



US PECAN INDUSTRY



US LARGEST PRODUCER

- The United States is the world's largest pecan-producing country. Two types of pecans are produced in the U.S.: native or seedling and improved varieties. Native pecans are varieties that developed under natural conditions.

US LARGEST PRODUCER

- Seedling pecans are produced from seed (the nut) and have not been budded or grafted. Improved pecans are varieties that have been genetically developed through breeding and grafting techniques to produce more nuts, and nuts with a greater percentage of nut meat. Depending on the variety, pecan trees require 205–233 frost-free days for the nuts to reach maturity, and this restricts pecan production to southern states. Other countries producing pecans include Australia, Brazil, Israel, Mexico, Peru, and South Africa.



HISTORY OF PECAN INDUSTRY

- The history of pecans can be traced back to the 16th century. The only major tree nut that grows naturally in North America, the pecan is considered one of the most valuable North American nut species. The name “pecan” is a Native American word of Algonquin origin that was used to describe “all nuts requiring a stone to crack.”
- Originating in central and eastern North America and the river valleys of Mexico, pecans were widely used by pre-colonial residents. Pecans were favored because they were accessible to waterways, easier to shell than other North American nut species, and of course, for their great taste.



HISTORY OF PECAN INDUSTRY

- Because wild pecans were readily available, many Native American tribes in the U.S. and Mexico used the wild pecan as a major food source during autumn. It is speculated that pecans were used to produce a fermented intoxicating drink called “Powcohicora” (where the word “hickory” comes from). It also is said that Native Americans first cultivated the pecan tree.



OVER 500 DIFFERENT TYPES

- There are more than 500 different types of pecans, although the majority of pecans grown in the United States are focused on a few dozen varieties, including Western, Desirable, Stuart, Burkett, Wichita, and native pecans. As a salute to the pecan's history as an indigenous nut, many pecan varieties, or cultivars, are named after Native Americans, such as Cheyenne, Sioux, Apache, Osage, Pawnee, Mohawk, Kiowa, and Choctaw.



MAMMOTH TO SMALL TOPPER

- You won't typically see the pecan variety on the label of a package of pecans, but you will notice the various sizes and colors – which are the main differences among shelled pecan varieties. Some pecans are brighter golden brown, while others are more amber. Pecan halves also vary in size, ranging from “mammoth” to “small topper.” U.S. grade standards for nuts are voluntary, so you may see “Fancy” on the label of shelled nuts, which is the highest quality awarded based on golden color, full-bodied, and solid kernel structure.



PECAN PRODUCTION AND VALUE UNITED STATES 2013-2022



Pecan Production is up 8 Percent from 2021.



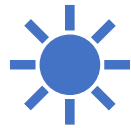
Utilized production in 2022 totaled 275 million pounds, up 8 percent from 2021.



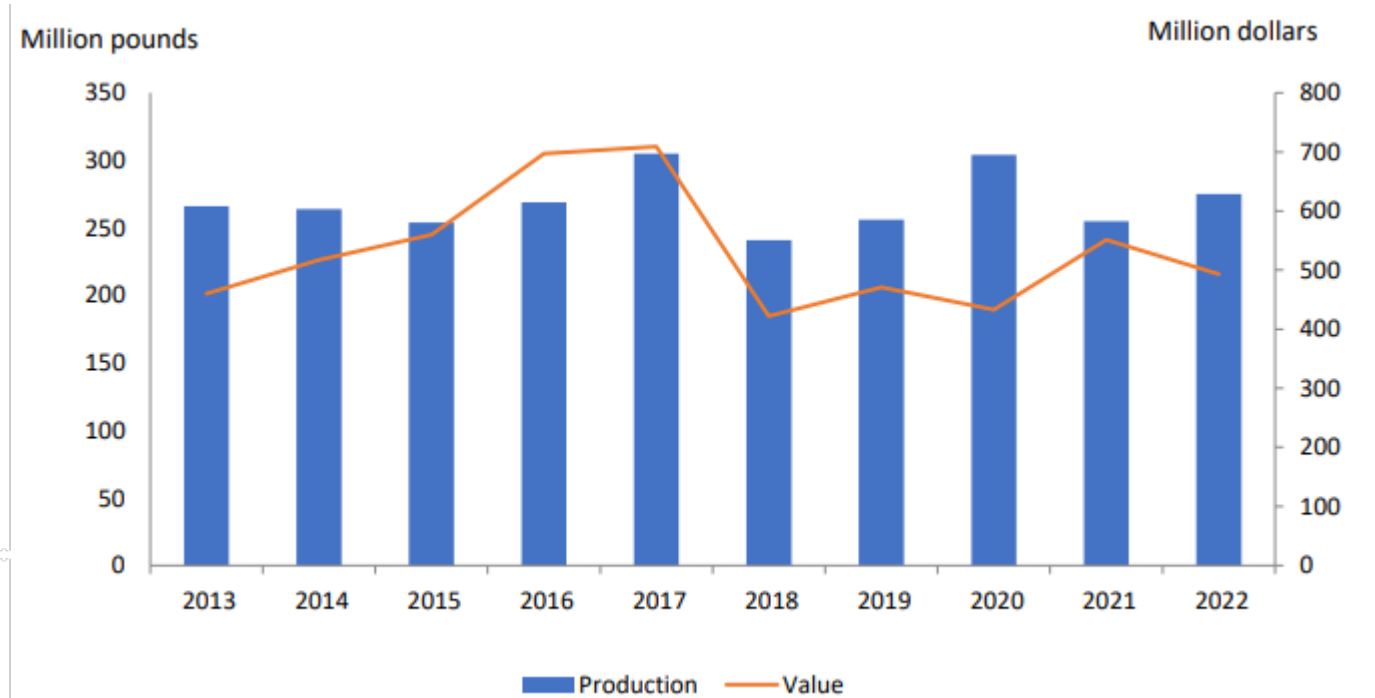
Bearing acreage was estimated at 407,000, down 1 percent from the previous year.



