sawtimber reached a new record of $33.66 per ton (+5%); and hardwood pulpwood was $8.21 per ton (-4%).[82] Even with the decline in pulpwood pricing, the region remains a leader in timber production.

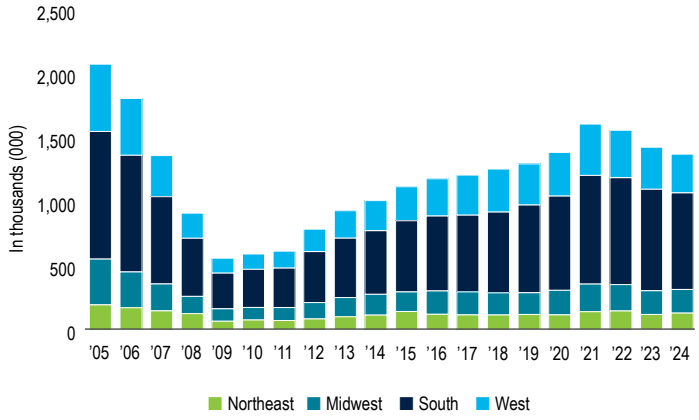
General Outlook

- While the southern timber market has softened since the Great Financial Recession, land appreciation has soared and the stable cash flows of timber harvests have kept investors interested in the safety of this asset class. Institutional, private and major forest products companies will stay active in this sector and pursue more prime timberlands in the south to generate stable cash flows over the long-term.

TIMBER Historical South-Wide Average Timber Stumpage Prices ($/ton) for Five Major Product Categories, 2015-24



HOUSING UNITS Historical Housing Unit Starts by Region, 2005-24



Sources: PGIM Real Estate Agricultural and Timber Research, TimberMart-South, Forisk, U.S. Census Bureau.

TIMBER: WESTERN REGION

Supply

- Timber supply in the PNW is influenced by strict regulatory measures and land-use restrictions, particularly on public lands. Private forests dominate production, with key species like Douglas-fir and Hemlock supporting construction markets. The current commercial sawlog inventory in the entire PNW region was estimated at 109.2 BBFT in 2024 and expected to fall 2.5% by 2033 to an estimated 106.4 BBFT. Efforts to increase timber supply have been made; however, heavy restrictions remain a limiting factor.[83]
- The 2024 U.S. wildfire season was very active, with an estimated 8.8 million acres burnt, up 6.2 million acres from 2023. These wildfires impacted harvest operations in the west region. Notably, the impacted areas, specifically in 2024, extended beyond timberland to more populated areas as well.[84]

Demand

- Lumber production has been lower overall by about 0.5%, due to the decrease in housing starts this year despite the increase in improvement expenditures. Even though export volumes from the Western United States have recently hit all-time lows, it is expected that the reopening of the Chugoku Mokuzai sawmill in Japan, which had its production curtailed due to a fire last year, will help to increase exports.

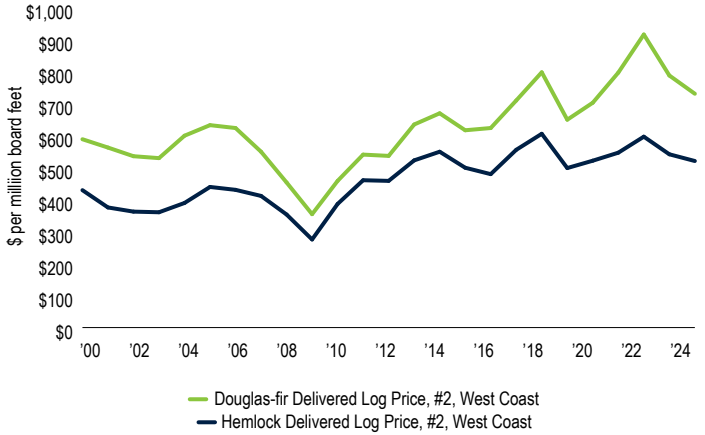
Prices

- Overall timber prices in the PNW declined for the second consecutive year. The Oregon and Washington coasts reached an average Douglas-fir delivered price of $730/MBF, down 7% from the prior year. Hemlock delivered log prices ended at $520/MBF, down 4% from 2023.
- For 2025, timber experts in this sector expect 2025 prices to increase 7% for both products as new demand emerges in domestic and export markets and housing starts in the western United States are projected to rise modestly.

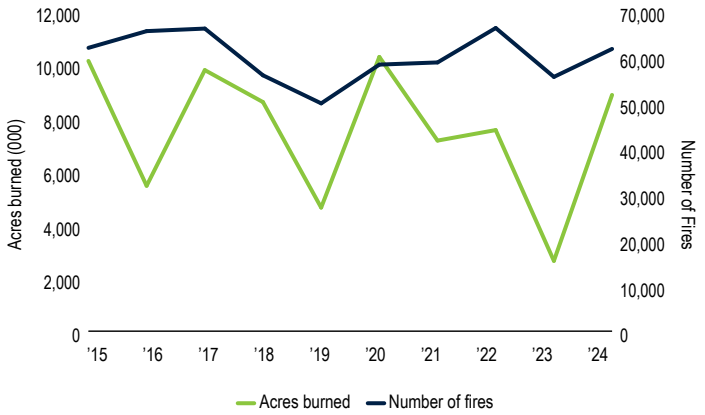
General Outlook

- The western U.S. timber market is benefiting from a resurgence in interest for sustainable forestry practices, with growing demand for certified wood products due to the public's environmental concern. Timber REITs and other institutional investors are expected to remain active buyers and opportunistic sellers in the western region.
- Technological advancements in forest management and timber harvesting are improving efficiency, creating new opportunities for sustainable growth and investment in this industry. Innovations such as remote sensing, drone technology and automated harvesting equipment are enabling more precise and cost-effective forest management.[85]

TIMBER Average Western Timber Prices, 2000-24



TIMBER Historical U.S. Wildfires, 2015-24



Sources: PGIM Real Estate Agricultural and Timber Research, Forest Economic Advisors.

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As such, all properties are held in a fiduciary environment. Reinvestment of dividends is not applicable to this asset class. Note: A benchmark Index is not professionally managed, does not have a defined investment objective, and does not incur fees or expenses. Investors cannot invest directly in an index.

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