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October 2011

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Mississippi Flu Season Begins

Flu season in Mississippi has begun. Now's the time for **all** Mississippians six months and older to get a flu shot. Flu shots are available in many county health departments now, and will be available statewide within days. **Cost:** Flu shots for adults are $25, and $10 for those 18 and under. Specialized flu shots, designed to boost immunity for those 65 and over, are available for $50 and are covered by Medicare part B.

Newsletter Deadlines

All submissions are welcome. Photographs are encouraged (although space limitations October curtail inclusion). Items must be received by the ***10th of the month*** to be included in the next month's issue. E-mail submissions *(in Microsoft Word)* and photos to

lharris@mfc.state.ms.us

or mail to:

Lisa A. Harris
Mississippi Forestry Commission
822 SCR 115 S
Raleigh, MS 39153

Invasive Forest Insects Cost Homeowners, Taxpayers Billions

ScienceDaily (Sep. 10, 2011)

Homeowners and taxpayers are picking up most of the tab for damages caused by invasive tree-feeding insects that are inadvertently imported along with packing materials, live plants, and other goods. That's the conclusion of a team of biologists and economists, whose research findings are reported in the journal *PLoS ONE*.

The authors explain that non-native, wood-boring insects such as the emerald ash borer and the Asian longhorned beetle exact an estimated $1.7 billion in local government expenditures, and approximately $830 million in lost residential property values each year.

"Once they become established, invasive species are very difficult to eradicate, and they result in billions of dollars in damages each year," said Juliann E. Aukema, first author and a scientist with UC Santa Barbara's National Center for Ecological Analysis and Synthesis (NCEAS). The research team, composed of scientists from U.S. and Canadian universities and the U.S. Forest Service, focused on invasive insects that feed on trees in the U.S. They noted that other countries face the same problems with foreign species.

Aukema and her co-authors provide the most comprehensive estimates of costs due to forest invasion that are currently available for the U.S., according to the team. They also predict the probability of future costs and explain the benefits of reducing the rate of invasion.

The pests are a by-product of global trade, according to Aukema. "Obviously, international trade has tremendous benefits, but it also has costs," she said. "The regulations we currently have aren't keeping the pests out. We need to strengthen regulations and enforcement of them to protect our forests and our economy."

Wood-boring insects are not the only insects that are causing economic impacts, according to the researchers. Foliage feeders and sap feeders cause an estimated $410 million and $260 million, respectively, in lost residential property value each year.

The researchers calculated the economic damages for five cost categories: federal governmental expenditures, local governmental expenditures, household expenditures, residential property value losses, and timber value losses to forest landowners.

The team also calculated a 32 percent risk that a new borer would invade in the next 10 years, causing even more damage than previous borers.

The study used detailed economic assessments of three highly damaging pests: emerald ash borer, gypsy moth, and hemlock woolly adelgid. The researchers al-

This is an emerald ash borer. (Credit: David Cappaert, Michigan State University)

(Continued on page 9)

Tree Knowledge - Who Am I?

My leaves are simple, opposite and deciduous. They range in size from 3.0" to 6.0" long and 1.5" to 2.0" wide. Their margin is entire or slightly scalloped and pointed at the apex with a wedge-shaped based. They are oval, acute or slender in shape and light green above to paler whitish green below. Their surface is somewhat hairy above and pubescent below.

My twigs are slender and red or yellow-green to purple in color the first winter, then gray-brown to brown. Their surface is pubescent first winter and then glabrous.

My terminal leaf bud is acute and reddish brown to yellow-brown in color with a pubescent surface.

My fruit is in a drupe. It is in clusters of 2 to several; persistent calyx and style; pit, 2-celled, somewhat grooved. Their shape is ovoid, pit ovate and the seed is oblong. My fruit is bright red in color.

My flower is monoecious, perfect, in dense heads surrounded by 4 large white, petal-like bracts. My flowers have four petals and are yellowish-green in color.

My bark is thick, dark brown to nearly black with small rectangular plates on young stems and square scaly blocks on mature stems.

I form a single stem and reach 40 feet at maturity. I have a moderate growth rate of 30 feet an 20 years. My life span is less than 0 years.

