

# Seeking Water from Above: Low-Level Helicopter to Fly Above Mississippi Alluvial Plain

**By Heidi Koontz  
U.S. Geological Survey**

Beginning in early November and lasting for several months, a low-level helicopter will begin flying over parts of seven states in the Mississippi Alluvial Plain, or MAP, to acquire a more robust picture of aquifers in the area.

This high-resolution, airborne geophysical survey, coordinated by U.S. Geological Survey scientists in partnership with local agencies, will provide critical data for the evaluation and management of groundwater resources in the region. This survey represents the second phase of the study as initial flights and data acquisition over the MAP started in February using the same helicopter system.

The helicopter and geophysical instrumentation is expected to arrive in Greenwood, Mississippi, on or around October 31. After arrival, setup and testing will occur, so the helicopter and device it tows beneath will be visible as soon as No-

vember 2-4. Once testing is completed, daily production flights in the region will begin, with flights operating out of Greenwood for approximately two weeks.

CGG Airborne of Ontario, Canada, under contract to the USGS, will make the daytime, low-level flights over more than 20 million acres within the MAP, including a buffer around the entire area. Experienced pilots who are specially trained and approved for low-level flying will operate the aircraft. All flights are coordinated with the Federal Aviation Administration to ensure accordance with U.S. law.

The MAP is one of the most productive agricultural regions in the nation and depends on groundwater for irrigation. It constitutes the third largest area of irrigated cropland in the U.S., consisting of approximately 29,000 square miles, or 19 million acres, and includes parts of Missouri, Tennessee, Arkansas, Mississippi, Louisiana, Kentucky and Illinois.

"This survey will allow

the USGS to develop a high-resolution, three-dimensional representation of the groundwater resources for one the most important irrigated agricultural regions in the U.S.," said project lead and USGS scientist Wade H. Kress.

Instruments on the helicopter will collect information about the geology in shallow aquifers of the region. When the data analysis is complete, resulting state-of-the-art maps will help USGS researchers understand the aquifer system that supports groundwater resources at depths up to about 300 feet underground.

This survey will be flown along mainly east-west lines at about 200 feet above the ground. The helicopter will have an attached electromagnetic instrument housed in a cylinder called a bird that is towed about 100 feet beneath the aircraft.

The helicopter will also carry scientific instruments including a magnetometer and a gamma-ray spectrometer. None of the instruments pose a health risk to people

or animals.

The survey is being conducted by the USGS Water Availability and Use Program as part of the Mississippi Alluvial Plain Regional Water Availability Study. More information about this project can be found online.

<https://www.usgs.gov/news/seeking-water-above-low-level-helicopter-fly-above-mississippi-alluvial-plain>

## Trial delayed in Mississippi's long suit against Entergy

**Associated Press**

A trial has been delayed in a \$1 billion-plus lawsuit by the state of Mississippi against its largest private electrical utility.

U.S. District Judge Carlton Reeves last week postponed the trial, which had been set to begin Monday, until April.

Attorney General Jim Hood is suing Entergy Mississippi, claiming the company deliberately sold overpriced power to customers from 1998 to 2009. The suit argues the unit of New Orleans-based Entergy Corp. had a duty to use less expensive power for customers.

The parties say Reeves said he had to attend to criminal cases, which get higher priority in federal courts. The case was filed in 2008.

Hood says Entergy owes more than \$1 billion in damages, and aims to force refunds to Entergy's 447,000 western Mississippi customers. Entergy denies wrongdoing.

ing nearly 8 million pounds on our stronger years. This year, we are looking at up to 4.5 million pounds."

Draughn said he hopes to see significant increases in state production in the next five years or so.

Eric Stafne, fruit and nut crops specialist with the Mississippi State University Extension Service, said growers saw a fairly typical season regarding weather, disease and insect problems.

"One of the opportunities would be if market prices are better because of the hurricane damage," Stafne said. "It is looking like the Georgia crop will be down 50-60 percent, and Georgia is the nation's leader in pecan production."

Stafne said most of Mississippi's pecans leave the state. China has been a big buyer of U.S. pecans, but those exports have bottomed out because of the tariff situation and a surplus from past years.

Extension agricultural economist Alba Collart said reviews of prices in the Atlanta market show how volatile the pecan market has been in recent decades.

"I would expect prices for 2019 to increase relative to this year's prices," Collart said.

## Conservation Corner

by James Cummins  
Executive Director  
of Wildlife Mississippi

As we enter the fall season, I am always looking for activities that will take me outdoors. And that includes exploring things I have put off.

Near one of the busiest intersections in Jackson, Mississippi, you can park your vehicle, walk across a rustic bridge, and enter a bygone era. At the Mississippi Agriculture & Forestry Museum, or Museum for short, you will discover Mississippi's proud agricultural legacy as you step back in history. What a great way to spend a day!

