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Feature Article

Spring Blooming Trees of Mississippi

John Kushla, Extension Specialist

Spring is a great time of year to identify trees as they flower. Phenology is the study of cyclical patterns in plants and animals. Trees emerge from dormancy in a pattern that is repeated year after year. Learning these patterns is another way to identify trees in our landscape.

The order in which trees bloom in the Spring is consistent. The first flowering tree is the red maple (*Acer rubrum*), Figures 1 and 2. This is the most common native tree found in the eastern United States. It is easy to see why this maple is named 'red'. Its flowers are a brilliant scarlet as well as the newly emerging seeds and leaves

Very soon after the red maple blooms, be looking for the magenta flowers of the Eastern redbud (*Cercis canadensis*), Figures 3 and 4. This is a small tree, native to southern and Midwestern United States. The fruit of this tree is a legume. Such plants are special in the environment. Their roots have symbiotic bacteria that can metabolize atmospheric nitrogen, an important element in proteins.

Following the redbud, you will see the white blooms of pear trees. The Bradford pear (*Pyrus calleryana*), Figure 5, is a widely planted, exotic tree. While this tree will not self-fertilize, it readily crosses with wild pears, and has become invasive in the landscape. This tree has brittle wood and a tendency toward multiple leaders. These trees will often fall apart by 20 to 25 years of age, and are no longer recommended for planting.

Once you see pear blossoms, be looking for the flowering dogwood (*Cornus florida*) Figure 6. These trees are a common native in the eastern United States from Massachusetts to Florida, and west to

Texas and Oklahoma. As with the redbud, the flowering dogwood is a small tree preferring to grow in the shade of larger trees. The flowers are most commonly white, but some varieties are pink. The dogwood fruit is eaten by a wide variety of birds and other animals.

Of course, many folks know when Spring has fully arrived by the pollen in the air. Our southern yellow pines have tiny flowers of separate sexes, relying on wind fertilization (Figure 7). Hence, they shed pollen profusely to disperse far and wide, to the dismay of those suffering allergies. When the pines are done, the oaks begin. Obtain a copy of Mississippi Trees, a full color guide to the trees found in the state. This book is available through the MSU Extension Service, or download the smart phone app.



Figure 1. Red maple flowers
(photo courtesy J.D. Kushla)

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See our blog at www.blogs.msucare.com/forestry



The Overstory
Spring Blooming Trees of Mississippi (Contin-

"..Never yet was a springtime when buds forgot to bloom"

— Margret Elizabeth Sangster



Figure 2. Red maple seed, called samaras
 Photo: J.D. Kushla



Figure 3.. Eastern redbud flowers
 Photo: J.D. Kushla



Figure 4. Rare white flower variety of Eastern redbud
 Photo: J.D. Kushla



Tightly planted oak seedlings
 Photo: Brady Self



Figure 5. Bradford pear blooms and emerging leaves
 Photo: J.D. Kushla



Figure 6. Flowering Dogwood
 Photo: Mississippi Trees 2nd Edition, 2012



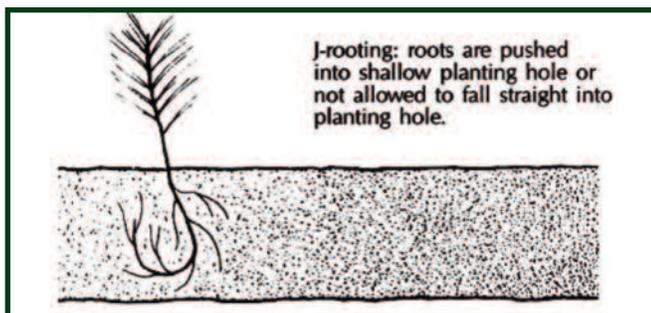
Figure 7. Male catkins on loblolly pine *Pinus taeda*
 Photo: J.D. Kushla

Delta Hardwood Notes: Inspecting Your New Plantation

Brady Self, Extension Specialist

You have put the time, effort, and money into planting your property with a selection of site appropriate hardwood seedlings and now you can sit back to watch them grow, right? That is a question often posed by landowners, and the answer is, "Not quite yet." Many planting efforts fail because owners do not follow through with post-planting compliance inspections. Often improper planting is discovered only after seedling mortality occurs and it is too late to have the contractor correct problems.