I am tolerant to shade, have a medium tolerance to drought and a low tolerance to fire.

I prefer moist, rich, deep soils near stream banks and on slopes. I am usually found as a understory species with other hardwoods. I like a medium soil texture and a soil pH range of 5.0 to 7.0.

I am found all across the eastern US; west through Kansas, Oklahoma and Texas. In Mississippi, I am found throughout the state with the exception of Mississippi River Delta counties.

I am extremely valuable for wildlife. My seed, fruit, flowers, twig, bark and leaves are utilized as food by various animals. My fruit has been recorded as eaten by at least 36 species of birds, including ruffed grouse, bob-white, quail, and wild turkey. My fruit is also eaten by mammals such as chipmunk, fox, skunk, rabbit, deer, beaver, black bear and squirrel. My foliage and twigs are browsed heavily by deer and rabbits. I also provide shelter and habitat for many wildlife species.

I have been planted on abandoned strip mines and used for urban forestry projects.

I an a valuable ornamental species. I am commonly used in landscape and street plantings, shade around patios and as a shrub border or backdrop species. I am best suited for plantings where I receive less than full-day sun.

My root bark is used by Native Americans as a fever reducer, skin astringent, antidiarrheal agent and as a pain reliever for headaches, sores, muscle inflammations. I am also used to counteract the effects of many poisons and as a general tonic for unspecified ailments. My fruit is poisonous to humans.

Who Am I?

Tree Knowledge - Who Am I? for September 2011 was Sugar Maple (Acer saccharum Marsh.) Check out page in the Mississippi Trees book.

Octobers' Birthdays

Donna Longest -2
Malcolm Baty -3
Greg Bobo -4
Joseph Nowell -4
Roosevelt Bell -6
Vernon Tucker -6
Joiniter Jobe -7
Vernon Cooper -8
Joe Harris -10
James Morton -10
Antonio Brooks -12
Joshua Myers -12
Gary Alldread -13
Berbin Roland -14
Gregorio Morales -15
Bretta Walsh -16
Sandra Clark -17
Jaret Prestage -17
Christopher Givens -19
Robert Touchstone -20
Randolph Bowles -23
Jimmy Owen -23
Thaddeus Crowell -24
Jennifer Head -25
Lee Eaton -26
Jason Shelby -26
Timothy Holder -27
John Johnson -27
Kenna Hernandez -28
Mark Walters -29
James Johnson -30
James Parker -30
Daniel Dancer -31

Personnel Personals

Moving On

* James Cade, Forest Ranger, Noxubee County, East Central District
* Marquez Hunt, Forest Ranger, Winston County, East Central District
* Margie Burrell, Administrative Assistant, Attala County, East Central District

Mrs. Dot Harris, retired Newton County Clerk, passed away during the weekend of September 17th. Please keep her family in your prayers.

Stork Report

- Congratulations to Lauderdale County Forest Ranger Chris and wife, Chelsea Ivey on the arrival of their first child, a son, born September 13, 2011. Jhett Hardy Ivey came into this world tipping the scale at seven pounds and six ounces and was twenty inches long.

MFC Training Calendar

Several training session have been scheduled for MFC employees in the coming months.

Best Management Practices Training
(Service Foresters, Technicians, Assistant District Foresters and District Foresters)

Location	Date
Southwest District	October 17th and 18th
Northeast District	October 24th and 25th
Capital District	October 26th and 27th
South Central District	November 1st and 2nd
Southeast District	November 7th and 8th

Equal Employment Opportunity Updates

District	Location	Date	Time	Contact
Northwest	Grenada	10/17	9:00 - Noon 1:00 - 4:00	Jeff Ware
South Central	Bay Springs	10/18	9:00 - Noon 1:00 - 4:00	Ed Brown
Northeast	Tupelo	11/7	9:00 - Noon 1:00 - 4:00	Jeff Ware
Capital & State Office	Pearl	11/10	9:00 - Noon 1:00 - 4:00	Jeff Ware
Southeast	Wiggins	11/14	9:00 - Noon 1:00 - 4:00	Ed Brown
Southwest	Brookhaven	11/15	9:00 - Noon 1:00 - 4:00	Ed Brown

Check out this link (www.mfc.ms.gov/pdf/SRFT/2011_Wildland_Fire_Academy_Brochure.pdf) for a copy of the 2011 Mississippi Wildland Fire Academy to be held between November 28th and December 8th at the Southern Regional Fire Training Center in Pearl, Mississippi.

