PGIM REAL ESTATE

AGRICULTURAL FINANCE & INVESTMENTS

U.S. AGRICULTURE & TIMBER MARKET UPDATE

2024

EASTERN

CENTRAL

WESTERN

TIMBER

COMMODITIES

EXECUTIVE SUMMARY

The performance of the U.S. agricultural sector continues to be solid despite major external factors that continue to challenge producers and marketers in various commodity sectors. Even though the United States remains one of the top producers and exporters of major, high-quality and high-value products demanded around the world, headwinds are expected to continue during this year. Our latest annual publication explores some of the latest developments in the sector.

- **Global inflationary pressures are expected to continue affecting the food chain.** Consumers continue to face the challenges of the high costs of food at retail stores, which is resulting in a reduction of purchases of high-valued commodities.
- A **strong U.S. dollar** could continue to pose major challenges for U.S. producers and food exporters. U.S. agricultural trade is expected to have the largest negative balance in decades, as agricultural imports continue to surpass the growth of exports.
- Reduction in future **farm labor availability** to harvest crops will continue to be a catalyst for more agribusinesses and farm operators to accelerate investments in new technologies to help alleviate these challenges in the years ahead.
- Drought conditions have improved in areas like California, and with the higher levels of precipitation resulting from the weather phenomenon known as El Nino; nonetheless, **water regulation and water allocations** will remain key topics for the ag sector, governments and urban consumers.
- **Higher interest rates** have created an environment wherein buyers have more leverage with regard to negotiations in certain growing regions. Farming operations with strong balance sheets and cash availability will become more opportunistic in adding additional farmland to their operations.
- **Agricultural real estate values** may face more downward pressure if interest rates remain elevated, and weaker farm economics puts more pressure on farmers to sell their landholdings.
- **Consolidation of farming operations** is expected to continue, as growers find ways of reducing their overall cost structures in an environment in which input costs remain elevated compared with prior years.
- Adoption of **new farm technologies** in the agricultural sector continues to accelerate. Technology improvements and high demand for tech tools remain key for growers, as new technologies remain vital to reduce costs and improve farm efficiencies.

FIGURE 1. Historical NFI Performance, 2004 to 2023

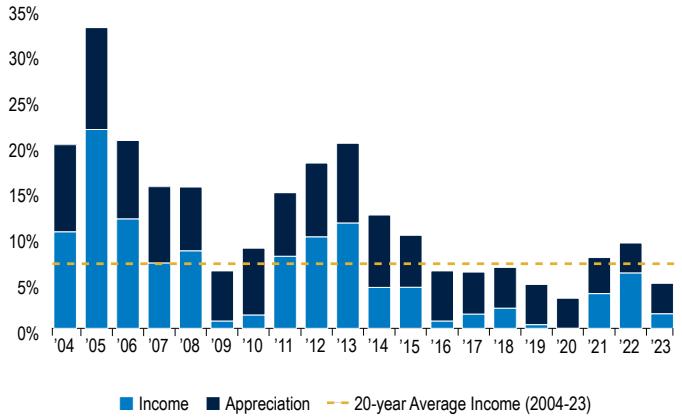
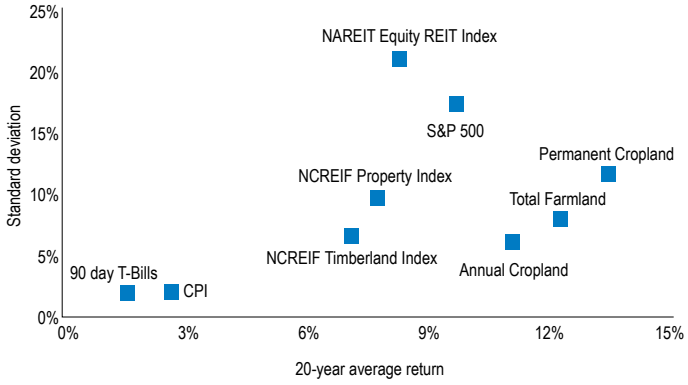


FIGURE 2. Twenty-Year Annualized Returns against Volatility for Selected Indexes, 2004 to 2023



EXECUTIVE SUMMARY (CONTINUED)

The **NCREIF (National Council of Real Estate Investment Fiduciaries) Farmland Index (NFI),** an index that tracks the performance of the farmland assets owned by major institutional investors in the agricultural sector, ended 2023 with a total market value of $16.6 billion across 1,339 properties. Annual cropland properties accounted for 62% of the value of the index, with the remaining 38% allocated to permanent crops. The NFI's performance continued to be positive in 2023 despite headwinds in the agricultural markets.

The NFI ended 2023 with a total annual return of 4.96%, which included 3.34% in income and 1.58% in appreciation returns (**Figure 1**). Last year saw a larger divergence between returns in the annual cropland category and the permanent crops. Total returns for annual cropland ended at 10.21%, with most of the return derived from appreciation (+6.54%), whereas permanent crops experienced a negative return of -2.88% as a result of negative appreciation (-5.85%) because valuations were affected by weak pricing conditions mainly in the tree nut category. Last year, 2023, was the fourth consecutive year in which annual cropland has exceeded total returns for permanent crops. However, total annualized returns for permanent crops have outpaced those in the row crop category in the past 10, 15 and 20 years. In the past 20 years, total farmland returns have generated total annual returns of 12.27%, comprising 5.75% in appreciation and 6.34% in income returns, exceeding other major indexes (**Figure 2**).

The **NCREIF Timberland Index (NTI)** ended 2023 with a market value of approximately $26.9 billion, 12.6 million acres across 443 major investments and an average value of $2,124 per acre. The index divides the regions into four major areas: the South, which accounts for 65% 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 $3,296 per acre in 2023, whereas the value in the South, Northeast and Lake States ended at estimated values of $2,137, $1,717 and $695 per acre, respectively.

Total annualized returns for 2023 ended at 9.45%, consisting of EBITDDA return of 2.62% and appreciation return of 6.71%. The year 2023 was the third consecutive year the NTI exceeded the returns of the NCREIF Farmland Index, driven mainly by stronger appreciation returns (**Figure 3**). In the past 20 years, NTI has generated total returns of 7.07% that consisted of EBITDDA returns of 3.05% and appreciation returns of 3.93%. Institutional investors continue to expand their footprint in this sector and drive more consolidation.

U.S. agricultural trade is forecast to have the largest negative balance in decades, with a balance of -$30.5 billion in 2024 based on projected exports of $169.5 billion and imports of $200 billion. U.S. Ag net trade fell from a positive balance of $1.9 billion in 2022 to a negative balance of -$16.7 billion in 2023 (**Figure 4**).

FIGURE 3. Historical Total Returns for NTI versus NFI, 2004 to 2023

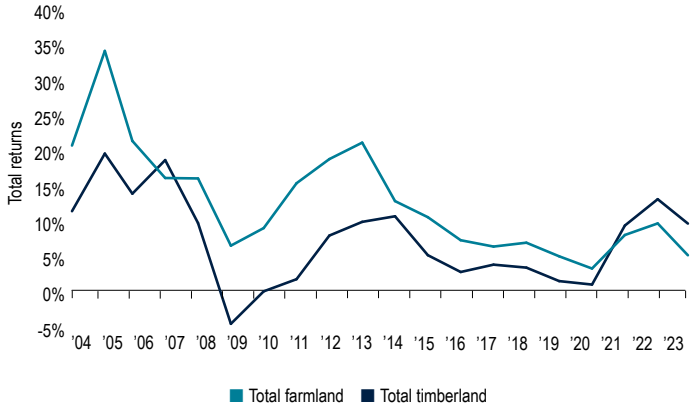
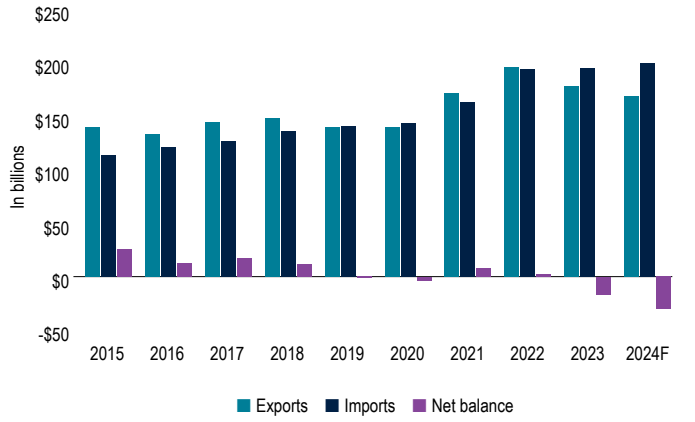


FIGURE 4. U.S. Agricultural Exports, Imports and Net Trade Balance, 2015 to 2024F



EXECUTIVE SUMMARY (CONTINUED)

U.S. agricultural exports have grown from $139.8 billion in 2015 to $169.5 billion projected for 2024, reflecting an annual growth rate of 2.2% during the past decade (**Figure 5**). For the third consecutive year, China is expected to be the top export market for U.S. agricultural products, at $29.5 billion, or 17.4% of total exports, followed by Mexico at 16.5%, Canada at 16.3%, the European region at 7% and Japan at 6.7%. The four countries and the European region represent 63.9% of total U.S. agricultural exports. Mexico is expected to be the second-largest export market, ahead of Canada, for the first time in more than a decade. A stronger U.S. dollar against other currencies, coupled with inflationary pressures abroad, are two of the factors driving exports to lower levels for the second consecutive year.

U.S. agricultural imports are projected to reach a record $200 billion in 2024, up $4.6 billion from the prior year and $86 billion higher than just 10 years ago (**Figure 6**). Agricultural imports have achieved an annual growth rate of 6.4% in the past decade, nearly triple the rate of agricultural exports. Imports from Canada, the European Union, Mexico, India, China and Brazil are forecast to account for 71% of total agricultural imports. Mexico continues to be the largest supplier of agricultural products to the U.S. market. The annual growth rate in imports from Mexico has exceeded the rate of any other region, at 9.6% in the past 10 years. In 2024, Mexico is projected to account for 23.6% of the value of total agricultural imports, followed by Canada at 20.1% and the European Union at 19.6%. The weaker Mexican peso has been one of the factors fueling agricultural exports in the United States.

The bigger growth in volume of imports from 2022 to 2023 was in the vegetable oils industry, whose annual growth rate was 23.8% from 7.2 million metric tons to 8.9 million metric tons. The cattle and calves industry also posted strong growth, with an annual increase of more than 21%. Beef and cattle also grew by close to 10%. Imports of fruit had a slight increase of 2.1%, and vegetables declined slightly by -0.1% from 2022. The biggest declines in imports were observed in the wine industry (-14.4%), in coffee and coffee products (-14%), in cocoa and cocoa products (-11.5%) and in prepared or preserved fruits (-8.8%).

Growth in agricultural exports has been limited by the strength of the U.S. dollar against major trading partners in past years. At the end of 2023, the yen, the yuan and the Indian rupee had depreciated approximately 14.4%, 8.4% and 0.6%, respectively, against the U.S. dollar from the prior year. Whereas the euro, the British pound and the Canadian dollar strengthened in 2023 by 5.5%, 3.4% and 2.4%, respectively, a reversal has been observed again in early 2024, which could trigger a possible slowdown in U.S. agricultural exports again, as these currencies continue to devalue against the U.S. dollar.

Major global currencies have devalued against the U.S. dollar during the past decade (year ended 2023 versus year ended 2013), including the real (+124%), the Mexican peso (+49%), the Indian rupee (+34%), the British pound (+27%), the Canadian dollar (+27%), the yen (+25%), the euro (+22%) and the yuan (+14%).

FIGURE 5. Historical Value of Agricultural Exports to Major Trading Partners, 2015 to 2024F

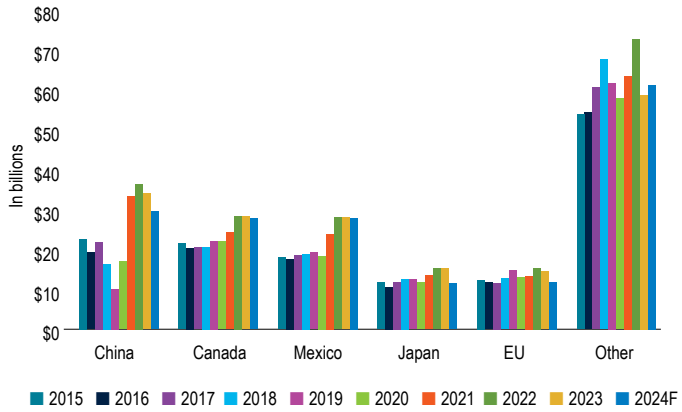
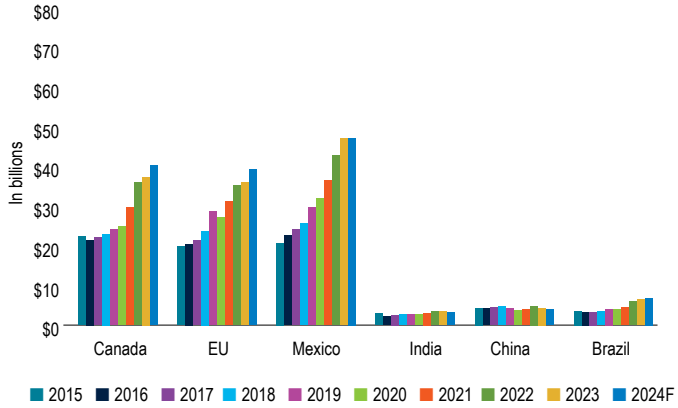


FIGURE 6. Historical Value of Agricultural Imports from Major Trading Partners, 2015 to 2024F



EXECUTIVE SUMMARY (CONTINUED)

Major **agricultural and metal commodities** posted mixed performance results from year end 2022 to year end 2023. Cocoa had the highest growth in future prices increasing by 64% followed by coffee (+20%), gold (+11%), sugar (+10%) and Live Cattle (+10%). The worst performer in the metals sector was palladium, down 40% year over year. In terms of agricultural commodities, corn experienced the worst annual decline by -29% (**Figure 7**).

The **Consumer Price Index** (CPI) for 2023 ended at 5.8% for 2023, down from 9.9% in 2022 but still higher than the 3.9% observed in 2021. The 20-year historical average CPI for food in 2004–23 has been estimated at 3%. In 2023, the largest annual percentage change was in the sugar and sweets category, at 8.7%, followed by cereal and bakery products at 8.4% and non-alcoholic beverages at 7% (**Figure 8**).

Food away from home ended at 7.1% in 2023 and was still twice as much as the 20-year historical average. Food at home had a 5% change in 2023 and more than half the rate experienced in 2022. Inflationary pressures have eased, but consumers continue to trade down on discretionary food products and high-value-added items.

Farm input costs for 2024 are projected to increase to $460 billion, or 3.8% higher than the prior year. The total cost paid by farms to raise crops and care for livestock in 2023 was approximately $443 billion, a 23% increase since 2020.[1] That marked increase is attributed to the economic impacts of the COVID-19 pandemic, international trade conflicts and the rapid increase in interest rates.

According to the most recent 2024 cost-of-production forecast published by the U.S. Department of Agriculture (USDA), input costs are expected to remain elevated yet lower than the 2020 record-high levels.[2] The costs of fertilizer and other chemicals are forecast to decrease by 14% and 8%, respectively, from 2023. It is also anticipated that the overall interest paid on operating capital will decrease by 11% from 2023. Despite the decrease of certain inputs, labor, which is one of the biggest expenses in agriculture, is expected to increase by 2%.

The new **2022 Census of Agriculture** was published at the beginning of the year. In 2022, an estimated 1.9 million farms in the United States farmed an estimated 880 million acres and produced an estimated $543 billion in agricultural products, up from $389 billion in 2017. The number of farms decreased approximately 7% from the previous census, conducted in 2012, which reflects more consolidation in the agricultural sector. The average age of farmers continues to increase and is estimated at 58.1 years old. Less than 10% of farmers in the United States are younger than 35 years. The census report concluded that younger farmers are found more in Midwestern states, and older producers in Southern states.

FIGURE 7. PAI Commodity Pricing

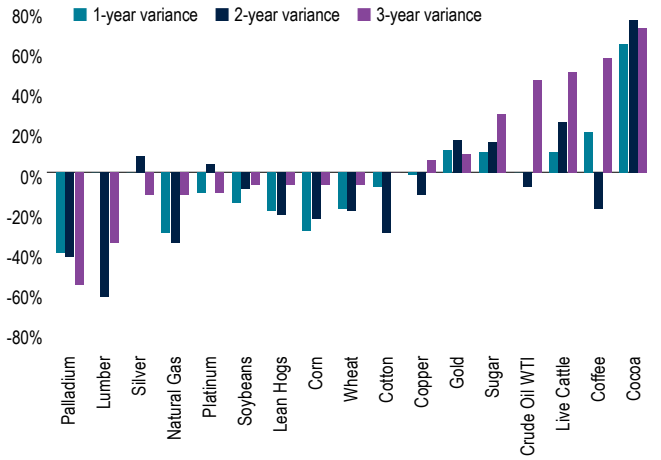
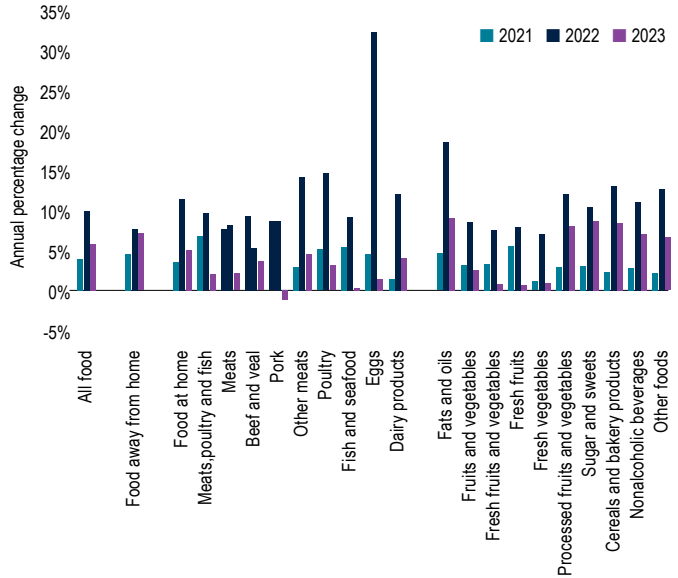


FIGURE 8. Changes in Annual Consumer Price Indexes by Category, 2021 to 2023



EXECUTIVE SUMMARY (CONTINUED)

The 2018 **Farm Bill** was set to expire on September 30, 2023, but it was extended for one more year by the current administration.[3] The 2018 Farm Bill, originally meant to last only five years, supports agriculture producers via safety net programs, credit opportunities and disaster assistance among other programs. The one-year extension will continue to fund those programs until September 30, 2024. Several agricultural committees anticipate that in addition to the existing programs, Congress will push for (1) continuous regulation of hemp, (2) the implementation of regenerative agriculture, (3) smart-controlled technologies and (4) subsidies for rural Internet in the next Farm Bill forecast to be passed at the end of 2024.[4]

The United States experienced its first **El Niño** winter during 2023/24 since 2019.[5] The U.S. central and southern plains and the Southeast tend to experience more rain in late winter and early spring during this weather phenomenon. In contrast, during the same period, the Pacific Northwest and the Great Plains experience lower precipitation levels. It is too early to determine the long-term impacts of El Niño on U.S. agriculture, but several producers are already experiencing some relief as U.S. drought coverage was 15% as of April 2, 2024 compared with 40% during 2022/23.