To the casual visitor, this place may seem like a peculiar attraction, but not when one considers the role that Mississippi's two most significant industries have played in the history and economy of the state. The Museum features over 35,000 square feet of exhibition space, displaying many artifacts, machinery, and documents that pay tribute to farmers and lumbermen throughout Mississippi's history. It even includes a Model T Ford that was donated by my father-in-law, the late Arch Dalrymple III of Amory. The museum gift shop serves a limited menu of refreshments and offers a variety of unique and educational souvenirs.

As you take a journey through time, it will be revealed how agriculture and forestry molded the history and heritage of the state and the Southeast. You will be able to explore the various sections of the Museum such as the Heritage Exhibit Cen-

ter, Small Town Mississippi, Model Train Exhibit, The Fitzgerald Collection, the Pre-Civil War Fortenberry-Parkman Farmstead, the National Agricultural Aviation Museum, and the Nature Trail.

In the section of Small Town Mississippi, you will not only be able to witness the charm and hospitality of rural life, but you can visit the General Store, which offers visitors a shopping experience like nowhere else. One can buy cold Coca-Colas, Moon Pies, old-fashioned candy sticks, toys, and souvenirs, as well as see many artifacts reflecting what one might have seen in a 1930s General Store. The store specializes in Mississippi Gift Baskets, offering food products and crafts.

Your visit will be even more rewarding during any of the festivals that are scheduled throughout the year.

The Agriculture & Forestry Museum is located at 1150 Lakeland Drive, Jackson, Mississippi. They are open Monday through Saturday from 9 AM - 5 PM. Admission is \$5.00 for adults, \$4.00 for seniors, \$4.00 for ages 3 to 18 and free for ages under 3. For more information, call (601) 432-4500.

*James L. Cummins is executive director of Wildlife Mississippi, a non-profit, conservation organization founded to conserve, restore and enhance fish, wildlife and plant resources throughout Mississippi. Their web site is [www.wildlifemiss.org](http://www.wildlifemiss.org).*

# Pecans yields decline, future looks promising

**By Linda Breazeale  
MSU Extension**

Mississippi's pecan yields will be down from last year, but the future looks promising.

Mississippi Pecan Growers Association President Max Draughn of Raymond explained that pecan yields alternate from year to year.

"We had a strong year in 2017, so we would expect this year to be down. We may be down about 40 percent," Draughn said. "Trees in the northern counties, mainly in the Delta, lost some yields to a late freeze.

Trees in the southern counties suffered from pollination and disease problems. The central counties have a good crop, about 80 to 85 percent of last year's yields, which is about where it should be after a strong year."

Draughn said some pecan varieties are smaller than normal because of cloudy days in June and July, followed by a lack of moisture.

"Mississippi is the birthplace of the modern pecan industry dating back to the 1920s, when there were 33 pecan tree nurseries in Jackson County," he said.

"Mississippi pecan production peaked in mid-1960s with just under 40 million pounds. Then, catastrophic hurricanes and ice storms took their toll on the state's orchards."

In recent years, the state's pecan industry has begun a slow rebound.

"We produced about 1 million pounds annually for about 15 years. Then, about 10 years ago, China started buying more pecans and prices improved. That motivated growers to expand or rejuvenate old orchards," he said. "We have been produc-



Craig Schmidt of Macon examines pecans after cracking on November 1. Schmidt recently purchased equipment from Peeples Pecans in Starkville and is just starting his first season of cracking, shelling and blowing pecans for the public.

(Photo by MSU Extension Service/Linda Breazeale)

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| Crop                           | CBOT Month | Delivery Period | Futures Price | EGT Basis | Net Price | Change |
| Wheat                          | Jul 19     | 2019 Jun        | 5.43          | -0.22     | 5.21      | 0.00   |
| Corn                           | Dec 18     | 2018 Nov        | 3.74          | -0.02     | 3.72      | 0.23   |
| Corn                           | Dec 18     | 2018 Dec        | 3.74          | -0.01     | 3.73      | 0.02   |
| Corn                           | Sep 19     | 2019 Aug        | 4.00          | -0.07     | 3.93      | 0.00   |
| Soybeans Sidon                 | Jan 19     | 2018 Nov        | 8.86          | -0.82     | 8.04      | -0.02  |
| Soybeans G'wood                | Jan 19     | 2018 Nov        | 8.86          | -0.74     | 8.12      | -0.02  |
| Soybeans G'wood                | Jan 19     | 2018 Dec        | 8.86          | -0.35     | 8.51      | -0.02  |
| Soybeans G'wood                | Jan 19     | 2019 Jan        | 8.86          | -0.35     | 8.51      | -0.02  |
| Soybeans Minter City           | Jan 19     | 2018 Nov        | 8.86          | -0.77     | 8.09      | -0.02  |
| Rice                           | Nov 18     |                 | 10.755        |           |           | 0.055  |
| Rice                           | Jan 19     |                 | 10.800        |           |           | 0.055  |
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