While planting efforts are in process (or very soon afterwards) you should randomly select several spots across the planting area and check a few things to make sure your seedlings are being planted correctly. First, are the seedlings tight in the soil (checked using a firm upwards tug), and are they planted at, or slightly above root collar depth? If both of these conditions are met, you should then dig up a few seedlings to insure proper root orientation. Careful excavation of planted seedlings will help you check for J-rooting. Loose and/or shallow planted seedlings and J-rooted seedlings will lead to excessive seedling mortality. If you encounter any of the abovementioned problems during the planting operation, consult the planting foreman. Always work through the foreman to comply with federal regulations regarding employee/employer relationships. If the planting crew has moved to another job, consult your planting contractor directly to correct planting problems. For more information on proper planting techniques, please read Mississippi State University Extension publication 160 "Tree Planting is Easy."



J-rooted seedling.
 Drawing from MSU-E
 Publication 1776



Mississippi Timber Price Report

4th Quarter 2016

The Mississippi Timber Price Report (MTPR) is a quarterly survey of stumpage timber prices in Mississippi. It is developed to provide a picture of timber market activity. The state average prices for common forest products are listed. Values given are offered as a guide to help individuals assess the fair market value of their timber. The average price should not be applied as the exact value for a particular tract. This report is updated quarterly and available at MSUCares.com/forestry, or by contacting your local county Extension office.

QUARTER'S PRICES: 4th Quarter 2016 Stumpage Prices/Ton (Source: Timber-Mart South)

Pine Sawtimber - \$23 Pine Chip-N-Saw - \$15, Pine Pulpwood - \$7,
Mixed Hardwood Sawtimber - \$40, Hardwood Pulpwood - \$7

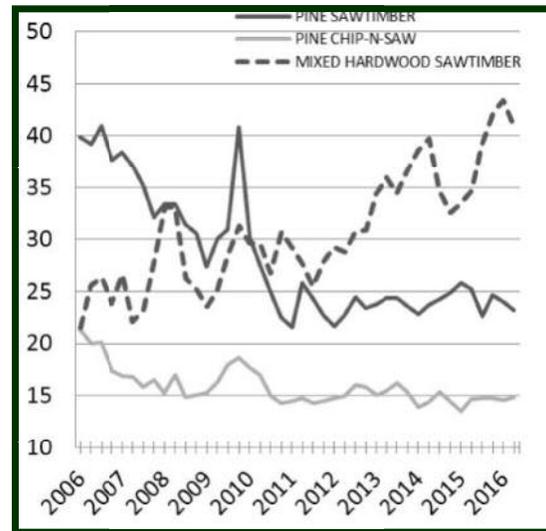
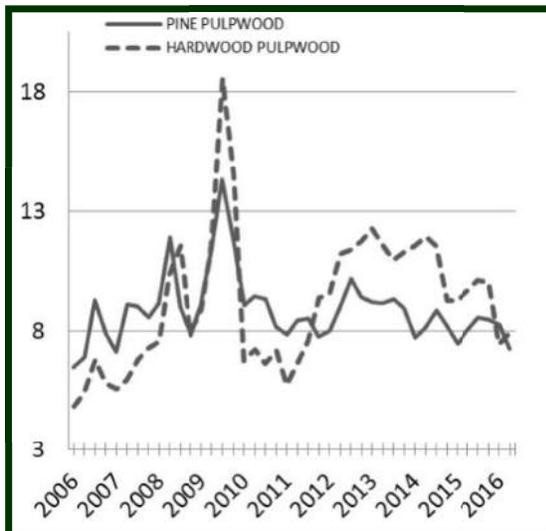
NOTE: Prices vary widely across the State; thus, average prices presented here may not reflect your local market.

WHAT'S MOVING PRICES - TRENDS:

Prices for all products decreased during the 4th quarter with the exception of pine chip-n-saw and hardwood pulpwood which increased slightly. Stumpage prices for pine sawtimber decreased by 3%, pine chip-n-saw increased slightly by 1.5%, and pine pulpwood decreased by 13% from the previous quarter. Stumpage prices for mixed hardwood sawtimber decreased by 6% and hardwood pulpwood increased by 7% from the previous quarter.

TIME SERIES:

**Average Mississippi Pine and Hardwood Stumpage Prices
1st Quarter 2006 through 4th Quarter 2016
(All prices in \$/TON)**



Timber-Mart South (TMS), Inc. has more detailed data available by subscription that contains values for other timber products not included in this report. TMS is compiled and produced at the Center for Forest Business, Warnell School of Forest Resources, University of Georgia, under contract with the Frank W. Norris Foundation, a non-profit corporation serving the forest products industry. See <http://WWW.TMART-SOUTH.COM> for information on subscriptions.