For additional information on any training session, contact Safety and Training Officers Jeff Ware or Ed Brown.

Fords Named Southern Regional Tree Farmers Of The Year

VOF Online September 2011.

The American Tree Farm System (ATFS) has named Russ and Barbara Ford as Southern Regional Outstanding Tree Farmers of the Year sponsored by Stihl, Inc.

The Fords were MFA's 2010 Outstanding Tree Farmers of the Year. They are pictured below with Trey DeLoach, MFA 2010 Tree Farm Committee chair.

The Fords competed with other regional winners for the National Outstanding Tree Farmer of the Year. Steve and Janet Funk of Idaho won the national award.

The couple's Ford's River Farms boasts 1,101 acres of Certified Tree Farm near Columbia, Mississippi.

Barbara and Russ Ford with Trey DeLoach

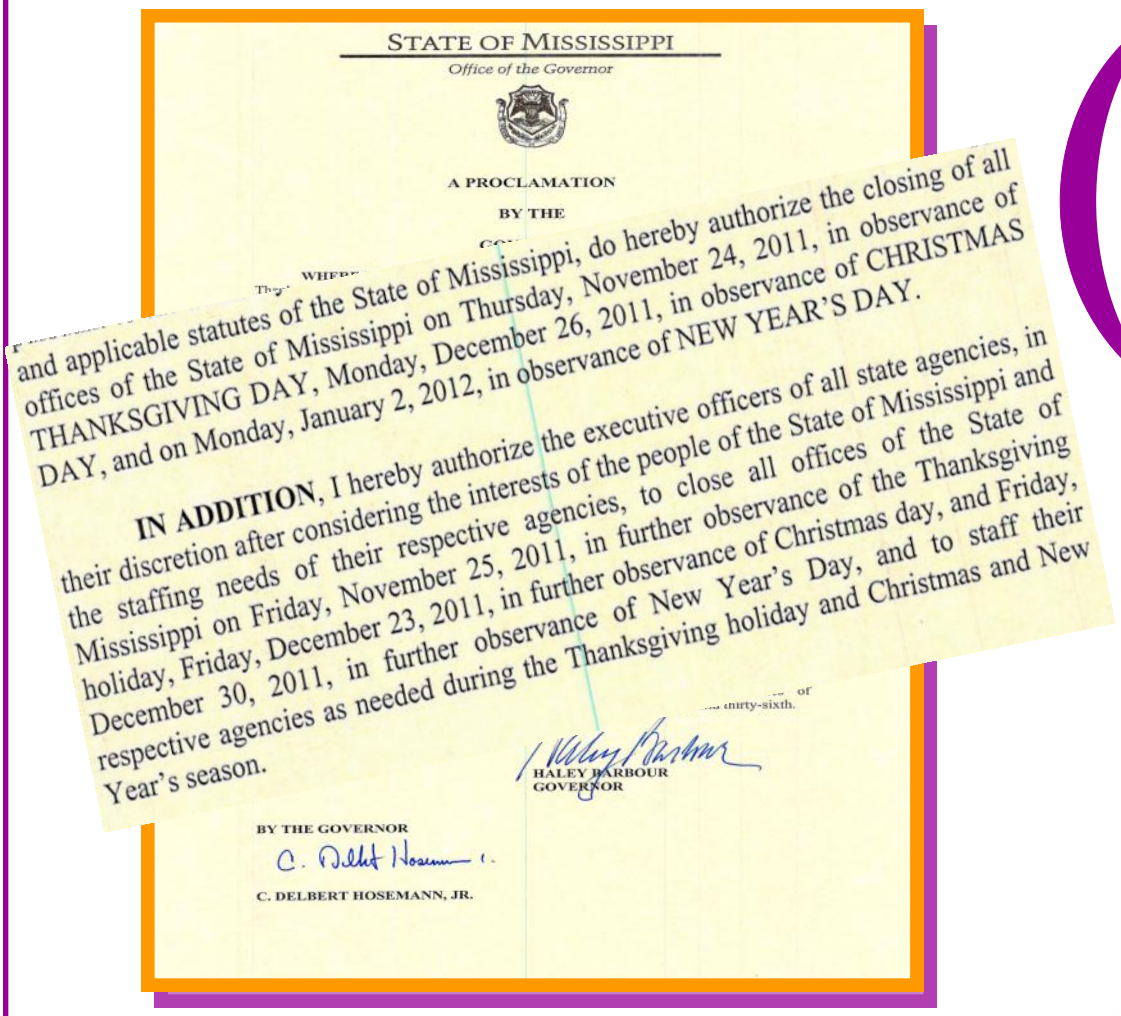
Dear MFC,
Thank you so very much for your support in fighting the Grimes/Montgomery/Waller County fires in Texas!! Prayers and "thanks" go to each and every one of you! I don't know if ya"ll are at Bastrop or any of the other fires here in Texas… we are not used to the forest fire ya'll have to tackle in Mississippi…but we are learning quickly!

