



AGRICULTURAL FINANCE

U.S. Pecan Market Insight

April 15, 2021

Executive Summary

The U.S. pecan industry has endured trade wars, hurricanes, and import competition in recent years. However, we still expect U.S. growers will likely benefit from positive long-term fundamentals. U.S. commercial pecan producers have increased yields and profitability by converting native orchards to more improved tree varieties. Additionally, the U.S. already accounts for a significant share of global production. And as pecans' popularity continues to rise among a growing global middle class, increasingly productive U.S. growers are well-positioned to capitalize on expanding demand.

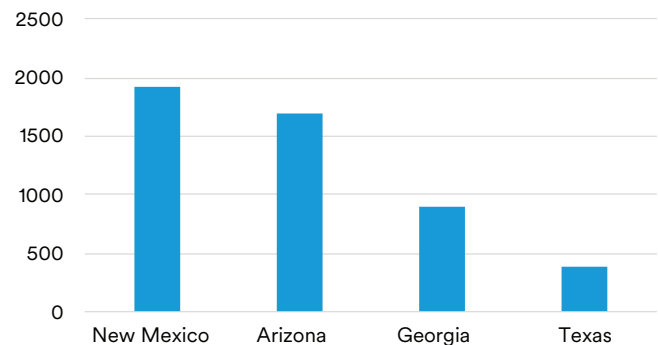
Improving Productivity

The composition of the U.S. pecan industry has shifted significantly over the last ten years.¹ Historically, pecans were produced in native orchards in Georgia and Texas, which generate highly variable output due to alternate bearing. In the early 2000s, more modern orchards began to appear in Arizona and New Mexico. Lower rainfall in the region forced growers to invest in irrigation and more actively manage their orchards, compared to native groves. Growers in the U.S. Southwest planted improved tree varieties and optimized management practices like spacing, irrigation systems, and harvest techniques. The climate also tends to be more stable in that region allowing farmers to better control disease. As a result, Arizona and New Mexico growers have achieved higher yields than those in Georgia—typically the leading U.S. pecan producing state (Figure 1).

However, Georgia growers have also increasingly transitioned acreage from native tree varieties to improved ones. The USDA estimates that now nearly all of Georgia's 129,000 commercial pecan acres comes from improved tree varieties. Approximately 90% of U.S. production now comes from improved varieties, and output is consequently less variable year-over-year (yoy) (Figure 2).

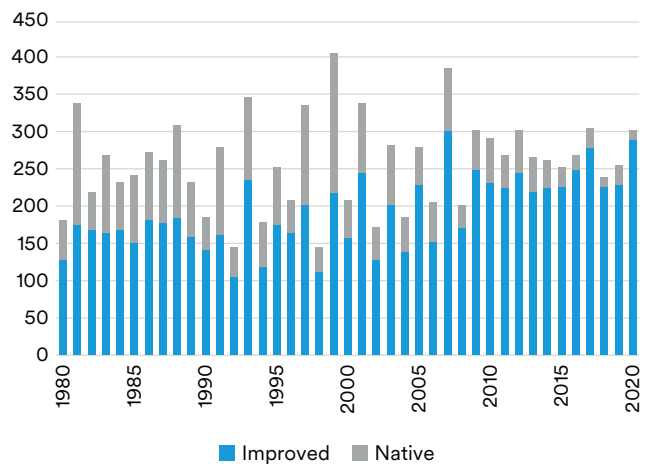
Georgia yields still lag those in the Southwest as trees are relatively younger, and the state has been impacted recently by hurricanes. Hurricane Michael destroyed approximately one-third of Georgia's pecan crop in 2018 and nearly 30,000 acres, which hindered productivity in the last few years.^{2,3} However, initial estimates show Georgia pecan output reached a ten-year high in 2020 and reclaimed the title of top producing state after New Mexico led the U.S. in 2018 and 2019. Pecan yield in Georgia was estimated at 1,500 pounds per acre in 2020; its highest on record as productivity increased among maturing improved tree varieties and orchards recovered from hurricane damage.⁴ If Georgia's yields eventually approach levels in Arizona and New Mexico, this would alone increase U.S. pecan production by about 20%.

Figure 1 | Average Pecan Yield
(2016-20, in-shell, pounds per acre)



Source: USDA, MIM

Figure 2 | U.S. Pecan Production by Tree Variety
(mil. lbs.)