Agricultural producers continue focusing on **new technologies** that could assist in reducing costs while increasing efficiencies. The Farm Bill is expected to bring more funding and more grants to companies so as to accelerate the development and use of technologies at the farm level.

Future availability of labor is resulting in more growers' considering mechanization of harvest activities through the use of various mechanical harvesters adapted to specific commodities. Growers are also interested in reducing the amount of chemicals and inputs such as automatic weed harvesters that could help offset the higher costs of production while limiting environmental impact at a time that this topic has been gaining popularity among consumers.

In addition, large agricultural corporations are focusing on developing tools that would enhance precision agricultural practices for growers. John Deere is an example of well-known organizations investing in technologies and new partnerships with other companies to create a network of tools that would help increase productivity for producers as well as the food supply chain. Artificial intelligence, too, is gaining more attention in the agricultural sector through experimentation with new nutritional and pest management programs that could enhance production and minimize waste of inputs during a season.

EXECUTIVE SUMMARY (CONTINUED)

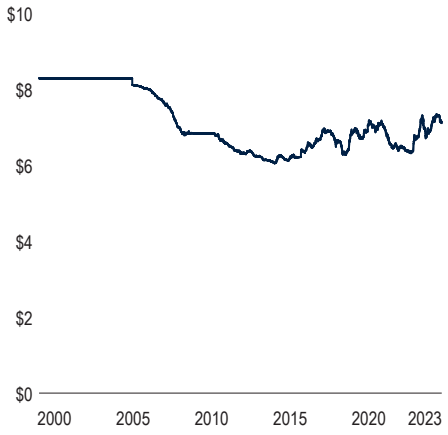
MEXICAN PESO per U.S. Dollar

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

Market dynamics vary from state to state in the Southeast United States. Rural parts of the region continue to see growers hold onto their land from generation to generation, whereas growers closer to urban centers are opting to sell their land at premiums for higher and better use. Demand for rural land continues to be motivated by developers, utility companies and state governments making investments through conservation acquisitions.

States such as Georgia and the Carolinas have fragmented agricultural markets consisting primarily of smaller growers. Most land sales that occur in those states are smaller in size and not considered institutional grade. Irrigated row crop land is the most widely traded kind of land in the Southeast and ranges from $6,000 to $10,000 per acre depending on size, location, and quality. Only a limited number of pecan orchard transactions took place in 2023 whose land values ranged from $8,000 to $11,000 per acre depending on quality and size. Strong market dynamics in the blueberry industry have seen growers holding onto their land, with very few small properties for sale.

Since the start of the COVID-19 pandemic, Florida has seen population growth and a subsequent real estate boom. Agricultural land for row crops and citrus groves in areas experiencing population growth are being sold at premiums above agricultural values for higher and better use. Real estate developers and solar energy companies are the primary buyers of agricultural land in Florida. The growing population has created continued demand for large tracts of land suitable for housing developments, and energy companies put tens of thousands of acres under option in 2023 as they continue working to meet their carbon-neutral goals. Land developers are paying premiums up to three to four times those of agricultural land values depending on the location and size of a property. As the citrus industry continues to struggle in the state, the listing prices of citrus groves have ranged from $8,000 to $12,000 per acre depending on the size and condition of the groves. Growers are opting to sell their citrus groves for alternative uses at premiums to grove values. Muckland in the Everglades Agricultural Area has the highest agricultural land prices in Florida. Very few farms come up for sale annually in this area, and prices are often in excess of $15,000 to $20,000 per acre depending on the quality and depth of the muck. A limited number of small sales have taken place in this region of the state for this type of sugarcane and vegetable land.

The active 2023 Atlantic hurricane season generated 20 named storms characterized by warm sea surface temperatures and a strong El Niño presence. Hurricane Idalia was the only U.S landfalling hurricane in 2023, making landfall as a category 3 hurricane in August near the upper panhandle of the state. In addition to surge, wind and flooding damage was recorded well inland into Georgia. Although the storm crossed an area that is lightly populated, it caused notable damage to agricultural assets through various areas in Florida and Georgia. According to the University of Florida, an estimated 3 million acres of agricultural land were damaged by the storm's path, with losses ranging from $78.8 million to $370 million, including row crops, dairy and timber losses. Growers continue to work with legislators to obtain some federal disaster assistance payments.[6]

CITRUS

Supply

- Production growth for Florida citrus growers continues to be a challenge, remaining at the lowest levels in decades due to the continued impacts of both citrus greening disease and devastating hurricanes of the past few years. Until the 2022/23 season, Florida was historically the largest citrus grower in the nation, followed by California.
- Florida is primarily an orange juice state, and its growers are projected to harvest 22.7 million boxes of citrus during the 2023/24 crop season—up 25% from the prior season. Total production includes 19.8 million boxes of oranges, 2.4 million boxes of grapefruit and 550,000 boxes of tangerines and other citrus. Despite the year-over-year increase, forecast production is less than 10% of the 242 million boxes harvested during peak in the 2003/04 season.[7]

Demand

- Domestic consumption of orange juice has been on the decline in the United States as a result of shrinking supply and higher retail prices; however, the United States consistently consumes more orange juice than is produced domestically.
- Since the 2018/19 season, domestic consumption of orange juice has shrunk by 10%, from 530 million tons to 477 million tons. The United States is estimated to consume approximately 477 million tons of orange juice for the 2022/23 season but produced only 85 million tons, resulting in a deficit complemented by imports arriving from Brazil and Mexico.[8]

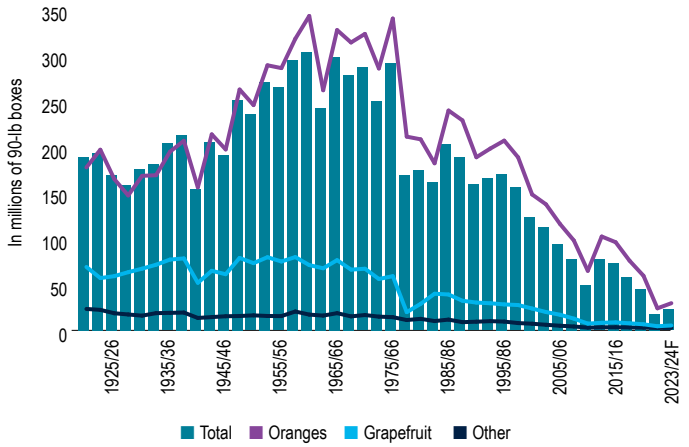
Prices

- Orange prices have reached record highs due to shrinking production. For the 2022/23 season, the final price for early-mid oranges was $3.17 per pound solid (pps) and $3.50 pps for late-variety oranges, up 22% and 26%, respectively, from the prior season.
- Major processors have been offering three-year contracts with floor prices of $2.75 to $2.80 pps for early-mid varieties and $2.95 to $3.00 pps for late-variety oranges, with rise provisions of at least $0.30 pps.[9]

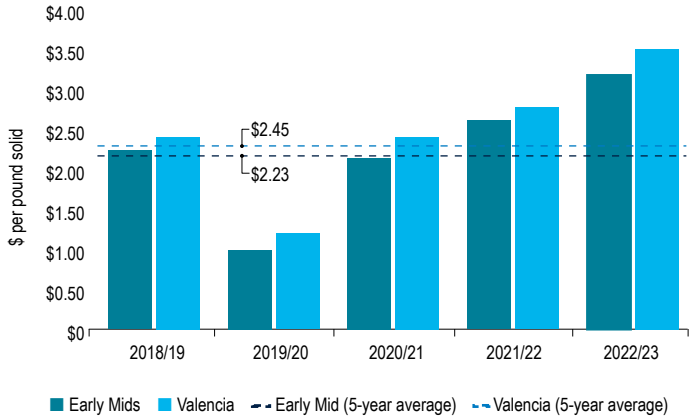
General Outlook

- Production is projected to remain at low levels for the foreseeable future due to citrus greening disease. Citrus greening is a bacterial infection caused by the Asian citrus psyllid, and there is currently no cure. In late 2022, the U.S. Food and Drug Administration approved the use of a bactericide, known as oxytetracycline, to treat citrus trees. Most growers have been active in applying the product in the hope that trees can improve production and the quality of fruit. However, the optimal solution will be the development of a tree resistant to this bacterial disease.

CITRUS Historical and Projected Florida Citrus Production, 1923/24 to 2023/24F



CITRUS Historical Citrus Prices, 2018/19 to 2022/23



Sources: PGIM Real Estate Agricultural Research, Florida Citrus Mutual, U.S. Department of Agriculture (USDA)

SUGARCANE

Supply

- Global sugar production for the 2023/24 season is estimated at 183.5 million metric tons (mmt), up 2% from the prior season and the second-highest record in the past decade. Brazil, along with the United States, has maintained stable production levels of sugarcane based on increased yields. However, more land allocated for sugarcane in Brazil has been converted to corn in response to lobbying efforts by the ethanol industry.
- U.S. sugarcane and sugar beet production is estimated at a record 8.5 mmt for the 2023/24 season, up 1.5% from the prior season. The 2023/24 Florida harvest of sugarcane started in October and is expected to finalize by May. Projected production for the season is 1.8 mmt raw value (MMTRV) due to favorable growing conditions in Florida, thereby enabling producers to attain a higher yield, of 44.2 tons per acre higher than the national average of 35.2 tons per acre.[10]

Demand

- World consumption of sugar is projected to reach record levels for the 2023/24 season, at 178 MMTRV, up 1.2% from the prior season. Sugar consumption around the globe has grown at an annual rate of 0.7% in the past 10 years. The key drivers of sugar consumption growth are attributed to population growth and rises in per-capita incomes in emerging markets.
- Consumption of sugar in the United States is projected at 11.3 MMTRV this season compared with 10.8 MMTRV a decade ago. Industrial consumption of sugar continues to grow and is expected to account for 63% of total use, followed by wholesale grocers (22%) and retail grocers (12%).

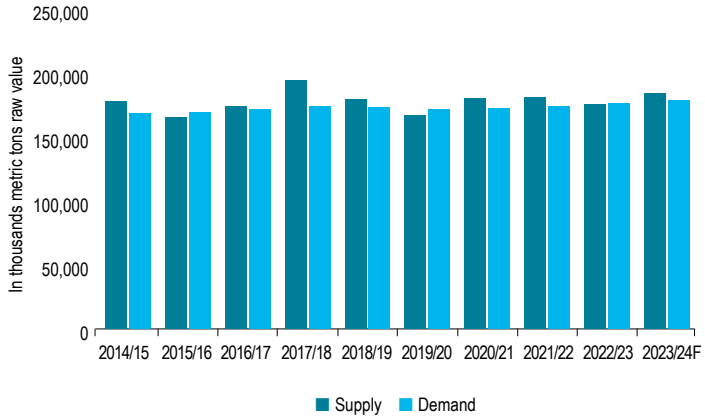
Prices

- Domestic sugar policy, which implements marketing allotments, tariff-rate quotas and indirect price supports, has resulted in stronger prices for U.S. growers. The 2023 average price of raw sugar in the United States (Sugar No. 16 contracts) was $0.38 per pound versus the world price (Sugar No. 11 contracts) of $0.22 per pound.[2] Projections for 2024 show the price of raw sugar will see a small increase domestically and worldwide, driven by rising consumption.

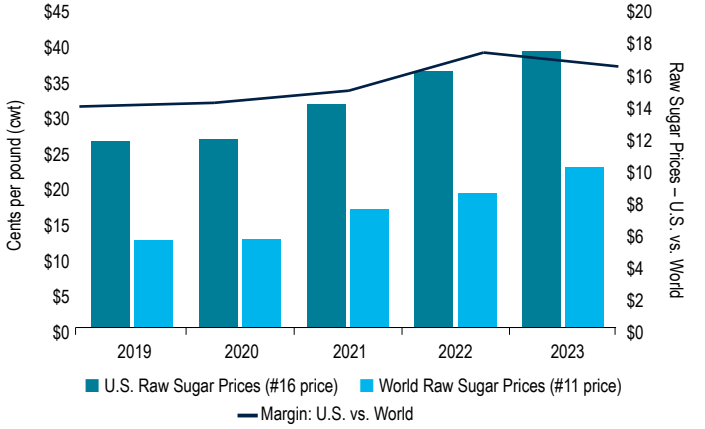
General Outlook

- Domestic sugar policy continues to prevent massive dumping of foreign sugar into the country, which enables U.S producers to operate in better pricing environments for both raw sugar and refined sugar. Per-capita consumption is up and expected to rise in emerging economies globally.

SUGARCANE Historical World Sugar Supply and Demand, 2014/15 to 2023/24F



SUGARCANE U.S and World Sugar Prices, 2019 to 2023



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

PECANS

Supply

- U.S. pecan production continues to be stable. For the 2023 crop season, the United States produced an estimated 271 million pounds of pecans, down 6% from the prior season's 288 million pounds.
- The 2023 crop season was an off-year for Georgia, and production was 88.3 million pounds in the state, down 32% from the prior season's 131 million pounds. Although Georgia is typically the largest producer in the country, the off-year cycle, coupled with an above-average crop for New Mexico made Georgia the second-largest-producing state for 2023. New Mexico produced 100 million pounds, or 37% of total U.S. production.[11]

Demand

- Despite stagnant production in the United States, consumption of pecans has trended upward. U.S. per-capita consumption of pecans has been on the rise in the United States. In 2013, approximately 0.35 pound of pecans was consumed per capita compared with 0.61 pound in 2022, a 73% increase. In 2013, total domestic consumption was 111.8 million pounds, and domestic consumption in 2022 was 204.7 million pounds, or an 83% increase.[12]
- China has been the largest market for U.S. pecans. Exports to China dipped after tariffs were implemented during the Trump administration. During the 2022 season, China imported more than 21.2 million pounds of pecans, down from its peak during the 2020/21 season of more than 41 million pounds. According to some shellers' reports, in 2023, Chinese buyers bought the highest levels of pecans since the 2017/18 season, in the range of 50 million in-shell pounds. The second-largest export market is Canada, which consistently imports 10 million–12 million pounds annually. In 2022, Canada imported more than 10.3 million pounds of pecans.[13]

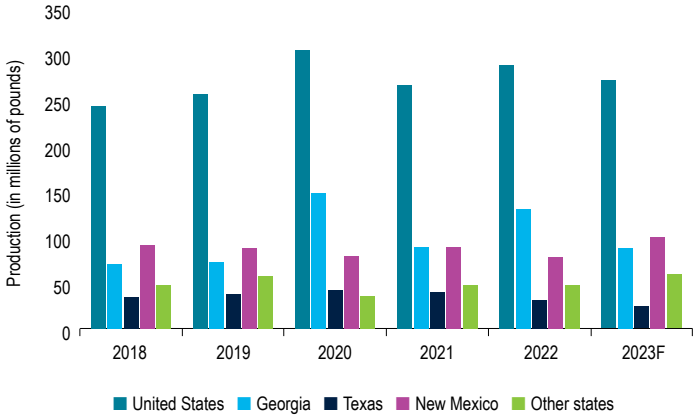
Prices

- Pricing for pecans often experiences fluctuations with the alternate-bearing cycles. In 2021, U.S. prices reached $2.20 per in-shell pound for improved varieties; however, the trade war with China and sharp declines in exports saw prices soften in 2022 and 2023. The average price for improved varieties in 2023 is projected at $1.72 per in-shell pound. The six-year average price was $1.82 per in-shell pound.[14]

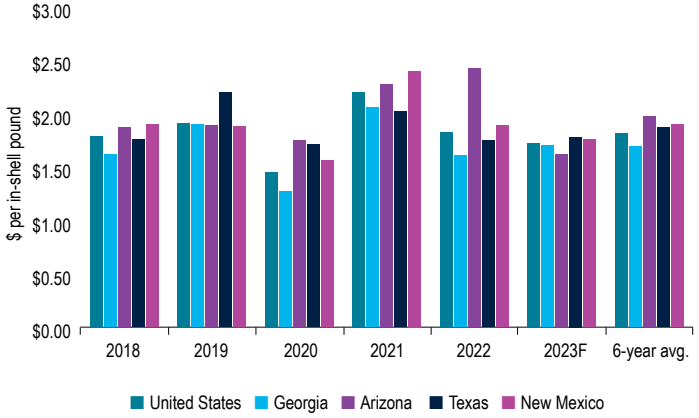
General Outlook

- Across the world, pecans have begun transitioning from a baking nut to a fresh snack nut, similar to other major tree nuts such as almonds and pistachios. Despite pecan consumption's being on the rise, pecans have not experienced substantial increases in production like pistachios and almonds. As marketing efforts take place and new markets open up, global consumption of pecans is expected to continue to rise.