As I said; ya'lls presence and support is greatly appreciated.

Thank you…is not enough!
Cathy Scotka

- Jonathan Williamson, Forest Ranger, Stone County, Southeast District
- Orlando Ellerby, Service Forester, Newton County, South Central District
- Bradley K. Stephens, Emergency Telecommunicator, Northeast District
- Thomas Nichols, Forest Ranger, Yalobusha County, Northwest District
- David Ferguson, Forest Ranger, Attala County, East Central District
- Michael Westmoreland, Forest Ranger, Marshall County, Northeast District
- John McMillian, Forest Ranger, Attala County, East Central District
- Ryan Boyette, Forestry Technician, Attala County, East Central District
- Cody Vowell, Forestry Technician, Choctaw County, East Central District

Holiday Schedule



STATE OF MISSISSIPPI

Office of the Governor

A PROCLAMATION

BY THE

and applicable statutes of the State of Mississippi, do hereby authorize the closing of all offices of the State of Mississippi on Thursday, November 24, 2011, in observance of THANKSGIVING DAY, Monday, December 26, 2011, in observance of CHRISTMAS DAY, and on Monday, January 2, 2012, in observance of NEW YEAR'S DAY.

IN ADDITION, I hereby authorize the executive officers of all state agencies, in their discretion after considering the interests of the people of the State of Mississippi and the staffing needs of their respective agencies, to close all offices of the State of Mississippi on Friday, November 25, 2011, in further observance of the Thanksgiving holiday, Friday, December 23, 2011, in further observance of Christmas day, and Friday, December 30, 2011, in further observance of New Year's Day, and to staff their respective agencies as needed during the Thanksgiving holiday and Christmas and New Year's season.

HALEY BARBOUR
GOVERNOR

BY THE GOVERNOR

C. DELBERT HOSEMANN, JR.

Nothing on Earth so beautiful as the final haul on Halloween night.
~Steve Almond

Tree Rings Reveal Forest Fires From Hundreds Of Years Ago

ScienceDaily (Sep. 8, 2011) — Like clues from an Agatha Christie mystery novel, trees can provide secrets about past events, and their rings are especially good at providing information about fires, some of which happened hundreds of years ago, according to studies from a Texas A&M University researcher.

With wildfires often in the news, Charles Lafon, associate professor of geography, has studied the fire history of forests throughout the southern and central Appalachian Mountains. He says trees can reveal key information about fire events, and some trees have a lot to tell -- one tree he examined endured 14 separate fires through its lifetime. He has published the research in *Applied Vegetation Science* and *Physical Geography*.

Lafon analyzed the tree rings of several pine species and found clear evidence of "scarring," a disfiguring of the wood that is the unmistakable sign of a previous fire. More examinations showed that trees in the area had sustained numerous fires over the past centuries.

"We found one tree that has had at least 14 fires, and we found many other trees that had en-

dured multiple fires," he explains. By piecing together the fire-scar record from numerous trees, he and his students and collaborators learned that fires occurred frequently, about once every 2-10 years. He found some trees with scars dating back to the mid-1600s. So far, they have not discovered any trees old enough to provide a record of even earlier fires.