The average yield was 674 pounds per acre, up 51 pounds from the previous year.

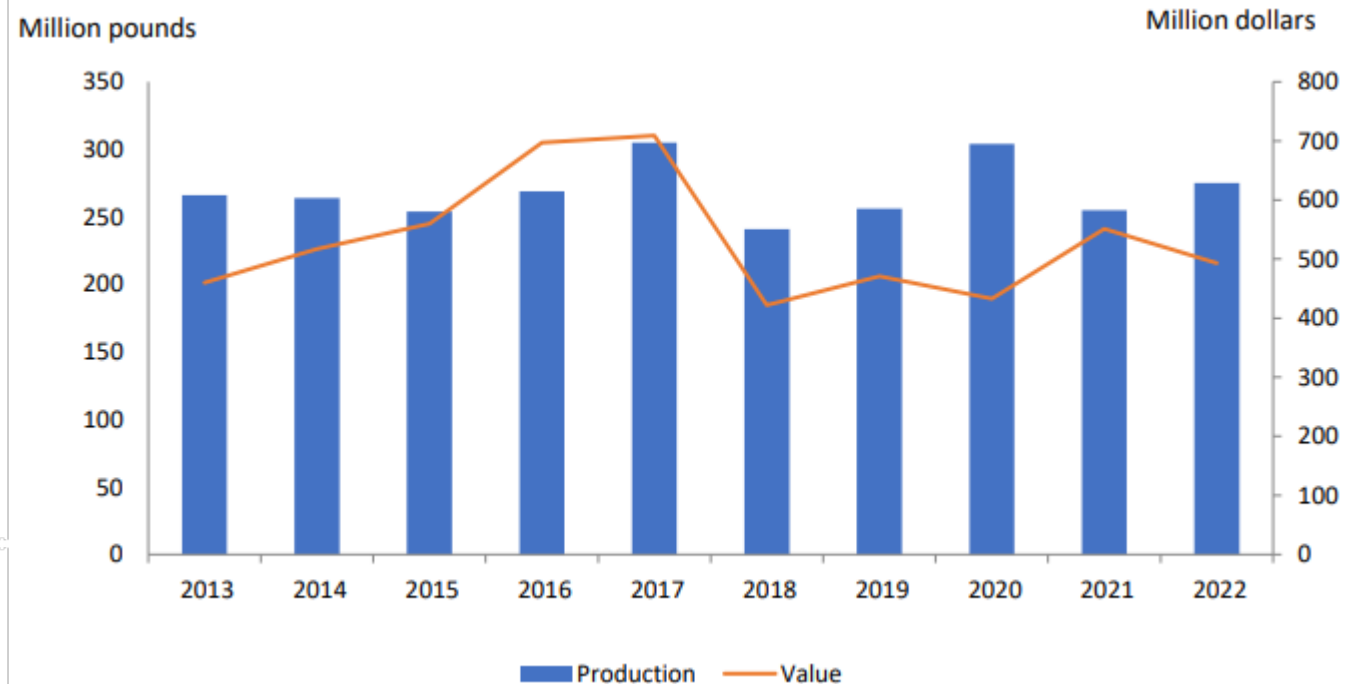


In 2022, the value of the crop totaled \$493 million, down 11 percent from the previous season, with an average annual price of \$1.79 per pound.