PECANS Historical Production of Pecans by Major State Producer, 2018 to 2023F



PECANS Historical Prices for Pecans, 2018 to 2023F



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

BLUEBERRIES

Supply

- Domestic blueberry production has been on the rise in the United States since the early 2000s. During 2018–22, domestic production stabilized at approximately 650 million pounds.
- Imports of blueberries have continued to grow steadily. In the past five years, imports grew more than 60%. For 2023, imports are estimated at 550 million pounds, with Peru accounting for 51% of total imports followed by Mexico and Chile at 23% and 19%, respectively.[15] Imports are projected to be lower last year due to weaker production conditions in Peru.

Demand

- Demand remains strong among retail and foodservice markets, with per-capita consumption on the rise. In 2000, approximately 0.26 pound of blueberries was consumed per capita; by 2022, per-capita consumption was up 970%, to 2.77 pounds, representing an 11% annual growth rate. From 2018 to 2022, per-capita consumption grew 38%, or at a 7% CAGR.[16] The antioxidants, health benefits, good taste and convenience that blueberries provide continue making blueberries a popular healthy snack.

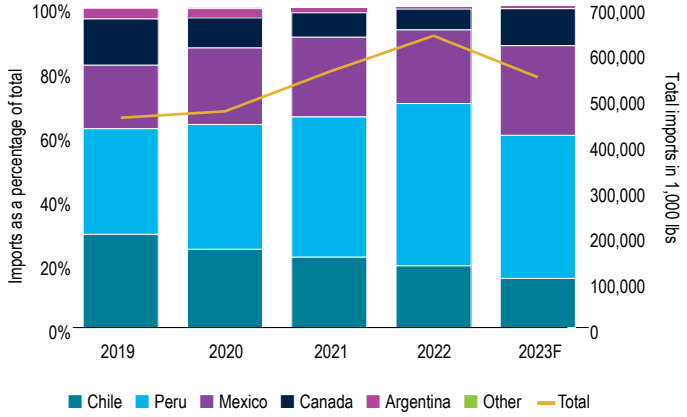
Prices

- As demand continues to rise in the United States, prices remain strong. In 2022, the average price received by growers for fresh blueberries was $2.32 per pound, 9% higher than the five-year average of $2.12 per pound.[17]
- Prices for imported blueberries are projected at $3.00 to $3.15 per pound in 2023, a new record for this commodity.

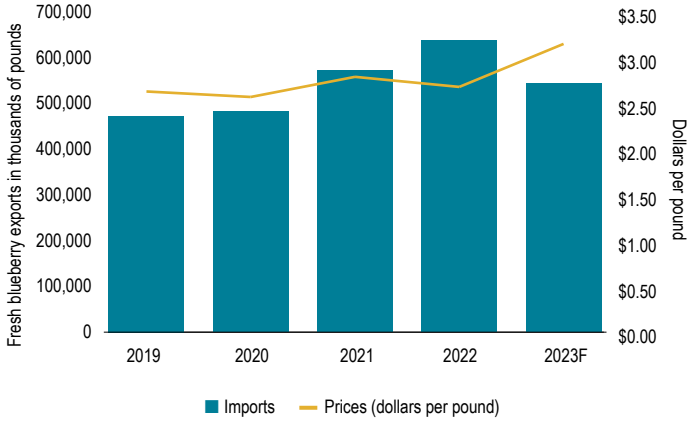
General Outlook

- Blueberries continue to be a popular snack in the United States given their various health benefits. Global consumption also continues to increase. The fundamentals of this commodity sector are solid. Currently, the United States uses its roughly 650 million pounds of annual production primarily for domestic purposes, but the U.S. Highbush Blueberry Council (USHBC) has targeted potential markets for exports. For instance, although Canada currently receives approximately 97% of all U.S. exports, the USHBC has identified Canada as a target country for export growth along with Hong Kong, Japan and South Korea. All of those countries have strong per-capita consumption of blueberries and are considered to have favorable trade conditions for expansion.

BLUEBERRIES Historical U.S. Blueberry Imports, 2019 to 2023F



BLUEBERRIES Historical U.S. Blueberry Imports and Prices, 2019 to 2023F



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

CENTRAL REGION

Our Overview of the Agricultural Real Estate Market

Farmer and institutional appetites to acquire farmland in this region of the United States remained strong in 2022–23. The demand for the highest-quality land across the Corn Belt remained robust. The occurrence of cash purchases increased as buyers attempted to hedge against inflation. Across the Corn Belt, cropland values continued to see strong growth in 2023. Ohio saw the largest Corn Belt percentage increase in 2023 as land values increased 8.6% to $8,200 per acre. Iowa experienced an 8% increase from 2022 to 2023, with average cropland values crossing the $10,000-per-acre mark to achieve a Corn Belt high of $10,100 per acre. In some areas of the region, high-quality land with high productivity index have traded for $18,000+ per acre. The rate of cropland appreciation in the previous two consecutive years totals 20–30% over much of the Corn Belt. Lake States saw significant appreciation in 2022–23, with Wisconsin cropland average values increasing by 11.8% to $6,710 per acre. Cropland values in Great Plains states also increased considerably, with Nebraska values increasing by 13.8% to $6,830 per acre, and Kansas land values increasing by 16.6% to $3,440 per acre. The rates producers pay to rent cropland (cash rents) increased at the national level. In the Central Region, Iowa had the highest average cash rent per acre, at $269, up from $256 in 2022, followed closely by Illinois at $259 per acre, up from $243 in 2022.[18]

Cropland in the Delta states of Arkansas, Louisiana and Mississippi also increased from 2022 to 2023, 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 $3,410 per acre, up 2.1% in 2022–23. Arkansas saw the highest percentage increase in land value, at 2.3% to $3,180 per acre. And Louisiana cropland values increased 1.9% to $3,240.[19]

Average cropland value across the United States jumped to $5,460 in 2023, an increase of $410 per acre over the 2022 value of $5,050 per acre, which is a new all-time high and an 8.1% annual increase. Land sales in the Central Region continued to be very strong, although transactional volume decreased throughout 2023.

CORN

Supply

- Global corn supplies are projected at a record 1.23 mmt for the 2023/24 crop season, up 7% from the prior season. The United States is projected to account for 32% of the world's corn production, followed by China at 23% and Brazil at 10%.
- U.S. harvested corn acres in 2023 were up 10% from the prior season, reaching the highest levels since 2016, at 86.5 million acres. Higher yields per acre coupled with a larger number of acres resulted in a record production of 15.34 billion bushels. Although domestic use of corn is expected to grow with higher supplies, projected ending stocks are projected to have an annual increase of 60% to 2.1 billion bushels during the 2023/24 season. That inventory level is forecast to be the third highest over the past decade.[20]

Demand

- In the United States, an estimated 14.5 billion bushels of corn are expected to be used in the domestic market, or 6% higher than the prior season. Food alcohol and industrial use is projected to account for 40% of total supply use, and feed and residual use is estimated at 34%. Exports are forecast to account for 13% of total supplies and to be in line with the past five-year historical average.

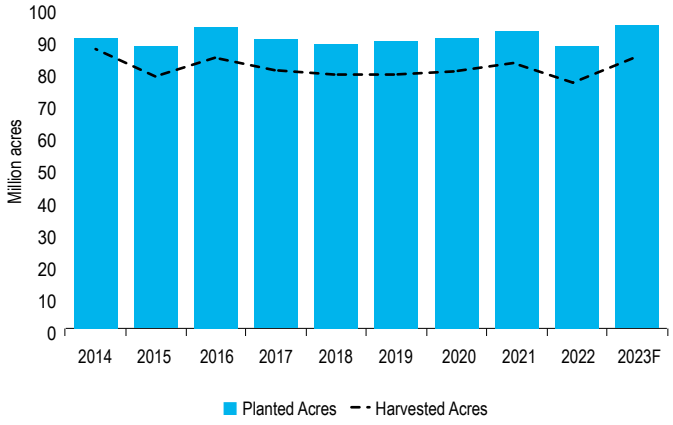
Prices

- After a strong corn-pricing environment during the 2021/22 and 2022/23 seasons, corn prices are projected to decline to $4.80 per bushel, or 27% lower than the prior year. However, that price is expected to be in line with the past five-year average.
- Higher global corn supplies and inventory levels are some of the factors driving lower prices.

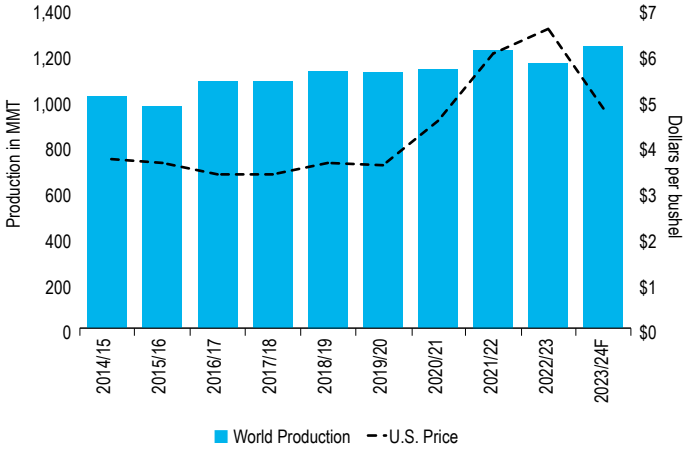
General Outlook

- Higher domestic and global supplies are expected to put downward price pressure on corn producers this season.
- Global competition from major exporters is also continuing. Overall, a net export increase of 310 million bushels by major exporters is anticipated to cause continued competition with the United States in the year ahead. Argentine exports are projected to increase from 905 million bushels in 2022/23 to a projected 1.6 billion bushels in 2023/24, fueled by strong production in Argentina. China's corn exports are projected to increase by 169 million bushels to 905 million bushels in the new, 2023/24 crop season.[21]

CORN Historical Planted and Harvested Corn Acres in the United States, 2014 to 2023F



CORN Historical Global Corn Production and U.S. Prices, 2014/15 to 2023/24F



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

SOYBEANS

Supply

- Soybean production around the world is expected to reach a new record of 399 mmt, up 6% from the prior season. Brazil continues to dominate this commodity, with a total global share of production at 39% for the 2023/24 season followed by the United States at 30% and Argentina at 13%.[22]
- The 2023 U.S. soybean crop is estimated to finalize at 4.16 billion bushels, reflecting a 2% decrease from the 2022 crop. Soybean-planted acreage decreased from 87.5 million acres in 2022 to 83.6 million acres in 2023, partly due to a softer pricing outlook compared with corn at the time of planting. Harvested acres totaled 82.4 million acres, or 1.5% below the prior season. U.S. soybean-harvested acres in 2023 fell below corn-harvested acres for the first time in four years.

Demand

- Crushing demand has remained strong for the 2023/24 season and is projected at a record 2.3 billion bushels, or 52% of supply.
- Soybean export projections weakened by 15% from the prior year. Weaker demand is driving ending U.S. stocks higher for this season and is projected at 315 million bushels, up 50% from the prior year.

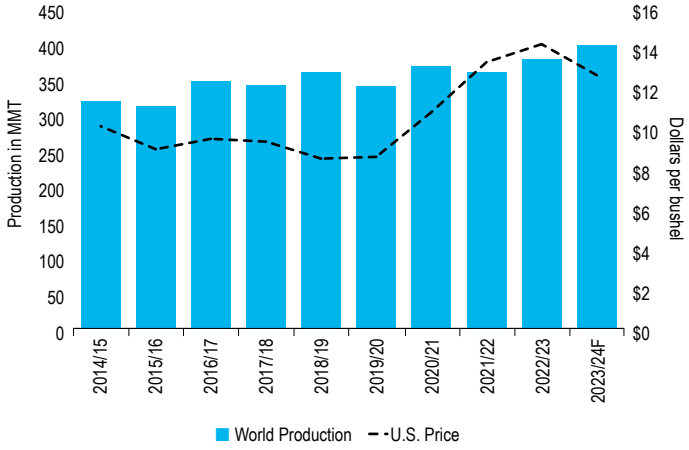
Prices

- Decline in export demand along with larger projected exports by exporting countries has put pressure on U.S. prices. The 2023/24 season's average farm price for soybeans is projected at $12.65 per bushel, a decrease of $1.55 (-11%) from the 2022/23 average farm price of $14.20 per bushel.[23]

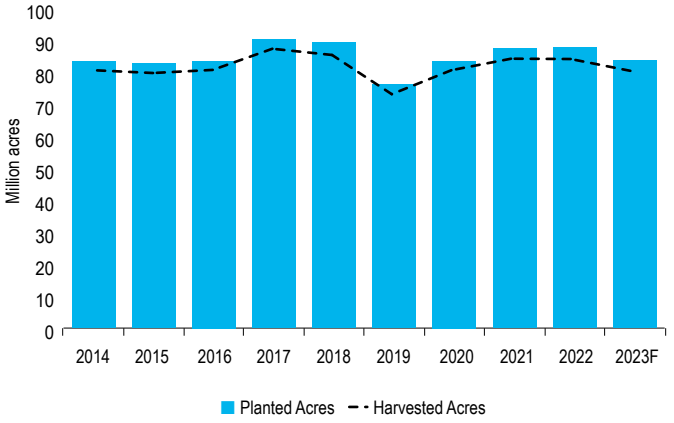
General Outlook

- Planted acreage for soybeans will be watched closely by the market throughout the spring as prices hinge on projected supply and anticipated export demand.
- Brazil, the largest U.S. competitor in soybean production, is expected to continue growing its production in the medium term.

SOYBEANS Historical Global Soybean Production and U.S. Prices, 2014/15 to 2023/24F



SOYBEANS Historical Planted and Harvested Soybean Acres in the United States, 2014 to 2023F



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

WHEAT

Supply

- Global wheat production is projected to decrease slightly from 789 mmt in 2022/23 to 786 mmt for the 2023/24 season. Five countries account for the majority of global wheat production (66%), including China (17%), the European Union (17%), Russia (12%), India (11%) and the United States (6%). Russia's share of exports in 2023/24 is projected at 24% compared with 16% just two seasons ago, before the war against Ukraine started. Ukraine's wheat production is projected at 23 mmt, or 3% of world production. Ukraine's wheat production is projected to increase by 2 mmt from 2022/23 but still 10 mmt less than the 2021/22 season prewar.
- U.S. wheat production is forecast to increase to 49 mmt (1.81 billion bushels), or 10% higher than the prior season. An estimated 35 million acres were harvested in the past season in the United States. Average yields are projected to increase by 5% to 48.6 bushels per acre.[24]

Demand

- Domestic demand for wheat continues to remain balanced in the United States, thereby supporting competitive prices. An estimated 1.14 billion bushels of wheat are expected to be used in the 2023/24 season, up 2.3% from the prior crop year but in line with 10-year average use.

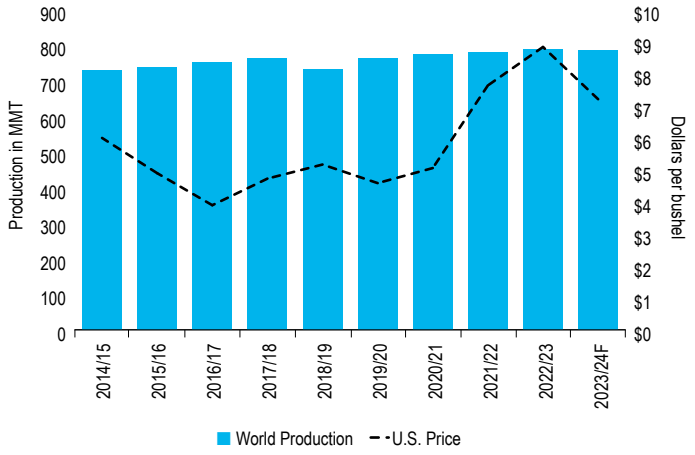
Prices

- Global wheat production is expected to remain stable this season, but prices are projected to decline by 18% to $7.20 per bushel compared with the prior crop year. The projected price is also a slight decrease from the 2021/22 season but a 43% increase from just three seasons ago.[25]

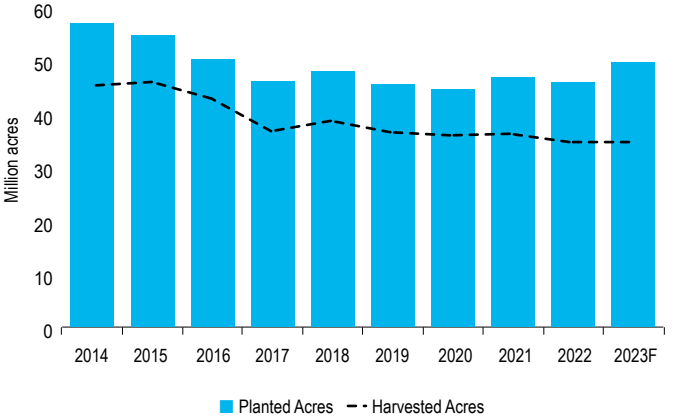
General Outlook

- Supply and demand in the United States is projected to be stable. However, global ending stocks are projected to decrease for the 2023/24 season due to higher consumption and trade, according to the USDA. China's demand for wheat remains strong.

WHEAT Historical Global Wheat Production and U.S. Prices, 2014/15 to 2023/24F



WHEAT Historical Planted and Harvested Wheat Acres in the U.S., 2014 to 2023F



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

RICE

Supply

- Global rice production is projected at 513.7 mmt and relatively in line with production for the past two seasons.
- U.S. rice production is projected to increase to 6.93 mmt, up 36% from the prior year, as more acres get planted. An estimated 2.89 million acres were projected to be planted in the United States in 2023, up from 2.22 million acres planted the prior year.

Demand

- Total rice use is projected to increase to 249 million hundredweight (cwt), up 40 million cwt from the prior year. Higher domestic consumption is expected with higher production levels.
- U.S. rice exports are projected to account for 29% of total supplies for the 2023/24 season.