"The fires probably were ignited by a combination of humans and lightning strikes," Lafon adds.

"We know that Indians often set fires to clear areas, and from records we have learned that the early settlers of the area also set fires so they could clear lands for grazing and planting crops," he says. "Eventually, by the late 1800s and early 1900s, there was a tremendous amount of logging because America needed a lot of timber at that time. Devastating fires accompanied the logging, and those fires motivated the fire protection campaign of the 20th century.

"The point is, there have always been fires in forests. Sometimes fires are a good thing because they are nature's way of starting over and producing new growth, and sometimes they are destructive."

Lafon says that interestingly, fires showed a dramatic decrease after the 1930s.

"That's about the time the U.S. Forest Service and other agencies started to increase public awareness of forest fires, and they introduced the 'Smokey the Bear' campaign to tell people that they could prevent forest fires," he says. "And when a wildfire did occur, they suppressed it to halt its spread. Their efforts worked -- the trees show that it did because they are fewer fires in the last 50 to 70 years."

Lafon says tree rings can show if a fire occurred, and by taking several samples and cross-referencing them to other trees, it is possible to determine the precise year -- and even the time of year -- when a particular fire occurred. The trees, in turn, have adapted to fires.

"Many tree species that inhabit fire-prone areas have thick, protective bark," he points out. "Some trees depend on fires for their own reproduction. One such tree is the Table Mountain Pine. Through a feature called serotiny, its cones often will not open to release the seeds unless they are heated by a fire, ensuring that the new seedlings emerge at an optimal time to survive and grow -- right after a fire has cleared away the competing vegetation."

Likewise, the seeds of the Peters Mountain Mallow, a herbaceous plant related to cotton, require high temperatures, such as those produced by a fire, for germination, Lafon explains. Without fire, its reproductive efforts fail. In the early 1990s, the plant hovered on the brink of extinction before The Nature Conservancy began conducting controlled burns to restore it.

One of Lafon's graduate students used fire-scarred trees growing near the mallows to estimate how often fires burned the mallows in the past. The Nature Conservancy is using that research to guide their controlled burning program.

"The bottom line is that fire scars can tell us a lot about ecological changes," he notes. "We can tell when a fire occurred and often how severe that fire was, and we can learn how forests changed as fire frequency varied over time. The decline in fire frequency during the 20th century, for example, permitted tree species like red maple to encroach into pine and oak forests. Now the pines, oaks and other fire-associated species like the Peters Mountain mallow are declining in abundance, reducing the commercial value of the timber and diminishing the quality of wildlife habitat.

"Today, agencies like the U.S. Forest Service, the National Park Service, The Nature Conservancy and private landowners use controlled burning to try to restore the fire-associated vegetation. They are applying our fire history research to guide these efforts."

The project was funded by the Joint Fire Science Program, which is affiliated with the Department of the Interior and the Department of Agriculture.

Story Source:

The above story is reprinted (with editorial adaptations by Science*Daily* staff) from materials provided by **Texas A&M University**.

Safety First . . .

Halloween Safety Tips

Halloween is a wonderful holiday, but because of increased foot traffic and that Trick-or-Treaters are out at night, the potential for automobile related accidents with young pedestrians increases four times on this night according to a CDC (Center for Disease Control) study.

Streets are literally crawling with all sorts of witches, ghosts, goblins, vampires and all other sorts of costumed people. This makes for added responsibility for drivers to make sure that they drive safer than normal.

In many areas, people drive their kids into subdivisions and let them out to walk from house to house. Usually the parent follows behind in the car. This can cause traffic jams in small areas and much confusion as kids dart between cars on the streets going from house to house. A driver is already distracted because they are trying to keep an eye on their own kids and usually aren't paying attention to much else.

Children and adults tend to be preoccupied and may not pay as much attention to safety as they should. They may not see your vehicle or just assume that you see them automatically. Stay on the defensive and you shouldn't have a problem while driving on Halloween night.