PECAN PRODUCTION AND VALUE UNITED STATES 2013-2022

- Improved variety pecan production, at 266 million pounds, increased 11 percent from the previous year.
- Improved variety of pecans accounted for 97 percent of the United States' total pecan production.
- Native and seedling variety production totaled 8.14 million pounds, down 43 percent from 2021.
- **Georgia** had the highest utilized production (in-shell basis) at 126 million pounds, followed by **New Mexico** at 79.0 million pounds (in-shell basis).



MAJOR STATE'S PECAN PRODUCTION FORECAST

While overall production is predicted to rise, production in two of the four major producing states – Georgia and Arizona – is pegged to decline slightly.

The information comes from industry estimates.

Georgia, which constitutes the largest U.S. production, is expected to decline from 125 million pounds to 110 million pounds, while in New Mexico, the second leading producing state, production should increase from 70 million pounds to 90 million pounds.

estimated production (million lbs.)

	<u>2023</u>	<u>2022</u>
AL	2	3
AZ	32	34
AR	4	2
CA	3	5
FL	2	
FL/NC/SC	4.5	2.5
GA	110	125
KS/MO	4	3.5
LA	8	5
MS	2	3
NM	90	70
OK	22	16
TX	38	38
other states	2.5	
TOTAL	322	307

Pecan production for 2023 is expected to increase overall, from 307 million pounds in 2022 to 322 million pounds in 2023.

MAJOR STATE'S PECAN PRODUCTION FORECAST

- Texas' volume is predicted to remain the same at 38 million pounds, while Arizona's declines from 34 million pounds in 2022 to 32 million pounds this year.
- In Oklahoma, the fifth leading pecan-producing state, production is forecast at 22 million pounds, up from last year's 16 million pounds.
- The other states, which include, in order, Louisiana, Florida/North Carolina/South Carolina, Arkansas, California, and Mississippi, all produce in the single digits, with production increasing in Arkansas, Florida/North Carolina/South Carolina, Kansas/Missouri, and Louisiana.



CHALLENGES FOR GROWERS: DROUGHT AND RELENTLESS HEAT PUSH TEXAS PECAN GROWERS TO THE BRINK

Winston Millican, the fifth-generation owner of Millican Pecan farm, knows hundreds of his 10,000 pecan trees individually, from the size of their last crop to the health of particular branches—a feat of memorization decades in the making. Located just outside San Saba, a close-knit farming community northwest of Austin, the one-thousand-acre farm consists mostly of dense pecan orchards nestled alongside a winding stretch of the olive-green San Saba River. In many places, this idyllic agricultural landscape looks much the way it did before the arrival of European settlers 170 years ago.