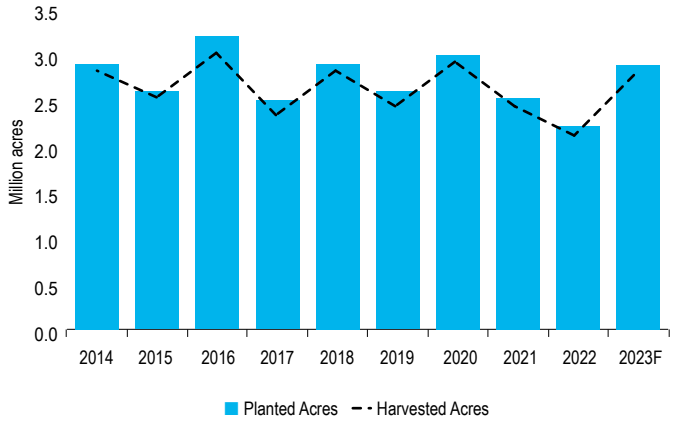
Prices

- According to the most recent USDA World Agricultural Supply and Demand Estimates report, the 2022/23 U.S. all-rice marketing-year average price is estimated at $19.20 per cwt, up 19% from the 2021/22 all-rice marketing price at $16.10 per cwt.
- Prices are projected to decrease to $18.40 per cwt in 2023/24, down 7% from the prior season. The U.S. long-grain-rice price is projected at $16 per cwt for 2023/24, a decrease of 4% from 2022/23 but an increase of 17% from 2021/22. U.S. medium-grain and short-grain rice prices are also projected to be 4% lower in 2023/24, down to $17.50 per cwt compared with $18.20 per cwt in 2022/23, but a significant increase (+31%) from 2021/22 price of $13.90.[26]

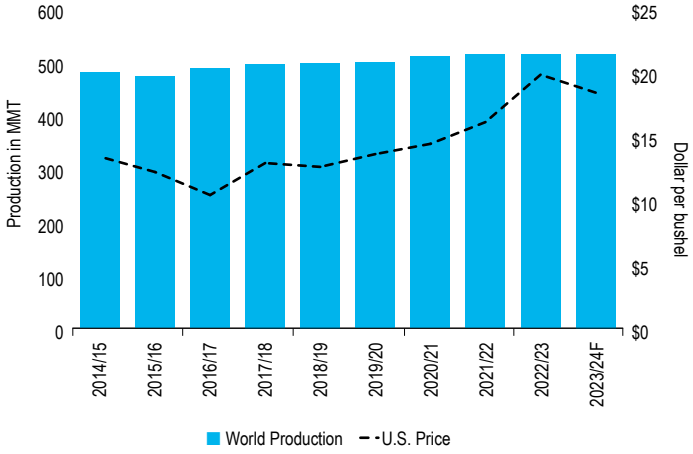
General Outlook

- Ending rice stocks for the 2023/24 season are projected to grow from 30.3 million cwt to 42.5 million cwt, with higher forecast production putting some downward price pressure on the domestic market.

RICE Historical Planted and Harvested Rice Acres in the U.S., 2014 to 2023F



RICE Historical Global Rice Production and U.S. Prices, 2014/15 to 2023/24F



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

COTTON

Supply

- Global cotton production ended at an estimated 116 million bales (1 cotton bale is approximately 480 pounds) during the 2022/23 crop year, which saw a marginal increase from the prior season. But global cotton production is expected to decline to 113 million bales for the 2023/24 season. The United States is projected to account for 11% of the world's total cotton production (12.4 million bales) during the 2023/24 season and is projected to have a 28% share of total cotton exports. Global cotton inventories are at the second-highest levels since the 2015/16 season.[27]
- U.S. cotton acreage for 2024 is projected at 10.2 million acres, down 25% from the prior season. Although planted acres are expected to decrease significantly, harvested acres are projected to decrease only 3% from 2023 and be at 7.06 million acres harvested.

Demand

- Domestic use for cotton is expected to increase around the world for the 2023/24 season at 112.4 million bales compared with the prior season's 111 million bales but 4% lower than two seasons ago.
- For the upcoming crop year, China's cotton mill use and yarn imports are expected to decline slightly (-1.3%) from the prior year.

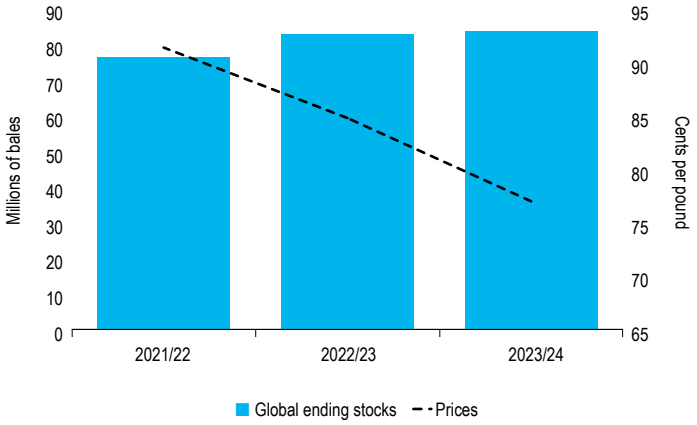
Prices

- Since 2022, cotton prices have been trending downward as inventories have been growing due to lower demand.
- The year-end estimate of the 2023 upland cotton price is $0.848 per pound. U.S. upland cotton prices are projected to decrease $0.088 per pound in 2024. The latest 2024 U.S. balance sheet according to the most recent USDA World Agricultural Supply and Demand Estimates report shows a beginning stock for cotton projected of 4.25 million bales, which is up 5% from the 2023 beginning cotton stocks estimation as a result of higher production in 2022.

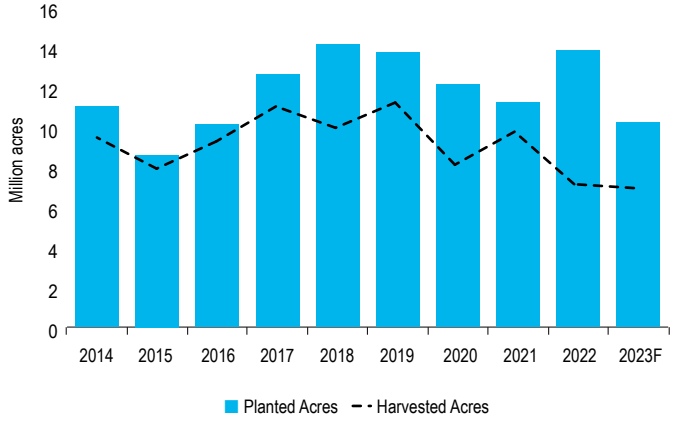
General Outlook

- According to the USDA, world and U.S. cotton prices are projected to decline in 2024, with higher production and very high inventory levels projected at 84 million bales. However, China's imports and mill use are expected to increase this year. China is the largest producer of cotton in the world and one of the largest importers of this commodity. U.S. cotton exports are projected to be down (-5%) from 2023 at 12.3 million bales.

COTTON Historical Global Cotton Inventories and U.S. Farm Prices, 2021/22 to 2023/24F



COTTON Historical Planted and Harvested Cotton Acres in the U.S., 2014 to 2023F



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

WESTERN REGION

Our Overview of the Agricultural Real Estate Market

The 2023 farmland real estate market in the Western region was active throughout the year. Sellers and buyers alike were watching commodity prices, inflation rates, interest rates, the strengthening U.S. dollar and climatic conditions, among others.

Ample rain in all parts of California brought some relief after a multi-year drought. Some parts of the California's Central Valley flooded, causing irreparable damage to thousands of acres of pistachios, almonds and other permanent plantings. The 2024 El Nino has many optimistic that it will be another year with higher precipitation levels. In March 2024, California's Department of Water Resources indicated that 30% of water allocations could be anticipated for contractors south of the Delta where most agricultural land is located and 50% for contractors north of the Delta.

Several smaller lending institutions are reconsidering their presence in the agricultural sector and are reducing their exposure to higher-risk assets due to commodity price volatility during the past several growing seasons, resulting in growers' having to look elsewhere for financing. Therefore, some growers are enticed to list portions or all of their properties in a high-interest-rate market, thereby adding downward pressure to property values.

Across the West, most major commodity markets will continue to work through surplus supplies and suppressed prices. Going into 2024, many commodities sectors are continuing to rebalance total acres by removing older, less-productive varietals and replanting with newer, more-profitable ones. Most of the opportunities that will become available in 2024 will need some development, rehabilitation or removal because they will be the first assets that growers release. Farming costs are expected to remain consistent with the prior two years, further stressing grower returns as commodity pricing remains stagnant. If late-2024 rate cuts come to fruition, land values may hold with increased deal flow; however, land values at this time remain under pressure due to weaker commodity pricing.

WINE GRAPES

Supply

- The 2023 California grape crush totaled 3.7 million tons, an 8% increase from the 2022 wine grape harvest.[28] Washington State wine grapes are forecast at 210,000 tons, down 13% from last year.[29] Both regions are experiencing an oversupply market.
- Volume and quality of white and early red grapes benefited from prolonged hangtime. Late-season reds ripened in time, however, sized up to a lesser extent.[30]

Demand

- Sales growth for wine cases continued to be negative over the past two years. Demand is lacking among younger consumers as baby boomers age out. Vineyard removal will aid to balance supply and consumer demand.[31]
- According to the *Turrentine Newsletter,* a larger 2023 crop along with a decline in consumer demand that was attributed to inflationary pressure, demographic changes, reduced consumption, competition and global antialcohol efforts became more apparent, which drove market supply back to a surplus.
- Wineries are attempting to increase consumption by developing and innovating new, targeted products such as lower-alcohol wines, no-alcohol wines, organic wines and sustainable wines.

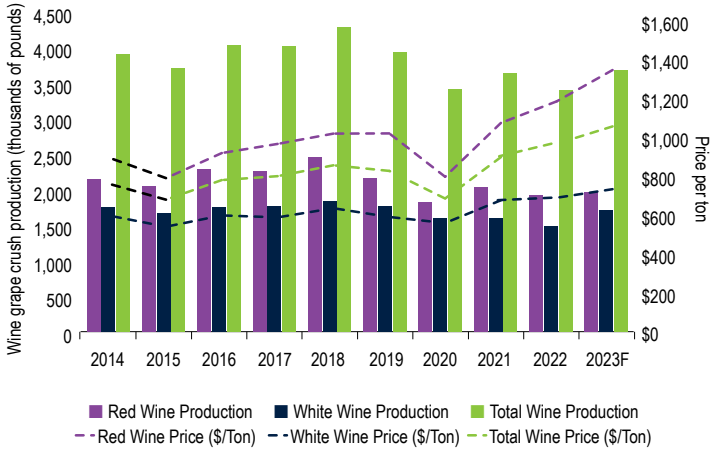
Prices

- Lower bulk wine prices throughout the past year have brought negotiant buyers back into the market, and retail buyers are feeling more comfortable with the idea of lower-priced wines.[32]
- The average price of all varieties was $1,056 per ton in 2023, up 9% from 2022.

General Outlook

- The California wine industry continues to be structurally oversupplied, and weak wine shipment performance since 2022 has magnified the issue.[33] Growers will have to adjust to an environment of lower prices in some wine-growing areas for the foreseeable future. There is some expectation within the industry that unprofitable vineyards will begin to be removed by some owners as reality sinks in that the imbalance of supply and demand is growing.

WINE GRAPES Historical Wine Production and Prices in California, 2014 to 2023F



8%

INCREASE FROM 2022

CALIFORNIA WINE GRAPE PRODUCTION

The California wine grape crush was 3.7 million tons in 2023, up from 3.39 million tons crushed in 2022.

9%

INCREASE FROM 2022

CALIFORNIA WINE GRAPE PRICES

The average price of all varieties was $1,056 per ton in 2023.

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

TABLE GRAPES

Supply

- U.S. production is forecast at 1.75 billion pounds for the 2023 crop, an 8% increase from the previous crop year. Due to damage from Hurricane Hilary that affected California in late August, final production is expected to be down from the original forecast.
- The Panama Canal is experiencing a drought that has reduced the movement of shipments, which will likely affect imports for the eastern United States.[34]

Demand

- The United States remains the world's largest importer of table grapes and is forecast to import 1.68 billion pounds for the 2023/24 season compared with 1.65 billion pounds in the 2022/23 season. Chile, Mexico and Peru account for more than 95% of the import volume for the United States.[35]
- Fresh domestic consumption around the world has increased from 23.964 mmt in 2018 to 27.938 mmt in 2023, a 15% increase during the five-year period.[36]

Prices

- In the United States, table grape prices reached a high in November 2023, with the fresh market receiving $1.72 per pound compared with $1.14 per pound during the same time in the previous year.[37]
- Due to crop loss caused by Hurricane Hilary, prices will likely experience upward pressure until imports begin to balance out the supply and demand.

General Outlook

- Hurricane Hilary is expected to have a negative impact on the production of table grapes in California because only 30% of grapes were harvested after Hurricane Hilary landed.[38]
- In the United States, exports will likely see a decline due to weather damage to production, and imports are expected to increase as the United States remains the largest import market for table grapes.
- Consumption has continued to increase year over year, thereby helping keep prices at a profitable level for growers.

TABLE GRAPES Historical U.S. Table Grape Imports by Country, 2019 to 2023 YTD (August – November)

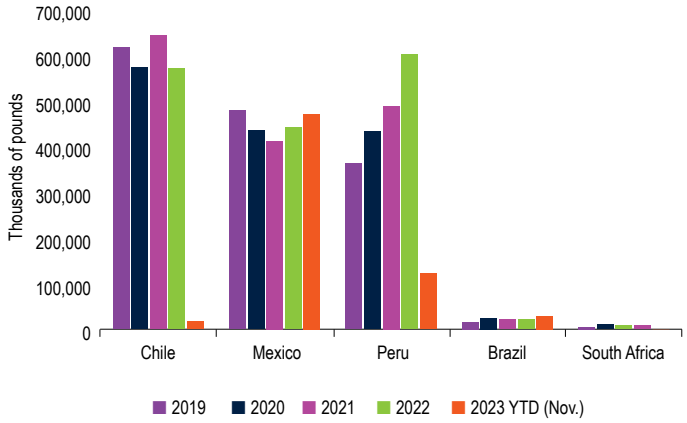
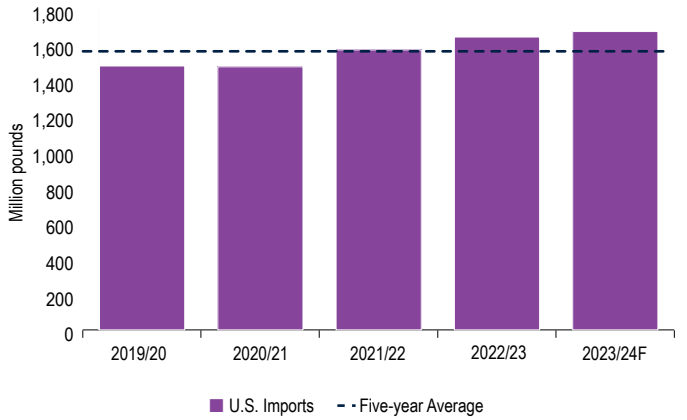


TABLE GRAPES Historical U.S. Table Grape Imports, 2019/20 to 2023/24



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

AVOCADOS

Supply

- The 2023/24 California avocado crop is forecast to be 208 million pounds, an 11% decrease year over year. Fruit size is tracking smaller than in years past.[39] Projected production is expected to be the lowest in the past decade.
- Mexico accounts for more than 80% of all avocados imported into the United States. Mexican imports are wild cards because they have fluctuated drastically in the past two years. Imports from Peru have been delayed for the 2023/24 crop.
- Avocado-bearing acres in California have steadily decreased from a peak in the late 1980s at 69,000 acres and have declined by roughly 8% in the past five years.[40] As of the end of 2022, an estimated 52,000 acres were planted with avocado trees in California, of which 47,500 were considered producing.

Demand

- Global demand for avocados continues to grow, with the United States continuing as the largest importer of this produce item.
- U.S. per-capita and total avocado consumption continues to surge. In 2023, an estimated 2.91 billion pounds of avocados were consumed in the United States compared with 2.1 billion pounds in 2015 and 1 billion pounds in 2009. When California avocados are in season, consumers appear to have a preference for domestically grown avocados.[41]

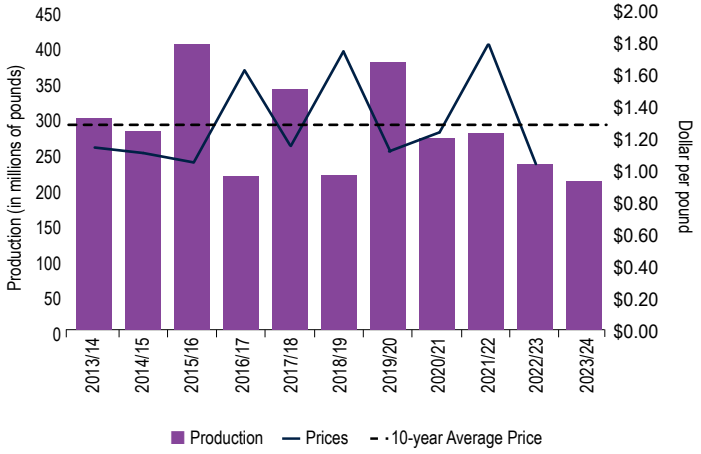
Prices

- Prices for the 2022/23 crop fell by more than 45% from prices for the 2021/22 crop, as Mexican imports weighed heavily on the market. Last year's prices were the lowest since the 2015/16 season.
- Adequate levels of global supply prevent prices from increasing higher, but prices are expected to rebound to healthy levels in the near term due to the lighter 2023/24 crop as well as delayed imports from Peru.
- California growers and marketers are anticipating better market and pricing conditions for domestically grown avocados.

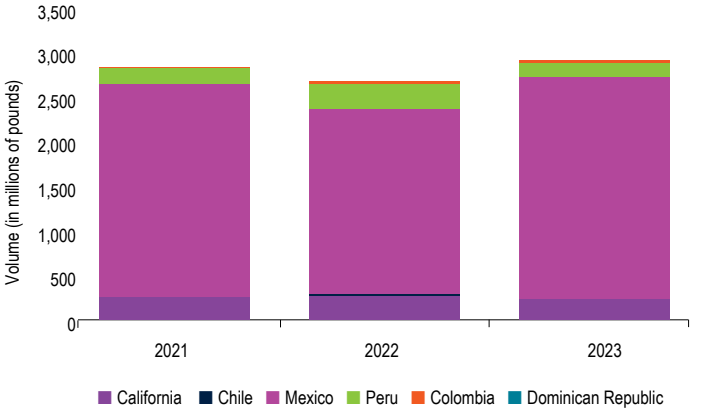
General Outlook

- The world avocado market is expected to grow; however, avocado production is expected to stay at elevated levels in comparison to demand throughout the rest of this decade.[42]
- U.S. and European consumers are expected to continue growing the market as demand remains strong.