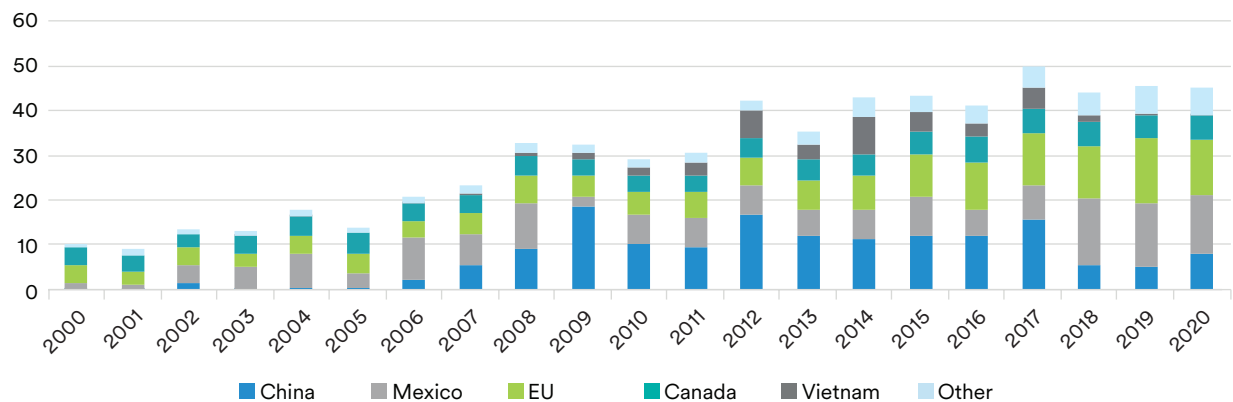
Source: USDA, MIM



Trade Woes Inflate Inventories

In addition to supply side issues in 2018 and 2019, the U.S.-China trade dispute adversely impacted U.S. pecan demand. Exports account for approximately 40% of U.S. pecan demand.⁵ Between 2009 and 2017, China was the leading buyer of U.S. pecans, accounting for 34% of U.S. exports.⁶ However, amid the height of the trade dispute in 2018, Chinese imports of U.S. pecans fell 65% yoy (Figure 3). Some of this lost trade was offset by increased exports to Mexico, but growers generally receive a lower price in Mexico compared to China. Mexico typically imports lower quality, shelled U.S. pecans for use in processed goods while China primarily demands higher-quality, in-shell pecans. Exports to China garnered a 183% price premium compared to volumes sent to Mexico between 2009 and 2017.⁶

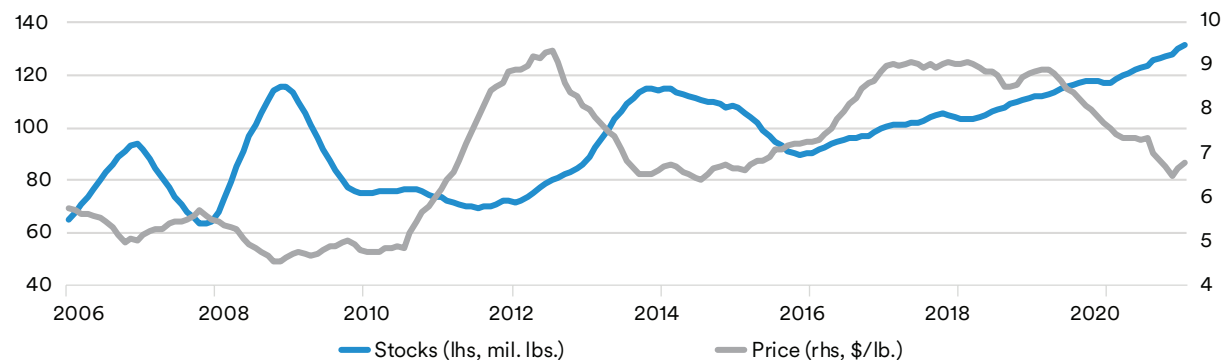
Figure 3 | U.S. Pecan Exports by Destination
(1,000 metric tons)



Source: U.S. Trade Census, MIM

Since 2018, domestic pecan inventories grew substantially amid the subdued export demand environment.⁷ Stocks typically follow a cyclical pattern caused by the historical on-off yield years of native pecan trees, but the combination of more consistent output and weak demand pushed inventories to record highs (Figure 4). Prices have subsequently dipped to a five-year low. Pecan exports to China in the second half of 2020 were up 63% yoy but remain below levels achieved prior to the trade dispute. The Phase One trade agreement will likely facilitate increased U.S. pecan exports to China, which will help dig into record inventories and support prices in 2021.

Figure 4 | U.S. Pecan Inventories Compared to Export Price
(12-month rolling average)



Source: U.S. Trade Census, USDA, MIM

Mexico's Rising Production Challenges U.S. Growers

The U.S. produced about two-thirds of the world's pecans as recently as 2005.⁸ Since, Mexico has rapidly increased acreage and output to lay claim as the top producer over the last few years.⁹ Mexico and the U.S. currently produce approximately 50% and 40%, respectively, of global pecan output. Since 2005, Mexico's bearing pecan acreage has nearly doubled while its non-bearing acreage—a proxy for future production growth—continues to expand (Figure 5). Based on non-bearing acreage and yield trends, we expect Mexico's pecan production to grow to over 400 million pounds by 2025. Assuming relatively stable U.S. output, Mexico's share of global production could bloom to nearly 60% by then.