Don't use a cell phone or other electronic device while driving on Halloween night. You shouldn't be doing this anyway, the rate of cell phone related auto accidents has jumped dramatically since the use of cell phones and texting has risen so high. Some states have already made laws concerning this and others are working on it.

Pay extra attention, particularly to crosswalks, intersections and the side of the road. Kids tend to walk along the curbs, cutting across the street to get to other homes. Keep scanning all around you as you drive, whether as thru traffic or along with your kids as they trick-or-treat.

Drive below the posted speed limit in residential areas during trick-or-treating hours. This will allow you time to break if you see a child dart in front of you.

Do not pass other vehicles that have stopped in the roadway, they could be dropping off children. This is more common in rural areas but can happen anywhere.

Instruct your child to never get into the car of a stranger. It might be easy for your child to mistake someone else's car your car with the excitement of Halloween. Put a lighted plastic Jack-O-Lantern on your dashboard to make your car more recognizable to your child.

It's also a night that child predators are looking for victims. Let your child know that they should never get into the car of a stranger at any time. If someone stops them and asks for help or offers them candy, tell them to scream as loud as they can and run.

Make sure your child carries a flashlight, glow stick or has reflective tape on their costume to make them more visible to cars. Left them know if they carry a flash light to never shine it in the eyes of a driver. This can cause blindness on the drivers part temporarily and they may not see your child.

If you are dropping off or picking up your kids in an area, pull off the road into a safe spot and turn on your hazard lights to alert other motorists. If you go with your kids from door to door, leave the hazard lights on so other drivers can see your car parked there.

More Halloween Safety Tips

Swords, knives, and similar costume accessories should be short, soft, and flexible.

Avoid trick-or-treating alone. Walk in groups or with a trusted adult.

Fasten reflective tape to costumes and bags to help drivers see you.

Examine all treats for choking hazards and tampering before eating them. Limit the amount of treats you eat.

Hold a flashlight while trick-or-treating to help you see and others see you.

Look both ways before crossing the street. Use established crosswalks wherever possible.

Lower your risk for serious eye injury by not wearing decorative contact lenses.

Only walk on sidewalks or on the far edge of the road facing traffic to stay safe.

Wear well-fitting masks, costumes, and shoes to avoid blocked vision, trips, and falls.

Eat only factory-wrapped treats. Avoid eating homemade treats unless you know the cook well.

Enter homes only if you're with a trusted adult. Otherwise, stay outside.

Invasive Forest Insects Cost Homeowners, Taxpayers Billions

(Continued from page 2)

so used an exhaustive database of established non-native forest insects, and a novel modeling approach. The authors have developed an analytical framework that can be used in any country where data are available. The framework can be easily adapted for estimating costs in other natural resource sectors, including fire, disease, and water quality, at scales from municipalities to nations.

The journal article resulted from a study by an NCEAS working group with support from the Nature Conservancy. Co-authors include Brian Leung, McGill University, Montreal; Ken Kovacs, University of Minnesota; Corey Chivers, McGill University, Montreal; Kerry O. Britton, U.S. Forest Service, Va.; Jeffrey Englin, Arizona State University; Susan J. Frankel, U.S. Forest Service, Calif.; Robert G. Haight, U.S. Forest Service, Minn.; Thomas P. Holmes, U.S. Forest Service, N. Carolina.; Andrew M. Liebhold, U.S. Forest Service, W.Va.; Deborah G. McCullough, Michigan State University; and Betsy Von Holle, University of Central Florida

Source: Juliann E. Aukema, Brian Leung, Kent Kovacs, Corey Chivers, Kerry O. Britton, Jeffrey Englin, Susan J. Frankel, Robert G. Haight, Thomas P. Holmes, Andrew M. Liebhold, Deborah G. McCullough, Betsy Von Holle. **Economic Impacts of Non-Native Forest Insects in the Continental United States**. *PLoS ONE*, 2011; 6 (9): e24587 DOI: 10.1371/journal.pone.0024587

Eye of newt, and toe of frog,
Wool of bat, and tongue of dog, Adder's fork, and blind-worm's
sting, Lizard's leg, and owlet's wing, For a charm of powerful trouble, Like a hell-broth
boil and bubble.
- - -William Shakespeare (a quote from "Macbeth")