AVOCADOS Historical Production and Prices for California Avocados, 2013/14 to 2023/24F



AVOCADOS Historical U.S. Avocado Shipments by Country or Region of Origin, 2021 to 2023



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

LEMONS

Supply

- The 2022/23 California lemon crop ended with 26.5 million boxes, an increase of 5% from the prior season.[43] An estimated 66% of the production was for the fresh market, with the remaining lemons for the processed industry.
- The 2023/24 California lemon crop is forecast to be 23 million boxes, which would be a decrease of 13% year over year, according to the latest USDA forecast.
- Bearing acres during the 2022/23 season stood at 53,000, up 18% from just a decade ago.[44]

Demand

- Demand has recovered to a more normal level since the pandemic. Demand for the 2023/24 lemon crop is considered to be moderate.[45]

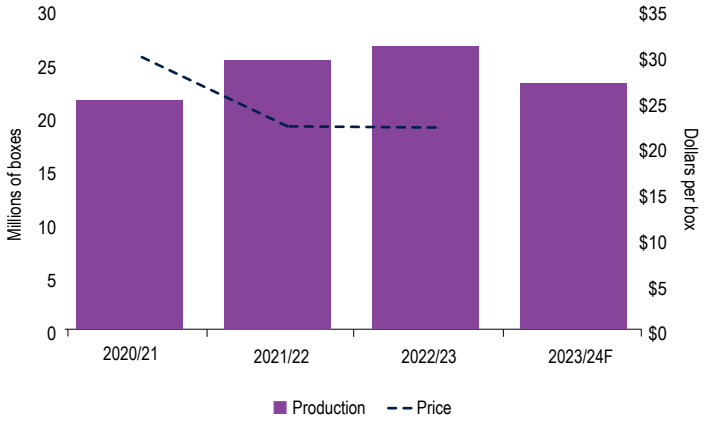
Prices

- Lemon prices have faced multiple headwinds since 2020. The pandemic brought restaurant and bar closures, which in turn eliminated all foodservice demand, which is a large percentage of the fresh lemon market. Additionally, an increase of bearing acres has brought more supply onto the market. Finally, lemon imports returned to three-year highs in 2023.[46]
- Prices for the 2023/24 crop have improved from the prior year, as market prices were roughly 16% higher year over year at the end of the 2023 calendar year.[47]

General Outlook

- After some years of weaker market conditions, the lemon sector is showing signs of a return to healthy equilibrium, as markets have fully opened up and supply is at a healthier level in the near term.
- The outlook is still cautious for the intermediate term, as new developments of young lemons continue, pointing to an increase in supply in the future as well as increases in imports from major producing and exporting countries like Argentina.

LEMONS Historical Production and Prices for Lemons, 2020/21 to 2023/24



+4%
FROM 2021/22

LEMON ACREAGE

Bearing lemon acreage in California increased from 51,000 for the 2021/22 season to 53,000 for the 2022/23 season.

+16%
FROM 2022/23

LEMON PRICES

2023/24 lemon crop prices have increased 16% from the prior year.

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

VALENCIA ORANGES

Supply

- The 2023/24 production forecast for Valencia oranges in the United States is 21.2 million boxes, which would be a 25% increase from the prior season but still 31% lower than two seasons ago. The large increase in production is due to the larger crop in Florida, which is expected to be 35% higher than the 2022/23 crop.[48] During the past 10 years, Valencia orange acreage has steadily decreased from 38,000 bearing acres in 2013/14 to 25,000 bearing acres in 2022/23, a 34% decrease.[49]
- The 2023/24 forecast for Valencia oranges in California is 7.8 million 80-pound boxes, which would be a 16% increase from the prior season.

Demand

- Consumption of oranges in the United States is expected to be down slightly, with flat imports because California and Florida expect increased production.[50]

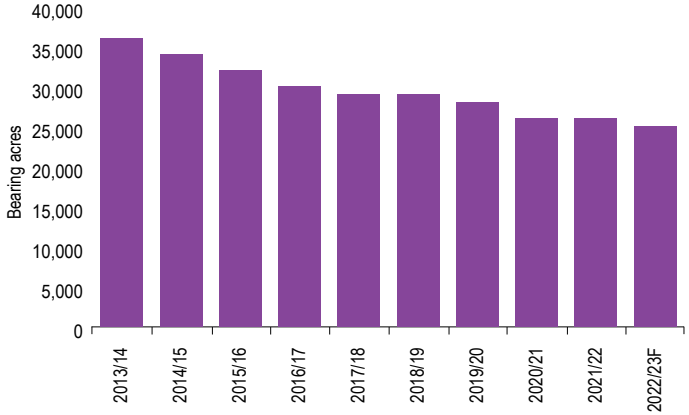
Prices

- U.S. Valencia orange prices in 2022/23 were estimated to be $14.27 per box, a 16% decrease from the 2021/22 price of $16.94. The five-year price average is $15.14 per box.
- Ten to 15 years ago, Valencia prices were depressed as the result of a large number of planted acres. More recently, lower numbers of acres appear to make for a much better balance between supply and demand, according to citrus packers in the industry.
- Valencia prices will depend on the timing of harvest for next year's navel crop.

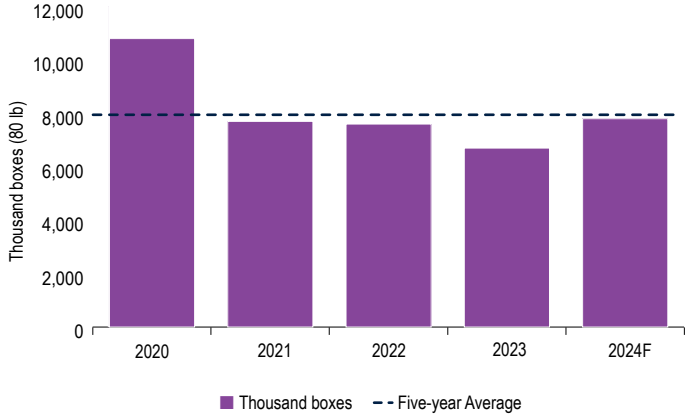
General Outlook

- Valencia orange production for 2023/24 is expected to recover from weather damage in the previous year for both California and Florida.
- Bearing acreage for Valencia oranges continues to decline year over year but at a slower pace, as the supply and demand drivers rebalance.

VALENCIA Historical Bearing Acres for Valencia Oranges in California, 2013/14 to 2022/23F



VALENCIA Historical Production for Valencia Oranges in California, 2020 to 2024F



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

NAVEL ORANGES

Supply

- The 2022/23 California navel orange crop ended at 36.5 million boxes (73 million cartons; 1 box is approximately 2 cartons), an increase of 16% year over year. The 2023/24 California navel orange crop is forecast to be 37 million boxes, which would be an increase of 1% more than the 2022/23 crop.[51]
- In the past decade, bearing acres for navel oranges are down 14% from 125,000 acres for the 2013/14 season to an estimated 108,000 during the 2022/23F crop year.[52]

Demand

- Demand continues to be relatively stable. For the 2023/24 California navel orange crop, the largest unmet demand is for small-size fruit. The majority of navels fall into the larger-size category, leaving a gap in the market for small-size fruit.

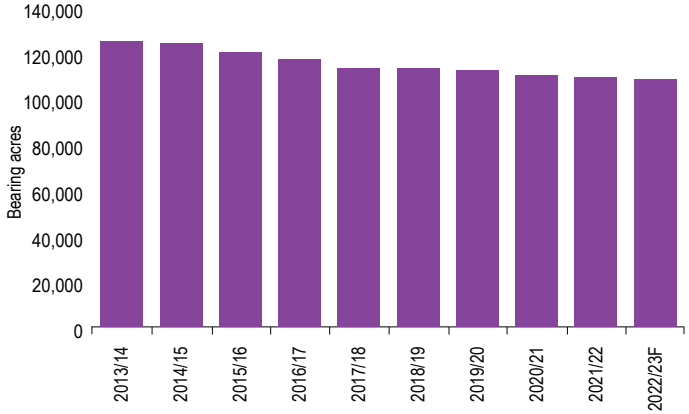
Prices

- At the end of the 2023 calendar year, navel orange prices were 12% higher than the year prior. However, there is a large dispersion between sizes of fruit, with smaller fruit commanding a large premium relative to historical averages. Furthermore, the quality of 2023/24 fruit has suffered due to abnormally high pest pressure in the spring months, which is expected to cause large variations between prices for fancy-grade fruit and choice-grade fruit as the season continues.[53]

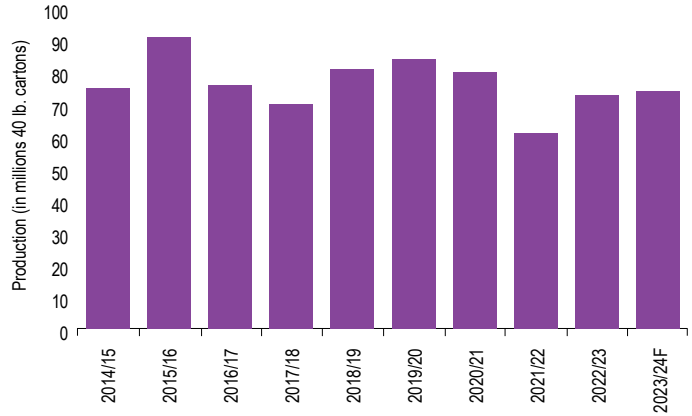
General Outlook

- The outlook for the 2023/24 season has improved as the season has progressed. However, the latter half of the season will prove to be a challenge, as fruit will continue to oversize and as more choice-grade fruit enters the market.

NAVEL Historical Bearing Acres for Navel Oranges in California, 2013/14 to 2022/23F



NAVEL Historical and Projected Production for Navel Oranges in California, 2014/15 to 2023/24F



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

MANDARINS

Supply

- California mandarin production for the 2023/24 season is estimated to be 22 million boxes (1 box is equal to 80 pounds), down 7% from the previous season.[54] Production was affected by unfavorable weather and lower yields in California during the growing season. California mandarin production accounts for approximately 98% of U.S. production, which is grown on an estimated 69,000 acres.
- Due to the late start in spring from unfavorable weather, sugar content was slow to accumulate.
- Pest pressure has been increasing in the industry, but overall it has not had a large impact on overall quality.

Demand

- Inflationary pressures are temporarily affecting consumption of certain high-valued produce like mandarins for some segments of the population.
- Overall consumption of mandarins is expected to decrease due to lower production this season.
- U.S. consumption of mandarins is expected to fall with the decline in production, and exports are also expected to drop 8% from 52,000 metric tons to 48,000 metric tons.[55]

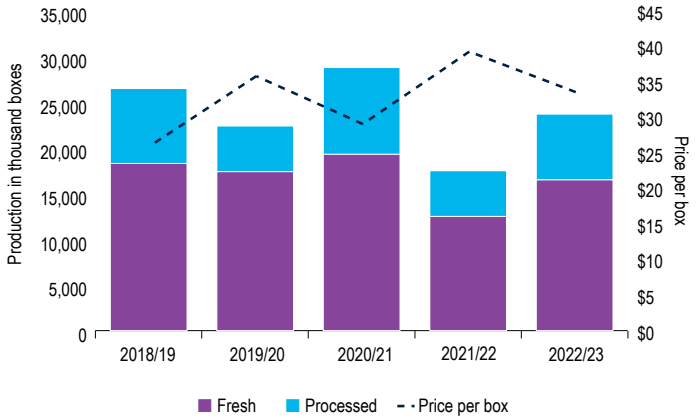
Prices

- For the 2022/23 season, mandarin price per box was $33.24, a 14% decrease from the 2021/22 price of $38.94. Although it was a large decrease year over year, overall the decrease was in line with the five-year average price of $32.41 per box. For the early-season mandarin market, pricing has increased year over year as quality has remained high.[56]
- During the past season, pricing was also higher due to imports' not reaching the market at critical times.

General Outlook

- California mandarin production is forecast to decline 4% for the 2023/24 season due to a delayed bloom after a late start in spring. Imports have decreased year over year as of the early-season market, but total imports may be consistent with prior years if there are more imports in the midseason and late-season varieties of mandarins.
- New development of mandarin acres is slowing down because supply appears to be closer than demand needs.
- Mandarins are becoming the first citrus option among consumers, and consumption is expected to remain strong in the long term. This citrus category continues to be important to retailers. Imports of mandarins are projected to continue being robust to satisfy consumer demand during the domestic offseason.[57]

MANDARINS Historical Production and Prices for Mandarins and Tangerines in California, 2018/19 to 2022/23



-7%
FROM 2022/23

MANDARIN PRODUCTION IN CALIFORNIA

The California mandarin crop is expected to decline to 22 million boxes for the 2023/24 season from 23.7 million boxes in the prior year due to unfavorable weather conditions.

69,000
ACRES IN 2022

MANDARIN ACREAGE IN CALIFORNIA

In the past 10 years, mandarin acreage in California grew at an annual rate of 6%.

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

ALMONDS

Supply

- California remains the largest supplier of almonds in the world with an estimated 76% market share for the 2023/24 season. 2023 California almond production, originally estimated at 2.6 billion pounds, is now projected to end at close to 2.4 billion pounds, down 3.4% from the prior year.[58] Total almond supply for this season is estimated at 3.1 billion pounds with a carryover inventory of 800 million pounds, down 4% from the prior season.
- California farmers produced large amounts of almonds (+14% in overall kernel size for all varieties) despite a growing season underscored by one of the wettest winters on record and less-than-ideal bee pollination.

Demand

- Total shipments for the 2023/24 season are forecast at 2.72 billion pounds, with export shipments at 1.96 billion pounds.[59] U.S. almond export shipments accounted for an average of 71% of shipments in the past three crop seasons.
- The Almond Board of California (ABC) continues to improve its access to new foreign markets, increasing season-to-date export shipments (August 2023–January 2024) by 12% to 1.01 billion pounds. Strong shipments this season have been observed in Asia Pacific (+19%), driven by a 25% increase in shipments to India; Europe (+8%); and the Middle East (+7%).
- Domestic shipments are 1% lower than the prior season to date (361 million pounds) and the lowest shipments during the same period for the past six seasons.

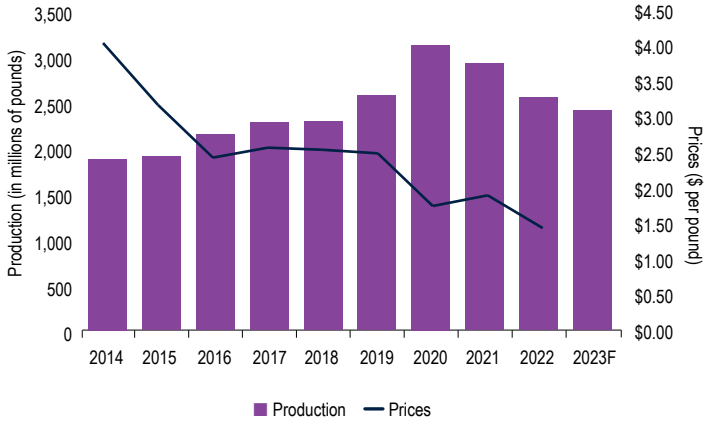
Prices

- According to the USDA, almond prices decreased to $1.40 per pound in the 2022/23 season due to higher marketable supply compared with $1.86 per pound in the previous crop year.[60] To alleviate the downward price pressure, ABC continues to expand export shipments.
- Prices for the 2023/24 season were trending up in recent months, bolstered by stronger export shipments.

General Outlook

- New international markets will be key in expanding the reach of the California almond brand, and global demand will help alleviate the downward pressure that pricing has experienced in past years.
- In the next several years, almond marketable supply is expected to remain consistent unless there is a significant shift in total almond producing acres. The industry remains confident that worldwide demand for California almonds will continue its steady growth.

ALMONDS Historical Production and Prices for California Almonds, 2014 to 2023F



ALMONDS Season-to-Sate (August–January) Almond Export Shipments by Region, 2020/21 to 2023/24

Sources: PGIM Real Estate Agricultural Research, California Almond Board

WALNUTS

Supply

- California's 2023 walnut production is forecast at 760,000 tons, up 1% from 2022 production, according to the California Walnut Objective Measurement Report. The forecast is based on 375,000 bearing acres which is down 6% from 2022 estimated bearing acreage.[61] For most growers, production wasn't considerably affected by 2023 late-winter/early-spring wet conditions. Spring soil moisture increased yields and contributed to better production.[62]
- Around the world, production is projected at 2.66 mmt; 45% higher than a decade ago. China remains the top producer of walnuts, with 52% market share followed by the United States at 26% and Chile at 7%.

Demand

- On average, 65–70% of walnuts produced domestically are exported. During the 2022/23 season, an estimated 511 million pounds of in-shell and shelled walnuts were exported of the total 782 million pounds of shipments, resulting in the fourth-largest walnut shipment in the past decade.
- Domestic shipments reached a record 270 million pounds, up 31% from the prior season and 27% higher than the five-year average. In early summer 2023, after a visit by India's prime minister, the 20% tariff on U.S. almonds and walnuts was removed, improving access to an important export market for California walnuts.
- For the 2023/24 season to date (September 2023–January 2024), shipments reached 468 million pounds, up 104 million pounds from the same period last year. Both domestic and export shipments have increased 25% from the same period last season.

