



Good news



Stumpage report



Pine sawflies



Deep freeze



Dove fields



Songbird deaths



Timber Tales

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Some good news comes for Louisiana's forestry community

By Robbie Hutchins

Without a doubt, 2020 and the first half of 2021 were extremely tough for Louisiana's forestry community. Challenges ranged from one end of the spectrum to the other. They were multifaceted and extremely difficult to manage or mitigate.

On one end of the spectrum, forest landowners, the forest industry and logging contractors were forced to deal with unprecedented issues surrounding the COVID-19 pandemic, including the effects of COVID-19 on personal health, personal finances, business operations and the related economic shutdown, to name a few. Attempts to manage essential businesses were additionally hampered by the availability of a "healthy" workforce, safety protocols, health and safety equipment,

and government mandates or shutdowns.

Just when we thought that things couldn't get worse, the infamous and ever-changing Louisiana weather showed us that the COVID-19 pandemic was just the beginning. The Louisiana forestry community had to deal with the unfathomable destruction of personal property and timber caused by not one, but two major hurricanes named Laura and Delta. The estimated value of timber losses from both hurricanes totaled \$1.467 billion, but that number doesn't begin to reflect the damages to personal property or businesses.

To further complicate matters, the landfall of Hurricane Laura ushered in a lengthy period of wet weather, which rendered most timber salvage

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Frozen treetops. Photo by Valerie West.

Will my tree survive? Long-term impacts of the freeze

By Valerie West

At first it was pretty. Snow in February, excited kids, a good time to stay inside and watch the flakes fall softly to the ground. Then it didn't stop, and it got colder and colder. Soon you couldn't get out of the driveway, pipes were freezing or worse — they were breaking. It lasted for a

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At a Glance:

6.3%

GDP INCREASE FOR FIRST
QUARTER OF 2021

6.5%

GDP INCREASE FOR SECOND
QUARTER OF 2021

1.6 mil

2021 HOUSING STARTS

If you are a forest landowner, a logger, in the forest industry or a citizen of the state, these announcements should give all of us all hope: hope for high-paying jobs; hope that higher demand will positively affect stumpage prices; hope that people will need our services; and hope that consumers will purchase our products produced.

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operations useless and complicated repairs and reconstruction. Then, in February of 2021, a historic winter weather event placed most of Louisiana on lockdown as an Arctic front kept the temperature below 32 degrees Fahrenheit and the roads frozen and unpassable for an unprecedented length of time.

This may sound like the same old sad story of 2020, but we're midway through 2021 and the narrative has begun to change for Louisiana's foresters. The proverb of "April showers bring May flowers" comes to mind, and it might apply to Louisiana's forestry community these days because despite the continuing wet and rainy weather, "green shoots" are showing up by way of good macroeconomic news and important announcements about the future of forestry in our state.

On the macroeconomic front, the United States economy continues to recover rapidly from the COVID-19 shutdowns as measured by two historically important metrics for forestry. These measures are the gross domestic product (GDP) and privately owned housing starts.

First, the GDP continues to increase at impressive rates. For the noneconomists in the group — including myself — please let me attempt to explain GDP and how to interpret the numbers: U.S. GDP numbers are a measure of the percent change in several of the leading economic indicators. This rate of change can be either positive or negative. As you would expect, positive GDP is a positive economic indicator, and negative GDP is a negative indicator. GDP numbers can be calculated by comparing economic indicators from either the previous quarter

(quarterly basis) or the indicators from the previous year (annual basis). It is also important to know that even if the comparison is between the numbers on a quarterly basis, the percent of change is adjusted and reported as an annualized rate.

Now the good news about U.S. GDP. For the first quarter of 2021, real GDP increased at an annualized rate of 6.3%. Estimates for the second quarter of 2021 show that GDP increased at an annualized rate of 6.5%. This is very good news for the forestry community and the United States in general because historically GDP has been one of the ways used to measure the health and direction of a country's economy. Although the estimated second quarter 2021 6.5% GDP growth may be considered more than ideal by some economists, in my opinion, a 6.5% GDP is a "green shoot" the size of a mature longleaf pine compared to the second quarter 2020 GDP which declined by -31.2%.

Second, the U.S. housing market remains very robust according to the June 2021 housing starts. You may be wondering why the number of housing starts is such an important macroeconomic indicator. As foresters, we understand that the more houses are built each year, the more wood is needed, so demand for our products remains high. But it goes much deeper than that for the U.S. economy. Approximately one-sixth of the U.S. GDP numbers are directly connected to housing starts, so that means that housing starts are a major driver of the U.S. economy. Housing starts, especially for single-family homes, provide a reliable real-time measure of consumer confidence in the overall economy because people generally only build

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Louisiana Stumpage Report

Second Quarter 2021

Product Class	Price Per Ton	% Change from Prior Quarter
Pine sawtimber	\$27.39	+17
Pine chip-and-saw	\$18.59	0
Pine pulpwood	\$7.19	0
Hardwood sawtimber—mixed grade	\$31.80	0
Hardwood pulpwood	\$8.77	0

— State average stumpage prices (\$ per ton) for Louisiana.