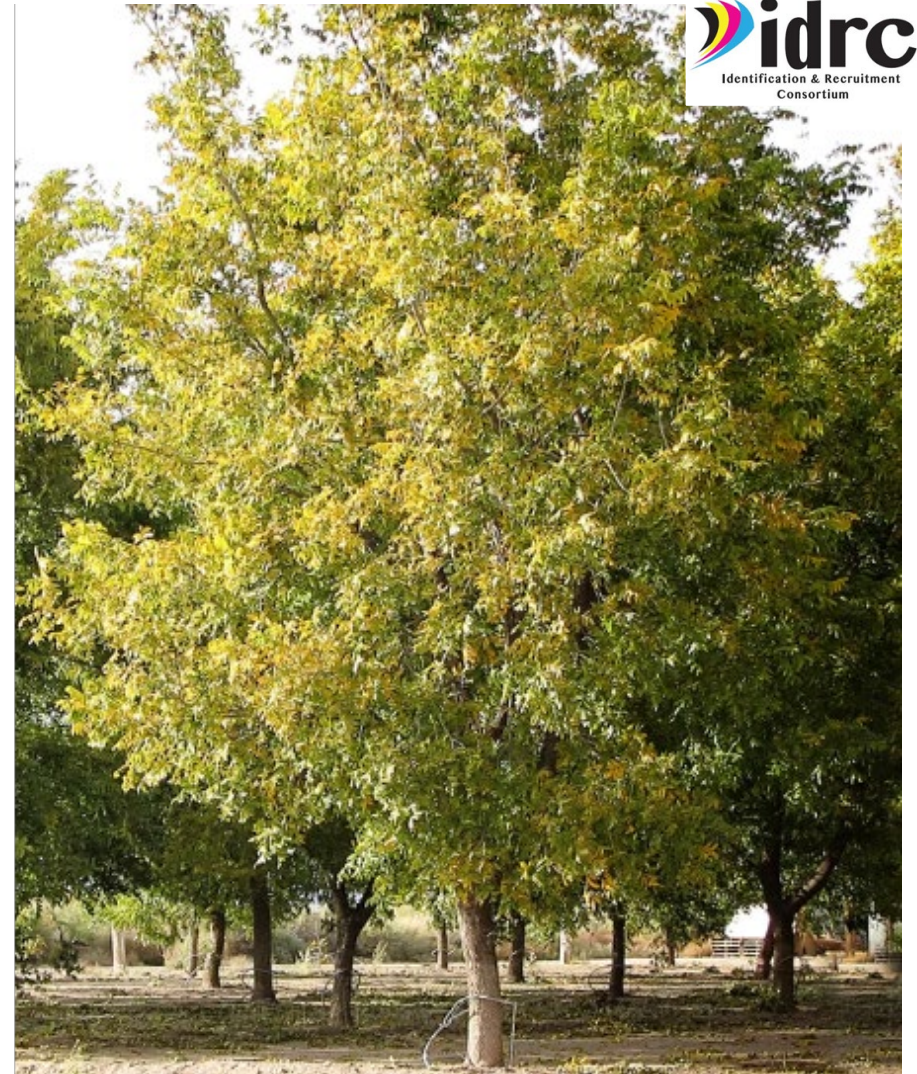
But two years into an “exceptional” drought—and after nearly eighty days of scorching triple-digit temperatures—Millican, like many pecan farmers across Central Texas, expects many of his trees to die this year. He anticipates losing as much as 10 percent of his orchard, nearly a thousand of the farm’s pecan trees. Many of those that do survive will produce a significantly smaller crop, both in number and physical size.



WHAT GROWERS CONSIDER WHEN PLANTING PECANS

The most important factors to consider in choosing a site for planting pecan trees are soil type, depth, and drainage. Pecans will grow in almost any soil in southern states, except poorly drained soil, hardpan or stiff clays, or thin sands with a high-water table. It is most important that the soil should have good water-holding capacity. For proper root penetration, it should be several feet deep.

In selecting a planting site, keep in mind the desirable soil characteristics described above. Avoid badly eroded hills. If not eroded, hilltops and north, east, south, or west slopes are satisfactory. In most cases, even bottomland along streams has proved a good location if well drained. The greater movement of the air often causes faster drying of morning dews and rains, which helps prevent scab infection.



<https://www.plantmegreen.com/pages/pecan-guide>

TABLE 1. GENERAL TIMELINE OF CROP STAGES, WORKER ACTIVITIES, AND KEY PESTS IN PECANS IN THE EAST REGION (VA TO FL, WEST TO LA).¹

	Jan				Feb				March				April				May				June				July				August				Sept				Oct				Nov				Dec			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Crop Stage																																																
Dormant																																																
Budbreak																																																
Pollination																																																
Nut elongation + expansion																																																
Shell hardening																																																
Kernel development																																																
Shuck split																																																
Worker Activities																																																
Irrigation																																																
Mowing																																																
Harvest																																																
Pruning/Thinning																																																
Insect Pests																																																
Pecan Weevil																																																
Pecan nut casebearer																																																

¹ The horizontal bars represent the usual range of time when the events may occur for the entire crop. These times are variable depending on variability in geography, climate, and weather.

² Additional fungicide applications may be needed through early August.

³ Post-emergent spot sprays are not represented and may need to be applied intermittently during the season.

TABLE 2. GENERAL TIMELINE OF CROP STAGES, WORKER ACTIVITIES, AND KEY PESTS IN PECANS IN THE CENTRAL REGION (TX, OK, KS).¹

	Jan				Feb				March				April				May				June				July				August				Sept				Oct				Nov				Dec			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Crop Stage																																																
Dormant																																																
Budbreak																																																
Pollination																																																
Nut elongation + expansion																																																
Shell hardening																																																
Kernel development																																																
Shuck split																																																
Worker Activities																																																
Irrigation																																																
Mowing																																																
Harvest																																																
Pruning/Thinning																																																

¹ The horizontal bars represent the usual range of time when the events may occur for the entire crop. These times are variable depending on variability in geography, climate, and weather.