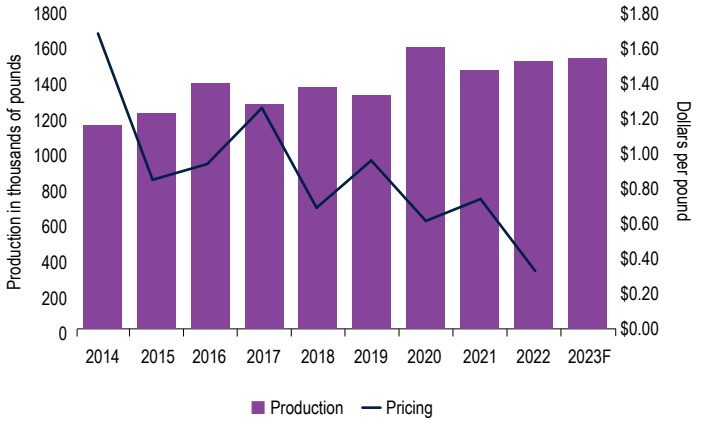
Prices

- According to the USDA, grower prices in 2022 decreased to $630 per ton ($0.315 per pound), one of the lowest prices in the past two decades. Prices remained depressed as a result of higher supplies and a more competitive export market, with China increasing shipments as its production grows.
- In October 2023, the Walnut Bargaining Association updated its minimum price recommendation to $0.70 per pound in shell. The price is based on Jumbo/Large Chandlers of good quality.[63]

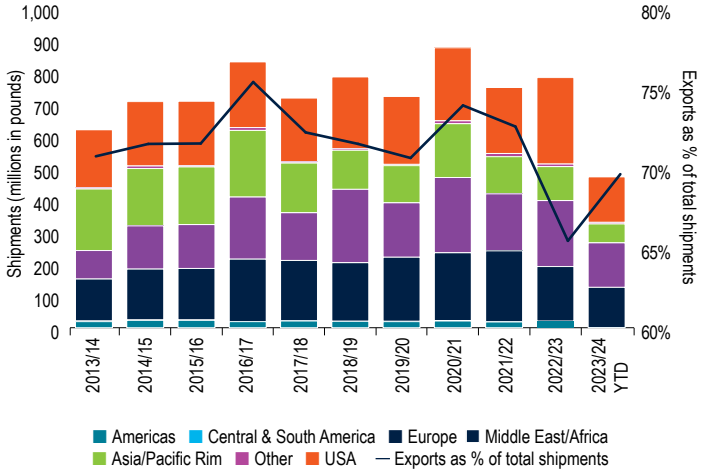
General Outlook

- Returns to U.S. growers have been negatively impacted, forcing growers to make decisions like removing orchards that are not producing the two-ton-per-acre industry average and that trend could continue.
- The California Walnut Commission continues increasing its marketing efforts to grow domestic consumption and develop new product categories, with walnuts as one main ingredient.[64]

WALNUTS Historical Production and Prices for California Walnuts, 2014 to 2023F



WALNUTS Historical Walnut Shipments by Region, 2023/14 to 2023/24 YTD



Sources: PGIM Real Estate Agricultural Research, Walnut Board Commission

PISTACHIOS

Supply

- In 2023, the California pistachio crop reached a record 1.48 billion pounds, up 69% from the prior season, due to the industry's experiencing an "on" year as a result of the alternate-bearing characteristics of this tree nut.[65] In addition, 2023 bearing acreage increased by 29,000 acres (+7%) to a total of 461,000 acres.
- As of the end of August 2023, carryover from the 2022 crop totaled 164 million pounds. With the new crop, total estimated marketable inventory was projected at a record 1.47 billion pounds.
- The United States continues to lead the world's pistachio production, with an estimated 50% share, followed by Türkiye and Iran.

Demand

- Total shipments for the season to date (September 2023–January 2024) reached 614 million pounds, up 68% from the prior season and a new record of shipments that early in the season.
- Higher supplies have resulted in more domestic shipments versus past years. Domestic shipments this season to date are in line with the prior four seasons, at approximately 105 million pounds.
- Exports continue to account for 65–72% of annual pistachio shipments. For the 2022/23 season, international demand for U.S. grown pistachios continued growing, to a total of 652 million pounds, up 14% from the prior season. Shipments for the 2023/24 season to date have started strong. Total shipments from September 2023 to January 2024 reached 509 million pounds; 97% higher than the same period last season. Strong shipments this season compared with last year have been observed in Asia (+113%): driven by China (+155%)[66]; Europe (+100%); and Middle East/Africa (+70%).

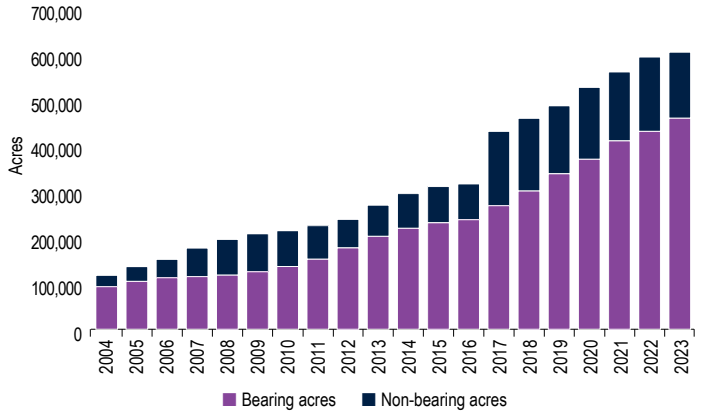
Prices

- Processors expected a record crop and therefore dropped initial pricing $0.40 per pound, which spurred demand and subsequently drove shipments substantially higher. Prices have increased since August/September 2023; however, grower returns are expected to be $0.15 and $0.20 per pound lower than last season and a smaller carryover, which will help support pricing into the next season.

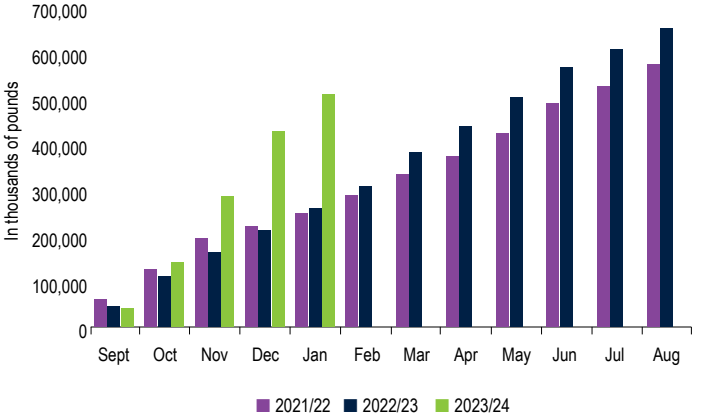
General Outlook

- Supplies will continue to grow significantly during the next decade as more acres come into production.
- North America is still a nascent market for pistachios. Continued growth of the pistachio industry is due to the nut's marketable health benefits and its versatility as a snack and other value-add products (e.g. beverages, bakery fillings).

PISTACHIOS U.S. Historical Pistachio Acreage, 2004 to 2023



PISTACHIOS Historical Cumulative Monthly Pistachio Export Shipments, 2021/22 to 2023/24 Season to Date (September to January)



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

APPLES

Supply

- The USDA's most recent 2023/24 apple crop forecast is 9.9 billion pounds, or 1.5% higher than the previous crop year.[67]
- The increase in production is attributed to favorable weather conditions during the growing season in Washington State, the top apple producer in the United States.
- Washington State apple production is projected at 6.7 billion pounds, or 9.1% higher than the previous year.[68]

Demand

- Demand for domestic apples remains stable, and the introduction of newer apple varieties in new packages is expected to continue generating more consumer interest.
- Demand for U.S. apples in international markets is expected to increase due to removal of tariffs by the Indian government.
- In 2018, the value of U.S. apple exports to India decreased from $157 million a year in 2018 to only $4.8 million in 2022 after the Indian government implemented a 20% tariff on U.S. apples from 2018 to 2022. The Indian government announced removal of the tariff in 2023.

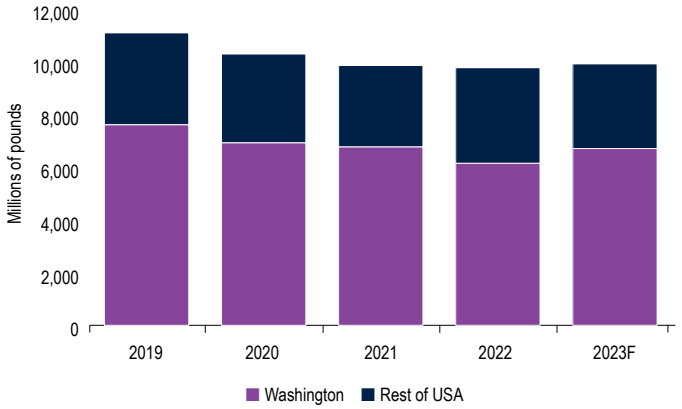
Prices

- The higher-than-expected apple production and higher crop carryovers are expected to put downward pressure on prices in the short term.
- The USApple Association anticipates prices to average $0.39 per pound, a decrease of 7.1% from the previous year.
- Several packers estimate that prices could continue to decrease as more data gets published and the actual 2023/24 apple crop size is determined.

General Outlook

- Demand for newer varieties could expand with strong support by retailers and additional shelf space in chain supermarkets.
- Despite forecast price softening, U.S. apple growers are optimistic about future exports as India removes tariffs.
- The opportunity to increase exports to India comes with challenges because U.S. growers will compete against low-cost producers in Iran and Türkiye.

APPLES Historical U.S. Apple Production, 2019 to 2023F



+1.5%
FROM 2022

U.S. APPLE PRODUCTION
Production of this commodity is projected to be 9.9 billion pounds in 2023.

-7.1%
FROM 2022

U.S. APPLE PRICES
The average price of apples is projected to be $0.38 per pound in 2023.

Sources: PGIM Real Estate Agricultural Research, USDA

CHERRIES

Supply

- In 2023, sweet-cherry growers experienced the biggest year-to-year change in terms of prices and production during the past 15 years.
- Sweet-cherry production in 2023 increased by 140,000 tons, or 60% higher than the previous year, to a total of 371,000 tons.[70] That was the highest production level since 2021 and the highest year-to-year change since 2009.[71]
- The top three sweet-cherry producers were Washington State (240,000 tons), California (80,000 tons) and Oregon (51,000).
- Historically, most of California's shipments occur in April and May; shipments from Washington and Oregon follow in June. A cold, wet spring in California and a warm spring in Washington and Oregon caused the shipments of those three states to overlap.

Demand

- Demand for cherries in the United States was weaker than expected in 2023 because poor quality affected consumer purchases.
- Higher than normal food inflation pressured retailers and consumers to purchase lower amounts of cherries because this commodity is considered a luxury item.[72]

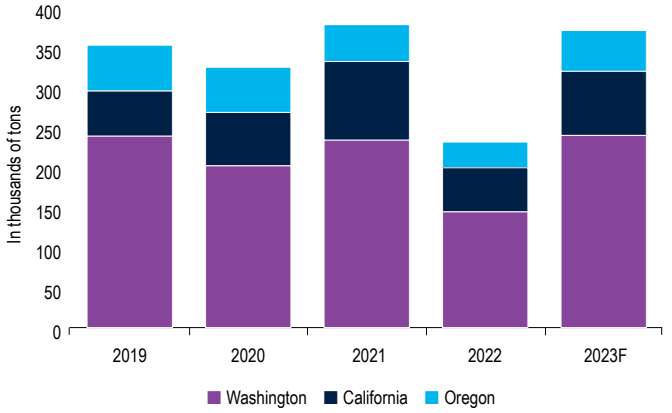
Prices

- The average price for cherries in 2023 was $2.94 per pound, a decrease of $2.32 per pound, or 44.1% percent lower compared with the previous year.[73] Prices for this fresh produce item can fluctuate significantly depending on overall supply and demand fundamentals in a given season.

General Outlook

- Global production of cherries continues to expand, driven by higher supplies being grown mainly in China and Chile.
- Weather conditions and marketing strategies will determine the performance of this commodity in 2024.
- Imports for cherries in the United States are expected to continue growing during the offseason.

CHERRIES Historical Production of Sweet Cherries in the United States, 2019 to 2023F



+60%
FROM 2022

U.S. SWEET CHERRY PRODUCTION

Total cherry production ended at 371,000 tons in 2023, up from 232,000 tons in the prior year.

-44.1%
FROM 2022

U.S. SWEET CHERRY PRICE

The average price of sweet cherries was $2.94 in 2023.

Sources: PGIM Real Estate Agricultural Research, USDA

HAZELNUTS

Supply

- Global supply of hazelnuts is reported to be down. Türkiye, which is responsible for 70% of global production, is anticipated to produce 660,000 tons, or 16% lower than the year prior.[74] The second-largest producer, Italy, is also expected to have a much shorter crop, reducing total available global supply.[75]
- Hazelnut supply continues to expand domestically. Oregon hazelnut growers produced approximately 90,000 tons, or 10% more than initially anticipated, and are responsible for almost all hazelnut production in the United States.

Demand

- Demand for hazelnuts is robust. China continues to be the largest importer of U.S.-grown hazelnuts, consuming approximately 80% of U.S. production. The remaining production is consumed domestically or exported to Canada. The 2022 crop is sold, and the 2023 crop is estimated to be 90% committed at the time of this writing.
- Hazelnuts are used most often as an ingredient nut, incorporated in desserts, Nutella®, and other, similar products for which consumer demand continues to grow.

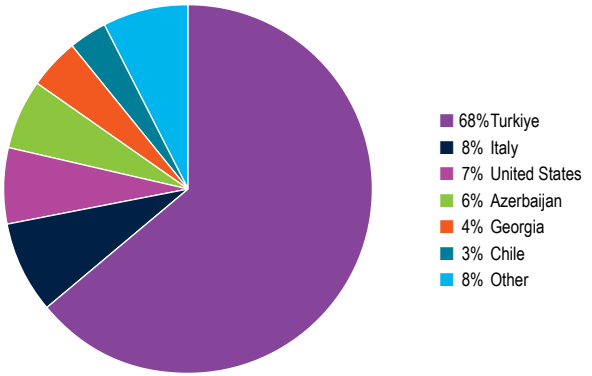
Prices

- Returns to growers for 2022 were below $0.50 per pound produced, which for many growers is below breakeven. Initial estimates for 2023 were similar; however, given the shorter global supply, some packing houses have paid early bonuses, resulting in returns greater than $0.70 per pound for most varietals harvested in 2023.

General Outlook

- Global production may increase as Chilean growers increase production on 5,000 more acres, with total future production potential of more than 150,000 tons. At that scale, Chile would rival Italy as the world's second-largest producer.[76]
- The 2023 U.S. crop is largely sold. Growers and packers are optimistic that pricing has stabilized going into 2024.

HAZELNUTS Global Share of Hazelnut Production, 2023



80%
IN 2023

MAJOR HAZELNUT IMPORTER
China imports 80% of all U.S. hazelnut production.

70%
IN 2023

WORLD'S LARGEST HAZELNUT PRODUCER
Türkiye continues to lead global production of hazelnuts and accounts for the majority of the world's exports.

Sources: PGIM Real Estate Agricultural Research, USDA

DATES

Supply

- The United States produced approximately 64,000 tons of dates in the 2022/23 production season, of which 75% were produced in California, with the majority of the balance being produced in Arizona. Given water challenges in Southern California and Arizona, total acreage looks to have stabilized at 15,600 acres.
- Globally, more than 1.1 million tons of dates are produced annually, with most of the production occurring in the Middle East.

Demand

- During the past several years, global consumption of dates has increased among health-conscious consumers. Some sources project global demand to increase more than 5% per year during the next several years.
- The Saudi Arabian government is helping promote the health benefits of dates, which in turn helps boost international demand.[77]

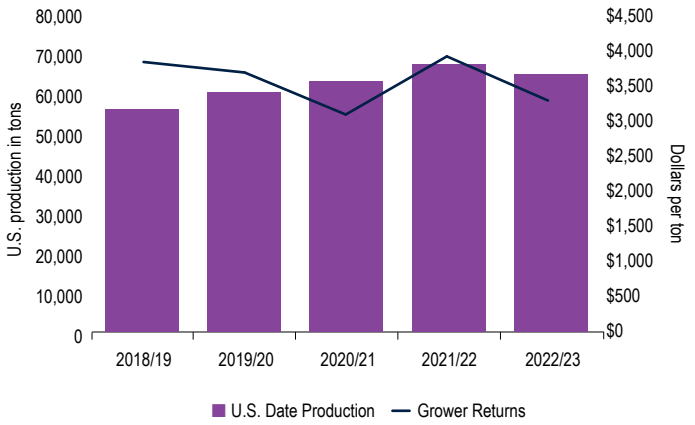
Prices

- Prices paid for U.S.-grown dates fell approximately 16% year over year. The decrease can be attributed to a slight increase in global supply.
- Prices U.S. growers received during the past five years (2019–23) are nearly 80% higher than prices received during the five years prior (2014–18).[78]

General Outlook

- U.S. production will likely stabilize at or near current levels as adjudication of Colorado River rights gets figured out.
- As global demand continues to increase, U.S. producers will benefit as they differentiate themselves based on quality and of dates produced.

DATES Historical U.S. Date Production, 2018/19 to 2022/23



15,600
ACRES IN 2022/23

U.S. DATE ACREAGE

Total dates acreage in the United States has stabilized at 15,600 acres, up 90% from a decade ago.

+80%

U.S. DATE PRICES

Prices U.S. growers received during the past five years (2019–23) are nearly 80% higher than prices received during the five years prior (2014–18).

Sources: PGIM Real Estate Agricultural Research, USDA

TIMBER

Our Overview of the Timber Market

Overall financial markets strengthened in 2023, with inflation slowing. The timberland and forest products industry reported market constraints due to uncertain demand.

Housing starts represent a primary indicator of demand because forest products are major inputs for single-family and multifamily construction. The National Association of Home Builders/Wells Fargo Housing Market Index hit new highs in 2020 at a score of 90, a level not before seen as demand shifted out of cities and into suburbs. The 12-month rolling average for 2023 softened to 44, below the 10-year average of 62.[79] The sector is in a stage of cyclical lull due to higher mortgage rates that are affecting affordability and the anticipation of an economic recession. Despite those fears, though, 2023 saw 1.495 million single-family home starts, a 6% increase year over year from 2022's 1.409 million starts.

During the past decade, Southern Pine Plantations have observed strong inventory growth which is projected to increase to 346 billion board feet, with steady demand at 20.1 billion board feet for 2022, fueled by a strong regional housing market in the South. The continued growth of existing inventory is expected to be met by increased demand as additional new-mill construction and existing-mill expansion projects are taking place.