— This document is intended for use by forestry stakeholders of Louisiana. The source of these prices is proprietary in nature; prices are provided per agreements to disseminate them to the public.

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a home if they have the confidence that their job is reliable enough to allow them to pay their mortgage. Housing starts have been an extremely reliable indicator of future economic activity in certain business segments that specialize in “making a house a home,” such as retail stores that specialize in furniture and home decor or with service providers, such as interior decorators or landscape contractors.

Now for the numbers. According to the U.S. government’s report for June 2021, U.S. privately owned housing starts were at a seasonally adjusted annualized rate of 1.643 million homes for 2021. In the same report, private single-family home starts were estimated to be 1.160 million homes for 2021 on a seasonally adjusted annualized rate. For reference, in 2020 U.S. privately owned housing starts were 1.38 million homes, with 991,000 of those being private single-family homes. If the estimated numbers for 2021 are even remotely close to the actual numbers, this

represents a nice improvement over the 2020 numbers, which I consider to be another important “green shoot” for forestry.

Next, some outstanding news and “green shoots” focused specifically on the Louisiana forestry community that will benefit landowners, forest industry and logging contractors alike.

First, on May 27, 2021, the Interfor Corporation announced an agreement with Georgia Pacific (GP) to purchase four sawmills in the U.S. One of the GP sawmills purchased by Interfor is the sawmill located between Ragley and DeQuincy in Beauregard Parish, which was idled in May 2020 during the COVID-19 pandemic. Interfor is currently evaluating strategies and equipment for the site and is formulating plans to safely and efficiently restart the DeQuincy mill.

Second, on June 8, 2021, the Canfor Corporation announced that it plans to build a \$160 million state-of-the-art sawmill just west of DeRidder in Beauregard Parish. Canfor expects that construction on the mill to begin

in late third quarter of 2022.

Third, Hunt Forest Products and Tolko Industries announced a joint venture and plans to construct a \$240 million sawmill near Taylor in Bienville Parish. Construction on the new state of the art mill is scheduled to begin in early 2022. Commercial operations are expected to begin in early 2023.

What do these “green shoots” mean for Louisiana? If you are a forest landowner, a logger, in the forest industry or a citizen of the state, these announcements should give all of us all hope: hope for good, high-paying jobs; hope that higher demand for our timber will positively affect stumpage prices; hope that people will need our services to manage, buy and sell timber; and hope that consumers will continue to need and purchase the products produced in our mills — the very hope and motivation we need to rebuild our lives and replant our forests.

Robbie Hutchins is an associate area agent specializing in forestry for the LSU AgCenter in the Central Region.

Managing mourning dove fields



Sunflower field. Photo by Luke Stamper.

By Luke Stamper

As the days get shorter, the anticipation of fall hunting season becomes more prevalent. For many, mourning doves kick things off and can provide memorable wing-shooting opportunities for all ages as well as top-notch table fare. What better way to ensure success — or at least the opportunity for success — than to sit over a dove field? Here we provide some considerations for managing dove fields in Louisiana.

The mourning dove's primary food sources are grains and seeds from naturally occurring plants (weeds) and cultivated crops. Plants such as barnyard grass, foxtail grass, wooly croton (goatweed), ragweed and pokeweed are often used as forage

by doves. Commonly planted crops for doves include browntop millet, proso millet, grain sorghum, sunflowers and buckwheat. Native plants can often compliment cultivated crops when competition doesn't significantly reduce the crop yield (Figure 1).

Doves are considered fleshy or weak-beaked with weak legs, which can limit their ability to forage and scratch for food. As such, they require bare ground to maximize their use of dove fields. There are several mechanical and chemical techniques (e.g., silage chopping, mowing, burning, disking, herbicides) you can implement to create bare ground and provide doves with more foraging opportunities, but the methods you use to create the bare ground will depend on the crop you planted and how much you

managed the field throughout the growing season. For example, if you planted millets and used chemical herbicides or row cultivation to keep unattractive broadleaf weeds to a minimum, then simply mowing the field should sufficiently scatter the mature, dried millet over the open ground. If you were less successful controlling broadleaf weeds, then mowing followed by burning should accomplish your goal to make grains and seeds available to doves.

Mechanical techniques may be necessary to create bare ground and scatter food if your dove field is composed of multiple and interspersed crops (Figure 2). One common practice is to strip plant multiple crop species to increase

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Figure 1, left, and Figure 2. Photos by Luke Stamper.