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Please don't forget to check out our Blog at www.blogs.msucare.com/forestry and sign up for email notices!

White Fringe Tree and Emerald Ash Borer

By Jason S. Gordon and John Willis, Extension Specialists

Emerald ash borer (*Agrilus planipennis*), or EAB, is an imported Asian pest that has devastated ash trees (*Fraxinus* spp.) across North America. However, new evidence suggests EAB does not limit itself to ash trees. Fringe tree is in the family Oleaceae, the same family as all ash species. Fringe tree (*Chionanthus virginicus*) is a native tree found throughout Mississippi, but mostly in the southeastern one-third of the state. Fringe tree is a common yard tree, distinguished by a shrub-like appearance growing to 35 feet when mature. Leaves are simple, opposite, and deciduous. Fringe tree has conspicuous white, pendent-shaped flowers that have a sweet fragrance.

EAB prevents circulation of the tree's food and water when feeding larvae cut off nutrient pathways in the outer layer of wood (the cambium). Scientists believe EAB was transported to North America through shipping pallets via the St. Lawrence Seaway arriving in Michigan in the mid-1990's, killing 5-7 million ash trees over the next decades. EAB is spread through the movement of ash firewood, green lumber trade, and residual wood transport (branches, logs, and chips), and white fringe tree and ash nursery stock.

EAB is primarily identified by D-shaped exit holes and S-shaped, sawdust-filled galleries under the bark (Figs. 1 and 2). There will be increased woodpecker activity as birds forage for larvae/pupae. Dieback occurs in the top one-third of the canopy and sprouts grow from roots and the trunk as the tree responds to stress of infestation. In 2014, EAB was discovered attacking white fringe tree, the first non-ash host. Chinese fringe tree, a native plant to China and another common garden plant, is resistant to EAB. According to researchers with the U.S. Forest Service (McCullough et al. 2015), fringe tree's role as a susceptible host is still not fully understood. However, it is important to continue monitoring and reporting of any possible detection, not only in fringe tree, but all members of the Olive family of trees.

There are several options for homeowners to protect their ash and fringe trees from EAB. Imidacloprid stem injections have been shown to be an effective method for mitigating EAB infection. The tree has to be treated every three years or so until the pest has passed through the region (Herms et al. 2009). Injections are often preferred over other methods because there is less waste, exposure, and liability. However, benefits of treatment should be weighed against costs, and sometimes tree removal may be the best option. Tree owners should assess the importance of the tree, the tree's size and health, the number of trees to protect, and the location of the tree in deciding whether to apply insecticide. It is always important to remember that insecticides can prevent new damage, but cannot repair damage that has already been done. Homeowners should hire a tree care professional who has the appropriate products and techniques to address EAB. To find a tree care professional in your area, visit www.treesaregood.com. A longer version of this article is available at extension.msstate.edu.



Fig. 1. Emerald Ash Borer exit hole
Photo: Don Cipollini



Fig. 2. Emerald Ash Borer galleries on white fringe tree
Photo: Don Cipollini

UPCOMING EVENTS

April & May 2017

- 04/12/17: Managing Pines for Wildlife Workshop, Tallahatchie County. Click here on Brochure for more info.**
- 04/22/17: Christmas Tree Growers Workshop, Walnut Grove, MS. Click here on Brochure for more info.**
- 04/29/17: Pine Thinning - 2nd Thinning Workshop, Collins, MS. Click here on Brochure for more info.**
- 05/02/17: Forestland as an Investment Short Course, Hattiesburg, MS. Click here on Brochure for more info.**
- 05/12/17: Alternative Sources of Forest Income Short Course, Tate County. Click here on Brochure for more info.**

NEW!

There are 5 new 30-minute videos posted on: <http://extension.msstate.edu/natural-ources/forestry>
(Scroll down to "WATCH" - Extension Stories)

- Uneven-aged Management - A Natural Insurance**
- Preparing for the Future - Weather and Climate Trends in Mississippi**
- Timber Salvage and Regenerate or Manage Decisions**
- Extreme Weather Events and Risk Management Options for Family Farms**
- Taxes and Timber Casualty Losses**

Other Locations for Forestry Extension Information

<http://extension.msstate.edu/natural-resources/forestry- Events>
www.facebook.com/MississippiStateUniversityExtensionForestry
www.blogs.msucare.com/forestry, OR, twitter.com/MSUExtForestry

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MSU-ES Region Map