Nationwide, approximately 1 million acres of timberland transactions occurred in 2023. Numerous large timberland transactions involved packages of more than 10,000 acres as institutional managers continue to pursue strategic acquisitions for the harvesting of timber in prime mill markets to produce durable returns for their investors. The combination of rising demand for wood products and the limited supply of usable land continues to keep upward pressure on land prices.

TIMBER: EASTERN REGION

Supply

- Supply in the U.S. South continues to grow at a steady rate of 22.6 billion board feet per year, with an expected total ending inventory of 4.5 billion tons available for harvest in the South.[80] The abundance of supply is from a combination of lack of mature harvest during the great financial recession in the late 2000s and subsequent slow recovery, along with increased productivity due to improved genetics and silvicultural practices.

Demand

- The strong product markets of 2023 could be attributed to steady demand at more than 22.6 billion board feet in the South for softwood products as softwood lumber capacity expands with newer, more-efficient mill construction. Demand remains strong in the region due to favorable timber procurement prices, proforest products industry government policy and central location to high-growth residential areas. U.S. South sawmill investments continue, with $2.6 billion in announced projects from 2023 to 2026, reflecting 3.7 billion board feet of increased capacity.[81]

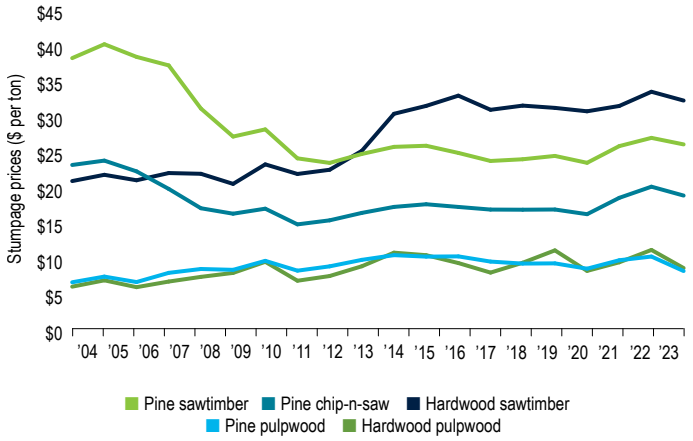
Prices

- Supply overhang in the South continues to keep price growth modest. The Southern timber markets have softened as a result of supply accumulation and slowing housing demand. Stumpage prices for all five major products were down on an annual basis, with an average price decrease of -11.3% for 2023.
- Pine sawtimber averaged $25.93 per ton for the South-wide average. South-wide pricing trends from 2022 to 2023 were as follows: pine chip-n-saw was down $1.26 (-6%) to an $18.73 average price per ton; pine pulpwood was down $2.04 (-20%) to an $8.11 average price per ton; hardwood sawtimber was down $1.25 (-4%) to a $32.10 average price per ton; and hardwood pulpwood was down $2.56 (-23%) to an $8.53 average price per ton.[82]
- The 20% annual decline in prices for pine and hardwood pulpwood is the largest since 2011.

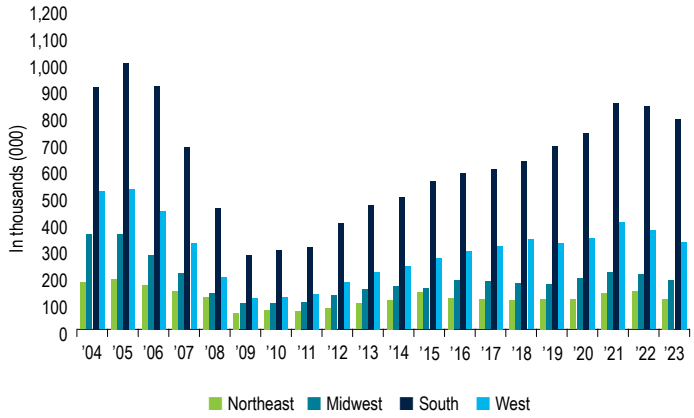
General Outlook

- Institutional investors are expected to remain active in this sector and to continue pursuing a strategy of investing in prime timberlands, with stable mill market demand ensuring stable cashflows.
- Growth in the Southeastern market may continue growing but at a slower pace. For 2023, more than 800,000 acres of timberland transactions occurred in the South, with the average price per acre at $2,202, a record high that exceeds the 2017 reported average price per acre of $2,080.[83]

TIMBER Historical South-wide Average Timber Stumpage Prices ($/Ton) for Five Major Product Categories 2004 to 2023



HOUSING UNITS Historical Housing Unit Starts by Region, 2004 to 2023



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

TIMBER: WESTERN REGION

Supply

- West Coast sawtimber harvest was approximately 6.56 billion board feet for 2022 and has remained fairly stable during the past 10-year period, averaging 6.7 billion board feet.
- The 2023 Western wildfire season was lighter, with 2.1 million acres burnt, which was below the 10-year average of 7 million acres burnt from 2011 to 2021.[84]

Demand

- Export markets saw a decline in demand, at 0.594 billion board feet, a 12% decrease from 2021's 0.674 billion board feet, attributed to weaker demand in Japan and China as a result of rising logging costs, continued tariffs on log imports from the United States and competition from other regional suppliers.[85]
- A higher-interest-rate environment and costs of construction have also affected some of the demand for wood products in various areas around the country.

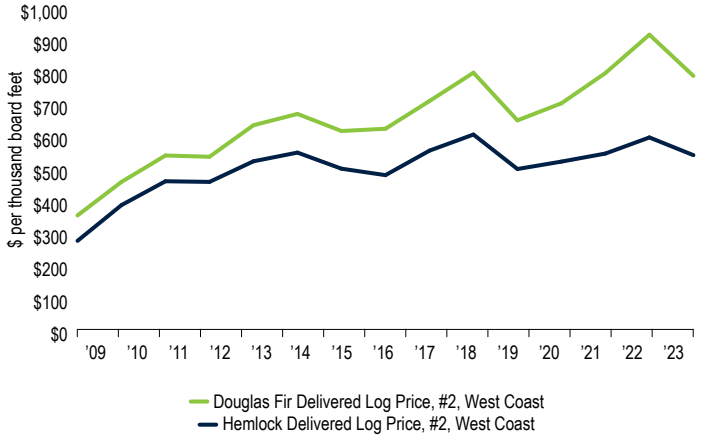
Prices

- In 2022, Douglas fir delivered prices reached $787 per thousand board feet, down 14% from the end of 2022.
- Hemlock delivered price was at $541 per thousand board feet, down 9% from the prior year.

General Outlook

- Transactions of note for 2023 in the Pacific Northwest included Rayonier's selling of 55,000 acres of timberland known as the Project Douglas Package in Oregon to Manulife. New Forests sold 10,395 acres of timberland, known as the Hupa Mountain property in northwestern California. The average transaction in dollars per acre outside the South increased to $3,817 in 2023. Sales indicate that institutional buyers continue to pursue a strategy of investing in prime timberlands, with stable mill market demand ensuring stable cashflow.

TIMBER Western Timber Prices from 2009 to 2023



-14%
FROM 2022

DOUGLAS FIR DELIVERED PRICES

Prices for this wood product decreased to $787 per thousand board feet from $915 per million board feet in 2022.

-9%
FROM 2022

HEMLOCK DELIVERED PRICES

Prices were down in 2023 to $541 per thousand board feet from $596 per thousand board feet in the prior year.

Sources: PGIM Real Estate Research, Forest Economic Advisors

AGRICULTURAL FINANCE

LEADERSHIP

JAMIE K. SHEN — SAN FRANCISCO, CA
Head of Agriculture
415.291.5025
jamie.shen@pgim.com

RACHELLE SCHLESINGER — ROSEVILLE, CA
Head of Agriculture Finance
916.789.4073
rachelle.schlesinger@pgim.com

SETH PALMER — MEMPHIS, TN
Head of Agricultural Finance Operations
901.568.1551
seth.palmer@pgim.com

NIKO ZUIDEMA — ROSEVILLE, CA
Chief Credit Officer & Agriculture Portfolio Manager
916.789.4025
niko.zuidema@pgim.com

AGRIBUSINESS

CHRIS PORTER — DENVER, CO
Executive Director
816.880.0868
christopher.porter@pgim.com

TED CYBULARZ — LOUISVILLE, KY
Executive Director
636.544.9472
ted.cybularz@pgim.com

CHARLIE HURST — ORLANDO, FL
Vice President
407.235.7930
charlie.hurst@pgim.com

LUKE MCCARTHY — HOOD RIVER, OR
Executive Director
541.399.4371
lucas.mccarthy@pgim.com

TIMBER

JASON DENTON — ATLANTA, GA
Executive Director
706.286.5667
jason.denton@pgim.com

VAN POINDEXTER — MEMPHIS, TN
Vice President
662.207.6630
van.poindexter@pgim.com

EASTERN & MIDWESTERN REGION

JOSH CULPEPPER — ORLANDO, FL
Executive Director
407.649.2197
josh.culpepper@pgim.com

HOWIE HECKENLIVELY — OMAHA, NE
Executive Director
402.206.5031
howie.heckenlively@pgim.com

SHANE HUTCHINSON — JONESBORO, AR
Executive Director
870.217.6365
shane.hutchinson@pgim.com

KEITH FISCHER — LISLE, IL
Associate
630.829.4672
keith.fischer@pgim.com

WESTERN REGION

BILL SCIACQUA — FRESNO, CA
Executive Director
559.437.3265
bill.sciacqua@pgim.com

SEAN KOLB — SALEM, OR
Executive Director
503.949.9044
sean.kolb@pgim.com

ALEX MENDRIN — FRESNO, CA
Associate
559.448.7969
alex.mendrin@pgim.com

ANTHONY MORENO — FRESNO, CA
Associate
559.970.3755
anthony.moreno@pgim.com

MADELEINE MOORE PIERETTI — ROSEVILLE, CA
Associate
925.389.7334
madeleine.moore.pieretti@pgim.com

AGRICULTURAL EQUITY INVESTMENTS

LEADERSHIP

JAMIE K. SHEN — SAN FRANCISCO, CA
Head of Agriculture
415.291.5025
jamie.shen@pgim.com

CHRISTOPHER JAY — LISLE, IL
Chief Operating Officer and
Chief Financial Officer
630.829.4689
christopher.jay@pgim.com

JUAN D. CASTRO-ANZOLA — ORLANDO, FL
Executive Director –
National Agricultural Underwriting,
Research and Technology
407.319.7267
juan.castroanzola@pgim.com

SARAH ANGUS — NASHVILLE, TN
Vice President –
Portfolio Management
615.476.2447
sarah.angus@pgim.com

EASTERN REGION

TOM KIRSCHNER — ORLANDO, FL
Executive Director,
Senior Asset Manager
239.380.5870
tom.kirschner@pgim.com

CENTRAL REGION

FENDLEY RAGLAND – JONESBORO, AR
Executive Director
901.505.1444
fendley.ragland@pgim.com

WESTERN REGION

JASON PUCHEU — FRESNO, CA
Executive Director
559.381.1592
jason.pucheu@pgim.com

DEVON HAMMACK — FRESNO, CA
Vice President
559.824.9009
devon.kizirian@pgim.com

HEATHER JOHNSON — FRESNO, CA
Senior Investment Associate
559.260.7789
heather.johnson@pgim.com

FARM MANAGEMENT

EASTERN REGION

DAN BOTT — ORLANDO, FL
Vice President, Farm Manager
772.633.9273
daniel.bott@pgim.com

CENTRAL REGION

SCOTT JOHNSON — CHAMPAIGN, IL
Farm Manager
217.369.7046
christopher.johnson@pgim.com

SCOTT MASON — JONESBORO, AR
Farm Manager
870.333.1468
scott.mason@pgim.com

TIM HARRIS — PRINCETON, IL
Farm Manager
815.875.7418
timothy.a.harris@pgim.com

WESTERN REGION

KENNETH PETERS — FRESNO, CA
Vice President
559.437.3245
kenneth.peters@pgim.com

JUSTIN WYLIE — FRESNO, CA
Farm Manager
559.577.9667
justin.wylie@pgim.com

MICHAEL BLAINE — BAKERSFIELD, CA
Farm Manager
661.201.1020
michael.blaine@pgim.com

JON HOLZAPFEL — GLEN ELLEN, CA
Farm Manager
707.231.7914
jon.holzapfel@pgim.com

ARLEN PILAVIAN — FRESNO, CA
Farm Manager
559.307.1185
arlen.pivalian@pgim.com

DAVID HENRIQUES — LODI, CA
Farm Manager
530.780.5821
david.henriques@pgim.com

JASON SCHLAGEL — PASCO, WA
Farm Manager
509.942.8628
jason.schlagel@pgim.com

PGIM REAL ESTATE CONTRIBUTORS

JUAN DAVID CASTRO-ANZOLA
Executive Director, National Agricultural Underwriting, Research and Technology

BENJAMIN DADIAN
Senior Investment Analyst

KEITH FISCHER
Associate

EMILIO FLORES
Investment Analyst

MICHAEL GOUDREAU
Investment Associate

MACEY GRAHAM
Senior Investment Analyst

OLIVIA HANNA
Investment Analyst

MADELEINE MOORE-PIERETTI
Associate

ZACH REYNOLDS
Senior Investment Analyst

JAMES WILLIAMSON
Investment Associate

CHLOE WRIGHT
Senior Investment Analyst

IMPORTANT DISCLOSURE

For Professional and Institutional Investors only. All investments involve risk, including the possible loss of capital. Past performance is not an indicator of future results. Target returns are not guaranteed. Links to videos and websites are intended for informational purposes only and should not be considered investment advice or recommendation to invest.

PGIM Real Estate is the real estate investment management business of PGIM, the principal asset management business of Prudential Financial, Inc. ("PFI"), a company incorporated and with its principal place of business in the United States. PGIM is a trading name of PGIM, Inc. and its global subsidiaries. PGIM, Inc. is an investment adviser registered with the U.S. Securities and Exchange Commission (the "SEC"). Registration with the SEC does not imply a certain level of skill or training. PFI of the United States is not affiliated in any manner with Prudential plc, incorporated in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom. Prudential, PGIM, their respective logos and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide. In the United Kingdom, information is issued by PGIM Real Estate (UK) Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Real Estate (UK) Limited is authorized and regulated by the Financial Conduct Authority ("FCA") of the United Kingdom (Firm Reference Number 181389). These materials are issued by PGIM Real Estate (UK) Limited to persons who are professional clients as defined under the rules of the FCA. In the European Economic Area ("EEA"), information is issued by PGIM Luxembourg S.A. with registered office: 2, boulevard de la Foire, L1528 Luxembourg. PGIM Luxembourg S.A. is authorized and regulated by the Commission de Surveillance du Secteur Financier in Luxembourg (registration number A00001218) and operating on the basis of a European passport. In certain EEA countries, this information, where permitted, is presented by PGIM Limited in reliance of provisions, exemptions, or licenses available to PGIM Limited under the temporary permission arrangements following the exit of the United Kingdom from the European Union. PGIM Limited has its registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London WC2N 5HR. PGIM Limited is authorized and regulated by the FCA of the United Kingdom (Firm Reference Number: 193418). These materials are issued by PGIM Luxembourg S.A. and/or PGIM Limited to persons who are professional clients as defined in the relevant local implementation of Directive 2014/65/EU (MiFID II) and/or to persons who are professional clients as defined under the rules of the FCA. PGIM operates in various jurisdictions worldwide and distributes materials and/or products to qualified professional investors through its registered affiliates including, but not limited to: PGIM Real Estate (Japan) Ltd. in Japan; PGIM (Hong Kong) Limited in Hong Kong; PGIM (Singapore) Pte. Ltd. in Singapore; PGIM (Australia) Pty Ltd in Australia; PGIM Luxembourg S.A., and PGIM Real Estate Germany AG in Germany. For more information, please visit pgimrealestate.com.

GENERAL/CONFLICTS OF INTEREST

These materials represent the views, opinions and recommendations of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of PGIM Real Estate is prohibited. Certain information contained herein has been obtained from sources that PGIM Real Estate believes to be reliable as of the date presented; however, PGIM Real Estate cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Real Estate has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors.

These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. Past performance is no guarantee or reliable indicator of future results. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. PGIM Real Estate and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of PGIM Real Estate or its affiliates.

IMPORTANT DISCLOSURE

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

Conflicts of Interest: Key research team staff may be participating voting members of certain PGIM Real Estate fund and/or product investment committees with respect to decisions made on underlying investments or transactions. In addition, research personnel may receive incentive compensation based upon the overall performance of the organization itself and certain investment funds or products. At the date of issue, PGIM Real Estate and/or affiliates may be buying, selling, or holding significant positions in real estate, including publicly traded real estate securities. PGIM Real Estate affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. PGIM Real Estate personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to PGIM Real Estate's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in Part 2 of PGIM's Form ADV.

INFORMATIONAL PURPOSES

These materials are for informational or educational purposes. In providing these materials, PGIM (i) is not acting as your fiduciary and is not giving advice in a fiduciary capacity and (ii) is not undertaking to provide impartial investment advice as PGIM will receive compensation for its investment management services.

These materials do not take into account the investment objectives or financial situation of any client or prospective clients. Clients seeking information regarding their particular investment needs should contact their financial professional.

The information contained herein is provided on the basis and subject to the explanations, caveats and warnings set out in this notice and elsewhere herein. Any discussion of risk management is intended to describe PGIM Real Estate's efforts to monitor and manage risk but does not imply low risk.

These materials do not purport to provide any legal, tax or accounting advice. These materials are not intended for distribution to or use by any person in any jurisdiction where such distribution would be contrary to local law or regulation.

BENCHMARK/INDEX DEFINITIONS

The financial indices referenced herein as benchmarks are provided for informational purposes only. The holdings and portfolio characteristics is expected to differ from those of the benchmark(s), and such differences may be material. Factors affecting portfolio performance that do not affect benchmark performance may include portfolio rebalancing, the timing of cash flows, credit quality, diversification and differences in volatility. In addition, financial indices do not reflect the impact of fees, applicable taxes or trading costs which reduce returns. Unless otherwise noted, financial indices assume reinvestment of dividends. You cannot make a direct investment in an index. The statistical data regarding such indices has not been independently verified by PGIM Real Estate.