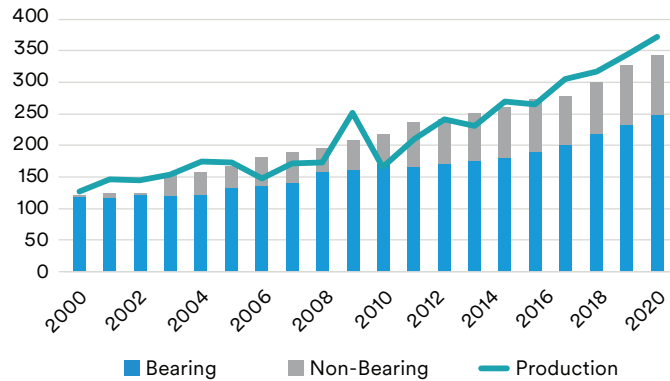
Growing pecan production in Mexico has not only challenged U.S. producers in export markets but also domestically. U.S. pecan shelling companies have increasingly imported lower-cost supply from Mexico (Figure 6).¹⁰ Pecan production in Mexico benefits from a more stable climate and lower labor costs. The University of Georgia estimates per acre pecan production costs in Mexico are almost half of those in the U.S. Southeast¹¹, and the average yield in Mexico is also approximately double the U.S. average.

In order to mitigate the impact of Mexico's supply and help manage prices received for U.S. pecans, the industry voted to create a federal marketing order for domestic pecan growers in 2016.¹² Federal marketing orders are designed to support growers for commodities dependent on a small number of processors by helping set fair market prices. The order established the American Pecan Council, which now markets pecans for U.S. growers and should help mitigate the risk of Mexico's imports.

Surging Global Demand Supports Pecan Outlook

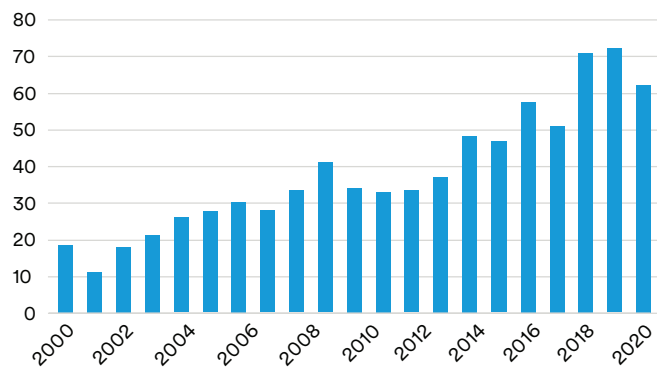
While U.S. growers have faced some headwinds in recent years, the long-term fundamentals for pecans are positive, underpinned by a strong demand outlook. Global pecan consumption is projected to grow 5% annually through 2030, driven by increased demand from Asian markets.¹³ Vietnam, South Korea, and Japan have become key export markets for U.S. growers in addition to China.

Figure 5 | Mexico's Pecan Acreage (1,000 acres) and Production (mil. lbs.)



Source: SIAP, MIM

Figure 6 | U.S. Pecan Imports from Mexico (1,000 metric tons)



Source: U.S. Census, MIM

Despite the risk of increased competition from Mexico, the U.S. still makes up most of the remaining global production. The next largest producer is South Africa with an approximate 5% share.⁸ Therefore, with both an improved production and marketing system, we believe U.S. growers are well-positioned to capitalize on long-term demand growth.

Endnotes

- ¹ USDA NASS, Pecan Production (in-shell basis), January 2021
- ² USDA ERS, Hurricane Michael's impact on Georgia's 2018 pecan crop will likely lead to lower production than previously expected, October 2018
- ³ University of Georgia, Preliminary Acreage and Crop Loss Values for Georgia Pecans After Hurricane Michael, October 2018
- ⁴ USDA NASS, Pecan Yield (in-shell basis), January 2021
- ⁵ USDA ERS, Fruit and Tree Nuts Yearbook, November 2020
- ⁶ U.S. Trade Census, March 2021
- ⁷ USDA NASS, Pecan Cold Storage Report, January 2021
- ⁸ International Nut and Dried Fruit Council, Statistical Yearbook 2019/2020
- ⁹ Agri-Food and Fisheries Information Service (SIAP), Statistical Yearbook of Agricultural Production, 2020
- ¹⁰ Pecan Report, Mexican Pecan Imports Reach Record Highs, October 2019
- ¹¹ University of Georgia, Georgia's Pecan Industry at Crossroads, March 2019
Agri-Pulse, Georgia's Pecan and Blueberry Farmers Plead for Protection from Mexico, August 2020
- ¹² USDA AMS, USDA Announces New Pecan Marketing Order, August 2016
- ¹³ Persistence Market Research, Pecan Market to Be Valued at US\$ 2.7 Bn by 2030; Supply Chain Issues Due to Covid-19 Pandemic Affecting Market Growth, June 2020

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