² Additional fungicide applications may be needed through early August.

³ Post-emergent spot sprays are not represented and may need to be applied intermittently during the season.

PROCESS OF GROWING PECANS

Planting

Pecan trees take about ten years to sprout healthy pecans after being planted.

Preparing

This is the step of the pecan harvesting process where the soil around the pecan is prepared for their next year of growth. Wood is removed with other debris to allow for this process to begin. Throughout this time workers are consistently loosening up the soil to provide moisture and air to the roots as they grow new pecan nuts.

<https://www.stahmannpecan.com/2019/10/17/the-pecan-harvesting-process-in-stages/>



PROCESS OF GROWING PECANS

Growing

Every year, pecans sprout and bud naturally on trees from March to December. Workers encourage this growth process by spraying zinc and fertilizer onto the trees to foster pollination and overall health.

PROCESS OF GROWING PECANS



Gathering

Once all of the trees have been shaken to optimal levels and all pecan nuts are released, all that has fallen onto the ground is collected for the next stage of the pecan harvesting process. All debris is gathered into piles and then transported into our dump trailers with the help of sweepers.

Sorting

After everything has been collected into trailers, a conveyor at the top of a large sorting tower sifts through all of the content as it cascades down and separates the pecans from the remaining debris. Once properly sorted, the pecans are transported to a shelling plant for the cleaning process.

PROCESS OF GROWING PECANS

Gathering

Once all of the trees have been shaken to optimal levels and all pecan nuts are released, all that has fallen onto the ground is collected for the next stage of the pecan harvesting process. All debris is gathered into piles and then transported into our dump trailers with the help of sweepers.

Sorting

After everything has been collected into trailers, a conveyor at the top of a large sorting tower sifts through all of the content as it cascades down and separates the pecans from the remaining debris. Once properly sorted, the pecans are transported to a shelling plant for the cleaning process.

<https://www.stahmannpecan.com/2019/10/17/the-pecan-harvesting-process-in-stages/>



PROCESS OF GROWING PECANS

Cleaning

Workers thoroughly wash and clean all of the pecans, ensuring that they maintain optimal moisture levels for peak cracking in the shelling process. If too much moisture has been removed in the cleaning process, pecans may run through a soaking process to regain peak moisture levels.

Shelling

From there, a shelling plant meticulously filters through the pecans and cracks the shell from the inner pecan, creating 2 perfect pecan halves. The machinery then separates the shells from their inner pieces, and workers double-check that all outer shells have been removed by hand.

Throughout this entire process, moisture levels are continually checked to uphold peak freshness, crunch, and flavor.

Packaging

After all of these processes pecans are packaged and prepared for customers and shipped all over the world.



QUALIFYING ACTIVITIES

- Land Disking/Leveling
- Planting
- Fertilizing/Liming
- Clearing Underbrush
- Cracking
- Labeling
- Loading And Unloading
- Operating Tree Shaker
- Packaging/Packing
- Sacking
- Shelling
- Sorting
- Sweeping (Seed Floor)
- Cleaning limbs from pecan orchards
- Fertilizing pecan orchards
- Grading pecans
- Harvesting/Picking pecans
- Packing pecans



PECAN ASSOCIATIONS & PROCESSORS

American Pecan Council

info@americanpecan.com

Alabama Pecan Growers Association

<https://alabamapecangrowers.com/>

Arkansas Growers association

<http://www.stotts.us/arkpecangrowers/>

Arizona Pecan Growers Association

azpecan@gmail.com

California Pecan Association

<https://californiapecangrowers.org/about-the-cpga/>

Georgia Pecan Commission

<https://georgiapekans.org/about-us/>

Georgia Pecan Growers Association

<https://georgiapecan.org/>

Louisiana Pecan Growers Association

<https://lapecans.org/useful-links/>

Mississippi Pecan Growers Association

<http://www.mspekans.org/>

New Mexico Pecan Growers

<https://www.newmexicopecangrowers.com/contact>

North Carolina Pecan Growers Association

ncpecangrowers@gmail.com

Oklahoma Pecan Growers Association

<https://www.okpecangrowers.com/about>

Texas Pecan Growers Association

<https://tpga.org/>

Listing of Pecan Processors in US

<https://www.industry.net/suppliers/PE0022/pecan-processing>