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food diversity across your field. For example, you might allow native species to grow along the edges of your field, then plant a strip of millet, followed by a strip of grain sorghum, which is then followed by another strip of native plants, and repeat the process across the field. In this case, you may need to use a disk to break up plantings from one another to create or maintain some percentage of bare ground throughout the growing season. This method is advantageous because it provides a variety of food sources and because the newly mowed crops will have adjacent bare ground to scatter grains and seeds. The long, linear lines produced by disking also provide clear lines of sight doves can

use to avoid predation when feeding or while searching out grit.

Finally, if you planted your dove field to sunflowers, your early season management may have left you void of significant weed pressure. However, if this is not the case, you can apply a desiccant to assist in cleaning up the weeds and drying out sunflowers. This will help increase the seed's ability to shatter and increase the amount of bare ground you have in your field before you mow it. You will know your sunflowers are mature when the outer bracts turn brown, and the back of the head turns yellow. Some example desiccants are glyphosate and paraquat. Glyphosate should be applied at least 14 days prior to mowing the field and paraquat can be applied as little as two to three

days before mowing. Both products will do a good job of cleaning up weed pressure and exposing bare ground before mowing or silage chopping the field. You can find more information about these products in the LSU AgCenter 2021 Weed Management Guide.

Whether you spent the summer managing for native plants, cultivated crops or a healthy mixture of the two, your final improvements to your hunting area can lead to success or failure. Please note your federal, state and local laws before you implement final field prep and enjoy the season!

Luke Stamper is the LSU AgCenter area wildlife and forestry agent for the Northeast Region.

Pine sawflies plague northwest Louisiana

By Valerie West

Bossier and Webster parishes were host to an unwelcome pest this spring. Pine sawflies (*Neodipiron* spp.) left their mark across hundreds of acres in these parishes, alarming many landowners.

Midrotation stands of loblolly pine timber in Bossier Parish, are under attack from pine sawflies. In Figure 1, the early stage of defoliation is beginning at the tops of the trees.

Figure 2 shows the late-stage of defoliation where most of the needles have been consumed by sawfly larvae.

Sawflies are not flies, but rather a subgroup of nonstinging wasps. Their larvae are caterpillarlike and can be mistaken for the larvae of moths and butterflies (Figure 3). Female sawflies use their saw-shaped ovipositor to insert eggs into the host plant tissue.

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Figure 1: Saw fly defoliation, early stage. Photo by Valerie West.



Figure 2. Late-stage defoliation by saw flies. Photos by Valerie West.

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They can lay more than 100 eggs each. The larvae emerge from the eggs and begin to aggressively feed, often defoliating the host plant over the period of a month or more.

Once the larvae have reached full size, they drop from the host plant to the ground, where they create cocoons and metamorphose into sawflies. This pattern can occur up to five times per season here in Louisiana and other parts of the southeastern U.S. depending on the species of sawfly. The main host plants for the sawfly in Louisiana are the southern yellow pines.

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Figure 3. Close-up of sawfly larvae.

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Pine plantations, in particular, are vulnerable to sawfly outbreaks due to the availability host plants. Fortunately, while ugly to look at, sawfly damage in mature stands will reduce tree growth in the short-term but does not have a long-lasting impact on the overall health and productivity of the stand unless another environmental factor (e.g., drought) compounds stress to the trees (Figure 4). In young stands, sawfly damage causes larger growth losses and can result in the death of seedlings if left untreated. Sawflies also feed on fully extended needles, so while they remove all the current needles from their hosts, any new

growth flushes will not be impacted once the larvae are finished feeding.

Treatments can be spot applied to small patches of sawfly or broadcast applied to larger infestations when the larvae are first observed. Insecticide treatments that include spinosad, carbaryl, pyrethrins, neem oil and insecticidal soap are all effective for controlling sawfly larvae when used following the manufacturer's instructions. Treatments may need to be applied more than once per season depending on the severity and reoccurrence of outbreak.

Valerie West is a forestry extension agent in the LSU AgCenter Northwest Region.

Sawflies are not flies, but rather a subgroup of nonstinging wasps. Their larvae are caterpillarlike and can be mistaken for the larvae of moths and butterflies. Female sawflies use their saw-shaped ovipositor to insert eggs into the host plant tissue. They can lay more than 100 eggs each. The larvae emerge from the eggs and begin to aggressively feed, often defoliating the host plant over the period of a month or more.



Figure 4. Stand recover following a pine sawfly outbreak. Photo by Valerie West.



Unexplained songbird deaths reported in Midwest and Eastern U.S.