NCREIF Farmland Index: The NCREIF Farmland Index is a quarterly time series composite return measure of investment performance of a large pool of individual agricultural properties acquired in the private market for investment purposes only. All properties in the Farmland Index have been acquired, at least in part, on behalf of tax-exempt institutional investors - the great majority being pension funds.

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.

Source of the Benchmark: NCREIF - National Council of Real Estate Investment Fiduciaries.

REF: 007824

REFERENCES

[1] USDA Economic Research Service, Farm Sector Income & Finances, "2024 Farm Sector Income Forecast." https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/farm-sector-income-forecast/.

[2] Economic Research Service, Commodity Costs and Returns, "Costs-of-productions forecasts for major U.S. field crops, 2023F-2024f." https://www.ers.usda.gov/data-products/commodity-costs-and-returns/.

[3] USDA, Farm Service Agency "Farm Bill Home." https://www.fsa.usda.gov/programs-and-services/farm-bill/index#:~:text=On%20Nov.,programs%20to%20continue%20through%20Sept.

[4] Shipman & Goodwin LLP, Insights, "Congress Extends the 2018 Farm Bill: What to Expect in 2024 – November 27, 2023." https://www.shipmangoodwin.com/insights/congress-extends-the-2018-farm-bill-what-to-expect-in-2024.html.

[5] Agriculture Dive, Deep Dive press release, "What El Niño means for farms and global food prices – February 08, 2024." https://www.agriculturedive.com/news/el-nino-agriculture-farming-food-prices/706982/#:~:text=Lingering%20droughts%20could%20hurt%20yields,some%20much%2Dneeded%20crop%20relief.

[6] Rabin, K (January 2024). Hurricane Idalia: Florida agricultural production losses top $78M, UF economists estimate. https://blogs.ifas.ufl.edu/news/2023/09/21/hurricane-idalia-preliminary-report/

[7] USDA. 2024. "USDA NASS Citrus Forecast." https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/2023-24/cit0124.pdf. Last accessed January 16, 2024.

[8] USDA FAS. 2023. "Citrus: World Markets and Trade." https://apps.fas.usda.gov/psdonline/circulars/citrus.pdf. Last accessed January 16, 2024.

[9] FDOC. 2023. "Post Estimate Fruit Price Report 2022-23 Season." https://app.box.com/embed/s/4905ob93hh/. Last accessed January 16, 2024.

[10] USDA. December 2023. "Sugar Sweeteners Outlook." https://ers.usda.gov/publications/pub-details/?pubid=108157. Last accessed January 25, 2024.

[11] USDA. 2023. "Pecan Production Report." https://downloads.usda.library.cornell.edu/usda-esmis/files/5425kg32f/nv936p236/00001m546/pecnpr24.pdf. Last accessed January 24, 2024.

[12] USDA. 2023. "Fruit and Nut Yearbook Tables." https://www.ers.usda.gov/data-products/fruit-and-tree-nuts-data/fruit-and-tree-nuts-yearbook-tables/. Last accessed December 19, 2023.

[13] American Pecan Council. 2022. "Monthly Report – December 2022." https://file:///C:/Users/x247885/Downloads/Monthly-Report-December-2022-Final%20(1).pdf. Last accessed December 17, 2024.

[14] USDA. 2023. "Fruit and Nut Yearbook Tables." https://www.ers.usda.gov/data-products/fruit-and-tree-nuts-data/fruit-and-tree-nuts-yearbook-tables/. Last accessed December 19, 2023.

[15] USDA Economic Research Service. 2023. "Data by Commodity – Imports and Exports – Blueberries." https://app.box.com/embed/s/4905ob93hh/. Last accessed January 17, 2024.

[16] USDA. 2023. "Fruit and Nut Yearbook Tables." https://data.ers.usda.gov/reports.aspx?programArea=fruit&top=5&HardCopy=True&RowsPerPage=25&groupName=Noncitrus&commodityName=Blueberries&ID=17851#p2fdbca302cda4343a746d5221eb7eOfc_5_1180. Last accessed January 17, 2024.

[17] USDA. 2023. "Noncitrus Fruits and Nuts 2022 Summary." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://downloads.usda.library.cornell.edu/usda-esmis/files/zs25x846c/zk51wx21m/k356bk214/ncit0523.pdf. Last accessed January 17, 2024.

[18] NASS Highlights. 2023. "Agricultural Land. Land Values and Cash Rents." https://www.nass.usda.gov/Publications/Highlights/2023/2023LandValuesCashRents_FINAL.pdf.

[19] Economic Research Service United States Department of Agriculture. August 2023. https://downloads.usda.library.cornell.edu/usda-esmis/files/pn89d6567/9w033j15z/2v23xb225/land0823.pdf.

[20] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.usda.gov/oce/commodity/wasde/wasde0124.pdf. Last accessed January 17, 2024.

[21] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.usda.gov/oce/commodity/wasde/wasde0124.pdf. Last accessed January 17, 2024.

[22] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.usda.gov/oce/commodity/wasde/wasde0124. Last accessed January 17, 2024.

[23] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.usda.gov/oce/commodity/wasde/wasde0124.pdf. Last accessed January 17, 2024.

REFERENCES

[24] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://downloads.usda.library.cornell.edu/usda-esmis/files/3t945q76s/0v839b45x/x346ff79g/wasde0123.pdf. Last accessed January 23, 2024.

[25] USDA. 2023. "NASS Agricultural Prices: December 29, 2023." https://nass.usda.gov/Charts_and_Maps/graphics/data/pricewh.txt. Last accessed January 23, 2024.

[26] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://downloads.usda.library.cornell.edu/usda-esmis/files/3t945q76s/0v839b45x/x346ff79g/wasde0123.pdf. Last accessed January 23, 2024.

[27] USDA. January 2024. "World Agricultural Supply and Demand Estimates." https://extension://efaidnbmnnnibpcajpcglclefindmkaj/https://downloads.usda.library.cornell.edu/usda-esmis/files/3t945q76s/0v839b45x/x346ff79g/wasde0123.pdf. Last accessed January 23, 2024.

[28] U.S. Department of Agriculture. 2024. "California Grape Crush." https://www.nass.usda.gov/Statistics_by_State/California/Publications/Specialty_and_Other_Releases/Grapes/Crush/Prelim/2023/Grape_Crush_2023_Preliminary.pdf. Last accessed February 12, 2024.

[29] U.S. Department of Agriculture. 2023. "Press Release: Fruit Production." https://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Fruit/2023/FR08_1.pdf. Last accessed January 19, 2024.

[30] Ciatti Global Wine & Grape Brokers. 2024. "California Report January 2024." https://e3g4ch2i44f.exactdn.com/wp-content/uploads/2024/01/California-Report-January-2024.pdf. Last accessed January 19, 2024.

[31] California Ag Network. 2023. "Turrentine Brokerage Reflects on Challenging 2023 Vintage (CA Northern Interior)." https://californiaagnet.com/2024/01/22/turrentine-brokerage-reflects-on-challenging-2023-vintage-ca-northern-interior/. Last accessed January 13, 2024.

[32] The Turrentine Newsletter. 2023. "Post-Harvest Market Update." https://www.turrentinebrokerage.com/wp-content/uploads/2023/12/Turrentine-Newsletter-Market-Update-12-23-4.pdf. Last accessed January 13, 2024.

[33] Allied Grape Growers. 2024. "Unified Wine & Grape Growers Symposium." https://alliedgrapegrowers.org/wp-content/uploads/2024/01/2024-UG-WS-Presentation.pdf. Last accessed February 12, 2024.

[34] Agronometrics. 2023. "Agronometrics in Charts: A Look at the US Table Grape Market." https://stories.agronometrics.com/agronometrics-in-charts-a-look-at-the-us-table-grape-market/. Last accessed January 24, 2024.

[35] USDA. 2024. "Data by Commodity: Grapes." https://www.ers.usda.gov/data-products/fruit-and-tree-nuts-data/data-by-commodity/. Last accessed January 24, 2024.

[36] USDA, FAS. 2023. "Fresh Apples, Grapes, and Pears: World Markets and Trade." https://fas.usda.gov/data/fresh-apples-grapes-and-pears-world-markets-and-trade. Last accessed January 24, 2024.

[37] USDA, NASS. 2024. "Grapes, Fresh Market – Price Received, Measured in $ / Ton." https://quickstats.nass.usda.gov/results/2F57C12F-39B2-33A6-AB15-8FF1BD7E6BCB. Last accessed January 24,2024.

[38] USDA. 2023. "Fruit and Tree Nuts Outlook: September 2023." https://www.ers.usda.gov/publications/pub-details/?pubid=107539. Last accessed January 24, 2024.

[39] California Avocado Commission. 2024. "2024 California Pre-Season Crop Estimate and Harvest Projections." https://www.californiaavocadogrowers.com/sites/default/files/documents/2024%20CA%20Pre-Season%20Crop%20Estimate%20and%20Projections.pdf. Last accessed January 24, 2024.

[40] California Avocado Commission. 2024. "Industry Statistical Data." https://www.californiaavocadogrowers.com/industry/industry-statistical-data. Last accessed January 24, 2024.

[41] California Avocado Commission. 2023. "From The Grove Fall 2023" P. 4

[42] California Avocado Commission. 2023. "From The Grove Fall 2023" P. 43

[43] USDA. 2023. "Citrus Forecast: December 2023" https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/2023-24/cit1223b.pdfccessed January 24, 2024

[44] USDA. 2023. "Citrus Fruits 2023 Summary: August 2023" https://downloads.usda.library.cornell.edu/usda-esmis/files/j9602060k/4742bs21j/3n205h50s/cfrt0923.pdf. Last accessed January 24, 2024

[45] California Citrus Mutual. "California Citrus Mutual Market Memo – Vol. 47, No 3" P. 3

[46] California Citrus Mutual. 2023. "Lemons Import Report" https://www.cacitrusmutual.com/import-reports/lemon-imports/. Last accessed January 24, 2024.

[47] California Citrus Mutual. "California Citrus Mutual Market Memo," vol. 47, no. 3, p. 4.

[48] USDA. 2024. "Citrus January Forecast." https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/2023-24/cit0124.pdf. Last accessed January 24, 2024.

REFERENCES

[49] USDA. 2023. "Citrus Fruits 2023 Summary: August 2023." https://downloads.usda.library.cornell.edu/usdaesmis/files/j9602060k/4742bs21j/3n205h50s/cfrt0923.pdf. Last accessed January 24, 2024.

[50] USDA FAS. 2024. "Citrus: World Markets and Trade." https://fas.usda.gov/data/citrus-world-markets-and-trade. Last accessed January 25, 2024.

[51] USDA. 2023. "Citrus Forecast: December 2023." https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/2023-24/cit1223b.pdf. Last accessed January 24, 2024.

[52] USDA. 2023. "Citrus Fruits 2023 Summary: August 2023." https://downloads.usda.library.cornell.edu/usda-esmis/files/j9602060k/4742bs21j/3n205h50s/cfrt0923.pdf. Last accessed January 24, 2024.

[53] California Citrus Mutual. "California Citrus Mutual Market Memo," vol. 47, no. 3, p. 1.

[54] USDA. 2024. "Citrus Forecast: January 2024." https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/2023-24/cit0124.pdf. Last accessed January 24, 2024.

[55] FAS. 2024. "Custom Query: Tangerines & Mandarins." https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery.

[56] USDA. 2023. "Citrus Fruits 2023 Summary: August 2023." https://downloads.usda.library.cornell.edu/usdaesmis/files/j9602060k/4742bs21j/3n205h50s/cfrt0923.pdf. Last accessed January 24, 2024.

[57] USDA FAS. 2024. "Citrus: World Markets and Trade." https://fas.usda.gov/data/citrus-world-markets-and-trade. Last accessed January 25, 2024.

[58] Almond Board of California. 2023. "Almond Industry Position Report – December 2023." https://www.almonds.com/sites/default/files/2024-01/2023.12_PosRpt_622.pdf. Last accessed January 19, 2023.

[59] Almond Board of California. 2023. "Almond Industry Position Report – December 2023." https://www.almonds.com/sites/default/files/2024-01/2023.12_PosRpt_622.pdf. Last accessed January 19, 2023.

[60] Almond Board of California. 2023. "Almond Almanac – 2022/23." https://www.almonds.com/sites/default/files/2023-12/Almanac_2023.pdf. Last accessed January 19, 2023.

[61] U.S. Department of Agriculture. 2023. "2023 California Walnut Objective Measurement Report." https://www.nass.usda.gov/Statistics_by_State/California/Publications/Specialty_and_Other_Releases/Walnut/Objective-Measurement/202309walom_updated.pdf. Accessed January 12, 2024.

[62] U.S. Department of Agriculture. 2023. "Fruit and Tree Nuts Outlook: September 2023." https://www.ers.usda.gov/webdocs/outlooks/107540/fts-377.pdf?v=6558.2. Last accessed January 22, 2024.

[63] Walnut Bargaining Association. 2023. "Walnut Bargaining Association Optimistic About 2023 Crop Quality and Grower Pricing." https://walnutbargainingassociation.com/wp-content/uploads/2023/10/Press-Release-WBA-Optimism-About-2023-Crop-Quality-and-Grower-Pricing.pdf. Last accessed January 12, 2024.

[64] Farm Progress. 2023. "Walnuts: Upbeat, or beat up?" https://www.farmprogress.com/tree-nuts/walnuts-upbeat-or-beat-up-. Last accessed January 12, 2024.

[65] Administrative Committee for Pistachios. 2023. "2023 Pistachio Statistics." https://Download Statistics / Archives | Administrative Committee For Pistachios (acpistachios.org). Last accessed January 10, 2024.

[66] www.Tridge.com. 2023. "Pistachio Report: China 2023." Pistachio Report: China 2023 (tridge.com). Last accessed January 10, 2024.

[67] Apples: USDA. 2023. "Fruit and Tree Nuts Outlook: September 2023." https://downloads.usda.library.cornell.edu/usda-esmis/files/h989r3203/zk51x150v/tb09kq70q/FTS-377.pdf. Last accessed January 11, 2024.

[68] Apples: NASS. 2023. "08/11/2023: Fruit Production." https://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Fruit/2023/FR08_1.pdf. Last accessed January 11, 2024.

[69] Apples: Fruit Growers News. 2023. "U.S. apple crop forecast at 256 million bushels." https://fruitgrowersnews.com/news/u-s-apple-crop-forecast-at-256-million-bushels/#:~:text=Aug%2024%2C%202023,over%20the%20USDA's%20annual%20forecast. Last accessed January 11, 2024.

[70] Cherries: NASS. 2023. "06/09/2023: Cherry Production." https://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Fruit/2023/CH06_1.pdf. Last accessed January 11, 2024.

[71] Cherries: USDA. 2023. "Fruit and Tree Nuts Outlook: September 2023." https://downloads.usda.library.cornell.edu/usda-esmis/files/h989r3203/zk51x150v/tb09kq70q/FTS-377.pdf. Last accessed January 11, 2024.

[72] Cherries: AgWest Farm Credit. 2023. "Cherries." https://agwestfc.com/education-and-resources/industry-and-economic-insights/industry-insights/cherries. Last accessed January 11, 2024.

[73] Cherries: Fresh Fruit Portal. 2023. "Agronometrics in Charts: 2023 witnessed cherry prices plummeting to their lowest levels in nearly 10 years." https://www.freshfruitportal.com/news/2023/08/10/u-s-cherry-season-prices-hit-record-low/. Last accessed January 11, 2024.

[74] "Hazelnut Production by Country." World Population Review. https://worldpopulationreview.com/country-rankings/hazelnut-production-by-country. Last accessed January 24, 2024.

REFERENCES

[75] "Turkey Expects Lower Pistachio & Hazelnut Crop This Year." Pacific Nut Producer. https://pacificnutproducer.com/2023/10/03/turkey-expects-lower-pistachio-hazelnut-crop-this-year/. Last accessed January 19, 2024.

[76] "A Look into the Hazelnut Industry: Recent Developments, Potential Markets, and Sustainability Initiatives." Cardassilaris. https://cardassilaris.com/news/a-look-into-the-hazelnut-industry-recent-developments-potential-markets-and-sustainability-initiatives. Last accessed January 19, 2024.

[77] Yahoo! Finance. 2023. "Global Dates Market 2023-2028: The Ancient Fruit Gaining Modern Popularity for its Health Benefits and Cultural Significance." https://finance.yahoo.com/news/global-dates-market-2023-2028-095300925.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuYmluZy5jb20v&guce_referrer_sig=AQAAANsniOwcKxTMOurFioP0U8mLF9FXq_qm91LA8gCJTJvvV0Ei_G-e0Necyq9PRsM4D00MR2XULkZObw5xRoSmyKTzlL8Fecf-ShheB8_sgEOBdvN02mOKe1_z2P8uUzZyrVtfPd6D_3em-LOiHq09BADEARqZetOKTyKq41J_ARiN. Last accessed January 22, 2024.

[78] USDA. 2024. "National Agricultural Statistics Service: Quick States." https://USDA/NASS QuickStats Ad-hoc Query Tool. Last accessed January 22, 2024.

[79] National Association of Home Builders. "NAHB/Wells Fargo Housing Market Index Table 2." https://www.nahb.org/news-and-economics/housing-economics/indices/housing-market-index. Last accessed February 12, 2024.

[80] Forisk. "Forisk Research Quarterly Report," 2023 Q4 FRQ, p. 19.

[81] Forisk. "Forisk Research Quarterly Report," 2024 Q1 FRQ, p. 22.

[82] Timber Mart South, 2023, "U.S South Annual Review: 2023 Timber Prices & Markets," p. 5.

[83] Timber Mart South, 2023, "U.S South Annual Review: 2023 Timber Prices & Markets," p. 15.

[84] National Interagency Fire Center. "Statistics Wildfires and Acres." https://Wildfires and Acres | National Interagency Fire Center (nifc.gov). Last accessed February 12, 2024.

[85] Forisk. "Forisk Research Quarterly Report," 2023 Q4 FRQ, p. 22.

EXPLORE OPPORTUNITIES AND LEARN MORE

www.pgimrealestate.com/aginvesting