By Ashley M. Long

Wildlife experts from the Midwest and Eastern U.S. have reported an increase in sick or dying birds in recent months. The following species are principally affected: blue jays, American robins, common grackles and European starlings but also northern cardinals, house finches, house sparrows, eastern bluebirds, red-bellied woodpeckers, Carolina chickadees, Carolina wrens and brown-headed cowbirds. Symptoms exhibited by the diseased birds include tremors, seizures, stumbling, weakness, lethargy, discharge around the eyes and swollen heads.

Scientists are unsure what is causing this particular illness, but they have ruled out some of the most common pathogens that cause disease in wild birds, including West Nile virus, avian

influenza, salmonella, chlamydia, Newcastle virus, herpes viruses, pox viruses and trichomonas parasites. The U.S. Geological Survey's National Wildlife Health Center and several diagnostic labs across the U.S. are currently working to diagnose the disease and minimize further spread.

To date, there are no reports of human or livestock health issues associated with the outbreak, and the unexplained illness has not been reported in Louisiana. However, if you see sick or dead birds, please inform the Louisiana Department of Wildlife and Fisheries and take the following precautions:

- Keep pets and kids away from any sick or dead birds.
- Use disposable gloves if it is necessary to handle the birds.

- Place any dead birds in a sealed plastic bag.
- Cease feeding; clean feeders and baths with a 10% bleach solution.

Whether or not there is an outbreak of any particular disease, cleaning feeders and baths every one to two weeks is a particularly important and simple way we can all help prevent disease transmission and keep our backyard birds safe. Don't forget to remove feces and hulls below the feeder and note that hummingbird feeders may need to be cleaned more frequently in warm weather to remove and prevent mold from building up in the feeder, flower attachments and bee guards.

Ashley M. Long is a wildlife specialist and assistant professor in the LSU School of Renewable Natural Resources.

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week rather than the day or two that most folks in Louisiana have come to expect from our rare winter snows, and people weren't the only ones caught off guard. Many tree species were set to start putting out their leaves in anticipation of the upcoming spring weather when this cold blast hit. Like the pipes in our walls, many of those trees suffered some damage to the "pipes" that carry water and nutrients inside the tree.

So, what do I mean when I say the tree's "pipes" froze? If you could look at the inside of a tree branch you would see the rows of cells that move water and nutrients around the tree. These cells are called the xylem and phloem and are in every twig, branch, stem and root on the tree. Xylem transports water and nutrients from the roots to the top of the tree. Phloem transports the energy created by photosynthesis in the form of sugars and starches from the top of the tree down to the roots. These rows of phloem and xylem cells are just inside the bark layer. If you go to the very end of the smallest twig on the tree, there is a thin layer of bark or epidermis. This layer is so thin that it cannot insulate the "pipes" just beneath it. As you move further down the limb, as the limb gets wider, so does the layer of bark. The thicker the layer of bark, the better insulated the "pipes" are from frost damage. When the tree gets ready to put on leaves in the spring, the activity in the xylem and phloem increase. The more active these cells are, the more water they have inside them. So, just like the pipes in our homes, when the "pipes" in the tree froze, some of them broke because they just didn't have enough insulation from the cold.

Now, we had several hardwood tree species that were getting ready to put out their spring leaves. These



Tree is trying to recover from freeze damage. Photo by Valerie West.

are the trees that were damaged the most. This group includes native trees like black oak and post oak as well as nonnative trees like chinaberry and Chinese tallow.

Evergreen trees such as live oaks had some frost damage to leaves but not twig and branch damage.

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When the weather adjusted back to springtime normal, these damaged trees could be spotted easily in the landscape. They were the ones without any leaves. If you were patient, leaves did eventually appear, but not where you expected them to. Many of these species began to leaf out along the main branches and tree trunks rather than at the ends of their branches. For most trees this will help them to generate enough energy to repair the internal damage, and by the next year they should be almost back to normal.

This is not always the case. Some trees put out leaves and then within a few months the tree suddenly turned brown and died. Damaged trees may have had enough energy to put out new leaves, but if they have an unseen condition, such as root rot, they don't have enough energy to fight off infection and repair freeze damage. As a result, they die. Landowners should be observing any freeze damaged trees on their property monthly to make sure that they are still fighting back. If your yard tree has lost the battle, contact your area extension agent for a list of licensed arborists to help you safely remove the tree from your property. If dead trees in the landscape are located away from structures and are not a hazard to the homeowner or property, they can be left for wildlife habitat.

If you have any questions about your yard trees after the storm or would like an extension agent to come visit your property, contact your local LSU AgCenter office and an area horticultural agent or forestry agent will be glad to help.

Valerie West is a forestry extension agent in the LSU AgCenter Northwest Region.



Tree is dying from secondary issue after freeze damage. Photo by Valerie West.



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